

# **Correlates of Opportunity Recognition, Design thinking, and Financing Decisions on Entrepreneurial Success among SME owners in Kampala central division, Uganda**

<sup>1</sup>Robert Karuhanga, <sup>2</sup>Olutayo K. Osunsan, <sup>3</sup>Martin Wilfred Kawiso, <sup>4</sup>Samuel Pule, <sup>5</sup>Moses Muhwezi, <sup>6</sup>Christine Kabasinguzi

<sup>1</sup>MBA Student, Faculty of Business & Management,  
Cavendish University, Uganda.  
E-mail: karuhangarob@yahoo.com

<sup>2</sup> Lecturer, Faculty of Business & Management, Management & Economics,  
Cavendish University Uganda.  
E-mail: oosunsan@cavendish.ac.ug

<sup>3</sup>Lecturer, Faculty of Business & Management, Management & Economics,  
Cavendish University Uganda.  
E-mail: mkawiso@cavendish.ac.ug

<sup>4</sup>Lecturer, Faculty of Business & Management, Procurement & Marketing,  
Cavendish University Uganda.  
Email: spule@cavendish.ac.ug

<sup>5</sup>Lecturer, Faculty of Business & Management, Accounting & Finance,  
Cavendish University Uganda. E-mail: [mmuhwezi@cavendish.ac.ug](mailto:mmuhwezi@cavendish.ac.ug)

<sup>6</sup>Lecturer, Faculty of Business & Management, Procurement & Marketing,  
Cavendish University Uganda.  
Email: ckabasinguzi@cavendish.ac.ug

## **Abstract:**

In Africa, Small and medium enterprises (SMEs) are notably the engines that drive economic development. Unfortunately, over 32 % of SMEs fail before they celebrate their second birthday. In Uganda, entrepreneurs are creative, recognize opportunities and endeavour to exploit them; however, the failure rate of SMEs is still great. Despite the Ugandan government trying to invest in entrepreneurship programs, SMEs have continued to fail. This study explored the effect of opportunity recognition and design thinking, and financing decisions on entrepreneurial success among SME owners in

Kampala, Central division, Uganda. The study adopted a cross-sectional research design and quantitative method. The findings revealed a positive effect of opportunity recognition, design thinking, and financing decisions on entrepreneurial success ( $F=0.443$ ,  $Sig = 0.000$ ). The variables explained 55% of the variance of Entrepreneurial success ( $R\text{ Square} = 0.555$ ;  $Adjusted\ R\ Square = .541$ ). It was concluded that opportunity recognition, design thinking, financing decision strategies are essential for SME success. The study recommends that SMEs should design and implement sustainable and effective opportunity recognition, adopt design thinking, and effective financing decision strategies, which ultimately lead to entrepreneurial success of SMEs.

**Keywords:** *Opportunity Recognition, Design Thinking, Financing Decisions, Entrepreneurial Success, SMEs*

## **Introduction**

SMEs have been documented as catalysts for economic development across the globe (Guloba et al., 2017). Aside from promoting empowerment and employment, prior studies reveal that SMEs are the engine behind substantial economic growth in Uganda (Baluku et al., 2016). Similarly, scholars such as Karimi et al. (2016) and Basole (2019) explain that SMEs contribute significantly to the Gross Domestic Product (GDP), and make up a significant percentage of the private sector. SMEs facilitate the improvement of standards of living and create the crucible for social and political stability in countries such as Uganda. SMEs are consequently the basis for entrepreneurial development, poverty alleviation, women empowerment, resource mobilization in the economy, business innovations, and sustainability of most countries (Karimi et al., 2016; Chen et al., 2021; Baluku et al., 2016; Guloba et al., 2017). Despite the quintessential role of SMEs in Uganda's economy, their failure rate stands at 50% annually (Uwonda, Okello & Okello, 2013). Similarly, Muriithi (2017) states that in Uganda, 33.3% of new business formations do not survive beyond the first year of start-up, leaving a lot to be desired; hence, the need to address the high rate of failure to sustain the benefits of SMEs to the economy and the socio-political environment (Baluku et al., 2016).

In Uganda, an SME refers to an enterprise regardless of its legal form - whether formal or informal. Osunsan (2015) states that the Uganda Bureau of Statistics (UBOS) adopted the categorization of SMEs based on the attainment of the basic requirements of any two of the following criteria: (i) number of employees (ii) capital invested and/or (iii) annual sales turnover. A micro-enterprise is termed as a business that employs for than five (5) people, and has total assets not exceeding 10 million Uganda shillings; a small enterprise is one that employs between 5 and 49 people, with total assets between 10 million and not exceeding 100 million Uganda shilling; while, a medium enterprise employs between

50 and 100 people, with total assets over 100 million Uganda shilling, but not exceeding 360 million Uganda shillings (5Asiket, 2019; MoTla, 2015).

In Uganda, entrepreneurs are said to be creative and recognize opportunities and try to exploit them (Langevang, 2017). This is confirmed by the improved rate of entrepreneurial activity between 2013 and 2014, from 25.2 percent to 35.5 percent respectively, suggesting that three out of ten Ugandans take up the initiative to start their own businesses (Guloba et al., 2017).

Uganda is one of the Less Developed Countries (LDCs) experiencing a high failure rate of SMEs, in spite of ranking high in entrepreneurial undertakings (GEM, 2015). Ugandans have industriously started businesses in all spheres of operations; regrettably, many of these businesses fail before celebrating their third birthday (Abaho et al., 2017). The Government of Uganda has invested extensively in entrepreneurship programs but hasn't necessarily mitigated the high failure rate (Bakar et al., 2015). The failure rate has been attributed to several factors ranging from taxation policies to the competence and skills of the business entrepreneurs (Baluku et al., 2016; Nakku, et al., 2020).

This study explored the micro aspect of high failure and examined the relationship between opportunity recognition and design thinking, and financing decision effects on the entrepreneurial success of SMEs.

## **Litratue Review**

### **Opportunity Recognition**

Opportunity recognition refers to a process that explains how individuals (entrepreneurs) and businesses come to recognize and explore new opportunities that were previously unknown to them (Mumi, 2020). It is a process by which entrepreneurs seek new and improved ways of addressing problems evident in society. Additionally, it implies "the chance to meet a market need (interest or want) through a creative combination of resources to deliver superior value" (Kuckertz et al., 2017). Hassan et al. (2020) similarly stated that opportunity recognition comprises a person's ability to recognize, discover or construct patterns and concepts. Opportunity recognition has been documented to have a 'profound' impact on SME performance in spite of the fact that the process is not an automatic guarantee of superior performance (Guo et al., 2017).

Opportunity recognition has also been argued to be a core contributor to forging a competitive advantage and superior performance (Khin & Lim, 2018). Due to the nature of their small sizes, SMEs have to proactively search for business opportunities, and are extensively reliant on opportunities for survival and ultimately success. It is, however, documented that some SMEs are often not able to fully capitalise on opportunities even

when they are identified due to resource constraints prevalent among businesses of this nature (Guo et al., 2017). SMEs seek external resources as avenues to capitalise on opportunities identified; however, this is a challenge because they (SMEs) are normally at a disadvantage in realizing these external resources.

Organizational design, networking, and knowledge management have been identified as means of helping businesses identify opportunities. Three principal schools of thought exist to explain the nature of the opportunity. These include opportunity recognition, opportunity discovery and created opportunity (Guo et al., 2017). This study focused on opportunity recognition and conceptualised it as an entrepreneur's efforts in searching and identifying opportunities with regard to Identification, Tension, Evaluation and Exploitation of the said opportunity. There is a difference between opportunity recognition and opportunity exploitation, as thoroughly discussed in the entrepreneurship literature over the years (Jarvis, 2016; Kuckertz et al., 2017). It is argued that "although the discovery of an opportunity is a necessary condition for entrepreneurship, it is not sufficient. Subsequent to the discovery of an opportunity, a potential entrepreneur must decide to exploit the opportunity" (Kuckertz et al., 2017). This study, however, combined the two with regard to the latter being part of the former. On the basis of literature, several studies (Kuckertz et al., 2017; Khin & Lim, 2018; Chang & Chen, 2020) have confirmed the positive link between opportunity recognition and entrepreneurial success.

### **Design Thinking**

Design thinking is a procedure that has been adopted in product design, branding design, service design and other fields, such as information systems design (Vetterli et al., 2016; Chou, 2016). According to Chou (2018), design thinking is a procedure that instils a range of innovation activities with a human-centred design philosophy. IDEO (2016) described the design thinking procedure as a scheme of imbrication spaces rather than a categorisation of steps. Dunne (2018) emphasised Lockwood (2009) definition of design thinking - "a human-centered innovation process that emphasizes observation, collaboration, fast learning, visualization of ideas, rapid concept prototyping, and concurrent business analysis, which ultimately influences innovation and strategy" (Dunne, 2018). Since its initiation in the 1960s, design thinking has been seen and portrayed in numerous ways. In business, it has been portrayed as a loosely structured organizational process, founded on a series of tools that nurture innovation, and supports the application of design thinking by business operatives and entrepreneurs who need to resolve abstract and multifaceted problems in society (Elsbach & Stigliani, 2018). Over the years, design thinking has progressively evolved to influence in management. Liedtka and Kaplan (2019) argued that, by incorporating design practices into strategy formulation, entrepreneurs can yield both gradual development in the performance their business model, and harness opportunities to totally transform (Liedtka & Kaplan, 2019).

Similarly, Elsbach and Stigliani (2018) confirmed that, design can foster innovation and generate a competitive advantage for organizations.

The logic behind design thinking is that innovative solutions are a result of the adaptation of a designer's mindset and approach to seeing problem from a user's (in the case of business, a client's/customer's perspective). Design thinking helps businesses gain insight that can be meaningful and rewarding through interaction and involvement of customers in way that creates value (Elsbach & Stigliani, 2018). Several scholars agree with the opinion that design thinking is very practical and applicable in business and management and can positively influence the businesses performance in terms of growth, profitability, stock prices and innovation capacity. In fact, many scholars have suggested design thinking as a vital skill for managers in light of its benefit to the business performance (Mansoori & Lackeus, 2020). This is further confirmed by the claims that designing and managing are both founded on intuition and synthesis, thus, the need for managers to embrace design thinking in decision making to get better results (Elsbach & Stigliani, 2018). Grots and Creuznacher (2016) observed that, significant literature reveals that design thinking suite the multi-complexities of the business world and can be a vital tool for helping business to adapt to the market. In this study, the attributes of design thinking adopted are, empathising, defining, ideating, prototyping and testing, as indicated by Dam and Siang (2020) and Shé et al. (2021). Several studies (Liedtka, 2011; Chou, 2018; Roth et a., I 2020) confirm the effect of design thinking on entrepreneurial success.

### **Financing Decisions**

Poor decisions including financing decisions, have been a major challenge and have at times caused the demise of several SMEs (Sebikari, 2019). To exacerbate the problem, major challenges undermining the development of SMEs are, limited access to credit financing and the ability to attract viable and quality financing (Ślusarczyk & Grondys, 2019). Ślusarczyk and Grondys (2019) further observed that the survival of SMEs is directly linked to their financing decisions and poses significant problems for entrepreneurs. Huse (2018) identified financing decisions as decisions made by the owners, investors and managers of an organisation relating to the financing mix of an organization. It is related to the borrowing and allocation of funds needed for investment decisions. There are three main sources of funds for financing decisions: (i) using a company's or entrepreneur's own money, (ii) borrowing funds from external sources, (iii) selling equity to raise funds to grow the business (Steer & Smith, 2015), and (iv) grants. The end goal of financing decisions is to sustain an ideal capital structure such as a suitable mix of debt and equity, and to guarantee the trade-off between the risk and return to the shareholders. The Debt-Equity Ratio aids to evaluatie the efficacy of the financing decision made by a business (Cesarini et al., 2010).

Globally, banking products signify the most common financing source for businesses, others include instruments offered on the market, such as shares, debt securities and other financial instruments, but are instead used less frequently (Mueller & Sensing, 2021). In countries such as Uganda, most SMEs use their own capital as a financing source due to the less refined financial system and their inability to cater for smaller businesses (Mueller & Sensing, 2021; Alvarez et al., 2021). Entrepreneurs, however, have a tendency of funding their undertakings using their own funds and profits of the business instead of yielding to the costly demands of external investors and lenders (Lee & Drever, 2014).

Entrepreneurs at the early start-up stage of the business tend to operate through internal cash flows including bootstrapping, and are very careful with their expenses (Eckhardt, 2014). Bootstrapping is the process of starting a business with no money or, at least, very little money acquired sometimes from personal savings, family or initial sales (Heath, 2019; Rodrigo & Chandima, 2018). Wasserman (2017) contends that, bootstrapping enables start-ups to create a more likely profitable business because it allows entrepreneurs to invest all their time and effort in customers instead of looking for investors.

Alzoubi (2018) defined debt financing as borrowing from lenders at a fixed or floating rate by the business over a given duration of time. The most common and frequently used form of debt financing in SMEs is loans; loans are acquired from microfinancing and commercial banks that might demand security as collateral for the loan. These loans are characterised by periodic repayments or the principal paid back in full at a stated time, depending on the nature of the loan agreement (Liu et al., 2019). It is, however, important to point out that several financial institutions are less inclined to grant credit to SMEs especially at the earlier stages of development.

Equity financing according to Dowling et al. (2019) is the strategy of raising capital by selling business stocks to investors in return for share ownership in the business. This decision, when taken by SMEs, calls for a lot of trust and dependence on the good intentions of the parties involved. Equity funding calls for a business to sell parts of 'itself' in form of stocks to investors to raise money. Srhoj et al. (2021) asserted that a grant is a financial award given by the local or state government to facilitate and stimulate projects that are beneficial to society and the economy in one form or the other. Given on the basis of conditions, grants are contingent on qualifications with regards to use, maintenance of standards specified, or a proportional contribution has to be made by the grantee or grantor (s) on behalf of the business.

These variety of options are basis for financing decision with regards to their availability and accessibility (Ślusarczyk & Grondys, 2019). It is argued that, in some instances, leveraging debt may be more economical than equity. Consequently, SMEs and entrepreneurs need to appreciate the factors that affect their total cost of financing and make informed decisions about the capital structure of their business in such circumstances (Diaz et al., 2014; Campos et al., 2014). It is worth nothing, however, that scholars like Zhang and Chen (2017) argued that the sources of financing have no significant effect on the businesses value, by suggesting that capital structure does not really matter. In this study, financing decisions consist of bootstrapping, debt, equity and grants, as suggested by several scholars (Heath, 2019; Rodrigo & Chandima, 2018; Alzoubi, 2018; Dowling et al., 2019; Gilbert, 2018).

It is extensively indicated in literature that financing decisions have a strong influence on entrepreneurial success (López Salazar et al., 2012; Njoroge, 2013; Asandimitra & Kautsar, 2017; Kautsar & Asandimitra, 2019).

### **Entrepreneurial Success**

In less developed nations SMEs represent the economy's core and the country's driving force for growth and development, contributing significantly to both social and economic well-being (Scognamillo et al., 2016; Chen et al., 2021). Their success not only benefits the owner, entrepreneur or the business itself, but also has positive repercussions in society as a whole (Basole, 2019; Chen et al., 2021).

Porter and Rivkin (2012) identified entrepreneurial success as the economic and non-economic attainment of an individual or business which includes, business profitability, market share growth, sales, number of people employed, stakeholders' loyalty, psychological-wellbeing, self-employment, social recognition, social network ties, incessant innovation, creation or invention of new products or services and social recognition, among others. Ismail et al. (2016) further opined that, entrepreneurial success is defined intrinsically and extrinsically; intrinsic standards include freedom and independence, taking ownership of one's own destiny, and being one's own boss; while, extrinsic outcomes include, improved financial returns, personal income and wealth.

Impediments to entrepreneurial success includes challenges faced by the entrepreneur such as financing, capacity building, and availability of market. Thom (2016) argued that these challenges are partly based on lack of skills and competencies on the side of the entrepreneur, relating to planning, finance, strategic thinking, opportunity recognition, and leadership skills. Similar sentiments of the detrimental influences on entrepreneurial success caused by a lack of strategic thinking, financing, and opportunity recognition skills are also emphasised by Swanson (2017). Thom (2016) further lists a combination

of skills, behaviours and attributes an entrepreneur should possess in order to succeed. These include, skills and abilities in opportunity identification, creativity, resource leveraging, networking, marketing and finance.

None of the studies reviewed (including Kautsar & Asandimitra, 2019; Chang & Chen, 2020; Roth et al., 2020) examine the variables (in their combinations) in the African context, particularly, Uganda. Secondly, previous investigations and studies on entrepreneurial success adopted subjective rather than economic indicators (Rasmus & Laguna, 2018). Empirical studies (Kiviluoto, 2013; Rasmus & Laguna, 2018) suggest that basing the valuation of entrepreneurial success exclusively on economic indicators impedes our understanding of this phenomenon. This study, therefore, examined the Ugandan context and adopted both the economic and non-economic attributes of Entrepreneurial Success. This included profitability, sales growth, number of products and psychological well-being.

## **Methodology**

The study focused on a target population of 510, specifically from 346 registered companies/businesses in the SME category in Kampala central division. The companies selected for the study represented three main business sectors: trade, service and manufacturing. The sample size was determined using Krejcie and Morgan's (1970) table to give a practical ratio according to SMEs' population size. Based on the table, Krejcie and Morgan (1970) suggest a sample size of 217; this study had a response rate of 193 respondents. The unit of enquiry was the owner-managers or representatives of the owners (managers) of the SMEs. Closed-ended questionnaires were used to collect data from the population under study. Content Validity Index (CVI) is reflected in Table 1 (see appendix 1). As recommended by Amin (2005), for the instrument to be valid, the C.V.I should be at least 0.7 or above. Cronbach Alpha was used to test the reliability which was found to be above 0.7 (see Table 2, Appendix 2). This signified that the instruments were reliable (Park (2021).

To establish the effect of opportunity recognition, design thinking and financing decisions on entrepreneurial Success, we conducted a multiple regression analysis as indicated below:

$$Y = \alpha + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \varepsilon_{ijk}$$

Where:

Y = independent variable,

$\alpha$  = intercept of Y,

$\beta$  = parameter of the dependent variables, and

$\varepsilon$  = error term.

To estimate the multiple regression models, it was converted as follows:

$$ES(Y) = \alpha + \beta_1 OR + \beta_2 DT + \beta_3 FD + \varepsilon_{ijk}$$

Where:

$ES$  = Entrepreneurial Success

$\alpha$  = Constant or Intercept

$\beta_1$  = Coefficient of Opportunity Recognition

$\beta_2$  = Coefficient of Design Thinking

$\beta_3$  = Coefficient of Financing Decisions

$\varepsilon$  = Error term

$OR$  = Opportunity Recognition

$DT$  = Design Thinking

$FD$  = Financing Decisions

The sign of the slope coefficients ( $\beta_1$ ,  $\beta_2$  and  $\beta_3$ ) was used to establish the opportunity recognition, design thinking and financing decisions on entrepreneurial success among SME owners in Kampala Central Division, Uganda. A positive and significant slope coefficient would suggest that opportunity recognition, design thinking and financing decisions have a positive effect on entrepreneurial success among SME owners in Kampala Central Division, Uganda. Negative and significant slope coefficients would indicate otherwise. The priori expectation of the slope coefficients are as follows:  $\beta_1, \beta_2, \beta_3 > 0$ . All the tests were tested at the five percent (5%) significance level.

## Findings

### Response Rate

Regarding the response rate, 217 questionnaires were distributed and 193 answered questionnaires were returned, giving a percentage response rate of 88.9%. This response rate was above the recommended two-thirds (67%) response rate by Flick (2009). This indicated that the researchers were able to obtain enough data for a comprehensive report.

### Respondent Characteristics (SME owners)

The respondents were made up of 55.4% male and 44.5% female. 11.9% were between the 20-29 years; 24.8%, were between 30-39 years; 33.1% were 40-49 years; 30.05% were 50 years and above. In regard to the level of education, 3.62% of respondents had a certificate of education; 15.5% were diploma holders; 56.5 were degree holders; 23.3% had a master's degree; while, 1.03% had a PhD. 7.77% of the respondents had a working experience of less than a year; 20.72% had an experience of 1-2 years; 53.88% had an

experience of 3-5 years; and, 17.61 had a working experience of 5 years and above.

**Table 4.1**

**Descriptive Statistics**

	<b>Opportunity Recognition</b>	<b>Design Thinking</b>	<b>Financing Decisions</b>	<b>Entrepreneurial Success</b>
<b>N</b>	193	193	193	193
<b>Mean</b>	3.8839	3.2896	3.1344	4.2537
<b>Median</b>	3.8667	3.3077	3.1579	4.2609
<b>Std. Deviation</b>	.1926	.0885	.1205	.1005

**Source:** Primary data.

According to Table 4.1, using the mean interpretations values (see appendix 3) the levels of opportunity recognition in the businesses considered were high (mean =3.88); the level of design thinking was moderate (mean = 3.29); the level of financing decisions was also moderate (mean = 3.31); and, the level of entrepreneurial success was High (4.25). The high level of opportunity recognition confirms that entrepreneurial activities (particularly, start-ups) are very evident in Kampala. This is confirmed by previous studies (Guloba et al., 2017). The moderate level of design thinking and financing decisions, however, shows why there is a high failure rate as confirmed by Uwonda, Okello & Okello (2013) and Muriithi (2017). Since these two variables (design thinking and financing decisions) are very essential to a business' viability and sustainability (Elsbach & Stigliani, 2018; Liedtka & Kaplan, 2019; Sebikari, 2019).

**Correlations of Opportunity Recognition, Design Thinking, Financing Decisions and Entrepreneurial Success**

**Table 4.2**

*Pearson's Ccorrelation Matrixes of study variables*

	1	2	3	4
<b>Opportunity Recognition (1)</b>	1.000			
<b>Design Thinking (2)</b>	.748**	1.000		
<b>Financing Decisions (3)</b>	.733**	.703**	1.000	
<b>Entrepreneurial Success (4)</b>	.756**	.736**	.684**	1.000

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

Table 4.2 shows a positive significant relationship between Opportunity Recognition and Financing Decisions ( $r = .733$ ,  $p < 0.01$ ) and between Financing Decisions and Entrepreneurial Success ( $r = .684$ ,  $p < 0.01$ ). Table 4.3 also shows a positive significant relationship between Design Thinking and Financing Decisions ( $r = .703$ ,  $P < 0.01$ ) and between Financing Decisions and Entrepreneurial Success ( $r = .684$ ,  $p < 0.01$ ).

The financing decisions and entrepreneurial success in Table 4.2 agree with the findings of Lichtenstein (2014) study that found that SMEs prefer to raise funds for growth internally through retained earnings. If this source of financing is unavailable, a company then finances itself through debt, and through issuing of new equity as a last resort. The results are further supported by Sobel (2018) findings which showed that entrepreneurs tend to prefer to fund their ventures using their own funds and profits of the business rather than submitting to the costly demands of external investors and lenders. With regard to the relationship between opportunity recognition, financing decisions and entrepreneurial success, the results agree with Gartner (2011) who opined that through, opportunity recognition, entrepreneurs are able to identify new and better ways of providing products and services that meet customer expectations, and also identify new business opportunities. Similarly, Casson (2012) argued that opportunity discovery occurs when someone makes the conjecture that a set of resources are not put to its best use, the resources are priced low, given a belief about the price at which the output from their combination could be sold in another location, at another time, or in another form. If the conjecture is acted upon and is correct, the individual will earn an entrepreneurial profit. Findings with regard to the relationship between the variables concur with several literature linking the independent variables (opportunity recognition, design thinking and financing decisions) and the dependent variable (entrepreneurial success). This, however, does not indicate the direction of causation or effect, and calls for a multiple regression.

**Table 4.3**

*Regression analysis of Opportunity Recognition, Design Thinking, Financing Decisions and Entrepreneurial Success*

	Un-standardized coefficients		Standardized coefficients	t	Sig
	B	Std. Error	Beta		
Model					
<b>(Constant)</b>	9.716	1.179		8.241	.000
<b>Opportunity Recognition</b>	.374	.056	.759	6.273	.000

<b>Design Thinking</b>	.302	.054	.500	4.302	.000
<b>Financing Decisions</b>	.314	.059	.218	2.644	.000
<b>R = .745</b>					
<b>R Square = .555</b>					
<b>Adjusted R Square = .541</b>					
<b>F = 0.443</b>					
<b>Sig = 0.000</b>					
<b>Durban-Watson = 1.983</b>					

**Source:** Primary data

Table 4.3 shows a positive effect of opportunity recognition, design thinking, and financing decisions on entrepreneurial success ( $F=0.443$ ,  $Sig = 0.000$ ). The independent variables (opportunity recognition, design thinking and financing decisions) explained 56% of the variance of entrepreneurial success (Adjusted R Square =0.555). The most influential predictor of entrepreneurial success was opportunity recognition (Beta = 0.759), followed by design thinking (Beta = 0.500. Financing decisions (Beta = 0.218) least explains entrepreneurial success. The data met the assumption of independent errors (Durbin-Watson value = 1.98).

The regression results concur with Dafna (2018) findings that show that different entrepreneurs describe entrepreneurial success basing on pecuniary and non-pecuniary benefits. Crossman (2015) argues that, the primary function of an entrepreneur is to acquire capital funds and put them to proper utilization of the firm’s objectives. A company should be able to procure sufficient funds on reasonable terms and exercise proper control in applying them in order to earn a good rate of returns. This in turn allows the business to reward the sources of funds reasonably, leaving the firm with good surplus to grow further.

**Conclusions and Recommendations**

The study indicated that the independent variables (opportunity recognition, design thinking, financing decisions) have a positive effect on entrepreneurial success among SME owners in Kampala Central Division, Uganda. The study established the need to implement opportunity recognition, design thinking, financing decisions strategies as one of the best ways to facilitate entrepreneurial success of SMEs. The challenge, however, is that opportunity recognition, design thinking, and financing decisions strategies have not been given priority, yet they greatly determine entrepreneurial success of SMEs.

Therefore, SMEs should design and implement sustainable and effective opportunity recognition, adopt design thinking, and effective financing decision strategies which ultimately lead to entrepreneurial success of SMEs. This can be made possible by the government and other key stakeholders providing the opportunities in terms of training and forums to help shed light on the importance of these variables. More specifically, based on the study findings,

- i. Individuals, owners and managers of SMEs should develop opportunity recognition strategies to discover or create profitable opportunities in the market, to close existing gaps in the market, fulfil target customers' needs and expectations by conducting market research and planning for short term and long-term success of their businesses.
- ii. SME owners and managers should first raise funds for growth internally, and if this source of financing is unavailable or not sufficient, a company should then finance itself through debt, or as a last resort through the issuing of new equity in order to achieve its desired objectives.
- iii. SMEs should develop design thinking strategies to solve problems affecting people in a user-centric way. They should focus on achieving practical results and solutions that are economically viable.

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## Appendices

### Appendix 1:

#### Table 1

*Content Validity Index (CVI) of the study variables*

Variable	Anchor	CVI (Content Validity Index)
Opportunity Recognition	5-point	0.871
Design Thinking	5-point	0.782
Financing Decisions	5-point	0.757
Entrepreneurial Success	5-point	0.850

### Appendix 2:

#### Table 2

*Cronbach Alpha Coefficient Model Results*

Variable	Anchor	Cronbach Alpha Coefficient
Opportunity Recognition	5-point	0.886
Design Thinking	5-point	0.838
Financing Decisions	5-point	0.791
Entrepreneurial Success	5-point	0.863

### Appendix 3:

*Mean Interpretation Values*

<b>Mean Range</b>	<b>Response Mode</b>	<b>Interpretations</b>
4.21-5.00	Strongly agree	Very high
3.41-4.20	Agree	High
2.61-3.40	Not sure	Moderate
1.81-2.60	Disagree	Low
1.00-1.80	Strongly disagree	Very low