**DETERMINANTS OF CROWDFUNDING SUCCESS OF ENTREPRENEURS**

**AND SMALL AND MEDIUM ENTERPRISES: EMPIRICAL EVIDENCE FROM AFRICA**

by

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**submitted in accordance with the requirements for the degree of**

**DOCTOR OF PHILOSOPHY**

in the subject

**MANAGEMENT STUDIES**

at the

**UNIVERSITY OF SOUTH AFRICA**

2023

**SUPERVISOR: PROFESSOR ATHENIA BONGANI SIBINDI**

**CO-SUPERVISOR: PROFESSOR DANIEL MAKINA**

**DECEMBER 2023**

**MABAKA A KATLEGO YA KGOBOKETŠO YA MENEELO YA LEŠABA (CROWDFUNDING) YA BAGWEBI LE DIKGWEBO TŠE NYANNE LE TŠA MAGARENG: BOHLATSE BJA MAITEMOGELO GO TŠWA AFRIKA**

ka

**LENNY PHULONG MAMARO**

**e rometšwe go ya ka dinyakwa**

**tša tikrii ya**

**NGAKA YA FILOSOFI**

**ka thuto ya**

**DITHUTO TŠA TAOLO**

[ka šedi ye e lebišitšwego go Taolo ya Ditšhelete]

go

**YUNIBESITHI YA AFRIKA BORWA**

2023

**MOHLOKOMEDI: PROFESA ATHENIA BONGANI SIBINDI**

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**DISEMERE 2023**

# IMITHELELA YEPUMELELO YEHLELO LOKUSEKELA NGEMALIMNIKELO ABOSORHWEBO NAMABHIZINISI AMANCANI NAKHASAKO: UBUFAKAZI OBUPHATHEKAKO OBUVELA E-AFRIKA

Itlolwe ngu

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esifundweni

**SEEMFUNDO ZEZOKUPHATHA**

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**EYUNIVESITHI YESEWULA AFRIKA (UNIVERSITY OF SOUTH AFRICA)**

Ngo-2023

**UMPHATHI: PHROFESA ATHENIA BONGANI SIBINDI**

**UMSIZI WOMPHATHA: PHROFESA DANIEL MAKINA**

**KUNOBAYENI 2023**

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## ACKNOWLEDGEMENTS

I would like to express my sincere gratitude and appreciation to my supervisor Professor Athenia Bongani Sibindi. In the same vein, I would also like to express my appreciation for the support I received from my co-supervisor, Professor Daniel Makina. I am also indebted to Dr Richard Apau for his invaluable contribution to this study. Their expertise, encouragement, and insightful feedback have been instrumental in shaping the outcome of my research. I would also like to extend my heartfelt gratitude to my former Chair of Department of the Finance, Risk Management and Banking, Professor Joseph Chisasa who approved my special study leave to complete this project. In the same vein, I wish to acknowledge the support from my current Chair of the Department, Doctor Jethro Godi, who has continued to provide me with the necessary support. My profound thanks to my statistician, Professor Godfrey Marozva, who played an important role in this research project.

Similarly, my profound appreciation extends to Doctor Nicky Tjano for his technical editing services and support throughout the research journey. I also wish to thank my language editor, Doctor Jack Chokwe, for the professional work he did in editing this thesis. Finally, my gratitude extends to all my colleagues I have not named who supported me throughout the research journey.

Furthermore, I would also like to acknowledge that this study received funding from the UNISA Academic Qualification Improvement Programme and the National Research Foundation Black Academic Advancement Programme. This study has greatly benefited from the valuable inputs received from conference participation, as well as the journal articles that have been published to test the ideas. Amongst the conferences attended are the following:

- The Future of Financial Services, Cape Town, University of South Africa, South Africa, October 4-5, 2023
- World Finance Conference, Kristiansand, University of Agder, Norway, August 02 – 24 2023
- Rethinking Business Resilience, Continuity and Regeneration during and after the COVID-19 Pandemic, Durban South Africa, 22 – 24 March 2023
- World Finance Conference, Italy Turin, 1-3 August 2022.

- Global Development Finance Conference. Sustainable Finance, Economics, Trade and Insurance Research, 16-17 November 2021
- Reshaping Consumer Centered Marketing 13th EMAC Regional Conference September 21-23, 2022, Kaunas, Lithuania

The journal articles that have been published to test the  constructs of the study are as follows:

- Mamaro, L. P., and Sibindi, A. B. (2023). The Drivers of Successful Crowdfunding Projects in Africa during the COVID-19 Pandemic. Journal of Risk and Financial Management 16: 332. https://doi.org/10.3390/jrfm16070332

- Mamaro, L. P., and Sibindi, A. B. (2023). Role of Social Networks in Crowdfunding Performance During the COVID-19 Pandemic in Africa. *Journal of Risk Analysis and Crisis Response*, *13*(2). https://doi.org/10.54560/jracr.v13i2.360

- Mamaro, L.P. and Sibindi, A.B., 2022. Entrepreneurial Financing in Africa during the COVID-19 Pandemic. Journal of Risk and Financial Management, 15(11), p.511. https://doi.org/10.3390/jrfm15110511

- Mamaro, L.P. and Sibindi, A.B., 2022. Financial Sustainability of African Small-to-Medium Enterprises during the COVID-19 Pandemic: Determinants of Crowdfunding Success. Sustainability14(23):1-14 available online: https://www.mdpi.com/journal/sustainability

I would also like to extend my heartfelt appreciation to my parents, Mister Mahupi Salmon Mamaro and Mphoreng Maria Mamaro, as well as my family for their unwavering support and belief in my capabilities. Your encouragement, understanding, and sacrifices have been the driving force behind my academic achievements. I am forever grateful for your love and continuous support. Lastly, I would like to acknowledge the collective efforts of all those who have contributed to my academic journey through their assistance, resources, or encouragement. Your support has significantly shaped my thesis, and I am deeply grateful for your contributions.

Thank you all for being an integral part of my dissertation journey.

# ABSTRACT

Access to finance for small and medium enterprises and entrepreneurs has always been challenging. Traditional financial institutions consider SMEs a high risk to finance them due to their lack of collateral required for funding. However, it is widely agreed that SMEs are crucial for job creation, economic growth and development. In response to this problem, crowdfunding has emerged as a low-cost alternative for accessing finance for innovative ideas that require funding. Through crowdfunding campaigns, entrepreneurs can seek financial support for their projects. However, the success of crowdfunding projects is not guaranteed as multiple factors influence it. Most studies on crowdfunding have primarily focused on developed economies, with minimal research conducted in the African context. Because it requires considering the different socioeconomic conditions, cultural differences, and infrastructure challenges which have a major impact on the success of crowdfunding for both entrepreneurs and SMEs, research conducted in the African environment is significant. Altogether reliance on studies from the developed world lacks the unique dynamics and problems that dominate Africa, which could result in plans and solutions that are not successful. As a result, conducting empirical research with a dedicated focus on Africa is essential to fill this gap and provide actionable insights for supporting the growth and success of SMEs and entrepreneurs in the region's crowdfunding ecosystem.

Additionally, these studies have rarely utilised cross-country data and have been limited to analysing projects from single crowdfunding platforms and country-specific concepts, primarily focusing on theory formulation. Cross-country data allows studies to identify similarities and differences between African countries, providing an expanded understanding of the factors influencing crowdfunding success in the region. Therefore, the research objectives of this study were as follows: Firstly, to empirically examine the determinants of crowdfunding success for SMEs and entrepreneurs in Africa. Secondly, to investigate the influence of an entrepreneur’s experience on crowdfunding success. Thirdly, to analyse the impact of tangible and intangible rewards on crowdfunding success. Fourthly, it was to explore the role of social networks in crowdfunding success. Hence, conducting empirical research addressing these gaps is imperative to provide insights essential for fostering the growth and prosperity of SMEs and entrepreneurs within Africa's crowdfunding ecosystem. Therefore

A quantitative research approach was employed to address the research gap, and logistic regression was conducted. Cross-sectional data were collected, which included 1847 crowdfunding projects from multiple crowdfunding platforms in 54 African countries, spanning the period from 2018 to 2020. The findings revealed several factors that were positively associated with crowdfunding success. These factors included the use of images, videos, updates, frequently asked questions and backers. Conversely, comments, duration and targeted amount negatively affected crowdfunding success. Furthermore, the entrepreneur's experience was found to positively influence crowdfunding success. The presence of rewards was also found to positively influence crowdfunding success, as well as the presence of a social network.

The main contribution of this study is its empirical examination of the determinants of crowdfunding success in Africa, as less comparable studies in the African context are limited to conceptual. The study used multiple methods and theories, providing valuable insights for entrepreneurs, policymakers, and crowdfunding platforms. These insights can help improve the success rate of crowdfunding campaigns in Africa. The findings of the study are also consistent with the signal, agency, bank market structure and financial intermediary theories. These findings enhance academic research and have practical implications for entrepreneurs, investors, policymakers, and crowdfunding platforms that operate in Africa. The study proffers policy advice to African governments to pursue policies that promote investment to improve the technological infrastructure necessary for secure crowdfunding platforms.

**Keywords:** Crowdfunding; access to finance; reward-based crowdfunding; social network, SMEs, entrepreneurs; Africa

## KAKARETŠO

Phihlelelo ye nnyane ya ditšhelete ya dikgwebo tse nnyane le tša magareng (diSME) le bakgwebi e tšweletša tlhohlo. Ditheo tša ditšhelete tša setšo di tšea diSME go ba tše di lego kotsing ye kgolo ka lebaka la tlhokego ya tiišeletšo ye e nyakegago ya thušo ya ditšhelete. Le ge go le bjalo, go dumelelanwe gagolo ka gore diSME di bohlokwa go tlholo ya mešomo, kgolo ya ikonomi le tlhabollo. Go araba bothata bjo, kgoboketšo ya meneelo e tšweletše bjalo ka mokgwa wo mongwe wa tshenyegalelo ya fase ya go hweletša dikgopolo tša boitlhamelo tšhelete. Ka masolo a kgoboketšo ya meneelo ya lešaba, batho ba ka nyakela diprotšeke tša bona thekgo ya ditšhelete. Le ge go le bjalo, katlego ya diprotšeke tša kgoboketšo ya meneelo ya lešaba ga e kgonthišešwe ka ge e huetšwa ke mabaka a mantši. Bontši bja dinyakišišo ka ga kgoboketšo ya meneelo ya lešaba di šeditše kudu diikonoming tše di hlabologilego, gomme dinyakišišo tše nnyane di dirilwe ka gare ga maemo a Afrika. Go tlaleletša, dinyakišišo tše ke ka sewelo moo di šomišitšego datha ya go selaganya dinaga gomme di felela go tshekaseko ya diprotšeke go tšwa go dipolatefomo tše tee tša kgoboketšo ya meneelo ya lešaba le dikgopolo tše di itšego tša naga, kudu tša go šetša go tlhamo ya teori. Bjalo, maikemišetšo a nyakišišo a nyakišišo ye e be e le a a latelago: Sa mathomo, go sekaseka mabaka ka maitemogelo ao a laolago katlego ya go thuša ka ditšhelete tša lešaba diSME le bagwebi ka Afrika; sa bobedi, go nyakišiša khuetšo ya maitemogelo a mogwebi go katlego ya kgoboketšo ya moneelo ya lešaba; sa boraro, go sekaseka khuetšo ya diriwate ye e bonagalago le ye e sa bonagalego go katlego ya kgoboketso ya moneelo ya lešaba; le, sa bone, go sekaseka tema yeo e kgathwago ke dineteweke tša leago katlegong ya kgoboketšo ya meneelo ya lešaba.

Go rarolla sekgoba sa nyakišišo, go šomišitšwe mokgwa wa nyakišišo ya khwanthithethifi, gomme gwa dirwa le poelomorago ya lotšistiki. Datha ya go selaganya e kgobokeditšwe go tšwa go diprotšeke tše 1 847 tša kgoboketšo ya meneelo ya lešaba go ralala le dipolatefomo tše ntši tša kgoboketšo ya meneelo ya lešaba dinageng tše 54 tša Afrika, tšeo di akaretšago nako ya 2018 go fihla ka 2020. Dikutollo di utollotše mabaka a mmalwa ao a bego a amana gabotse le katlego ya kgoboketšo ya meneelo ya lešaba. Mabaka a a be a akaretša tšhomišo ya diswantšho, dibidio, dimpshafatšo, dipotšišo tšeo di botšišwago gantši le bathekgi. Ka lehlakoreng

le lengwe, ditshwayatshwayo, nako le tšhelete ye e nepišitšwego di hweditšwe di na le kamano ye mpe le katlego ya kgoboketšo ya meneelo ya lešaba. Go feta moo, maitemogelo a mogwebi a hweditšwe a na le khuetšo ye botse go katlego ya kgoboketšo ya meneelo ya lešaba. Go ba gona ga diriwate go hweditšwe gape go na le khuetšo ye botse katlegong ya kgoboketšo ya meneelo ya lešaba, gammogo le go ba gona ga neteweke ya leago.

Seabe se segolo sa nyakišišo ye ke tshekatsheko ya yona ya diphihlelelo ya dilo tšeo di laolago katlego ya go thuša ka ditšhelete tša lešaba ka Afrika ka ge dinyakišišo tše mmalwa tše di bapetšwago ka kontinenteng ya Afrika di felela go nyakišišo ya dikgopolo. Mekgwa ye mentši le diteori di šomišitšwe mo nyakišišong ye, tša tšweletša ditemogo tša bohlokwa go bagwebi, batšweletši ba melawana le dipolatefomo tša kgoboketšo ya meneelo ya lešaba. Ditemogo tše di ka thuša go kaonafatša tekanyo ya katlego ya masolo a kgoboketšo ya meneelo ya lešaba ka Afrika. Dikutollo tša nyakišišo ye di sepetšana gape le leswao, kemedi, sebopego sa mmaraka wa panka le diteori tša bonamodi tša ditšhelete. Dikutollo tše di godiša dinyakišišo tša thuto eupša gape di na le ditlamorago tše di šomago go bagwebi, babeeletši, batšweletši ba melawana le dipolatefomo tša kgoboketšo ya meneelo ya lešaba tšeo di šomago ka Afrika. Nyakisiso e fa keletšo ya pholisi go mebušo ya Afrika gore e tšwetša pele melawana yeo e bego e tla kaonafatša mananeokgoparara a theknolotši ao a nyakegago dipolatefomong tše di šireletšegilego tša kgoboketšo ya meneelo ya lešaba.

**Mantšu a bohlokwa:** Kgoboketšo ya meneelo ya lešaba, phihlelelo ya ditšhelete, kgoboketšo ya meneelo ya lešaba ye e theilwego godimo ga riwate, neteweke ya leago, diSME, bagwebi le Afrika

## NGOKUFITJHAZANA

Itlhayelo lokusekelwa ngemalimnikelo kubosorhwebo abancani nabakhasako (SMEs) kanye nabosorhwebo kuletha isitjhijilo. Iinhlangano zeemali ezijayelekileko zibona ubungozi obumbi bokutlhoga isekelo leemali njengento ebangelwa kutlhogeka kwesibambiso sokuthola imali. Yeke-ke, kuyavunyelwana ngokunabileko ukobana ama-SMEs aqakathekile ekwakheni amathuba womsebenzi, ekuhlumiseni umnotho kanye nakututhuko. Ukurarulula lomraro, isekelo lemalimnikelo selibonakala njengendlela enye etjhiphileko yokuthola iimali zokusekela amaqhinga amatjha. Ngamajima wemalimnikelo, abantu bangafunela amaphrojekthi wabo isekelo leemali. Yeke-ke, ipumelelo yamaphrojekthi aragwa ngemalimnikelo ayinasiqinisekiso njengombana zinengi izinto ezimthintela wepumelelo. Amarhubhululo amanengi wezokusekelwa ngemalimnikelo kokuthoma aqale khulu amazwe athuthukileko, kanti lincani irhubhululo elenziweko ngaphasi kobujamo be-Afrika. Ukungezelela, leziimfundo zamarhubhululo azikavami ukusebenzisa idatha engaphandle kwemikhawulo yelizwe kanti ibonakala iyincani ukobana ingasetjenziswa ukutsenga amaphrojekthi ukusukela kuhlelo linye lamapulatifomu wesekelo lemalimnikelo begodu nangendlela amazwe azwisisa ngayo imiqondo ethileko yamagama, aqale khulu ekwakhiweni kwethiyori. Yeke-ke, iminqopho yalesifundo serhubhululo beyilandela ngalendlela: Kokuthoma, ukuhlola ngokuphathekako imithelela yepumelelo yesekelo lemalimnikelo kuma-SMEs kanye nakubosorhwebo e-Afrika.; kwesibili, ukuphenya umthintela welwazi labosorhwebo kupumelelo yesekelo lemalimnikelo; kwesithathu, ukutsenga/ukuhlaziya umthelela womphumela obonakalako nongabonakaliko kupumelelo yesekelo lemalimnikelo; kanti, kwesine, ukuhlola indima yamathintano wabantu kupumelelo yesekelo lemalimnikelo.

Ukuvala isikhala serhubhululo, indlela yerhubhululo lamanani isetjenzisiwe, begodu kwenziwa irigretjhini yelojistiki (*logistic regression*). Idatha yeenquntu zekhroso yabuthelelwa kumaphrojekthi ayi-1847 wesekelo lemalimnikelo kumapulatifomu amanengi wesekelo lemalimnikelo emazweni we-Afrika ama-54, ukusukela ngomnyaka ka-2018 kufikela ku-2020. Ilwazi elitholakeleko likhomba bona imithelela embalwa leyo beyikhambisana nepumelelo yesekelo lemalimnikelo. Lemithintela ifaka ukusetjenziswa kweenthombe, amavidiyo, ukwaziswa okutjha, imibuzo evamise ukubuzwa kanye nabasekeli. Ngakelinye ihlangothi, iinkulumo, isikhathi kanye nenani eliqaliweko kutholakele kobana akukhambisani kuhle nepumelelo yesekelo lemalimnikelo. Ngaphezu kwalokho, ilwazi likasorhwebo latholakala bona linomthelela omuhle kupumelelo yesekelo lemalimnikelo. Ukubakhona kwabonongorwana nakho kwatholakala bona kunomthelela omuhle kupumelelo yesekelo lemalimnikelo, kanye nokubakhona kwethintano lomphakathi.

Igalelo elikhulu lalesisifundo serhubhululo kulihlahlubo laso elinobufakazi obuphathekako bemithintela yepumelelo yesekelo lemalimnikelo e-Afrika, njengombana iimfundo ezimbalwa ezimadanisekako zamarhubhululo enarhakazini ye-Afrika ziphelela kurhubhululo lezomqondo wegama. Iindlela kanye namathiyori amanengi kusetjenzisiwe erhubhululweni, kwaletha ilwazi eliqakathekileko elifanele abosorhwebo, abatlami bemthethomgomo kanye namapulatifomu wesekelo lemalimnikelo. Lelilwazi lingasiza ukuthuthukisa izinga lepumelelo yamajima wesekelo lemalimnikelo e-Afrika. Ilwazi elitholakeleko lerhubhululo nalo likhambisana ngendlela efanako nesiginali, ne-ejensi, nesakhiwo semakethe yamabhanga kanye namathiyori wamabhizinisi weemali asesigabeni esiphakathi. Lelilwazi elitholakeleko liqinisa irhubhululo lezefundo begodu linemithintela ephathekako kubosorhwebo, kubatjalimali, kubatlami bemithethomgomo kanye nakumapulatifomu wesekelo lemalimnikelo asebenza e-Afrika. Irhubhululo linikela isiyeleliso somthethomgomo kuborhulumende be-Afrika ukobana balandele imithethomgomo leyo ezokuthuthukisa umthangalasisekelo wethekinoloji odingakala ukusiza ukutholakala kwamapulatifomu wesekelo lemalimnikelo.

**Amagama aqakathekileko:** Isekelo lemalimnikelo;ukutholakala kweemali; isekelo lemalimnikelo esuselwa ekuthokozweni; Ithungelelwano/ithintwano lezomphakathi, abosorhwebo abancani nabakhasako (SMEs), ; i-Afrika

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## ACRONYMS

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|---|---|
| **ACAMS** | Advancing Financial Crime Professional Worldwide |
| **AI** | Artificial Intelligence |
| **API** | Application Programming Interfaces |
| **CAGR** | Compound annual growth rate |
| **CCAF** | Cambridge Centre for Alternative Finance |
| **CPF** | Crowdfunding platform |
| **FAQs** | Frequently asked questions |
| **FinTech** | Financial Technology |
| **FSDA** | Financial Sector Deepening Africa |
| **GDP** | Gross Domestic Product |
| **ICT** | Information communication technology |
| **LPM** | Linear probability model |
| **LR** | likelihood ratio |
| **MI** | Maximum Likelihood Estimator |
| **OECD** | Economic Co-operation and Development |
| **OLS** | Ordinary least squares |
| **RBV** | Resource-Based View |
| **SEDA** | Small Enterprise Development Agency |
| **SMEs** | Small and medium-sized enterprises |
| **US** | United States |
| **USD** | United States dollar |
| **VIF** | Variance inflation factor |

# CHAPTER ONE
# INTRODUCTION AND BACKGROUND

## 1.1 INTRODUCTION

Innovative ideas, projects, and businesses often face challenges in accessing traditional financing due to stringent collateral requirements set by traditional financial institutions. Through the collective contributions of many people, crowdfunding is a way to raise funds for initiatives or projects (Mamaro & Sibindi, 2022). It usually works with internet platforms. It entails using the power of the community to finance projects such as the creation of products, businesses, beneficial organisations, and creative achievements. Backers are frequently offered perks or shares in exchange for their support. The search for financing for innovative and entrepreneurial projects in an increasingly competitive environment requires more inventive and creative approaches. Crowdfunding is the most current form of funding, but its effect is undoubtedly growing (Abu Amuna, 2019). Creative and cultural industries (CCIs) are essential drivers of economic growth, economic development and job creation (Abisuga Oyekunle & Sirayi, 2018). Crowdfunding platforms provide an affordable way of funding projects within these sectors, there is a strong correlation between crowdfunding and the creative and cultural industries. Crowdfunding is especially targeted at the cultural and creative industries because of its propensity to provide cultural and social effects outside financial returns, dependence on community support, and frequently unconventional income structures (Cichiello, Gallo & Monferrà, 2023).

The significance of crowdfunding in the global economy should not be overlooked. CCIs play a pivotal role, contributing approximately 6.1 per cent to the world's gross domestic product (GDP). Nationally, CCIs contribute between 2 percent and 7 percent to the GDP of individual economies and generate an impressive 29.5 million jobs worldwide (Bilan, Vasilyeva, Kryklii & Shilimbetova, 2019). Additionally, Crowdfunding is a desirable fundraising option for producers in various industries since it supports the decentralised, community-driven nature of creative cultural projects (Gil-Conesa, Conesa-Garcia & Gil-Pechuan, 2020).

The creative industry includes categories such as art, comics, crafts, dance, design, fashion, film and video, food, games, journalism, music, photography, publishing, technology and theatre. The competitiveness of business in Africa has been limited by cultural barriers and the perceived ability to be entrepreneurial (Ratten & Jones, 2018). Consequently, the global economy benefits from a robust GDP of 4,300 trillion USD, with the exportation of creative and cultural goods and services reaching an astounding 646 trillion USD. The estimated volumes of the global derivatives industry and crowdfunding market were USD646 trillion and USD4,30 trillion, respectively. By providing entrepreneurs and small firms access to alternate funding sources, encouraging innovation, and encouraging economic growth, crowdfunding supports the economy. It is crucial to remember that the USD 646 trillion number represents the considerably larger derivatives market, while the USD 4,30 trillion figure represents the total worldwide crowdfunding sector. While the economy benefits from crowdfunding by offering funding for a multitude of projects, the derivatives market mostly serves larger financial institutions and investors which acquire complex financial instruments.

Entrepreneurship in Africa is unique as compared to other parts of the world owing to cultural and historical factors (Ratten & Jones, 2018). Entrepreneurship remains the best hope for any country to prosper (Amuna, Abu-Naser, Al Shobaki & Abu Mostafa, 2019:8). Entrepreneurs and SMEs require finance to function adequately and be sustainable (Mamaro & Sibindi, 2022). Entrepreneurship and SMEs are the main backbone of the economy as they provide employment and drive global economic growth (Huang, Chiu, Mo & Marjerison (2018). Despite the significant contribution to financing SMEs to the economy, their access to finance is limited as traditional funders prefer larger and well-established businesses (Abraham & Schmukler, 2017). Newly established entrepreneurs and SMEs are less likely to access funds from traditional sources such as bank loans owing to the lack of collateral required to obtain funds (Minglo, 2022). This problem was deepened by the 2008 global financial crisis and the 2019/2020 COVID-19 pandemic, which influenced the adoption of technology during social distancing (Deng, Ye, Xu, Sun & Jiamg, 2022). As a result, the alternative source of finance known as crowdfunding has been regarded as a new form of finance (Cummings, Rawhouser, Vismara & Hamilton, 2020).

A recent financing method known as crowdfunding has completely altered the way entrepreneurs, businesses, and creatives acquire funds for campaigns, enterprises, or their own needs (Fortezza, Pagano & Bocconcelli, 2021). Essentially, crowdfunding is the process of raising modest sums of funds from lots of people, typically online, to support a particular project, project, or cause. By avoiding traditional fundraising sources like banks or venture capitalists, this approach improves access to finance and enables direct communication with an extensive number of supporters (Jenik, Lyman & Nava, 2017). In exchange for their donations, backers of crowdfunding projects frequently receive a variety of incentives or benefits, such as early access to goods or services, unique experiences, or public recognition (Kuppuswamy & Bayus, 2018). In general, crowdfunding has shown to be an effective instrument for encouraging creativity, fostering community, and fostering entrepreneurial growth in many different kinds of industries (Deng, Ye, Xu, Sun & Jiang, 2022).

Since crowdfunding can reach a worldwide audience and attract investment across national borders, it serves as an important source of foreign finance (Yasar, 2021). In contrast with traditional funding approaches, which frequently rely on regional institutions or investors, crowdfunding platforms provide creators access to an array of backers across the globe (Gray & Zhang, 2017). Due to their global reach, entrepreneurs and enterprises can access foreign markets and raise money from people anywhere in the world who might be interested in supporting creative ideas or projects. Crowdfunding also makes it easier to collaborate and establish partnerships across borders, creating global relationships that may open up new doors for growth and expansion (Pekmezovic & Walker, 2016). Though these platforms operate similarly to their international equivalents, their primary goal is to link creators to regional backers who desire to support projects in their nation or region. Local crowdfunding platforms help local companies and projects and create a sense of community in addition to providing access to finance (Foà, 2019). Through the local usage of crowdfunding, these platforms promote innovation, job creation, and economic development in their respective areas.

In today's global economy, crowdfunding may serve as an important source of foreign capital such as IndieGoGo, fundraised and Kickstarter (Cumming & Johan, 2019) while offering entrepreneurs the opportunity to approach and make benefit from networks across several countries and regions to raise funding (Dejean, 2020; Di Pietro & Masciarelli, 2021). Fundraising has undergone dramatic changes in the last ten years, akin to innovative instruments (e.g., Giudici et al., 2013; Zhao & Ryu, 2020). Crowdfunding is a source of funding that has grown increasingly important in financing entrepreneurial firms (Walthoff-Borm *et al.,* 2018). Crowdfunding's contribution to supporting entrepreneurship globally has been a focus of research in recent years (e.g., Cumming & Johan, 2016, 2019; Shneor & Maehle, 2020).

In response to the challenges in accessing finance, crowdfunding has become an innovative source of finance specifically for entrepreneurs and SMEs (Yeh, Chen & Lee, 2021). Despite the global popularity and growth of crowdfunding, it is in its early stages and has the potential to disrupt traditional forms of finance. Entrepreneurs and SMEs are recognised as essential drivers of economic growth and employment creation worldwide. The limited access to finance faced by SMEs in Africa and around the world needs to be addressed. Entrepreneurship faces funding difficulties due to restrictions on accessing funds through traditional channels. The current growth of crowdfunding has fuelled the disruption of traditional forms of access to finance globally.

Since 2020 (Sahay *et al*., 2020), crowdfunding expansion and the COVID-19 pandemic have impacted the market. After the 2008 global financial crisis, crowdfunding gained popularity to address the limited access to finance for SMEs and entrepreneurs. It provides an alternative source of funding that may offer a viable solution to the problem (Di Pietro, Grilli, & Masciarelli, 2020). This is due to the involvement of internet-based platforms and the ability of crowds to contribute openly and transparently to raising capital. Suppose project creators (entrepreneurs) cannot access the targeted funds from the crowd (backers). In that case, they face the threat of an unsuccessful crowdfunding campaign and other project creators may steal their ideas (Lynn, Mooney, Rosati & Cummins, 2019).

Crowdfunding can potentially address the issue of limited financial access for small and medium-sized enterprises (SMEs) and entrepreneurs in Africa. Its utilisation of internet-based funding is well-known and widely adopted. Crowdfunding represents a tangible solution that enhances financial inclusion and stimulates economic growth in

Africa (FSD Africa, 2017). Therefore, it is crucial to determine the factors influencing crowdfunding success in Africa for several reasons. Firstly, SMEs and entrepreneurs in Africa can effectively seek funding for their initiatives and projects by understanding the factors contributing to successful crowdfunding campaigns. Secondly, researching the factors contributing to crowdfunding success in Africa can reveal the unique challenges and opportunities within the continent's socioeconomic framework. This information from legislation encourages the growth of crowdfunding platforms, contributing to economic growth and advancement. Lastly, by unravelling the determinants of crowdfunding success, researchers and policymakers can gain insights into the impact of crowdfunding on local communities, entrepreneurship, and innovation, thereby promoting sustainable and inclusive development in Africa. Consequently, this study aims to examine the determinants of crowdfunding success in Africa, which has great potential to empower SMEs and entrepreneurs.

## 1.2 BACKGROUND

Converting ideas into new successful business projects can be an expensive exercise and requires funding (Borchers, 2020). In recent years, entrepreneurs and SMEs have relied on traditional financing, angel investors and venture capital to access finance (Schraven, 2022). However, traditional sources of finance, such as angel investors and venture capital, could not meet the demand for financial resources. The demand for finance has grown globally over the last decade (Borchers, 2020). The evolution and technological changes in the financial world facilitated the emergence of crowdfunding driven by the Internet and social media (da Costa, 2020). The popularity and usage of crowdfunding are commonly driven by internet usage and social media. Crowdfunding is increasingly substituting and complementing angel and venture capital and overcoming the problems faced by traditional finance (Hsieh & Vu, 2021).

The financial resources are needed for entrepreneurs and SMEs to operate successfully (Schraven, 2021). Hence, the disruption of financial technology (FinTech) has an important role in overcoming the problem of insufficient supply of capital. Many African economies rely on the traditional form of finance due to a lack of telecommunication infrastructure and digitalisation. Africa is an essential continent comprising 54 countries with a combined gross domestic product (GDP) of USD 3.5

trillion in economy (Chivunga & Tempest, 2021). However, its economic growth has been sabotaged by the COVID-19 pandemic and is estimated at USD 90 billion in growth and USD 200 billion in GDP (Chivunga & Tempest, 2021). Empirical studies suggest that digital finance is a good solution for assisting the unbanked and under-banked owing to its low-cost effectiveness (Rowan & Garvey; Zhang *et al.,* 2018).

The adoption and the usage of fintech, namely, blockchain and crowdfunding, disrupted traditional financial intermediation in two ways: Firstly, blockchain might replace traditional financial intermediation by creating a new blockchain that eliminates the need for financial intermediaries. Secondly, crowdfunding platforms overcome traditional intermediation (Cai, 2018). The blockchain is a distributed database transaction shared among participating parties (Saadat, Halim, Osman, Nassr & Zuhairi, 2019). It is characterised by the decentralisation of data, audibility, anonymity, and persistency; hence, its role is important to overcome the currently limited access to finance. Subsequently, crowdfunding enhances access to finance and supports entrepreneurship development in Africa. Consequently, crowdfunding provides a more comprehensive financial inclusiveness that unlocks access to finance opportunities for SMEs and entrepreneurs.

Based on Statista (2023), the crowdfunding market has reached USD1,1 billion in 2023. The transaction value is expected to show a compounded annual growth rate (CAGR) of 1.92 percent in 2023-2027, resulting in a projected total amount of USD 1.2 billion by 2027. The average funding per campaign in the crowdfunding market amounted to USD 8,000 in 2023. From a global comparison perspective, the highest transaction value is reached in the United States (USD 451 million in 2023). In 2023, the global crowdfunding market size was valued at USD 1.41 billion and was forecast to more than double by 2030, growing at a compound annual growth rate (CAGR) of 14.5 percent. One of the largest crowdfunding platforms, Kickstarter, launched more than 592,000 projects as of May 2027.

When considering global comparisons of the crowdfunding amount raised, it is noteworthy that the United States recorded the highest transaction value of USD 451 million. Figure 1.1 below illustrates the growth of the crowdfunding market worldwide.

The popularity of crowdfunding is shown by the increase in participation and the market growth of crowdfunding.

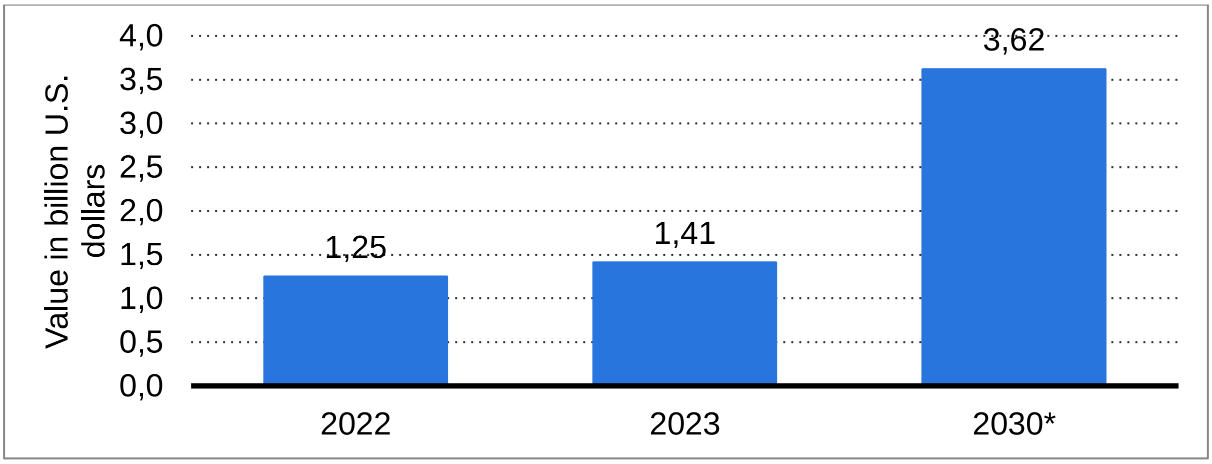


**FIGURE 1.1: MARKET SIZE OF CROWDFUNDING WORLDWIDE**

Source: Statista (2023) available at https://www.statista.com/statistics/report-content/statistic/1078273

However, the future growth of the alternative finance market remains unknown given the slow growth rate between 2016 and 2017. Crowdfunding has the potential to effectively overcome the problem of limited access to finance (Belleflamme, Lambert & Schwienbacher, 2016). SMEs and entrepreneurs continue to face difficulties securing funding since traditional sources such as bank loans, venture capital, and angel investments cannot provide sufficient funds (Zhao, 2018). As a result, crowdfunding has emerged as a disruptive force in seed-stage entrepreneurship financing (Chemmanur & Fulghieri, 2014). Entrepreneurs and SMEs may use crowdfunding as an alternative access to finance to overcome the financial constraints imposed by traditional finance.

Crowdfunding has experienced tremendous growth, primarily in developed countries, and has recorded a multibillion US dollar globally (Cummings & Hornuf, 2018). According to a study by Ziegler, Shneor, and Zang (2020), the global crowdfunding sector experienced significant growth between 2013 and 2017. Its total value increased from USD 11 billion to USD 419 billion during this period. China accounted for a substantial share of this figure, with USD 258 billion, while the USA and Canada contributed USD 44 billion, and Europe contributed USD 4 billion. Banks and other traditional financial institutions charge interest in exchange for capital amounts granted to entrepreneurs and SMEs. The high cost imposed by traditional financial institutions such as banks and other financial institutions creates barriers to SMEs' access to finance. Usage and the popularity of crowdfunding could overcome the problems associated with traditional forms of financing, such as the high cost imposed by traditional financing (Anglin, Short, Drover, Stevenson, McKenny, & Allisone, 2018). Crowdfunding addresses the limitation of worldwide access to finance (Calic & Mosakowki, 2016).

Numerous crowdfunding platforms experienced a considerable delay in launching their crowdfunding campaigns (Sahay *et al.*, 2020). As a result, few new crowdfunding projects registered during the COVID-19 pandemic owing to the hard lockdown imposed by countries, considering the slowdown of economic activity, job losses, and collapse in business activity and the crowdfunding market. The largest crowdfunding platform in Africa is the donation-based model, which is the fastest-growing model (Sahay *et al.*, 2020). Many crowdfunding projects are being launched to raise money to support frontline workers and the vulnerable impacted by the pandemic (Sahay *et al*, 2020). Moreover, donation-based crowdfunding platforms are faced with demands for funds from Entrepreneurs and SMEs. In Africa, crowdfunding is still a new concept, and there is still a certain distrust of online transactions, particularly those involving finance (Adibe, 2022). The crowdfunding market in Africa reached USD 182 million in 2016, according to the Cambridge Centre for Alternative Finance (CCAF), with Nigeria, South Africa, and Kenya as the most significant three markets. According to projections, crowdfunding in sub-Saharan Africa could reach USD 2,5 billion by 2025. Based on Statista 2023 report showed that only 25 percent of entrepreneurs are aware of crowdfunding as an alternative access to finance. Figure 1.2 illustrates crowdfunding awareness.

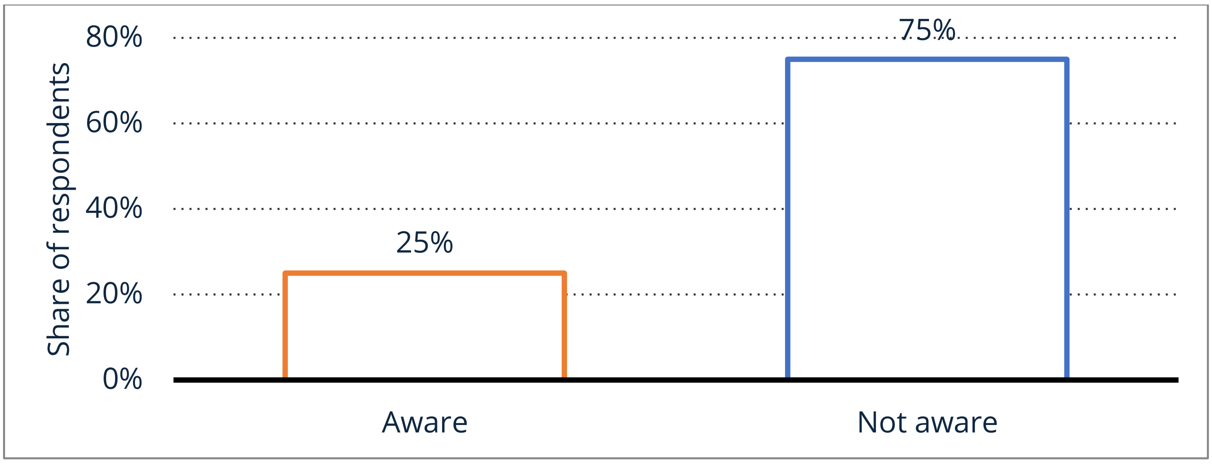


**FIGURE 1.2 SHARE OF CUSTOMERS AWARE OF USAGE OF FINANCIAL TECHNOLOGY SOLUTIONS IN THE MIDDLE EAST AND NORTH AFRICA REGION IN 2020.**

Source: Statista (2023) available at https://www.statista.com/statistics/report-content/statistic/1078273

Crowdfunding has emerged as a modern approach to raising capital in the aftermath of the 2008 financial crisis, addressing the difficulties faced by early-stage ventures in obtaining funding (Arvila, Winschiers-Theophilus, Keskinen, Laurikainen & Nieminen, 2020). Consequently, the crowdfunding market has experienced significant growth due to the widespread use of social media and the internet. Moreover, crowdfunding has gained popularity worldwide, particularly in developed continents like North America and Europe. There are two main models of crowdfunding: the reward-based model, where the funders expect a return in exchange for their contributions (Yeh et al., 2019), and the equity-based model, where the crowd expects profit sharing in exchange for their investments in the project. Crowdfunding platforms serve as financial intermediaries, connecting project owners/SMEs with campaign supporters and investors who contribute funds. Depending on the crowdfunding type, backers or supporters contribute to the crowdfunding platform in exchange for future benefits (Ma & Palacios, 2021).

Crowdfunding is experiencing a boom due to increased internet usage and the proliferation of specialised platforms worldwide. It has become a valuable and essential alternative for funding SMEs (Giudici & Rossi-Lamastra, 2018), helping businesses overcome their funding gap, often caused by a lack of cash (Lee Coyle & Chen, 2021). This is particularly beneficial for businesses that may not be attractive to other investors based on financial criteria either due to their inexperience or the unpredictable nature of their ventures and progress. Crowdfunding provides access to extensive networks and increases awareness of the business or product (Estrin et al., 2018; Troise, Tani & Schiuma, 2021). The internet and social media influence the popularity of crowdfunding (Schraven, 2020).

## 1.3 PROBLEM STATEMENT

Accessing finance for new innovative ideas, projects, or businesses is challenging because traditional financial institutions consider collateral needed to secure funding (Wachira, 2021). This study defines access to finance as whether a project campaign has reached the goal amount requested on the crowdfunding platform. The achievement of fundraising targets within crowdfunding campaigns serves as the study's definition of financial access. Due to the restriction of the traditional banking system and the aftermath of the financial crisis of 2007–2008 and the COVID-19 pandemic, SMEs and entrepreneurs have had restricted access to finance. Accessibility of funds to SME projects through crowdfunding has emerged as a potential remedy, reducing expenses related to information access when using traditional financing. However, current financial resource constraints have revealed weaknesses in the traditional banking system's potential to enable access to finance. Although crowdfunding is currently an area of academic study, empirical research is still scarce and mostly conceptual, particularly in Africa (Wachira & Wachira, 2021; Chao, Serwaah, & Baah-Peprah, 2020; Berndt, 2016). To encourage understanding and customised strategies for successfully applying this unique financing approach in the region, a study on the potential impact of crowdfunding on various socioeconomic contexts in Africa needs to be done.

Previous research has predominantly focused on Kickstarter data from developed nations (Korzynski, Haenlein, & Rautiainen, 2021; Cha, 2020; Ryoba, Qu & Zhou, 2020), potentially yielding different outcomes when applied to the distinct cultural, legal, social, political, and business landscapes of Africa. This study aims to fill the void in comparable research within the realm of crowdfunding, which has primarily been confined to studies in advanced economies (Korzynski, Haenlein, & Rautiainen, 2021; Cha, 2020; Ryoba, Qu & Zhou, 2020). Consequently, the study examine the determinant of crowdfunding success in Africa. However, achieving success in crowdfunding campaigns is not assured and is subject to numerous factors. Crowdfunding, exemplifying swift, simple, and accessible funding, stands as a testament to the impact of financial technology (Fintech) on the finance industry (Wachira & Wachira, 2021). Nevertheless, the African continent encounters hurdles in embracing this disruption due to its relatively underdeveloped information communication technology (ICT) infrastructure and lower internet penetration rates, exacerbated by inadequate legislative frameworks addressing fraud and cyber threats in crowdfunding (Chao et al., 2020). The regulatory framework surrounding crowdfunding in Africa remains limited, leaving the continent vulnerable to risks associated with cyber-attacks and fraudulent activities.

The challenge for numerous SMEs and entrepreneurs in accessing traditional financing, stemming from risk factors, minimal returns, and transaction costs, has spurred the emergence of crowdfunding as an alternative. While crowdfunding has primarily taken root in developed economies, it presents itself as an innovative solution for funding startup SMEs (Bellavitis, Filatchev, Kamuriwo & Vanaker, 2017; Cumming, Meoli & Vismara, 2021; Hornuf, Schmitt & Stenzhorn, 2018; Ahlstrom, Cumming & Vasmara, 2018; Buttice, Colombo & Wright, 2017; Giudici, Guerini & Rossi-Lamastra, 2018). However, much of the existing research has predominantly focused on equity crowdfunding, leaving gaps in our understanding of the factors influencing the success of various crowdfunding models. It is plausible that studies from other nations fail to adequately capture the nuanced characteristics of the African environment, such as cultural norms, levels of financial literacy, and infrastructural challenges (Adjakou, 2021; Abdallah & Kajuna, 2023; N'Kupo, Cultrera & Croquet, 2023). The limited research on crowdfunding in Africa falls short of providing comprehensive analyses tailored to the distinct needs and attributes of African investors and businesses. The absence of thorough studies assessing the relevance, effectiveness, and prevalence of different crowdfunding approaches in the African context underscores a significant gap in the literature regarding crowdfunding models in Africa (Hiller, 2017).

In contrast, equity-based crowdfunding has received more attention, whereas other models, such as donation and reward-based crowdfunding, originating from developed countries, remain limited (Hornuf, Schmitt & Stenzhorn, 2018; Ahlstrom, Cumming & Vasmara, 2018; Buttice, Colombo & Wright, 2017; Giudici, Guerini & Rossi-Lamastra, 2018). This study seeks to bridge these gaps by analysing the determinants that impact crowdfunding success in various models, focusing on the unique context of the African continent.

## 1.4 AIM OF THE STUDY

The study aimed to establish the determinants of crowdfunding success of SMEs and entrepreneurs in Africa to enhance access to finance.

## 1.5 RESEARCH OBJECTIVES

To guide the study, the following research objectives were explored

- **Research Objective 1 (RO1)**

  To empirically examine the determinants of crowdfunding success for SMEs and entrepreneurs in Africa:

  This objective aims to empirically examine the key determinants contributing to crowdfunding campaigns' success among SMEs and entrepreneurs in Africa. The research will explore the determinants of project quality, creator credibility, campaign transparency, communication strategies, and engagement with potential backers.

- **Research Objective 2 (RO2)**

  To examine the influence of entrepreneurs' experience on crowdfunding success in Africa.

  This research goal contributes to a better understanding of how entrepreneurs' experiences affect the success of crowdfunding in Africa and will provide entrepreneurs, policymakers, and crowdfunding platforms with useful information for enhancing their strategies and support systems.

- **Research Objective 3 (RO3)**

To examine the impact of tangible and intangible rewards on crowdfunding success for SMEs and entrepreneurs in Africa

This objective investigates how tangible and intangible rewards influence the crowdfunding success of SMEs and entrepreneurs in Africa. The research explores the effectiveness of different reward strategies in attracting backers and fostering engagement with crowdfunding campaigns.

- **Research Objective 4 (RO4)**

To explore the role of social networks in crowdfunding success for SMEs and entrepreneurs in Africa.

This objective focuses on investigating the role of social networks in shaping the crowdfunding success of SMEs and entrepreneurs in Africa. The research examines how leveraging online and offline personal and professional connections influences campaign visibility, trust-building, and overall campaign outcomes.

## 1.6 RESEARCH QUESTIONS

To guide the study, the following research questions were explored:

- **Research Question 1 (RQ1)**

What determinants influence crowdfunding success for SMEs and entrepreneurs in Africa?

- **Research Question 2 (RQ2)**

What is the influence of entrepreneurs' experience on the success of crowdfunding campaigns in Africa?

- **Research Question 3 (RQ3)**

What impact do tangible and intangible rewards have on the crowdfunding success of SMEs and entrepreneurs in Africa?

- **Research Question 4 (RQ4)**

What is the influence or role of social networks on the crowdfunding success of SMEs and entrepreneurs in Africa?

## 1.7 SIGNIFICANCE OF THE STUDY

This study contributes to the body of knowledge, practice and policy. These are outlined below:

### 1.7.1 Contribution to the Body of Knowledge

The study contributes to closing the gap in the literature on the determinants of crowdfunding success in the African continent. Firstly, contextualisation within the African continent: The research comprehensively explores African countries' unique economic, regulatory, and cultural aspects that influence crowdfunding dynamics. Through empirical analysis, this research identifies and quantifies key determinants of crowdfunding success, such as the quality of campaign presentation, the entrepreneur's social network, reward structures, and alignment with local values and preferences. The study contributes to the academic literature by filling gaps in understanding crowdfunding dynamics in the African context. It adds to the global knowledge base on crowdfunding by providing insights specific to the challenges and opportunities faced by SMEs and entrepreneurs in Africa.

Secondly, the study sheds light on the effectiveness of crowdfunding campaigns offering rewards or incentives to backers. Thirdly, the study delves into the significance of social capital and network effects in African crowdfunding campaigns. In addition, by investigating the influence of personal relationships, community involvement, and trust-building mechanisms, the research highlights the interconnectedness between crowdfunding success and social networks in the region. It also contributes to a broader academic literature on crowdfunding and entrepreneurial finance and addresses the unique challenges and opportunities for African entrepreneurs in a crowdfunding environment. The study makes a methodological contribution by complementing a quantitative research method that collects data from multiple leading crowdfunding platforms (TheCrowdDataCentre) operating on the African continent rather than collecting data from a single crowdfunding platform. Thus, to my knowledge, no previous studies within crowdfunding research adopted this methodological approach in the African context.

### 1.7.2 Contribution to Practice

There are several contributions to practice that are conceivable from this study. These are addressed hitherto. Entrepreneurs and SMEs frequently lack access to comprehensive knowledge about the factors contributing to crowdfunding campaigns' success. Entrepreneurs may use resources effectively and develop campaigns that appeal to potential backers by understanding which factors, such as the clarity of the project description, the quality of the visuals, or the strength of the value proposition, have the most significant impact on the campaign's success. Secondly, crowdfunding platform managers were guided on how to effectively allocate resources, including marketing efforts, support for customers, and platform visibility, by examining the factors associated with successful campaigns, which will improve the user experience overall.

Finally, the research findings may have implications outside the business world. The proper evidence allows entrepreneurs, backers, and crowdfunding platforms to make better decisions and allocate resources more effectively. The study on the factors that determine crowdfunding success for SMEs and entrepreneurs has the potential to evolve the crowdfunding landscape and aid innovative SME growth. Lastly, the study could contribute to practice in the sense that SMEs and entrepreneurs in Africa will become better equipped (deriving from the results of this study on the determinants of access to finance from crowdfunding sources) to source funding from crowdfunding sources.

### 1.7.3 Contribution to Policy

The findings of this research on the determinants of crowdfunding success for SMEs and entrepreneurs in Africa have significant implications for policy formulation aimed at fostering economic growth, innovation, and entrepreneurship across the continent. The following policy recommendations are proposed based on the insights gained from this study:

Firstly, policy efforts should be directed towards raising awareness about crowdfunding as a viable alternative financing method for SMEs and entrepreneurs. It establishes educational initiatives that clarify the benefits, risks, and various crowdfunding models that empower potential campaign creators to navigate the crowdfunding landscape more effectively.

Secondly, governments and regulatory bodies should collaborate to establish an appropriate regulatory framework for crowdfunding in Africa. This framework should balance enabling innovation and protecting backers from potential risks. Researchers and policymakers can use the findings to improve their understanding of the dynamics of crowdfunding, encouraging more research and potentially affecting regulations on SME financing, investor protection, and technology innovation. Tailored support programs, mentorship, and resources for different models will enable entrepreneurs to choose the most suitable approach and optimise their crowdfunding campaigns. Thirdly, policymakers should encourage the development of partnerships between established financial institutions and crowdfunding platforms. Fourthly, increased participation may result from the introduction of incentives for stakeholders who support crowdfunding campaigns. More significant funding for SMEs and entrepreneurs could be encouraged through tax benefits, acknowledgement, or rewards for backers. Finally, collaboration between African countries and international counterparts can facilitate the exchange of best practices, experiences, and regulatory insights related to crowdfunding. This can contribute to the creation of regularised cross-border standards and norms. By understanding these determinants, the study can provide valuable insights for entrepreneurs, policymakers, and crowdfunding policymakers on facilitating successful crowdfunding campaigns for SMEs and entrepreneurs in Africa.

## 1.8 STRUCTURE OF STUDY

**Chapter Two Financial Intermediation, Bank Market Structure and Capital Structure Theories: A Theoretical Literature Review**

This chapter presents theories, namely, financial intermediation, Bank Market and Capital structure, which consists of the pecking order, trade-off, signalling and agency theories. It also reviews existing technology adoption theories and models to identify an appropriate theoretical and conceptual background for the study. Lastly, the conclusion of this chapter about these theories is adopted for the study.

**Chapter Three Crowdfunding: Models and Empirical Literature Review**

The chapter discusses crowdfunding, empirical evidence from studies conducted in developed, developing, and African countries, and the variables associated with access to finance. Research gaps to be identified in the literature in line with the research questions outlined in Section 1.5 of Chapter 1 are then discussed. This includes different crowdfunding models, platforms, start-up financing options and the merits of start-up financing.

**Chapter Four Hypotheses Development**

Chapter 4 explains the formulation and development of research hypotheses and the factors influencing access to finance through crowdfunding. A brief discussion of the components of the proposed conceptual research model and proposed research hypotheses is also presented.

**Chapter Five Research Methodology**

The research design methodology procedures and approaches followed in this study are described extensively in this chapter. These include research methods, sampling, data collection, capturing, cleaning, and analysis procedures. Additionally, the chapter presents the econometrics analytical methods applicable to this study to enable it to respond to its research questions. It also outlines the difficulties encountered in the data-gathering process concerning ethical issues that had been addressed.

**Chapter Six Empirical Results and Discussion of Findings**

This chapter presents and analyses the data collected to test the hypotheses formulated and presents the findings concerning this study. It also discusses the results in comparison to other comparable empirical. The following section presents the findings and discusses them about prior comparable research findings. Fourteen research hypotheses are tested using data collected from the crowdfunding platform. The final section of this chapter summarises the results in a conceptual model, presents the theoretical and practical implications and discusses possible further research directions. Chapter 6 presents the overall data analysis and research results, including the proposed hypotheses testing and a summary of all research findings.

**Chapter Seven: Summary of Findings, Conclusions and Recommendations**

This is the last chapter of the thesis, summarising the research's findings, limitations and contributions. The chapter also discusses directions for future research through theoretical, methodological and practical recommendations. This is followed by a conclusion that explains how the outcomes contribute to the theoretical and practical knowledge bases. The validity of the research findings is then discussed, followed by a description of the study's limitations. Finally, the study recommends directions for further research.

# CHAPTER TWO:
# FINANCIAL INTERMEDIATION, BANK MARKET STRUCTURE AND CAPITAL STRUCTURE: A THEORETICAL LITERATURE REVIEW

## 2.1 INTRODUCTION

The previous chapter presented the study's introduction, background and research objectives. This chapter reviews the theoretical literature that underpins the current study. Specifically, it reviews financial intermediation, bank market structure and capital structure theories. The chapter is organised as follows: Section 2.2 reviews the financial intermediation theory. Section 2.3 discusses the bank market structure theories, and section 2.4 reviews the capital structure theories that apply to crowdfunding and their implications. These theories include the pecking order, signalling, trade-off and agency theories. Finally, Section 2.5 concludes the chapter by summarising what was discussed.

## 2.2 FINANCIAL INTERMEDIATION THEORY

The intermediaries serve to reduce transaction costs and informational asymmetries. The financial intermediation theory focuses on the intermediaries of banks and other financial institutions as developed by Allen and Santomero (1984). The theory addresses the relationship between surplus funds (savers) and those in need of funds (borrowers), playing a significant role in reducing problems related to information asymmetry and transaction costs (Haas, Blohm & Leimeister, 2019). In the financial intermediary theory, banks and other financial intermediaries effectively transfer money from savers to borrowers, which is why they are important to the economy. To this theory, intermediaries promote the flow of funds and encourage economic growth by reducing transaction costs, reducing information asymmetries, and providing liquidity.

Therefore, they are used as financial intermediaries to facilitate the process between the entrepreneurs (project creators) and subsequent capital providers (crowds). The financial intermediary acts as a middleman in the transaction between capital demand

and supply (Lin, 2015), potentially overcoming information asymmetry problems and reducing transaction costs (Diamond, 1984).

The theory was adopted to combine funding between backers and capital seekers (entrepreneurs). A financial intermediation theory provides insights into the functioning and importance of intermediaries in the financial system (Blohm & Leimeister, 2019). The dramatic changes have influenced the popularity and usage of this theory in Fintech (Rong & Shi, 2014). Therefore, a crowdfunding platform is an intermediary for entrepreneurs seeking access to finance and backers (Blohm & Leimeister, 2019). Figure 2.1 shows the conceptual framework which explains the relationship between the fund seeker (entrepreneur) and backers or fund providers.

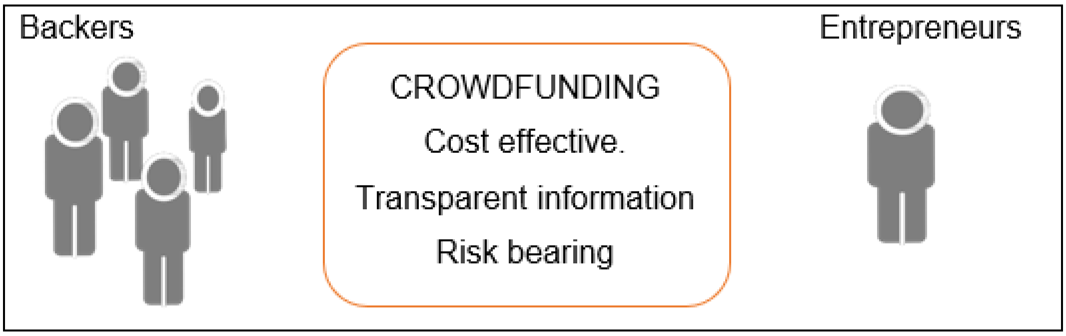


**FIGURE 2.1: CONCEPTUAL FRAMEWORK**
Source: Author's compilation

However, crowdfunding platforms provide supporters with limited control to guarantee that the project's creator uses the funds contributed by the backer for the intended purpose. This is because some factors disadvantage the supporters by not providing accurate information. Firstly, there is a lack of available information, such as customer reviews, that can be used to assess the investment and growth potential of the entrepreneurs. As a result, backers rely heavily on the information provided by the project creator on the crowdfunding platform. While this information allows potential backers to decide between supporting the campaign project, it is important to note that this information may be biased as it comes from a single source of information (Burtch *et al.,* 2014).

Potential backers may find it challenging to assess project creators' genuine thoughts, trustworthiness and reliability in a crowdfunding campaign. This is because the distribution of information is solely controlled by the project creator, making it difficult for backers to evaluate them. However, venture capitalists and angel investors focus on local investments to avoid such problems, as they can maintain constant communication with crowdfunding stakeholders (Mollick, 2014). Traditional face-to-face meetings between fund seekers and providers are becoming increasingly rare in crowdfunding due to the prevalence of digital communication platforms (Mavlanova, Benbunan-Fich & Koufaris, 2012).

However, research and practice have shown the importance of crowdfunding platforms as financial intermediaries that reduce transaction costs and information asymmetry (Blohm & Leimeister, 2019). These platforms serve as intermediaries for entrepreneurs and backers, facilitating access to capital. Therefore, these dominant configurations may represent various forms of crowdfunding intermediation. However, the theory aims to determine whether crowdfunding platforms are indeed helping entrepreneurs and SMEs overcome limited access to finance and how platform-based crowdfunding intermediaries are structured to perform effective financial intermediation.

The intermediary theory involves a combination of capital-seeking agents and capital-giving agents (Benston & Smith, 1976). According to this theory, entrepreneurs seek funds for business development, and investors fund the business. The most important theory in financing entrepreneurs is the agency theory by Jensen and Meckling (1976), which states that the main difficulty in financing businesses is the information asymmetry between fund seekers and financial funders. This information asymmetry influences the funding choices for businesses (Brealey, Meyers & Allen, 2010). Financial providers frequently engage in comprehensive contracting with entrepreneurs to reduce information asymmetry. These agreements aim to create explicit terms, risk-sharing mechanisms, and performance incentives to realign interests and improve capital allocation efficiency (Fili, 2014).

Crowdfunding intermediaries provide capital contributors with complete information that helps in their decision-making process, providing transparency and well-informed decisions and ultimately facilitating profitable investments. As a result, written project descriptions of the investment opportunity, as well as videos and photographs to further enhance project knowledge, are utilised to enhance understanding of the project. Additionally, background data on the capital seeker and the funding histories of the capital givers are typically included.

According to the literature, financial intermediation theory reduces the cost of connecting capital seekers with capital providers, also known as backers and project creators (Haas, Blohm & Leimeister, 2019). Signalling theory helps address the issue of information asymmetry between project creators and backers by cost-effectively accessing information (Vismara, 2020). Lastly, the pecking order theory favours internal financing for entrepreneurs over external funding (Kuma & Yosuff, 2020). Research has shown that crowdfunding serves as an alternative means of financing for entrepreneurs and SMEs who cannot secure funding from traditional banks (Mollick, 2014; Vismara, 2016). Over the past few years, crowdfunding has gained significant popularity as an alternative funding source in practice and academia (Gierczak, Bretschneider, Haas, Blohm, & Leimeister, 2016).

## 2.3 BANK MARKET STRUCTURE THEORY

Market structure theory refers to a branch of economics that focuses on the organisation and characteristics of markets, particularly how the arrangement of buyers and sellers within a market can impact its behaviour, performance, and outcomes (Mensi & Zouari, 2010). Different market structures can exhibit varying levels of competition, pricing power, and efficiency. Different market structure models have been developed to analyse how factors such as the number of firms, market share, barriers to entry, and product differentiation influence market dynamics. Chamberlin and Robinson (1984) advanced the market structure theory, stating that many firms sell differentiated products. Therefore, it examines the market structure between perfect competition and monopoly. The market structure stipulates that banks operate efficiently when costs are lower to attain higher profit (Bremus & Buch, 2015). Consequently, differences in efficiency create an unequal distribution of positions within the market and an intense concentration. The effectiveness and efficiency of banks determine the market structure and its performance.

The association between market structure and efficiency hypothesis was formulated by Demsetz (1973). In the banking sector, this hypothesis states that a bank that operates more efficiently than its competitors will earn higher profits due to the lower operational costs. The structure of the crowdfunding market is influenced by the number and competitiveness of crowdfunding platforms (Wu, Huang, Wu & Tsai, 2022). If there are only a few dominant crowdfunding platforms, particularly in the African continent, it may lead to an oligopolistic or monopolistic market structure (Wachira, 2021). On the other hand, a more fragmented market with numerous platforms could resemble a more competitive structure.

The constrained competition between banks may affect SMEs' and entrepreneurs' access to finance, specifically debt financing (Nguyen, Mishra & Daly, 2022). According to traditional industrial organisations association expectations, the market power theory argues that increased market control results in restricted credit supply and higher lending rates, thus, financing limitations (Wang, Han, & Huang, 2020). On the other hand, commercial banks operating in a competitive market must consistently succeed. As a result, they have to maintain risk-adjusted returns priced steadily at higher rates in areas where investor returns show more significant weakness (Canta, Nilsen, & Ulsaker, 2023). Additionally, in the presence of competition, banks cannot take advantage of this educational advantage rendering the motivation to build these connections invalid (Bushman, Hendricks & Williams,2014). Therefore, it is expected that market power regulation will contribute to increased access to debt financing for potential borrowers by reducing information asymmetries and operational costs, increasing significant investment in maintaining account connections and decreasing information asymmetries (Mol-Gómez-Vázquez, Hernández-Cánovas & Koëter-Kant, 2019).

From an academic perspective, Marquez (2002) provides funding for the concept of relationships in banking. This suggests that competition in the market scatters borrower-specific information, making it more challenging for banks to overcome information asymmetries. As a result, small firms face negative impacts on their ability to access financial support. Han Zheng, Cui, Sun, and Hu (2009a) further demonstrate that small and medium-sized enterprises (SMEs) can improve their access to finance by focusing more on banking markets. Therefore, there is both theoretical and empirical evidence supporting what is referred to as the information hypothesis. In contrast, the information hypothesis (Petersen & Rajan, 1995) argues that banks with market power may charge other fees when lending to opaque, risky, young, small, and troubled firms to avoid charging higher interest rates. Banks can extract informational advantages and benefits in subsequent periods by establishing a lending relationship under such circumstances.

Crowdfunding platforms differ from traditional financing providers, such as commercial banks, in that they offer products or services without the need for financial intermediaries. Instead, they deliver complementary content via crowdfunding platforms. However, entrepreneurs and SMEs often face limited access to finance for their start-ups and existing businesses. These make it difficult for investors to accurately assess valuable information about available projects, which might discourage entrepreneurs and SMEs from participating.

A wide variety of diverse crowdfunding platforms have emerged in recent years. These platforms and project creators can be seen as complements, as they provide complementary content for the platform through crowdfunding campaigns. Backers or investors financially support these campaigns. Crowdfunding allows project creators to gather small financial contributions from many supporters through an open call on the Internet (Schwienbacher & Larralde, 2012). This creates a sizeable ambiguous network of project stakeholders, reducing the importance of more traditional investors such as angel investors or venture capitalists.

Commercial banks require market power to control the costs associated with financial seeking, which is the main problem when assessing their competitive dynamics and regulatory framework. Banks are a costly industry that requires borrowers' monitoring, which restricts market entry (Klein, 1971). Most SMEs may experience more significant financial constraints and higher capital costs due to greater market concentration, limiting their access to affordable financing options and impeding their growth prospects (Rice & Strahan, 2010). Consequently, industry expertise provides banks with benefits in determining whether to refinance or stop borrowing (Stomper, 2006). Market power lending is derived from industry competitiveness. The expertise of the banking industry assesses capital demand and supply availability, including the additional costs required.

The theory implies that the demand for uncertain capital is determined by industry experts who analyse data to decide whether to grant loans. The low demand for loans or capital from commercial banks decreases the expected supply of capital funds. Consequently, the theory of bank market structure is adaptable to crowdfunding as an alternative means of accessing finance for entrepreneurship. Hence, in the crowdfunding market, the creator conveys the information directly to the financial seeker without needing an expert to act as a financial intermediary.

## 2.4 CAPITAL STRUCTURE THEORIES

The capital structure theories explain how a company utilises various funding sources to finance its operations and expansion. It encompasses the different types of capital, including equity, debt, and other financial instruments, that a business employs to fund its activities and investments (Baert & Vennet, 2009). The selection of a company's capital structure is crucial as it determines the amount of debt and equity it will utilise to support its operations. This decision has implications for the company’s risk profile, cost of capital, and financial flexibility. Modigliani and Miller improved some of the assumptions of their previous work in their 1963 paper, especially the assumption that there would be no taxes. In their 1958 investigation, Modigliani and Miller argued that, in some situations, the capital structure of a business had no impact on its market value.

Modigliani and Miller's (1958) Capital Structure theory states that all relevant information is accessible in a perfect market, both insiders and outsiders when making investment decisions. This assumes no transaction costs, bankruptcy costs, and taxes. It also assumes that borrowing and lending are possible for firms and individual investors at the same interest rate, allowing for homemade leverage. Additionally, it assumes that firms operating in similar risk classes have similar operating leverage, that interest payable on debt does not save any taxes, and that firms follow a 100 percent dividend payout (Yilmaz, 2020:43). Critics of this theory argue that the irrelevance of capital structure seems unrealistic under perfect conditions (Abeywardhana, 2017).

Several studies have been conducted on the influence of capital structure and profitability despite the irrelevance of capital structure (Yilmaz, 2020). According to Stiglitz (1966) Tang and Jang (2007), Ebaid (2009) and Chakraborty (2010), a negative relationship, was found, while most studies, Copeland and Weston (1988) Hadlock and James (2002) and Frank and Goyal (2003), among others, found a positive relationship between capital structure and firm performance. “The use of debt financing benefits the firm from tax deductions, and therefore, a firm that utilises debt is likely to enjoy an interest tax shield” (Sibindi, 2015:15). However, when transaction and bankruptcy costs are considered in a market with perfect competition, the capital structure becomes relevant (Kraus & Litzenberger, 1973).

The argument about the irrelevant nature of the corporate capital structure began in 1958 with the Modigliani and Miller theorem. The argument about the irrelevant nature of the corporate capital structure began in 1958 with the Modigliani and Miller theorem. The Modigliani-Miller (1958) theorem provides an unrealistic description of firms' capital financing and why it does not matter (Mostafa & Boregowda, 2014). The trade-off theory and the pecking order theory have been impacted by it, providing frameworks for understanding how businesses make financing decisions and, consequently, insights into their adaptability to crowdsourcing as a financing option. For example, several stock exchanges have created market divisions for SMEs and entrepreneurs with more straightforward listing requirements (Vismara, 2016). However, the 1963 Modigliani and Miller (MM) capital structure theory recognises the existence of actual capital markets defects like taxes, bankruptcy costs, and information asymmetry. In addition to introducing the idea of leverage, this theory contends that an ideal capital structure improves firm value while reducing the total cost of capital through a combination of debt and equity. Due to this paradigm, businesses must weigh the benefits of debt financing against the risks associated with insolvency.

Therefore, in the real world, entrepreneurs and SMEs face challenges in accessing finance due to information asymmetries with potential investors or backers (Butticè & Vismara, 2022). Internal financing through entrepreneurial capital has the potential to overcome these challenges as the entrepreneur contributes their funds to self-financing. However, a firm's ability to grow rapidly will be limited with these limited resources if external sources of capital are not utilised. Once a firm identifies the need for external funds, it must find a way to access capital markets (Butticè, & Vismara, 2022).

Crowdfunding is a form of opportunity funding where businesses or individuals raise capital from many individuals, often through online platforms. Crowdfunding financing proceeds can be used for various purposes, such as launching new businesses, improving existing products, and supporting social causes. The MM principle has several implications for crowdfunding. Firstly, it suggests that the funding value for a crowdfunding project can be e comparable to that of a project supported by traditional venture capital. Secondly, suppose two organisations are identical in every other aspect. In that case, the MM principle implies that the cost of a crowdfunded company may be similar to that of a traditionally funded venture.

In the MM (1963) capital structure relevance theory framework, the trade-off theory and pecking order theory were developed. Based on the trade-off approach, entrepreneurs weigh the tax benefits of debt against the expenses of financial hardship to find a balance to maximise their value. However, the pecking order theory argues that businesses have a hierarchy of preferred financing sources because of asymmetrical knowledge between managers and investors, including internal financing rated over debt and equity issuance coming last. Both theories expand on the fundamental framework MM (1963) presented and offer insights into how businesses choose their capital structure in the face of asymmetry of information and inefficiencies in the market.

Pecking order theory, the Modigliani-Miller principle, and trade-off theory collectively give a helpful framework for understanding the economics of crowdfunding, providing insights into its structure, efficiency, and capital allocation implications. However, when applying this principle, it is important to consider the differences between traditional venture capital and crowdfunding. In conclusion, the capital structure theory has shown the irrelevance and irrelevance of financing at the later stage (Modigliani & Miller, 1958:201). The implications of capital structure theory have led to the introduction of the trade-off theory, which includes the tax benefits of debt financing, bankruptcy costs, and information costs.

Capital structure theory has established the framework for comprehending capital structure financing despite its perceived lack of relevance or relevance (Modigliani & Miller, 1963). A significant obstacle this study faces is the asymmetry of information between backers and small and medium enterprises (Meckling, 1977). However, there are interconnections among these three theories, which indicate that a single theory alone is insufficient to address the research objectives of this study. As a result, a multi-theory approach has been employed in this research.

### 2.4.1 Pecking Order Theory

The pecking order theory was first conceptualised by Donaldson (1961). It was later advanced by Myers and Majluf (1984), who argued that the financial cost associated with access to finance is influenced by information asymmetry. This information asymmetry involves a lack of communication between managers (insiders) and shareholders (outsiders), which raises costs. The theory determines the preference or appropriate funding choice between debt, equity, and internal sources of finance. It postulates that debt and equity financing are used as a last resort when internal financing in retained earnings is exhausted. The theory supports firm managers by providing guidelines for alternative finance options (Muigai, 2017). However, the pecking order theory has not been able to determine the optimal capital structure of companies.

Due to market timing theory, enterprises attempt to schedule their equity issues in line with favourable market conditions (Marsh,1982). This theory states that companies issue equity when they believe the value of their stock is excessively high, allowing them to raise cash at a premium (Lintner, 1962). On the other hand, they do not issue shares when they think their stock is cheap to prevent reducing shareholder value. According to market timing theory, businesses actively track market circumstances and adjust their financing choices to achieve the highest shareholder wealth by taking advantage of market fluctuations (Huang & Ritter, 2005).

Pecking order theory and crowdfunding are related since internal financing and debt are preferred over equity (Walthoff-Borm,  Schwienbacher & Vanacker, 2018). In line with the pecking order theory, crowdfunding platforms may assist entrepreneurs obtain outside capital while preserving their financial flexibility and decreasing information asymmetry (Miglo, 2022). In particular, reward-based crowdfunding appeals to businesses that value holding on equity control since it allows them to raise money without surrendering ownership or control. Furthermore, debt-based crowdfunding offers an alternative to traditional debt financing channels, enabling businesses to obtain capital without depending on conventional financial establishments or disclosing unfavourable information to the market (Biancone, Secinaro & Kamal, 2019). Consequently, because crowdfunding offers businesses substitute financing options that maintain market share, it is consistent with the pecking order theory's principles.

SMEs and entrepreneurs commonly experience lower profitability growth, making it difficult for them to attract debt financing from financial institutions like banks. However, the pecking order theory has been challenged by authors such as Estrin, Gozman and Khavul (2018) and Ahlers *et al.* (2015), who argued that backers supporting a project had limited access to information about the firm’s growth or SMEs which possess more risk The pecking order theory, first advanced by Myers and Majluf in 1984, postulates that enterprises rank their financing sources based on a hierarchy of preferences, with internal funds ranked highest, followed by debt, and equity. Due to its perceived increased cost and risk compared to traditional sources, this concept suggests that businesses only consider crowdsourcing as a financing option after exhausting internal funds and loan choices. Consequently, crowdfunding may be viewed as a last-resort source of funding, which would be consistent with the pecking order theory's focus on businesses' reluctance to issue shares unless required. Crowdfunding has emerged as a solution to this funding gap, overcoming limited access to traditional financing to traditional financing (Jiang, Han, Xu & Liu 2020).

The pecking order theory recommends that entrepreneurs and SME owners take the path of least resistance when raising finance. SMEs and entrepreneurs prefer to retain profits to fund growth because it avoids adverse selection problems. Debt financing is only pursued when retained earnings are depleted, making equity financing the last resort option. The limited access to finance facing SMEs is influenced by the limited transparency information available to finance seekers and providers or investors (Aabi, 2014).

External financing from traditional sources is costly for SMEs despite their critical role in the economy and GDP contribution (Kozarevic, Peressin, & Valentinuz, 2015; Obaji & Olugu, 2014). The implication of the pecking order theory is primarily about the information asymmetry faced by backers or supporters, as they cannot conduct background checks on crowdfunding projects (Kuma & Yosuf, 2020). Consequently, there is an increased risk associated with crowdfunding platforms due to limited regulations and obligations. The pecking order theory is based on three fundamental sources of funding for SMEs and entrepreneurs: internal sources, debt and equity (Walthoff-Borm, Schwienbacher, & Vanacker 2018). This perspective is supported by Moedl (2019), who argues that crowdfunding is often seen as a last resort after exhausting internal options. Research on the pecking order theory has highlighted the problems of inadequate internal sources of finance, particularly in terms of debt and equity financing, leading to a reliance on crowdfunding (Cosh, Cumming, & Hughes 2009; Bellavitis *et al.,* 2017). Specifically, this financing gap is influenced by stringent conditions imposed by traditional finance institutions on SMEs and entrepreneurs.

### 2.4.2 Trade-off Theory

The trade-off theory was derived from Modigliani and Miller's (1963) capital structure relevance theory, which expanded the formulation of capital structure. The theory assumes that the optimal structure is achieved by balancing the benefits of debt and equity. The benefits of debt in the form of debt interest tax shield with high leverage costs, which are bankruptcy and financial distress costs (Kim, 1978). The trade-off theory reveals the cost implications of debt financing for the firm, such as bankruptcy and agency costs against the tax benefits. The traditional or static trade-off theory was developed from the works of Modigliani and Miller (1963), initially by Solomon (1963) and then Hirshleifer (1966) and Kraus and Litzenberger (1973).

The trade-off theory hypothesises that firms have a target optimal debt-equity ratio where the firm’s value is maximised. This hypothesis implies that firms will always strive to maintain this optimal debt-equity ratio to keep the firm's value optimal. The optimal debt ratio occurs when the present value of the additional debt interest tax shields is offset by the additional prevent values of the financial distress, bankruptcy and agency costs. The high cost incurred by the firm through debt financing increases the probability of loss of value, ultimately leading to liquidation costs. Bankruptcy costs and distress costs represent the discontinuation of firm operational activities. Therefore, firms are expected to monitor the targeted debt ratio (Jalilvand & Harris, 1984).

The trade-off theory of capital structure establishes an association between risk and return by weighing the advantages of debt financing from a tax perspective against the disadvantages of debt, such as agency charges, insolvency, and financial trouble (Ai, Frank & Sanati, 2020. In this approach, businesses balance the potential risks and expenses of increased leverage against the tax benefits of debt, which arise from the tax deductibility of interest payments (Miller, 1977). Debt financing, on the one hand, provides tax shields that lower the company's tax burden and boost its cash flows after taxes, which can improve returns to shareholders (Zaman, Hassan, Akhter & Meraj 2018). However, companies that take on more debt also put themselves in greater financial danger (Flannery, 1994). This risk results from the responsibilities of having debt, such as the potential for bankruptcy or other financial difficulties if the company fails to pay off its debts (Triantis & Daniels, 1995).

Through crowdfunding, entrepreneurs may weigh potential loan financing costs against the tax advantages. One advantage of based on debt crowdfunding is that the interest payments are tax-deductible, which can improve returns for investors and project creators by acting as a tax shield (Cumming & Johan, 2019). However, if producers cannot fulfil their repayment responsibilities, taking on debt through crowdfunding sites also exposes them to the danger of financial crisis, default, and possible bankruptcy charges (Havrylchyk, 2018). Similarly to traditional businesses, entrepreneurs who use crowdfunding platforms attempt to balance the costs and advantages of different types of funding by optimising their capital structure (Dresner, 2014). They attempt to figure out the right proportion of equity and debt financing to reduce the total cost of capital while managing the risks related to leverage. This improvement process considers variables such as the project's anticipated cash flows, risk profile, and investor preferences (Borgonovo, Gatti & Peccati, 2010).

The Trade-off Theory posits that there is an optimal leverage capital structure where the benefits of interest tax shield from debt financing balance the cost of financial distress to avoid bankruptcy and liquidation (Myers, 2001:88). To take advantage of the tax benefits associated with debt financing, managers are expected to borrow more (Clemente-Almendros & Sogorb-Mira, 2018). On the contrary, firms without tax benefits or non-debt tax shields may not use excessive debt in their capital structure. The benefit of this theory is that it recognises the real-world trade-off between the tax benefits of debt and the costs of financial distress. Secondly, it explains why companies choose different capital structures based on risk profiles and industries. Lastly, it offers a framework to explain why companies might deviate from an all-equity or all-debt capital structure.

One limitation of this theory is that it assumes that firms have a target debt ratio and will adjust their capital structure to maintain it, which might not always be accurate. The trade-off theory asserts that firms must maximise tax benefits and reduce the risk of financial distress by favouring debt financing over equity (Brealey, Myers & Allen, 2018). This prediction is supported by Mostafa and Boregowda (2014), who found that firms with more assets can benefit from tax advantages through debt usage. Debt financing is important because it provides tax benefits and increases firm value while reducing agency costs (Ross, 1977). However, debt financing also has implications such as bankruptcy costs, financial distress and high costs, which can lead to underinvestment (Mostafa & Boregowda, 2014).

### 2.4.3 Signalling Theory

The signalling theory was first conceptualised by Ross (1977:23) who asserts that managers have access to information from within the firm or company, while shareholders are limited to outside information. This information asymmetry between managers and shareholders is due to information cost. The theory suggests that the availability of debt is a positive signal of future profit to firm managers. Debt signals that the firm will sustain it in terms of interest repayment, whereas equity signals less confidence about future earnings (Barclay & Smith, 2005). The use of debt signals that the firm will sustain it in terms of interest repayment, whereas the use of equity signals less confidence about future earnings.

Debt is a contractual obligation between the borrower and the funds providers known as banks, where the commitment is made in exchange for future interest payments. Therefore, failing to repay debt could lead to bankruptcy for firms due to their inability to honour their debt obligation. The signalling theory addresses imbalances in information access between the project creator and the fund seeker (entrepreneur) (Akerlof, 1970; Spence, 1973). The other party has superior access to information which they use to their advantage about the other party (Connelly *et al.,* 2011). Moreover, entrepreneurs who need to access funds mostly rely on signals to demonstrate their worth and convince investors and backers of the credibility and value of their crowdfunding project.

Asymmetric information concerns the uncertainties inherent in crowdfunding projects, as contributors or backers need to know how their contribution will be used for the project campaign (Petitjean, 2018). There are cost implications, as crowdfunding costs are more efficient than traditional finance. Therefore, the regulatory framework for crowdfunding remains limited and fragmented (Hayes, Dority & Borchers, 2020). The survival and strength of SMEs and entrepreneurs are often considered policy priorities in most countries worldwide. Accordingly, African governments may need to address crowdfunding regulation as an enabler of domestic innovation and entrepreneurship to develop this sector and enhance economic growth.

The signalling theory by Spence (1973) postulates that specific actions performed by one party, such as a company, may convey reliable information to another party, such as lenders or investors; signalling theory addresses the problem of information asymmetry. These behaviours reduce information asymmetry and confusion by serving as indicators of the company's current or possible future performance. To reduce information asymmetry and promote easier transactions in financial markets, a corporation might, for instance, express its confidence in its prospects and capacity to repay debts by selecting a specific funding choice. The signalling theory identified by Ross (1977) and Spence (1978) can overcome the problem created by asymmetric information where other parties or stakeholders are less informed about the business's potential growth. However, the strength of this theory lies in its ability to explain how information asymmetry can lead to adverse selection (the presence of low-quality options) in various contexts. The limitation includes relying on the assumption that the receiver can accurately interpret the signals, which may not hold if receivers have limited knowledge or are biased in their interpretation.

As Kromidha and Robson (2016) discovered, signalling in reward-based crowdfunding involves multiple parties. Both creators and backers can send signals regarding the business's potential for growth. Furthermore, the signalling theory is helpful for analysing factors affecting crowdfunding markets. Signalling theory effectively provides signals about the characteristics of crowdfunding that lead to successful funding, especially regarding accessing information freely (Wessels, 2016).

Crowdfunding platforms allow for fundraising from a group of online backers and address collective action issues, as crowdfunders do not have the resources or motivation to invest significant time and money in due diligence. Baker and Wurgler (2002) found that financing decisions influence the historical market value of an entrepreneur. However, Brounen de Jong and Koedijk (2006:1435) showed that access to private information does not affect capital structure. This research highlights the significance of signal theory in understanding how information is exchanged when there is asymmetric information. Considering insights of signal theory clarifies tactics people employ to overcome information asymmetry and make informed decisions. This approach also emphasises the value of reputation, trust-building and investing in signals that enhance trustworthiness. By combining signal theory with other models and ideas, this approach has the potential to provide a comprehensive understanding of how information dynamics impact various outcomes within the scope of this study.

### 2.4.4 Agency Cost Theory

This theory, commonly known as principal-agency theory, was developed by Jensen and Meckling (1976). This theory's primary importance is revealing hidden or private information concerning crowdfunding platforms. It mitigates the problem of information asymmetry by allowing entrepreneurs and SMEs to present their business ideas, which requires sharing information about potential strategies with investors (Ralcheva & Roosenboom, 2016). This theory focuses on the relationship between principals and agents, emphasising the potential conflict of interest due to the misalignment of incentives. Having more information, agents may pursue their interests at the expense of principals. Agency theory explores mechanisms to mitigate this conflict and align the interests of principals and agents, such as through incentive structures, monitoring, and contractual agreements.

The Agency theory suggests that in economic interactions, one party has more or better information than the other, creating an imbalance in the decision-making process. Agency theory is about the conflict of interest/no-alignment of interests between the principals and their agents. Agents tend to pursue their interests at the expense of the principals. Many SMEs and entrepreneurs seek access to finance and accurate information about their investment risk (Dahiya & Ray, 2012). The agency problem can be categorised into two main types: debt and equity financing, which entail conflicts of interest between shareholders and managers (Jensen & Meckling, 1976). A platform where two distinct groups, those seeking funds (such as entrepreneurs, creators, or project initiators) and those providing funding (such as investors or backers), interact with each other is referred to as a "two-sided market structure" in crowdfunding. In crowdfunding, the platform serves as an intermediary between these parties, facilitating transactions between project creators who require funds and individuals or businesses prepared to fund those campaigns. The platform facilitates communication, negotiation, and transactions between these two groups, establishing a marketplace where projects are funded by backers working collectively.

However, the crowdfunding market also has information asymmetry (Wessel, 2016). Firstly, there is a lack of publicly accessible information, making it difficult for funders/investors to evaluate a project's risk and chances of success. Secondly, many crowdfunding projects are in their infancy stages, making it challenging to analyse and predict their outcomes (Mollick, 2014). Lastly, the two-sided market structure of crowdfunding can make it challenging to resolve issues and achieve crowdfunding success (Wessels, 2016). Information asymmetries arise when different parties possess varying levels of information, some of which could lead to better decision-making (Connelly, Certo, Ireland & Reutzel, 2011).

The backers are members of the community who contribute money to assist needy organisations or SMEs seeking finance (Chod & Lyandres 2019). Crowdfunding platforms, which serve as intermediaries, connect the backers to entrepreneurs. To protect backers, rules and regulations must be used to control crowdfunding platforms, such as crowdlending and equity crowdfunding. The government expects SMEs and entrepreneurs to benefit from crowdfunding, enhancing economic growth and recovery through job creation (Kuma & Yosuff, 2020). Figure 2.2 demonstrates the interaction between the agent (backers), the principal (SMEs) and third parties (crowdfunding platform), presenting the relationship between backers, SMEs and the crowdfunding platform.

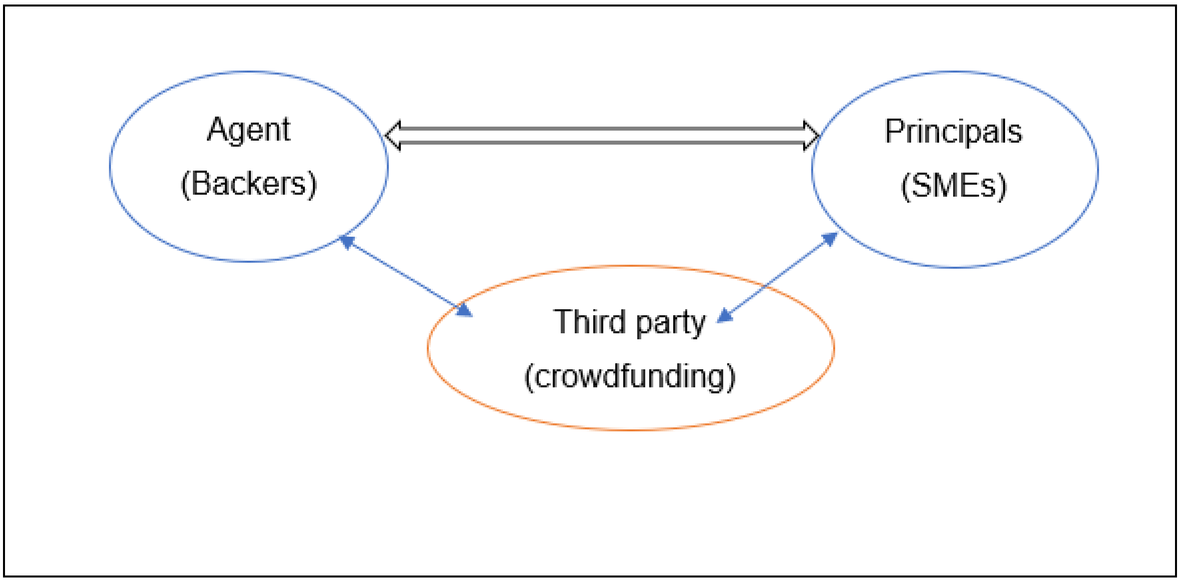


**FIGURE 2.2: AGENCY THEORY MODEL**
Source: Ross (2006)

The agent is a potential backer or supporter of the project, and the principal is the SME or entrepreneur, whereas the third parties include crowdfunding platform managers. A review of the literature on agency theory conducted by Pouryousefi and Frooman (2019) revealed differences between the agent and the principal regarding the operations of SMEs. This creates conflicts between the backers and the project creator due to the separation of ownership and management. The private information regarding the running of the business, investments, performance, and abilities of the agent can contribute to this conflict (Valančienė & Jegelevičiūtė, 2014). Managers often exploit this situation to their benefit, leading to agency costs (Cuervo-Cazurra, Mudambi, & Pedersen 2019; Jensen & Meckling 1976)

The implications of agency costs theory are that debt financing is more beneficial to firms than equity financing, as Myers (1977:149) proposed. However, Stulz (1990:4) has reported that debt financing has advantages and disadvantages that impact both firms and shareholders. The relationship between the backers (funding partners) and start-ups (project creators) in crowdfunding can be examined through the lens of principal-agent theory (Wessels, 2016). However, there are information asymmetries between entrepreneurs seeking funding and fund providers. The impact of debt financing on agency costs varies depending on the firm's stage of development. In mature firms, characterised by robust profitability and limited growth prospects, debt serves as a beneficial tool by mitigating overinvestment issues stemming from surplus free cash flows. Conversely, debt can amplify agency costs in young and expanding firms with lower profitability and significant growth opportunities by exacerbating underinvestment concerns resulting from constrained free cash flows (Chod & Lyandres, 2019).

Information reduces information asymmetry in crowdfunding, improving transparency and trust between backers and creators and enhancing investor confidence and participation (Moritz, Block & Lutz, 2015). Regarding crowdfunding, the backers or investors with information have an advantage over the party without because it can make better-informed investment decisions, estimate risk, and perhaps make more significant returns. Entrepreneurs and SMEs possess information about their potential value growth, while financial resource providers have limited access to this information. This limited access hinders customers and backers from evaluating the project capabilities of the crowdfunding platform (Stapylton-Smith, 2015).

It may lead to the financing hierarchy hypothesised by the pecking order theory. Information asymmetry explains the pecking order theory (Myers, 1984). This theory favours the use of internal financing rather than external financing. If external financing is necessary and requires equity, it is used as a last resort; otherwise, debt is preferred (Stapylton-Smith, 2015). The theory is relevant to this study and examines four types of crowdfunding models: equity, debt, reward-based and donation-based (Kuppuswamy & Bayus, 2014). Each crowdfunding model may differ regarding the returns backers expect from their contributions to a specific project. These returns can be financial, non-financial, materialistic, or idealistic (Ahlers *et al*., 2015).

The equity and debt-based crowdfunding models offer backers or investors financial returns in exchange for providing financial resources to the project campaign. In the donation crowdfunding model, backers or investors in the project campaign do not expect any return, unlike equity- and lending-based or debt models. Lastly, in the reward-based crowdfunding model, backers or investors receive an intangible reward in exchange for their investment (Belleflamme *et al.,* 2014). Especially compared to high-growth enterprises, companies with inadequate growth prospects and value typically acquire discounted shares, which might worsen the adverse selection problem (Akerlof, 1970). This theory makes undervalued businesses less attractive to equity investors (Myers & Majluf, 1984). However, when entrepreneurs or SMEs consider debt financing, they must consider both interest rates and bankruptcy penalties when the debt is not recoverable (Stapylton-Smith, 2015).

The crowdfunding structure exposed backers to limited access to information about the project or business, resulting in information asymmetry. This means that project creators have more information about the quality of the project than the backers (Belleflamme *et al.,* 2014). Miglo (2018) supports this observation, stating that project owners only share limited knowledge with backers. For a project to succeed, both the project creator and the backers must have an information benefit (Ahlers *et al.,* 2015). However, Nguyen (2017) argues that not all information entrepreneurs and SMEs provide about the quality of their projects is a successful signal that encourages backers/investors to contribute. Entrepreneurs understand that backers/investors will infer the hidden quality of their project from observable qualities, so those who fail to supply such information have low prospects.

Agrawal *et al.* (2014) suggest that investment from family and friends of SMEs and entrepreneurs is a strong signal that attracts outside investors to the potential growth of the project. This can help the backers or investors with limited information about the business/project decide whether to invest. Giudici *et al.* (2013) and Lehner (2014) support this proposition, as their findings suggest that SMEs and entrepreneurs need the involvement of family and friends to access finance through crowdfunding successfully. When family and friends contribute to a crowdfunding campaign, it attracts many backers, leading to a successful campaign. Figure 2.3 illustrates the relationship between three stakeholders and its elements as shown below:

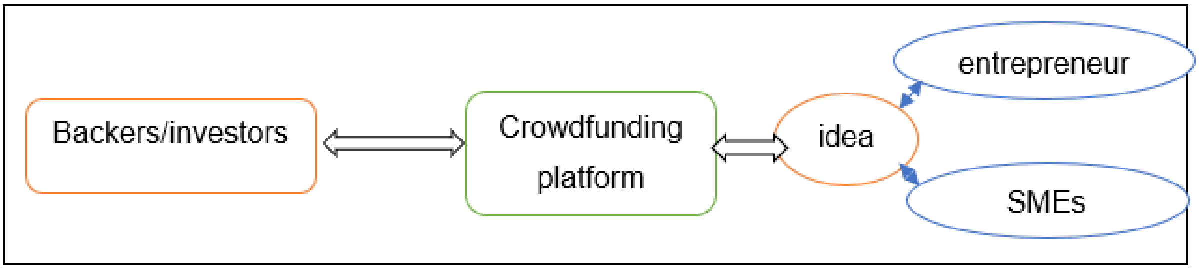


**FIGURE 2.3: THE RELATIONSHIP BETWEEN FOUR STAKEHOLDERS**
Source: Author's compilation

These crowdfunding stakeholders include Backers (investors), crowdfunding platforms and entrepreneurs' ideas and their elements. Social capital is a significant resource in crowdfunding because it can serve as a signal to overcome the hidden characteristics of SMEs and entrepreneurs. It helps to answer the research question: How does social networking influence crowdfunding success? Social networks are valuable for SMEs and entrepreneurs to access finance through crowdfunding (Kleppe & Nilsen, 2017; Batjargal & Liu, 2004). These social networks include strong ties, like family and close friends and weak ties, like acquaintances (Steffes & Burgee, 2009). In this study, social networking refers to interactions between people through online platforms such as Facebook, Twitter and Instagram. Crowdfunding, in particular, involves collecting money from many backers for a project, often through communication on social media platforms like Facebook, Twitter, Linked In and specialised blogs (Mamaro & Sibindi, 2023). Several have shown that strong ties with family and friends increase the likelihood of raising funds (Kleppe & Nilsen, 2017; Agrawal, Catalini, & Goldfarb, 2015). Facebook, Twitter and LinkedIn provide a signal of the likelihood of accessing finance for SMEs and entrepreneurs.

Crowdfunding is a social enterprise viewpoint that can add authenticity to a project, as the choice made by the crowd is democratic, and the crowd will subsequently select the most worthy, necessary, and reliable social ideas (Drury & Stott, 2011). The community of supporters considers projects before supporting them and encourages others to share information about the project on social media, thus spreading it among their social networks. The role that uses social media plays a vital role in accessing finance through crowdfunding campaigns (Mollick, 2013). Social media can also indicate an entrepreneur's social capital (Mollick, 2013). However, Mollick (2014) found a statistically significant positive relationship between the number of Facebook friends of entrepreneurs and SMEs and the likelihood of reaching the target amount through crowdfunding.

Comprehending information asymmetry is essential for understanding decision-making procedures, risk management, and market effectiveness, as our research has shown. This idea emphasises the importance of dealing with differences in information to ensure ethical and practical transactions. A combination of ideas from information asymmetry theory with other models and concepts provides a deeper understanding of how market participants navigate circumstances when information is disseminated. This information influences strategies that improve transparency, reduce adverse selection, and limit moral hazard, making it crucial for research in finance and economics. By considering this theory's advantages and disadvantages, we can better understand the role of information asymmetry in influencing outcomes. This, in turn, allows us to draw more precise and helpful conclusions in our study.

## 2.5 SYNTHESIS OF THE REVIEWED CAPITAL STRUCTURE THEORIES

Financial intermediation theory is a concept that explains the role of financial intermediaries in the economy. Financial intermediaries function between lenders and borrowers (Rampini & Viswanathan, 2019). The bank market structure theory discussed in this chapter highlights the role of financial intermediaries in shaping the crowdfunding environment (Mateev, Sahyouni, & Tariq, 2023). It is believed that bank competition mainly affects stability in three ways: franchise value, borrowing cost, and operating behaviour. However, the impact of these three ways varies in different periods and environments (Yuan, Gu, Yuan, Lu & Ni, 2022). It has been discovered that the availability of accessible and reliable banking infrastructure in Africa can significantly impact the success of crowdfunding campaigns.

The discussions surrounding capital structure theory have emphasised the composition of funding sources for SMEs and entrepreneurs. In the African context, there are often unique challenges when accessing a diverse range of funding options, which has resulted in a heavy reliance on crowdfunding platforms. One particular aspect explored is agency theory, as proposed by Spence in 1974 and Ross (1977). This theory focuses on the principal-agent relationship between project creators and backers. The chapter revealed a significant presence of information asymmetry within the African crowdfunding landscape, which directly impacts the ability of backers to evaluate the viability of projects effectively. This is done to reduce information asymmetry, facilitate the decision-making process for potential investors, and attract a larger pool of investors (Spence, 1974; Johnson & Lee, 2013).

Signalling theory's significance in crowdfunding campaigns was addressed, emphasising the role of signals in conveying project quality and trustworthiness to potential backers (Xu & Cai 2021; Courtney, Dutta & Li, 2017). The framework of risk and reward assessments was used to analyse the trade-off theory. The findings showed that African business owners face particular risk-return trade-offs that are different from those seen in more developed economies (Liu, Su, Wang, & Yu, 2021).

In conclusion, this chapter synthesized a range of theoretical perspectives to shed light on the complexities of crowdfunding success for SMEs and entrepreneurs in Africa. The discussions highlighted the importance of contextual factors, such as limited banking infrastructure, unique capital structure challenges, information asymmetry, signalling difficulties, and distinct risk-return dynamics. Acknowledging the nuanced relationship between these factors is crucial for devising effective strategies to enhance crowdfunding outcomes.

**TABLE 2.1: SUMMARY OF THE ORIGINS AND EVIDENCE OF THE MAIN THEORIES**

| Theory | Origin of theory | Main constructs of the theory | Supporting Evidence | Contradiction Evidence |
|---|---|---|---|---|
| Financial intermediation theory | Diamond, (1984) | Addresses information asymmetry The main construct of financial intermediation theory is that financial intermediaries play a crucial role in channelling funds from savers to borrowers, thereby facilitating the efficient allocation of capital in the economy. | Benston & Smith, 1976, De Loof, Vassena, E., Janssens, De Taeye, Meurs, Van Roost, & Verguts, (2019). Haas, Blohm & Leimeister, (2019); Coinmbra, Kim& Rey (2022) | Chen (2020), Conning & Kevane (2004); Frost, Gambacorta, Huang, Shin & Zbinden (2019); Lu, Wu, Li & Nguyen (2022) |
| Capital structure irrelevance theory and the capital; structure relevant theory are two different theories though both were proposed by MM. | Modigliani and Miller (1958, 1963) | The main construct of capital structure theory is the understanding and optimisation of the mix between debt and equity financing that a | Copeland & Weston (1988) Hadlock and James (2002); Brusov & Filatova (2023); Bui, Nguyen, Pham (2023) | Tang and Jang (2007); Ebaid (2009); Olusola, chimezie & Chinedum (2022) |

| | | | | |
|---|---|---|---|---|
| | | company employs to maximise its value and minimize its cost of capital. | | |
| Agency theory (Information asymmetry) | Jensen & Meckling (1976) | The main construct of agency theory in crowdfunding is the principal-agent relationship, where funders (principals) delegate decision-making authority to project creators (agents) with the expectation that they will act in the best interest of the funders. | Miglo (2018) & Belleflamme et al., (2014); Schwienbacher & Larralde (2012), Cerpentier, Vanacker, Paeleman, & Bringmann (2022) | Wessel, (2016); Pouryousefi & Frooman (2019), Morck & Yeung (2010), Moore & Mirzaei (2016) |
| Pecking order theory | Myers & Majluf (1984) | The financial structure goes from internal funds to debt, to external equity. Financing hierarchy to minimise adverse selection costs. | Walthoff-Borm, Schwienbacher, & Vanacker (2018); Cosh, Cumming, & Hughes (2009); Bellavitis *et al.,* (2017); Estrin, Gozman, & Khavul, (2018); Jibram (2012) | Estrin, Gozman, & Khavul, (2018) & Ahlers *et al.,* (2015); Agyei, Sun, Abrokwah, Penny & Ofori-Boafo (2020); |

| | | | | |
|---|---|---|---|---|
| Signalling theory | Spence (1973); Ross (1977) & Spence (1978) | The main construct of signalling theory in crowdfunding is that Entrepreneurs use signals, such as social proof or expertise, to convey information and build trust with potential backers | Connelly et al., (2011) ; Spence, (1973) ; Ross, (1977); Canibano & Avgoustaki (2022); Guest, Sanders, Rodrigues & Oliveira (2020) | Nguyen (2017); Chick, Yarnal & Purrrington (2012), Bafera & Kleinert (2022) |
| Trade-off theory | Kraus and Litzenberger (1973: 121) | The main construct of trade-off theory is the idea that companies make financial decisions by balancing the benefits and costs associated with different choices. | Jalilvand & Harris, (1984); Rasiah (2011), Cerpentier et al (2022); Agyei et al (2020); Haddad & Lotfaliei (2019) | Stulz, (1990); DeAngelo and Masulis (1980); Ai, Frank & Senati (2020); Lotfaliei & Lundberg (2019) |
| Bank market structure theories | Demsetz (1973). | The main construct of bank market structure theory can be summarized as the relationship between the number, size, and behaviour of banks in a market | Han Zheng, Cui, Sun & Hu (2009a); Mateev, Usman Tariq & Sahyouni (2023); Lartey, James, Danso & Boateng (2023); Moccia & Pennacchio (2022). | Petersen & Rajan, (1995), Mateev & Tariq (2023); Yuan, Gu, Yuan, Lu & Ni (2022). |

| | | | | |
|---|---|---|---|---|
| | | and its impact on competition, efficiency, and market outcomes. | | |

The pecking order and signalling theories play an important role in explaining the funding decisions. They examine how the differences in interests between agent and principal, as suggested by the agency theory, impact business processes. Additionally, the pecking order theory favours self-funding for entrepreneurs over external financing. However, small firms often lack sufficient funds for internal funding. Consequently, crowdfunding has been developed as a means to address the limited access to finance (Mollick, 2014).

## 2.5 CHAPTER SUMMARY

The chapter presented a theoretical review to understand the determinants of crowdfunding success for SMEs and entrepreneurs in Africa. It aimed to provide insights into the factors that affect crowdfunding success in the African economy by assessing and integrating several theories related to bank market structure, capital structure, agency theory, signal theory, and trade-off theory. The key discussion on the bank market structure theory highlighted the role of financial intermediaries in influencing the crowdfunding landscape. It was shown that the success of crowdfunding projects can be significantly affected by Africa’s access to reliable and accessible financial infrastructure. However, there are limitations in situations where traditional banking services are lacking or inadequate, which can hinder the efficient transfer of funds between backers and entrepreneurs.

Capital structure theory emphasises that in Africa there is a distinct challenge in accessing traditional finance whether it can be debt or equity, resulting in a reliance on crowdfunding platforms. Information asymmetry can be particularly severe in the African crowdfunding environment, which affects backers' ability to evaluate the potential of projects. Signal theory also reveals that many crowdfunding projects in Africa lack trustworthiness and credibility, leading to a high failure rate. Lastly, the trade-off theory was discussed in the context of tax benefits and costs of high leverage. In conclusion, this chapter combined several theoretical approaches to explain the challenges of crowdfunding success for SMEs and entrepreneurs. Although the literature on crowdfunding research is vast and growing, it lacks developed theories of finance. This chapter reviewed various theories that underpin this study and discusses the gaps and potential of these theories in line with the research objectives.

The next chapter will provide an empirical review of literature, from developed, developing and African countries, discussing how they address the research question. The following chapter aims to confirm, enhance, and broaden the conclusions drawn from the theoretical debates presented here through empirical research.

# CHAPTER THREE:
# CROWDFUNDING MODELS AND EMPIRICAL LITERATURE REVIEW

## 3.1 INTRODUCTION

The previous chapter presented a review of theoretical literature, more specifically theories of financial intermediation, bank market structure, capital structure and their relation to an alternative source of finance. This chapter presents crowdfunding models and an empirical review of literature from developed, developing and African countries. Emergence or development of crowdfunding as an alternative source of finance for start-ups and SMEs. The chapter also reviews the literature to identify the determinants of crowdfunding success. The chapter is organised as follows: Section 3.2 describes the crowdfunding models. Section 3.3 presents an empirical literature review, and section 3.4 concludes with a chapter summary.

## 3.2 CROWDFUNDING MODELS

There are four different types of crowdfunding products, and these are reward-based, donation-based, debt-based and equity-based. The study's absence of profit-sharing/revenue-sharing, debt securities, and hybrid crowdfunding models in Africa might have been motivated by variables such as market maturity, legal restrictions, availability of data, and research design. The popularity and emergence of crowdfunding have been influenced by increased internet penetration around the globe (Kallio & Vuola, 2020). Crowdfunding is typically used to generate or grow a business, to access finance to realise a business idea. After the 2008 global financial crisis, debt and equity crowdfunding saw a rapid expansion. The post-COVID-19 pandemic has further increased the usage of donation-based crowdfunding worldwide, though may not be applicable to finance SMEs and entrepreneurs seeking profit, since it is mostly used for non-profit organisations. African migrants can sustain their entrepreneurial endeavours by utilizing crowdfunding to assist their loved ones and friends in their home countries. This is made possible by leveraging crowdfunding platforms, as stated by Arshad and Berndt (2020).

Crowdfunding in Africa empowers SMEs and entrepreneurs to secure capital for their ventures or innovative concepts. Despite its popularity and growing volume. it is important to consider the possible challenges that may impede the development of crowdfunding in the African continent. Most African governments have addressed crowdfunding regulation, though this is limited to each domestic nation (Chao *et al.,* 2020). The legal framework, financial technology infrastructure and business environment differ from those in developed continents such as America, Asia and Europe (Disse & Sommer, 2020). Challenges may arise from the weak legislation and regulations available to protect the rights of backers and SMEs seeking finance on a crowdfunding platform. Until 2016, the crowdfunding legal framework in the continent was limited (Afrikstart, 2016; Cambridge Centre for Alternative Finance & FSD Africa, 2017) and the African Crowdfunding Association (ACFA) was only launched in 2015. Despite, the growth in the volume of crowdfunding in the African continent, there was no legal framework applicable to crowdfunding until 2016 (Disse & Sommer, 2020).

### 3.2.1 Reward-based crowdfunding

The reward-based crowdfunding platform started in 2008 and 2009 with Indiegogo and Kickstarter respectively (Gallemore, Nielsen & Jespersen, 2019). In this form of crowdfunding, individuals or sponsors can provide monetary support to the crowdfunding campaign in return for non-financial rewards. The reward may be perks in the form of tangible rewards such as gadgets created for projects, or promotional items like shirts or cups. Additionally, "investors or backers may receive intangible rewards such as exclusive time with the project creator, which may influence the outcomes of the crowdfunding campaign" (Mollick, 2014: 18).

The reward-based crowdfunding model is divided into three categories, pre-orders, service, and recognition (Colombo *et al.*, 2015). Project creators offer pre-orders to investors or backers, allowing them to access the product before it is publicly available. They may also provide recognition in exchange for monetary value contributed to the crowdfunding platform, such as displaying and acknowledging their contributions. Lastly, the project creator may provide a service to the backers as a reward, such as training or non-financial rewards. The primary form of crowdfunding that offers rewards is cantered in China and encompasses various categories such as technology, film and television, agriculture, tourism, music, publishing, and games. In China, technology, agriculture, and music rank as the top three categories for reward-based crowdfunding, with numerous campaigns being launched in these areas.

The benefits of the crowdfunding model are as follows; 1. Access to Capital: Project creators and entrepreneurs may obtain capital without giving on debt and giving over equity, which keeps them in charge of their businesses. 2. Market Validation: Before devoting substantial resources to a venture, innovators can assess market demand and test their business concepts by offering items or services as rewards. 3. Community Building and Engagement: tangible advantages are provided to backers, that promote their participation and loyalty. 4. Creative Freedom: The capacity to create unique rewards and campaigns that are suited to their intended demographic provides entrepreneurs with the freedom to express themselves creatively and in novel ways.

However, reward-based crowdfunding also has drawbacks: 1. Fulfilment Challenges: Especially for advanced or large-scale campaigns, delivering awards can be hard and time-consuming. 2. Limited Funding Potential: In debt or equity crowdfunding, a campaign's success is frequently limited by the value of the incentives it offers. 3. Intense Competition: It may be difficult to stand out within a crowded market when there are so many projects competing for investors' attention. 4. Resource-intensive: The development, promotion, and fulfilment of a crowdfunding campaign need a substantial amount of time, energy, and resources.

Several empirical studies conducted on crowdfunding include Dakaputra, Sulung and Kot (2019) in 5 Asian countries; Troise, Battisti, Christofi, Jorien van Vulpen & Tarba (2022) studied in Italy; Borrero-Domínguez, Cord_on-Lagares, Hernandez-Garrido (2020) conducted in Spain. Its benefits include backers contributing without expecting interest or return, as well as reduced transaction and coordination costs. However, there are also disadvantages, such as a lengthy process to establish cooperation with foundations, early-stage involvement from friends and family, not being suitable for every start-up, the risk of losing control due to shared ownership and limited access to business contacts for crowdfunding backers.

### 3.2.2 Donation-based crowdfunding

Despite donation-based crowdfunding not immediately related to SMEs seeking to raise funds for their projects, it has been investigated since it provides a thorough review of all of the forms of crowdfunding that are accessible. This inclusion helps highlight the multitude of crowdfunding methods and their possible use in a range of situations. Donation-based crowdfunding originated in the United States in 1885 when the government was unable to raise money to build the Statue of Liberty (Gupta, 2018). Donation crowdfunding was the original harbinger of the phenomenon born in the late 1880s of the 19th century (Furnari, 2017:9). Donation-based crowdfunding represents the smallest volume in most regions worldwide (Zhao & Shneor, 2020).

The Middle East and Africa are recorded as having the highest (or second) volume; its popularity and usage are driven by the fact that it does not offer backers either monetary or non-monetary rewards in exchange for money contributed to the project campaign (Meer, 2014). Donation-based crowdfunding is an innovative channel used to provide financial support to non-profit organisations, mostly for charity (Zhao & Shneor, 2020). A donation-based crowdfunding model consists of three elements, fundraiser, online platform, and backers/ donors. The crowdfunding platform facilitates the process of raising funds through the Internet, which helps finance seekers access funds from fundraisers. The prohibitive cost associated with the transaction can be reduced using the internet and technology (Choy & Schlagwein, 2016).

The donation-based crowdfunding type has seen exponential growth in Africa, and it is supported by external backers outside Africa. It is therefore the most dominant crowdfunding type on the African continent, raising an estimated 63,11 million USD in 2016 (Chao, Serwaah, Baah-Peprah & Shneor, 2020). Its benefits include backers contributing without expecting interest or return, as well as reduced transaction and coordination costs. However, there are also disadvantages, such as a lengthy process to establish cooperation with foundations, early-stage involvement from friends and family, not being suitable for every start-up, the risk of losing control due to shared ownership and limited access to business contacts for crowdfunding backers.

Donation-based crowdfunding has the following advantages: 1. Charity Support: Without expecting a financial gain, people and groups can raise money for social projects, philanthropic causes, or specific requirements. 2. Accessible Funding: By enabling small contributions from everyone, donation-based crowdfunding promotes fundraising and makes it available to a broad spectrum of donors, regardless of their financial situation. 3. Community Engagement: Backers of an issue frequently experience a sense of fulfilment and relatives with it. 4. Flexible use of Funds: Recipients are free to decide how they use the money they have raised, which allows them to support ongoing projects, invest in particular projects, or take care of immediate requirements.

Donation-based crowdfunding, however, is not without its drawbacks: 1. Limited Funding Potential: Donation-based campaigns, as opposed to other crowdfunding models, do not provide monetary returns or tangible awards. 2. Competitive Environment: It can be difficult to stand out and draw donations in the face of the many causes and campaigns vying for donors' attention. 3. Reliance on Funders: Donation-based crowdfunding campaigns are vulnerable to changes in donor interest or economic situations because their success mostly depends on the generosity and willingness of individuals to donate. 4. Considered require: Funders may be more willing to contribute to causes that they believe will have a significant or immediate impact, making less well-known or particular projects less successful in obtaining funds. The number of empirical studies conducted on donation-based crowdfunding include Behl, Sampat and Raj (2023); Mora-Cruz and Palos-Sanchez (2023) studied in Latin America and lastly Böckel, Hörisch and Tenner (2020).

### 3.2.3 Debt/lending-based crowdfunding

The debt securities crowdfunding platform was introduced and established in the mid-2000s in the United States and was named Zopa afterwards. In 2005, it was established in the UK, and then in the United States in 2006 (Ziegler & Shneor, 2020). Lending-based crowdfunding focuses on providing loans to SMEs and entrepreneurs who are financially disadvantaged. In return for the loans, interest is charged on the initial amount that is granted. The investors and backers analyse the information provided on the crowdfunding platform about the project or SMEs before committing their money (de Oliveira, 2015). The lending-based model allows financial seekers

(SMEs and entrepreneurs) to access loans without the involvement of a financial institution and an option to get better conditions than those offered by traditional credit providers such as banks (Bouncken, Komorek & Kraus, 2015).

The crowdlending platform dominated the global market, accounting for 97 percent of the USD 300 billion crowdfunding industry in 2018. Despite its popularity and growth in China, it is likely to collapse due to underdeveloped regulations that protect both fundraisers and entrepreneurs (Ziegler & Shneor, 2020). Despite the collapse in China, it remains the largest crowdfunding market in the world, and it is estimated at USD 256 billion. The main challenge with crowdfunding platforms is the risk of fraudulent activity, where project owners and potential backers may encounter issues with financial seekers who apply for funds. Mollick (2014) points out that most problems arise in crowdlending where a clear legal obligation is not outlined to deliver the promised returns in exchange for the funds borrowed from the investors/backers. In contrast, the limitations include a risk of fraud on the platform, a lack of strict reporting and regulations, high expectations from project creators that can mislead investors, and a risk of intellectual property theft and entrepreneurs may avoid it due to investor attraction challenges.

Among the advantages of debt-based crowdfunding are the following: 1. Access to Capital: As an alternative to traditional bank loans or venture capital funding, entrepreneurs and businesses can obtain finance without giving up stock or ownership assets. 2. Diversification of Funding Sources: By using debt-based crowdfunding, businesses can increase the availability of money and reduce their reliance on traditional financial institutions by diversifying their sources of funding. 3. Lower Cost of Capital: Debt-based crowdfunding may provide lower interest rates and terms compared to traditional lending choices, thus lowering a company's total cost of capital. 4. Diverse Investor Base: Peer lenders, institutional investors, and individual investors are all drawn to debt-based crowdfunding platforms, allowing them access to a diverse pool of funds. 5. Flexibility: Borrowers can customize the loan terms and terms of repayment.

The following are some drawbacks of debt-based crowdfunding: 1. Debt Repayment Obligations: Borrowers are obligated to repay the borrowed funds, along with interest, according to the agreed-upon terms. 2. Interest Payments: Debt-based crowdfunding imposes interest payments on borrowers, raising the total cost of capital for enterprises. 3. Danger of Default: If borrowers fail to repay the funds that they have borrowed, they run the danger of default, which might result in losses for investors and damage the platform's reputation. 4. Limited Capital Access: Not every company is a good fit for debt-based crowdfunding, especially those in their early stages or with little cash flow. Short, kitchen and Ireland (2016) this study conducted in the United Kingdom; Lin and Viswanathan (2016) studied in the United States, Moritz and Block (2014) studied in the Netherlands.

### 3.2.4 Equity-based Crowdfunding

The first equity crowdfunding platform was established in France in 2008 and has rapidly gained momentum around the world to address SMEs' limited access to finance (Lukkarinen, 2019). Equity-based crowdfunding presents a chance for SMEs and entrepreneurs to secure equity funding and draw in online investments via crowdfunding platforms (Estrin *et al.,* 2018). The investors expect a stake or share in exchange for the risk invested in the crowdfunding campaign project (Mollick, 2014).

The Equity-Based Crowdfunding model is characterised by investments made by backers to SMEs and entrepreneurs in exchange for shares, bonds and ownership. Equity-based crowdfunding is the most popular type of crowdfunding that raises money for SMEs and entrepreneurs for start-ups due to its attractiveness (Adjakou, 2021). The investors contributing to equity-based crowdfunding are diverse in terms of educational background and professionalism (Lukkarinen *et al.,* 2017). Unsurprisingly, most domestic investors or backers of equity crowdfunding do not have professional affiliations since it involves any member of the public. This crowdfunding model requires more regulations and laws to be applied, as it involves the exchange of monetary value between entrepreneurs and investors.

The creation of online sales of equity for SMEs and entrepreneurs to function effectively is being supported by many backers or investors (Hornuf & Schwienbacher, 2014). It has attracted attention in the African continent where SMEs and entrepreneurs seeking finance can get assistance from equity-based crowdfunding as an alternative access to finance rather than traditional finance. It is unsurprising to note that crowdfunding provides access to finance for SMEs and entrepreneurial projects, appealing to large numbers of people to finance the project (Oruezabala & Peter, 2016). Therefore, equity-based crowdfunding has the potential to address difficulties concerning the banking system as the provider of access to finance. The disadvantages include the risks due to lack of strict reporting and accounting, high expectations from project creators that can mislead investors, limited regulation and disclosure obligations and high investor risks in terms of rights protection. In most countries, legal frameworks and legislation are limited concerning the rewards to be granted to the backers. Aside from the moral reward they would receive from their good deed, this crowdfunding model does not require reimbursement from the donors known as backers.

Equity-based crowdfunding emphasises that any investor expects a return in exchange for the money contributed to the campaign project without the cost of intermediaries imposed by traditional institutions such as banks. The equity crowdfunding model has three main risks concerning its growth and usage, namely fraud, failure, and illiquidity (Furnari, 2017). Overall, the concern for SMEs and entrepreneurs pertains to disclosure in response to this persistent issue concerning equity crowdfunding regulation involves a low cost for entrepreneurs.

## 3.3 TRENDS IN CROWDFUNDING

In the previous five years, crowdfunding has grown tremendously and evolved into a multibillion-dollar global enterprise (Cumming & Hornuf, 2018). According to Statista (2023) report, the United States and Canada lead alternative finance volume by country generating a total amount of USD 73.93 billion in 2020, followed by Europe with USD 22.6 billion, the Asian Pacific with USD 8,91 billion, Latin America with USD 5,27 billion, African with USD 1,21 billion, China USD 1.61 billion, and the Middle East with 0.59 billion. Based on this report, it is evident that crowdfunding in the African continent remains limited. The figure below 3.1 illustrates the current state of crowdfunding worldwide.

The shortage of digital payment systems and internet access in South Africa makes it more difficult for creators and entrepreneurs to reach the global crowdfunding market (Mamaro & Sibindi, 2022). Numerous Africans are discouraged from participating in crowdfunding campaigns due to their distrust of financial transactions conducted online and security concerns. A huge portion of people find it difficult to contribute financially to crowdfunding projects owing to overall financial disparities and inequality in many African countries (Wachira, 2021). The slower adoption of crowdfunding in Africa is a result of inadequate regulatory frameworks and legal protections for investors and project creators, which can make potential participants apprehensive of fraud or mismanagement (African Crowdfunding Association). Additionally, there is a lack of a robust entrepreneurial ecosystem, restricted access to entrepreneurial assistance and guidance, and a concentration on more immediate concerns.

The investment crowdfunding model showed 105.21 billion USD, compared to the non-investment model which reported 8.41 billion USD (Statista, 2023). Several factors such as regional regulations, investor preferences, and the type of projects, mean that investment crowdfunding may not be more common worldwide than non-investment crowdfunding. In countries with developed regulatory frameworks, investment crowdfunding models have grown increasingly popular, while non-investment models like rewards- and donation-based crowdfunding continue to be successful around the world because of their accessibility and the variety of projects they support (Zhao & Ryu, 2020). In the worldwide ecosystem of crowdfunding, both approaches coexist and serve different project types and backers. The below figure 3.2 illustrates the crowdfunding volume raised in the year 2020.

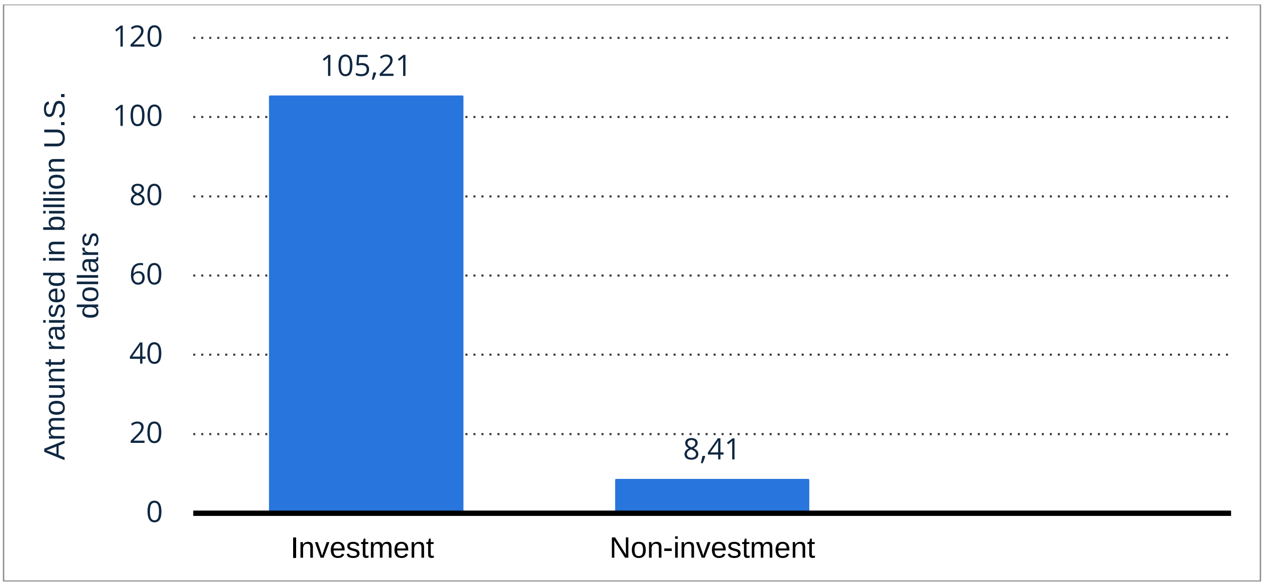


**FIGURE 3.1: VOLUME OF FUNDS RAISED THROUGH CROWDFUNDING WORLDWIDE IN 2020, BY MODEL CATEGORY (IN BILLION U.S. DOLLARS)**
Source: Statista (2020)

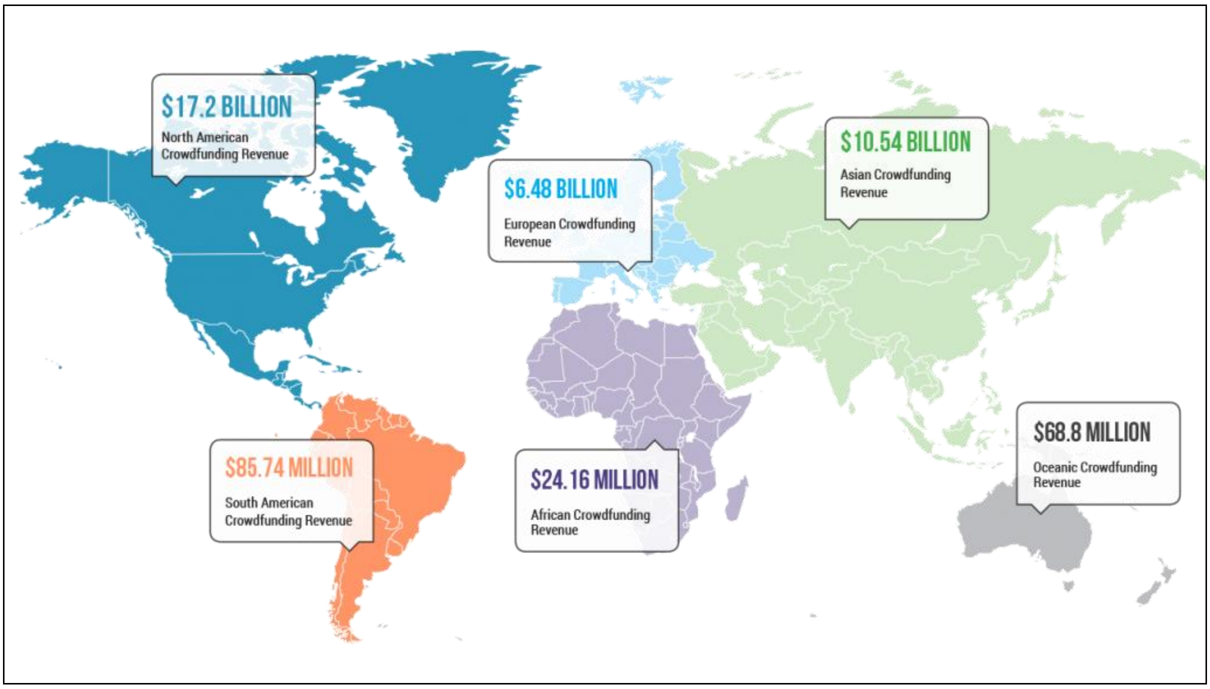


**FIGURE 3.2: ANNUAL CROWDFUNDING ACTIVITY PER REGION**
Source: Statista (2019) https://blog.fundly.com/crowdfunding-statistics/

The majority of the yearly revenue generated through crowdfunding in different regions was mainly focused on North America, amounting to approximately USD 17.2 billion. Asia followed closely with crowdfunding revenue reaching USD 10.54 billion, while Europe generated revenue of USD 6.84 billion. In 2020, crowdfunding experienced notable growth, particularly in Asia, surpassing Europe in terms of market size, with revenue reaching USD 10.54 billion. The dominance of North America in the crowdfunding amount raised is expected, considering its influential role in the origin and positive development of this industry. The US introduced the crowdfunding market in 1885 to support the Statue of Liberty project (Kallio & Vuola, 2020). The COVID-19 pandemic has further boosted the global popularity and demand for crowdfunding. As a result, crowdfunding can effectively address financial needs worldwide, particularly in Africa. Digital solutions like M-Changa and Back-a-buddy have been created by crowdfunding platforms to cater to this requirement.

In 2016, the African continent generated only USD 24.16 million in crowdfunding funds raised, the lowest compared to other regions. In contrast, Oceanic crowdfunding reached USD 68.8 million, and South American crowdfunding reached USD 85.74 million (Statista, 2019). Crowdfunding is regarded as an innovative channel that improves liquidity for SMEs and entrepreneurs yet is relatively rare in Africa (Chao, Serwaah, Baah-Peprah & Shneor, 2020). Government agencies in various African countries, including South Africa, Uganda, Rwanda, and Mozambique, must implement a range of regulatory initiatives to curb excessive regulation on the continent (Ziegler, Maniere & Grosjean, 2018). The reason is to achieve a balance between ensuring regulatory compliance and creating an environment that encourages sustainable economic growth and development by implementing a variety of regulatory initiatives.

The use of social media in crowdfunding increases visibility among potential supporters or backers. Entrepreneurs and SMEs in Africa may cost-effectively promote their crowdfunding campaigns through social media websites such as Facebook, Twitter, Instagram, and LinkedIn (Mamaro & Sibindi, 2023). This can potentially attract supporters from all over the world and reach more people. Effective communication is often the foundation of successful crowdfunding campaigns. Campaigners can convey their stories, highlight the outcomes of their work, and engage in real-time with supporters through social media (Castellanos & Wray, 2021). Furthermore, pictures, videos and posts on blogs are all examples of multimedia content that can be used to establish stronger emotional bonds with potential backers (Kaur & Gera, 2017). As social media is global in scope, African crowdfunding initiatives can reach a large pool of potential backers (Zribi, 2022). Through consistent and frequent updates online, activists can establish and maintain a large pool of backers who are enthusiastic about their services or products (Chen, 2021). Figure 3.4 below shows the social media usage in the African region.

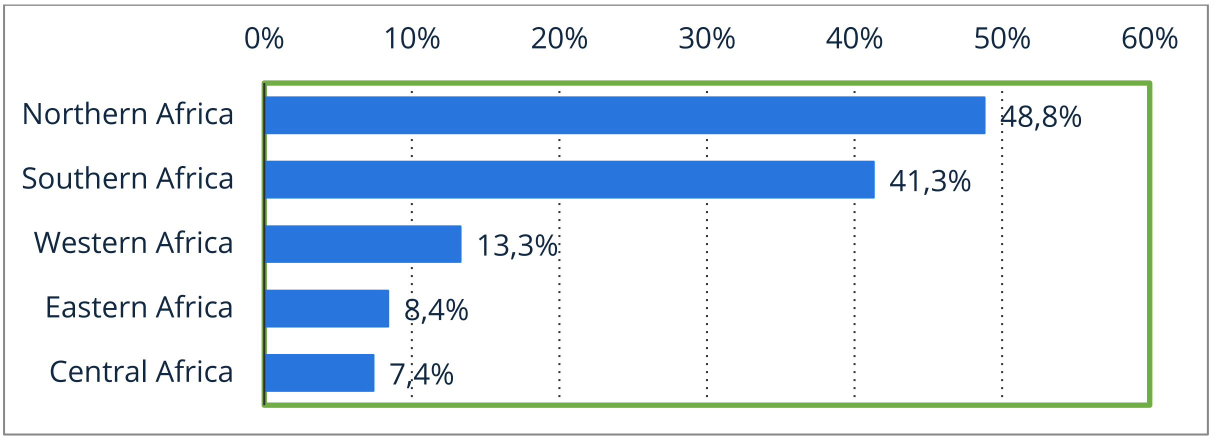


**FIGURE 3.3: SOCIAL MEDIA PENETRATION IN AFRICA IN 2023, BY REGION**
Source: Statista (2023)

Expectedly, the top project funded in 2015 social media was dominated by an international crowdfunding platform whereas funded projects from African-based crowdfunding platforms were limited to 55 percent. African-based crowdfunding platforms are mostly focused on raising funds for entrepreneurs and SMEs seeking capital for their startups. According to Statista report (2023), the share of profit raised by international crowdfunding platforms was approximately USD 44.4 million and USD 17.8 million for African crowdfunding platforms for SMEs and entrepreneurs (Disse & Sommer, 2021).

The Crowd Data Centre (2020a) shows that 135 crowdfunding projects in Nigeria raised an estimated USD 22765 in 2019, with only a 1 percent success rate. According to a study by NGuessan, Alegre, and Canela (2017), it has come to light that numerous crowdfunding initiatives in Africa derive advantages from crowdfunding platforms based outside the continent. This is primarily because African platforms are generally smaller and less established. International crowdfunding platforms have proven to be more effective in funding projects based in Africa compared to those that are locally based. The limitations faced by crowdfunding platforms in Africa are primarily attributed to inadequate access to the internet, social media, and online payment systems, which are still in the early stages of development (NGuessan et al., 2017).

The information presented here gives a broad perspective on the widespread use of crowdfunding platforms in different African nations, emphasising the diversity and extent of crowdfunding practices throughout the continent.

## 3.4 EMPIRICAL LITERATURE REVIEW

The empirical literature review provides evidence on crowdfunding research from developed, and developing countries and in the context of Africa. Information and communication technology (ICT) infrastructure is usually reliable in nations with advanced economies, providing broad fast internet access that facilitates online conversations and transactions. Crowdfunding platforms and campaigns are often made accessible by the advanced mobile networks and robust digital ecosystems found in developed nations, which increases trust among potential investors and entrepreneurs. The current literature review aims to provide an overview of what has been investigated concerning crowdfunding success; however, to date, not enough academic studies have been conducted to investigate the factors influencing crowdfunding success across the entire African continent (Tu, Anh, & Thu, 2018).

### 3.4.1 Empirical Evidence on Crowdfunding from Developed Countries

Introducing the literature review on the determinants of crowdfunding success in Africa from a developed country perspective requires understanding the contextual differences between developed and African countries, particularly in terms of ICT infrastructure, financial markets, and ICT adoption. Research on crowdfunding success in Africa should be conducted alongside studies in advanced countries to enhance analysis, provide beneficial comparisons, and influence policy and practice in African crowdfunding ecosystems. These differences can provide valuable insight into how crowdfunding functions and succeeds in diverse environments. The study reviews the literature on the investigation of the determinants of crowdfunding success in Africa, considering how cultural and behavioural factors influence crowdfunding dynamics. Consequently, one should expect to find a prominent level of empirical evidence on crowdfunding in developed countries.

Xu and Cai (2021) studied the determinants of crowdfunding success based on signalling theory, using secondary data from an education-focused online crowdfunding platform based in New York City, US. Therefore, New York City, USA, served as the unit of analysis, comprising 1,105,110 projects spanning from 2000 to 2014. Through logistic regression analysis, the findings revealed that the writing style of the petition and the fundraiser's fundraising background both had a significant impact on crowdfunding success, although their effects differed across several dimensions. In terms of the fundraiser's experience, successful events sent contributors a constant, positive message about the calibre of the cause, whereas cumulative experiences produced the opposite effect. The impact of the readability of the petition on the actions of the fundraiser varied depending on the different linguistic elements; however, the impact of the subjective expressions did not.

Shenor, Mrzygód, Adamska-Mieruszewska, and Fornalska-Skurczyska (2021) investigated how social trust impacts the design and success of reward crowdfunding campaigns in Poland and Finland, which were used as a unit of analysis. The study investigated the influence of social trust levels—both high and low—on the success of reward-based crowdfunding, with a sample of 700 crowdfunding campaigns from Poland and 700 from Finland. These two countries have relatively high and low levels of social trust respectively. The results showed that information sharing and accessibility on social media are favourably associated with campaign success in both scenarios. The social networks or social media in Finland and Poland were the only ones included in this discovery, so additional research should be done in developing markets. Additionally, other variables need to be considered and examined in this particular instance. This must be done to ensure the generalizability and reliability of findings beyond Finland and Poland. Furthermore, an in-depth investigation is rendered available by taking into variables outside of social networks, allowing researchers to investigate possible relationships and complexities that may influence findings.

Kubo, Verıssimo, Uryu, Mieno and MacMillan (2021) investigated the success and failures of crowdfunding, by employing a mixed-method approach. The study used a sample of 473 crowdfunding projects collected from the Readyfor platform in Tokyo, Japan as the unit of analysis. This investigation included both successful and unsuccessful crowdfunding projects, providing useful knowledge regarding the determinants of crowdfunding success. The logit and OLS results revealed that image, word count, announce count, competitor count and project model had a negative influence on the success of crowdfunding while charity, government, reward count, experience, Facebook share and tag count had a positive impact on crowdfunding success. However, the findings are limited to the Readyfor platform, so the overall results may not be generalised to other crowdfunding platforms. Despite the results offering valuable insight into the dynamics of crowdfunding within the Readyfor platform, consideration should be utilised when extending the findings to other crowdfunding platforms since the variables impacting success could differ significantly.

Fourkan (2021) investigated the impact of backers on crowdfunding success. The study sampled 303 582 campaign projects from the Kaggle dataset in Russia using it as a unit of analysis. The OLS and probit models results revealed that the amount pledged, and duration positively influence success whereas the age of the project year is negatively related to crowdfunding success. The probit results suggest that backers, amount pledged, and age of projects are positively related to success whereas duration is negatively related to crowdfunding success. The findings contribute to the limited research on successful and unsuccessful crowdfunding; however, more research needs to be conducted using different models. The multiple kinds of models in research improve the validity, generalisation, and robustness of findings; it also advances theory development and overcomes limitations associated with using a single methodological method.

Gafni, Maron, Robb and Sade (2021) studied gender dynamics in crowdfunding, specifically focusing on a reward-based crowdfunding platform and analysing qualitative data from Kickstarter in Israel. The population consisted of crowdfunding project creators from the Kickstarter crowdfunding platform was employed as a unit of analysis. The study found that women make up only 34.7 percent of the population and tend to prefer a limited financing target, in contrast to their male counterparts. Project campaigns owned by women showed a success rate of 82 percent compared to 76 percent of men entrepreneurs. However, the study was limited to quantitative and survey research designs, leaving room for further investigation of this phenomenon in a qualitative research study. When an improved understanding of the individual experiences, conditions, and processes associated with crowdfunding success is in search, qualitative research is taken into consideration. It supports quantitative approaches and provides insightful information for theory-building and practical use.

Borrero-Domínguez, Cordon-Lagares and Hernandez-Garrido (2020) analysed factors influencing the success of reward-based crowdfunding in Spain. They collected 335 hand-picked data from the Spanish Goteo platform. The results of a negative binomial and logit regression analysis revealed that location, experience, human capital and gender statistically increase the success of crowdfunding. Furthermore, the results showed that experience and social networks positively influence crowdfunding success. These findings provide useful knowledge to project creators in Spain on how to create successful project campaigns. However, the results may not apply to other nations. However, due to differences in cultural norms, market dynamics, and laws and regulations, the results may not be relevant to other countries. Therefore, developers of projects in other countries ought to exercise caution to consider contextual variables when applying these insights to their crowdfunding projects, even though the findings may assist with campaign planning across Spain.

Baber (2020) investigated the secret of successful crowdfunding campaigns in the United Arab Emirates. The 200-campaign project sample was taken from the leading crowdfunding platform, Kickstarter from 2019 to 2020. Therefore, the unit analysis included only 200 crowdfunding projects from Kickstarter. The findings of the study revealed that video presentation, ship facilities and the project creator have a positive influence on crowdfunding success. These findings inform the project creator of the factors to be considered to enhance the success of reward-based crowdfunding. However, there is a limitation to reward-based crowdfunding as only three variables were used. Thus, more research needs to be conducted to overcome the limitations of the current study.

Davies and Giovannetti (2021) employed secondary data from Kiva consisting of 985 crowdfunding projects in the United States. They found that the two projects have a connection when they obtain funding from the same sources as they both benefit from the funder's contact and endorsement. They determined the hidden network capital of a project by its importance within this latent network and found that, while it remains positive, the latent network capital elasticity of the number of funds raised is lower for female-led projects than for male-led ones, thus extending any gender gap that exists in the projects.

Yeh, Chen and Lee (2019) conducted a study on the factors affecting crowdfunding success in Taiwan and Japan. Crowdfunding is effectively used to finance needy entrepreneurs in the creative industry. The unit of analysis employed in the study consisted of 323 funding projects. The study found that signalling and kindness which included the founder's response, the frequency of updates, and the existence of an official website were important elements that impacted the financing success of the cognitive promotion element. However, in the attraction-promotion aspect, the fundraising success was not significantly impacted by the founder's prior exposure to the attention factor. This research contributes to the body of literature on conversations and participation in crowdfunding, and our empirical findings provide a clear message to the creators and backers of crowdfunding platforms.

Liu, Zhao, Song, Ba and Zhu (2022) studied the impact of endorsement on crowdfunding performance using a US-based crowdfunding platform. Secondary data collected consisted of 1,839 crowdfunding projects from Experiment, a leading US crowdfunding science-based project. Thus, the US and Experiment crowdfunding platforms were employed as the unit of analysis. The regression results revealed that stronger endorsement emotion induces better financing of campaigns. They distinguish between two types of endorsements in this line: high- and low-sentiment endorsements. Campaigns with a strong endorsement sentiment outperform those with a low endorsement sentiment in terms of money and involvement. Theoretical, practical, and future areas of study were subsequently addressed.

Jung, Lee and Hwang (2022) employed a sample of 7406 crowdfunding projects from Kickstarter from 2009 to 2019 in the United States of America. An ordinary least squares analysis was used to analyse data. The findings revealed that two-sided communication enhances investor engagement whereas information updates from entrepreneurs possess non-linear quadratic relationships with crowdfunding performance. They also demonstrated how the novelty level could influence strategic decision-making, showing the need for a focused aim in projects with a higher novelty level. By addressing the process of novelty-dependent behavioural strategies based on signalling theory, their research proposes a solution to the inconsistent results in prior studies on the direct impact of novelty level and target diversification.

Nyberg and Aberg (2017) conducted a quantitative study to examine the factors affecting crowdfunding success for social entrepreneurs, to address the funding challenges they face in the United States. Primary and secondary data were collected from 1350 businesses at StartSomeGood.com, and statistical analysis with SPSS software was employed using logistic regression to assess the impact of independent variables on crowdfunding success by salary- and contribution-based models. The findings showed that factors such as recent homepage image display and larger rewards contributed to the success of crowdfunding, while the location of the campaign reduced its chances of success. Additionally, the study revealed that factors such as financial goals, effective use of social media to communicate, and the influence of sponsors significantly influenced crowdfunding success.

Kronqvist (2017) analysed primary and secondary data from Kickstarter in 2017 in the United States. The sample data consisted of semi-structured interviews and a web-based crowdfunding platform. His findings showed that the pre-campaign team, community, presentation, awareness, and planning, comprised of product and reliability, all contributed to the success of the crowdfunding. However, the study’s approach, which relied entirely on qualitative data, and the reward-based gathering of data framework may be its shortcomings and implications.

Trindade, Miguel, Silva, and Santos (2017) conducted a quantitative study to examine factors affecting crowdfunding campaigns in music and sports teams. Secondary data was collected from Portuguese crowdfunding, analysing 171 campaigns from 2011 to 2016. The study used linear regression analysis to assess the success of the crowdfunding campaign. The results showed that although Facebook engagement had a positive effect on sports and music campaigns it did not significantly impact crowdfunding success. Additionally, multiple funding goals and detailed promotional pages hurt success rates. It is important to note that the findings of this study are specific to Portuguese crowdfunding programs and may not apply to African countries. Future research should examine the dynamics of crowdfunding in African contexts.

Toppari (2017) conducted a study based on equity-based crowdfunding in Finland. The study used secondary data from 49 companies that used equity-based crowdfunding from 2013 to 2015. The focus of the study was on the risks and opportunities of this financing option for SMEs and entrepreneurs who developed it. The study examined the perspectives of individual investors, to identify the determinants of levels and incidences of risk associated with crowdfunding. The results of the study showed that investors have a variety of reasons for engaging in equity crowdfunding, even if successful investments are unlikely to yield quick returns. The study further examined investor motivations, versus finance decisions influenced by a combination of social and economic incentives. Factors such as human capital indicators, financial stability and others influence crowdfunding success. Overall study provides valuable insights for investors and entrepreneurs interested in the equity crowdfunding market in Finland and sheds light on the growth, risks and opportunities of this investment method.

Studies conducted on the characteristics that lead to access to finance through crowdfunding are still fragmented, as there is no universal agreement on findings. Hence, the current study will fill this gap in the context of Africa where there is less adoption of crowdfunding owing to limited readiness of technology, different cultures, and regulations.

### 3.4.2 Empirical Evidence on Crowdfunding from Developing Countries.

The following empirical evidence from developing countries highlights the popularity of crowdfunding and its factors that increase success and failure. These factors guide entrepreneurs with ideas that can be effectively used in the crowdfunding platform and model in developing countries.

Li, Yang, Zhao, Lao and Cao (2022) explored the determinants of crowdfunding success for creative projects based on the signal theory. Secondary data consisting of 2877 projects in China, was employed in this quantitative research approach. The empirical findings demonstrated that in crowdfunding projects, cultural background and peer review valence had a favourable impact on crowdfunding success, whereas initiators' revealing of their true faces had a negative impact. Furthermore, the information entropy of peer reviews was found to adversely modify the impact of peer review valence on the success of crowdfunding. This study provides an original perspective to investigate the determinants of crowdfunding success and aid crowdfunding platforms by creating appropriate strategies that increase the probability of crowdfunding success.

Nguyen (2017) employed a sample consisting of 122 crowdfunding projects from Vietnamese crowdfunding platforms. The secondary data were sampled from 2014 to 2016 and analysed using OLS multiple regression. The results showed that the success flag, project quality, updates, spelling mistakes video, project website, founder’s information, product demo, and number of pledge levels were all positively related to crowdfunding success. In contrast, success had a negative relationship with the financial goal and minimum pledge. There was no connection between the success of a crowdfunding campaign, and its kind, platform, year, category, number of backers, or volume of real financing. In Vietnam, where the lending and donation-based models had not yet been investigated, the study was restricted to reward- and equity-based samples.

Salim, Kassim, and Thaker (2021) conducted a secondary qualitative study to explore the factors affecting crowdfunding success in Malaysia. They surveyed a sample of 260 youth entrepreneurs using a questionnaire to gather insights on these factors. The data were analysed using Partial Least Squares-based Structural Equation Modelling (PLS-SEM). The findings revealed that perceived usefulness, perceived ease of use, self-efficacy, Islamic platform, and financial accessibility had positive influences on youth entrepreneurs’ intention to accept Islamic crowdfunding, but this was not the case for social influence. Interestingly, perceived risk showed a positive influence on intention instead of a negative one.

Felip and Ferreir (2020) studied equity-based crowdfunding for start-ups in Brazil. Data was collected from the equity crowdfunding platform known as Kria from 2014 to 2017 which recorded 99 crowdfunding projects. Binary regression analysis and dummy variables were used, namely, financial goal, venture category advisor participation and duration. The study found that the targeted amount, the project category, advisor participation, and the duration of a campaign period positively influenced the probability of accessing finance through crowdfunding for a start-up phase. This study was limited to a single country and thus, the findings cannot be generalised to other continents. Additionally, the number of observations was limited to 99 which could create bias in the overall conclusion and recommendations.

Tariqul (2019) investigated the factors that influence the adoption of crowdfunding in Bangladesh. This study sought to determine the motivating and demotivating factors that impact the adoption of crowdfunding. The data was collected from 317 respondents using a questionnaire and was analysed using Partial least squares structural equation modelling (PLS-SEM). The findings indicated that performance expectancy, effort expectancy, social influence, facilitating conditions, and perceived trust significantly influenced entrepreneurs' behavioural intention to adopt crowdfunding. However, trialability had a significant positive relation with use behaviour or actual use, whereas no meaningful relationship was identified between behavioural intention and use behaviour. Finally, this study enumerated the demotivating factors that influence start-up entrepreneurs' ignorance towards the adoption of crowdfunding.

Tan’s (2018) study explored factors that determine crowdfunding success, focusing on the influence of backers and their networks on success performance. Secondary data was collected from Kickstarter in the United States the leading global crowdfunding platform. The findings revealed that a backers’ network increases their participation which in turn increases campaign success, increasing funding and decreasing the time taken to reach the funding goal. Additionally, the study collected data from Kickstarter to investigate the crowdfunding characteristics that impact design growth and contribution. It was found that an increase in the number of projects did not necessarily affect change in patrons and contributions. However, the results of the study are limited to a particular reward-based crowdfunding platform; thus, requiring further research, to be conducted on other platforms.

Tu, Anh and Thu (2018) investigated factors influencing the success of crowdfunding campaigns for start-up entrepreneurs in Vietnam, which were derived from the following main research questions: What are the success factors of crowdfunding platforms in Vietnam? Secondary data was collected from the top five Vietnam crowdfunding platforms (Betado.com, Comicola.com, Firststep. vn, Fundstart. vn, and Funding. vn) from 1 January 2015 to 31 March 2017. The quantitative data was then analysed using a linear regression model and the ordinary squared estimate. The findings showed that project information, risk information, pictures, videos, updates, comments, emails, Facebook, phone numbers, founder information, funding levels and backers have a positive influence on crowdfunding success while duration and goal have a negative influence on success.

Chan, Park, Patel and Gomulya (2018) investigated the factors influencing the crowdfunding success of reward-based crowdfunding. Their study sampled 98,336 crowdfunding projects from May 2009 to May 2014 accessed from the Kickstarter in Singapore reward-based platform. The results indicated that project and entrepreneur effects accounted for the highest relative variance, representing over 80 percent of the total variance across three crowdfunding success outcomes: pledge amount, number of backers, and funding success. Despite the newness of crowdfunding, the study provides factors that lead to success and guides entrepreneurs on how to access finance through crowdfunding. However, this study was limited to pledge amount, number of backers, and category as determinants of success outcome.

Oba, Atakan and Kirezli (2018) investigated the importance of crowdfunding projects on value creation in an emerging economy. They used value creation to determine what influences the success or failure of crowdfunding. The study sampled 354 crowdfunding projects from three reward-based platforms in Turkey. The results revealed that platform reputation, project quality and the entrepreneurial capacity of the owners all increased the likelihood of crowdfunding success. Therefore, the findings contribute to the literature in Turkey, though cannot be generalised to other nations due to the varying popularity and usage of crowdfunding.

Petrova’s (2018) study examined the determinants of crowdfunding success on the Boomstarter.ru platform in Russia. The objective of the study was to determine the factors influencing crowdfunding success. The results showed that founder-related, social-communication, and description and design groups, and that an average amount pledged by backers, strength altogether based on the Machine Learning algorithm Extreme Gradient Boosting Trees and social-communication influences the crowdfunding success. In conclusion, the study indicated the importance of an interdisciplinary approach in studying the purely financial problem of raising capital but was limited to the single crowdfunding platform in Russia.

The preceding empirical literature in developing countries has focused on the determinants of crowdfunding success performance. As the evidence provided suggests. It can be concluded that research on crowdfunding has focused on the factors that contribute to success. However, findings were limited to a single country, platform and reward and equity-based models. In addition, studies conducted in emerging countries have focused on the role of crowdfunding in entrepreneurial finance. Consequently, there is a need for comparable studies to be conducted in emerging economies, which this study aims to fill.

### 3.4.3 Empirical Evidence on Crowdfunding from African countries

The following empirical evidence from African countries highlights the popularity of crowdfunding and its associated factors that increase success and failure. These factors guide entrepreneurs with ideas that can be effectively used in the crowdfunding platform and model in developing countries.

Ismaila (2023) examines the current state of crowdfunding in the African continent, investigating the challenges and potential. Desk research from Africa suggests that important cultural factors may encourage offline crowdfunding's adoption among African business owners if taken into consideration. The continent lags behind other regions in the use of crowdfunding for raising money for small businesses or individuals, which could help with financial inclusion in Africa, either directly for individuals or through supporting small businesses. To this end, a regulatory structure that encourages technological innovation and reduces crime and fraud is essential. Moreover, creating platforms based on the continents and establishing partnerships with existing financial actors would increase knowledge, confidence, and interest in using crowdfunding.

Mamaro and Sibindi (2023) investigated the drivers of crowdfunding success in the African continent, using secondary data from 215 crowdfunding projects. Their findings revealed that targeted amount, comments and duration hurt crowdfunding success performance whereas presentation of videos, images, backers and updates had a positive association with crowdfunding success. Consequently, the findings of the study were limited to projects in the African continent. This study advances signal and agency theory on the drivers of crowdfunding success particularly during the Covid-19 pandemic.

Rene Guy and Cedric (2022) examined the role of social media and the internet in rescuing African entrepreneurs through crowdfunding. The study applied a desk research approach within the African continent and demonstrated that economic and sociocultural conditions indicate Africa has potential as an entry point for crowdfunding businesses. However, several challenges were identified as potential barriers to the competitiveness of the African crowdfunding market. The digital gap was identified as a major potential barrier to the growth of crowdfunding in Africa. Local authorities can act to further narrow the digital divide in their country.

Mamaro and Sibindi (2022) also examined the determinants of crowdfunding success in Africa. The secondary data consisted of 215 crowdfunding projects in Africa as a unit of analysis. The study's findings demonstrated that the variables of average pledge amount and number of backers were significantly and positively associated with crowdfunding success. This is in line with the signal theory, indicating that many backers and larger commitment amounts signify confidence in the idea. The results of the research also revealed a correlation between the success of a crowdfunding campaign and the volume of updates. Frequent updates signify transparency; providing backers with more information, which encourages them to invest more in the project. This is compatible with the information asymmetry theory.

Adjakou (2021) employed both primary and secondary data to review the state of crowdfunding in Africa. They conducted an in-depth review of live crowdfunding projects in Africa, considering adoption and usage. Findings show that from 2012 to 2020, only 22 percent and 33 percent of crowdfunding projects in West and North Africa respectively, are currently operating. However, East Africa and Southern Africa are doing well, with 70 percent of their crowdfunding still on stage. Furthermore, 55 percent of projects listed on the limited portfolio in West Africa rarely achieve more than 2 percent of their funding targets. The surveys also highlight the challenges that French-speaking countries face in developing and sustaining crowdfunding programmes.

Abdeldayem and Aldulaimi (2021) investigated entrepreneurial finance and crowdfunding in the Middle Eastern countries as a unit of analysis (Turkey, Egypt, Iraq, Saudi Arabia, Bahrain, Kuwait and UAE), to establish the influence of crowdfunding success projects in the region. Secondary data was used from the leading crowdfunding platforms (Kickstarter, GoFundMe, Beehive and Zoomal). The Sample comprised 1, 910 respondents from Middle Eastern countries. The results revealed that the availability of crowdfunding increases the probability of crowdfunding success in these countries. The authors concluded with recommendations for future entrepreneurial finance and crowdfunding research.

Wachira and Wachira (2021) studied the factors influencing the success of reward-based crowdfunding in Kenya. The study used secondary data collected from a leading crowdfunding platform (a reward-based crowdfunding model). The study found a positive statistical relationship between updates, amount pledged, backers, comments and new backers and a negative insignificant correlation between the targeted goal, funding period and successful projects. The study's findings can guide prospective entrepreneurs on both positive and negative ways to start a successful campaign. Finally, as the study concentrated solely on the reward-based model, it recommends more research be done on the variables that contribute to other crowdfunding models' success in Kenya.

Oonyu (2020) investigated crowdfunding as an alternative source of finance for entrepreneurs in the African continent. A descriptive study was adopted, and data was collected from selected African countries, which are struggling with poverty and pandemics. Secondary data was collected focusing on document and content analysis as the key research methods used to establish the status and prospects of scientific research crowdfunding in Africa and other developing countries. The study conducted revealed that crowdfunding contributes to breaking through barriers within the African continent and advances our theoretical understanding of crowdfunding across Africa and other developing regions. However, the study is limited to descriptive analysis, thus there is a need to explore quantitative analysis.

Chao, Serwaah, Baah-Peprah and Shneor (2020) examined the current state of crowdfunding in the African continent using a conceptual study. Their research showed poor internet usage, which was linked to restricted access to traditional banking. Furthermore, the business is still in its infancy as shown by the limited regulation, which was impacted by both diverse traditions and weak ICT infrastructure. It involves early adoption strategies that are transitional and hybrid, frequently dependent on donations from foreign backers and pro-social lending platforms. To ensure future development, stakeholders should work on creating appropriate legislation, technical updates, public awareness campaigns, eliminating user entry barriers, and introducing incentive programs.

Arvila, Winschiers-Theophilus, Keskinen, Laurikainen and Nieminen (2020) conducted a study on successful crowdfunding for entrepreneurs in marginalised communities. They found that many entrepreneurs faced difficulties accessing finance and had limited knowledge and skills to operate their businesses in Namibia. The study collected data in the form of an organised workshop week about crowdfunding campaign creation for small entrepreneurs living in two marginalised communities in Namibia and their readiness to make use of alternative access to finance (crowdfunding). The study revealed that there was low readiness to use crowdfunding owing to inadequate learning opportunities, infrastructural challenges, cultural factors and low internet usage. It is worth mentioning that many African nations face these difficulties of low education and underdeveloped infrastructure.

Karout (2017) conducted a study on crowdfunding in the East and North African Region for the period 2013-2016. Data was sampled from 1,300 crowdfunding projects from Zoomaal for both successful and failed projects with 6,700 backers. The results of the study suggest that location, duration, funding goal, backers and category are positively related to crowdfunding success performance in the Middle East and North African Regions. Hence, the findings shed light on this Region and to entrepreneurs about the success factors that increase the probability of success. However, this result is limited to the Middle East, North African Region and Zoomaal platform, Therefore, this result might not be generalisable to other regions of Africa.

Hiller (2017) conducted a study on the analysis of crowdfunding in sub-Saharan Africa concerning the difficulties of access to finance for entrepreneurs. The study revealed a lack of mobile phone payment and access to the Internet as well as an unprecedented increase in mobile payment usage in the African continent in recent years. The evolution of financing innovation such as crowdfunding has the potential to mitigate the funding gap for African entrepreneurs. The exploratory research used data collected from the Kickstarter crowdfunding platform in Africa from 2014 to 2015 which consisted of 352 crowdfunding campaigns. The main finding showed that African entrepreneurs can access funds from crowdfunding using leading platforms. Moreover, the evidence provided showed that internet usage and ICT infrastructure play a decisive role in crowdfunding in Africa. However, some factors that play a critical role in crowdfunding success were not considered for analysis.

Most studies conducted on the African continent have been limited to a single crowdfunding platform, Kickstarter. In addition to the evidence provided above, crowdfunding is still in its infancy and has not been widely researched in the African continent. The lower presence of crowdfunding platforms in Africa highlights the need for targeted interventions to address infrastructure, regulatory, and socio-economic barriers to foster the growth of the crowdfunding ecosystem on the continent Therefore, the current study has the potential to fill this literature gap by identifying variables that contribute to access to finance in Africa using the cross-country data in all 54 countries.

### 3.4.4 Synthesis of the Empirical Literature Reviewed.

The most important way to mitigate issues concerning information asymmetry is to analyse factors influencing crowdfunding success and how an entrepreneur's social network and networking activities influence capital access in crowdfunding and can overcome the information asymmetry. Social networks should be considered important to entrepreneurs who seek access to funds for new businesses (Zheng *et al.,* 2017). The social network consists of family and friends, colleagues and weak ties, as well as strong ties between the project creator and supporters or backers

(Rezak, Othman, Zulmi, Ismail & Sidiki, 2021). In contrast, Lagazio and Querci (2018) found a negative relationship between social networks and crowdfunding success. Therefore, there is no universal agreement on the impact of social networks on access to finance.

Research suggests that network involvement increases the funds raised (Razak et al., 2021). This finding of the literature concurs with research conducted by Thies, Wessel and Benlian (2018), which indicates that non-family members and friends are more likely to invest in crowdfunding projects. According to the literature, social network is therefore an important source of finance suggesting that entrepreneurs need the involvement of social networks to access their funding goals (Nilson, 2019). These factors indicate the importance of focused interventions to overcome infrastructure, legal, and socioeconomic challenges to promote the expansion of the crowdfunding ecosystem on the continent. These variables also contribute to the lower presence of crowdfunding platforms in Africa.

The research conducted by Belleflamme, Lambert and Schwienbacher (2014) suggests that crowdfunding platforms can ensure quality, reliability and crowdfunding success. Additionally, the trustworthiness of an intermediate crowdfunding platform has the potential to minimise the problems arising from information asymmetry (Belleflamme et al., 2014). These crowdfunding platforms provide online activities as intermediaries between entrepreneurs' ideas and the public with money and expertise (Massoluttion, 2015).

Facebook, Twitter, LinkedIn, Instagram, TikTok and blogs are social network tools that have the potential to improve the success of crowdfunding. Entrepreneurs who have limited networks have limited capabilities of success in crowdfunding (Mollick, 2014). Liu, Chen and Fan (2021) found that the use of language positively influences the likelihood of crowdfunding success and the number of backers in the crowdfunding campaign description. It is therefore important to consider language in the crowdfunding campaign description to influence the backers, similar to traditional funding which considers positive language due to industry experience (Lin, Lee & Chang, 2016). In the context of crowdfunding, language, as well as support from friends and family, enhance the entrepreneur's trustworthiness, while investors play a crucial role in ensuring its success. Crowdfunding success is determined by trust, information, network, and backers (Yao & Zhang, 2014). Gafni, Marom, Robb and Sade (2021) report that female entrepreneurs have greater success in crowdfunding than male entrepreneurs, however, their study is limited to the Kickstarter crowdfunding platform.

The study of LIndroos (2016) revealed that information asymmetry exists between entrepreneurs, SMEs and backers making it difficult for entrepreneurs to access targeted goal amounts. As a result, crowdfunding has been identified as an alternative institutional form of funding that could address the needs of medium enterprises that have limited access to traditional sources of financing (Calic & Masakowki, 2016). This suggests that there is a financing gap between entrepreneurs and traditional finance such as commercial banks; thus, crowdfunding has the potential to bridge this financing gap.

The target amount or goal setting is a key factor that can lead to the success or failure of crowdfunding. Zhou et al., (2018) found that the targeted amount requested is positively associated with the success of crowdfunding while Claus, Breienecker, Kraus, Brem and Richter (2018) and Hapsari and Sulung (2019) found a negative relationship between the target amount and crowdfunding success. Despite the disagreement in these studies, it is believed that setting a lower target amount of money requested by financially needy SMEs or entrepreneurs increases the chances of being overfunded. Commonly, it is the main goal of financially needy entrepreneurs and fundraisers to achieve their desired amount needed. As a result, it may be advisable for start-up projects or entrepreneurs to request a lower amount of money to increase the probability of attaining the target amount (Lindroos, 2016). Based on the contradicting findings of Felipe and Ferreira (2020) and Kunz et al., (2017), the invention idea plays a significant role in attracting investors regardless of whether the target amount is minimum or maximum.

The comments, video count, updates and image count were found to positively influence the probability of access to finance or crowdfunding success (Liang, Hu & Jiang, 2020). This finding is supported by Yeh, Chen and Lee (2019) on the reward-based factors influencing crowdfunding success. In contrast, Bilau and Pires (2018), Cappa, Pinelli, Maiolini and Leone (2021), and Koh, Lee, Kim and Yang (2020) found that images, comments and videos are negatively associated with access to finance. This is typically information used to overcome the information asymmetry between the project creator and the supporters known as backers. Consequently, comments, video counts, updates and images must be embedded on the project campaign page as they play a critical role in the success of the project campaign.

The description length, number of FAQ entries and flexible funding were found to be positively influenced by access to finance through crowdfunding (Kunz et al., 2017; Ligazio and Querci, 2018; Block et al., 2018). However, these findings are not in line with studies by Moy, Chan and Torgler (2018) and Martínez-Cháfer, Molina-Morales and Peiró-Palomino (2021) who found a negative relationship between description length and FAQs on the access to finance through crowdfunding. Consequently, flexible funding has a negative influence on success or access to finance through crowdfunding.

The duration, spelling errors, number of backers and experience were found to be negatively related to crowdfunding success (Bento, Gianfrate & Thoni, 2019; Liang, Hu & Jiang 2020; Zhou et al., 2018; Schraven 2022). The longer duration signals a lack of confidence concerning the targeted amount to be raised within a specific period (Kunz et al., 2017). Zhao (2018), however, found a positive influence of duration and access to finance showing that longer visibility to backers increases the probability of success. Wachira and Wachira (2021) and Davies (2020) have asserted that experience and the number of backers have a positive influence on the success of crowdfunding campaigns. Lindroos (2016) argued that the quality of the project is determined by spelling errors and that low image quality negatively influences crowdfunding success. Experience suggests that several backers are encouraged to commit to entrepreneurs by participating in activities such as inspecting, providing financial resources and providing feedback to other projects (Salomon, 2019). Davis, Braunholtz-Speight and Wardrop (2020) found no relationship between an entrepreneur’s experience and access to finance on a crowdfunding campaign.

**TABLE 3.1: EMPIRICAL EVIDENCE ON CROWDFUNDING**

| AUTHOR(S) | Focus of study and unit of analysis | Findings |
|---|---|---|
| Hou and Phillips (2022) | The qualitative study investigates the factors influencing crowdfunding success. The data were collected from the United Kingdom and China in the form of interviews. | The findings revealed that crowdfunding success is related to the following factors, as follow;<br>**Positive**<br>Reward offered, product, pictures, video and customer demographics<br>**Negative**<br>Text and social media such as WeChat, Instagram Facebook and time spent on the project site |
| Schraven (2022) | The study investigated the success of crowdfunding perception in the US, sampling 96 campaigns from Kickstarter for a period | The findings revealed that crowdfunding success is related to the following factors, as follow;<br>**Positive**<br>Location, image, education, rewards, title, Gender and creator<br>**Negative**<br>Experience, Age, Title, video and goal |

| | | |
|---|---|---|
| Zribi (2022) | Employed sample comprising 467 crowdfunding projects from Spanish platform throughout 2019-2022. | Findings revealed that;<br>**Positive**<br>Number of comments, followers, founder's dynamic, social media, updates and COVID-19 pandemic<br>**Negative**<br>Size |
| Islam and Khan (2021) | The study investigated the factors influencing crowdfunding in Bangladesh, empirical data sampled 317 respondents and was analysed. | The findings revealed that crowdfunding success is related to the following factors, as follow;<br>**Positive**<br>performance expectancy, effort expectancy, social influence, facilitating conditions and perceived trust.<br>**Negative**<br>behavioural intention and use behaviour |
| Martínez-Cháfer *et al.*, (2021) | The study determined the drivers influencing crowdfunding success in Spain, the study sampled 5,251 from the reward-based platforms in Spain (kami) | The findings revealed that crowdfunding success is related to the following factors, as follow;<br>**Positive**<br>Number of questions, updates, experience, backers and partnership<br>**Negative**<br>number of rewards |

| | | |
|---|---|---|
| Razak *et al.,* (2021) | The study determined the equity-based crowdfunding success in Malaysia. The data was collected in the form of 245 questionnaires and 72.5% of respondents used it. | The findings revealed that crowdfunding success is related to the following factors, as follow;<br>**Positive**<br>perceived usefulness, perceived informativeness, network externality, return on investment and platform quality. |
| Hong and Ryu (2019) | The study established crowdfunding in public projects, the study collected data from Wadiz in Korea consist 110 projects | The findings revealed that crowdfunding success is related to the following factors, as follow;<br>**Positive**<br>Transparency, government support, government involvement, amount of funding<br>**Negative**<br>Keep it all |
| Usman, Bhukari, You, Badulescu and Gavrilut (2019) | The influence signal of reward-based crowdfunding in China and the UK. Sampled 14887 from Dreamore (China) and Crowdfunder (UK) | The findings revealed that crowdfunding success is related to the following factors, as follow;<br>**Positive**<br>Social media, comments, pledged amount and experience as backers<br>**Negative** |

| | | |
|---|---|---|
| | | Targeted amount, backers, updates and experience as a creator |
| Dikaputra, Sulung and Kot (2019) | The analysis of factors influencing the success performance of crowdfunding. Data collected from ASEAN-5 (five big countries in The Association of Southeast Asian Nations) Kickstarter | The findings revealed that crowdfunding success is related to the following factors, as follow;<br>**Positive**<br>Text description, comments, reward categories, video, website, update, team member and project sector<br>**Negative**<br>Duration and target amount |
| Butticè and Noonan (2019) | The study was conducted to investigate the activeness of backers, product commercialisation and quality after the crowdfunding campaign. The quantitative data was collected from Kickstarter in the game industry or category from April 2009 to May 2019. | The findings revealed that crowdfunding success is related to the following factors, as follow;<br>**Positive**<br>Active crowd, staff, targeted goal, more information, minimum reward, big city, award, US and design category<br>**Negative**<br>Experience, visuals, duration, rewards count, maximum reward, education |

| | | |
|---|---|---|
| Wang, Li, Liang, Ye and Ge (2018) | The study analyses the importance of backers and project creators on crowdfunding success in China. The data collected from 959 Dreamore leading crowdfunding platforms in China | The findings revealed that crowdfunding success is related to the following factors, as follow;<br>**Positive**<br>comment quantity, comment score, reply length, and reply speed.<br>**Negative**<br>Experience as backer and duration |
| Petitjean (2018) | The study determine the crowdfunding success of reward based in France. The data collected from leading reward-based crowdfunding in France KissKissBankBank | The findings revealed that crowdfunding success is related to the following factors, as follow;<br>**Positive**<br>Past success rate, comments, video<br>**Negative**<br>Goal amount, geographical location<br>No evidence<br>Update, and share, pictures of Facebook friends and website |
| Guo, Guo, Wang, Wang and Wu (2018) | The study investigated the Distance Diffusion of Home Bias for Crowdfunding Campaigns between | The findings revealed that crowdfunding success is related to the following factors, as follow;<br>**Positive** |

| | | |
|---|---|---|
| | Categories and collected data from Kickstarter in Germany | Video, update, comments, goal, duration, number of followers, maximum pledge, average pledge and minimum pledge<br>**Negative**<br>Goal, number of pledges, and population density |
| Michelucci and Rota (2018) | The crowdfunding success of the non-profit organisation: key evidence from Italian online-based crowdfunding platform. The sampled data from the Italian web platform since 2013 | The findings revealed that crowdfunding success is related to the following factors, as follow;<br>**Positive**<br>geographic location, tutorial social capital, social scale and scope, experience<br>**Negative**<br>reward, target amount and quality |
| S kirnevskiy, Bendig and Brettel (2017) | The influence of social capital on the serial creator of crowdfunding success. Data collection consisted of crowdfunding projects and sampling in the form of survey sources Kickstarter crowdfunding platform from categories. | The findings revealed that crowdfunding success is related to the following factors, as follow;<br>**Positive**<br>social capital and internal to external network<br>**Negative** |

| | | |
|---|---|---|
| Parhankangas and Renko (2017) | Investigate the influence of linguistics on crowdfunding success on financing targets. Secondary data collected from Kickstarter consists of 656 for a period from the year 2013 to 2014 from software, technology, hardware, computer games, product design categories | The findings revealed that crowdfunding success is related to the following factors, as follow;<br>**Positive**<br>Funding goal, successful campaign, the share of women, the share of minorities, collective language, number of words,<br>**Negative**<br>Social media, positive emotion words, language describing innovation, psychological distancing, Language describing market orientation and Exclusion words. |
| Bi *et al.,* (2017) | Investigate the influence of online information on investing decisions in reward-based crowdfunding projects originated in China. The data collected from the reward-based platform which consists of 999 projects from zhongchou.com, from the following categories namely; entertainment, Science, Technology, Art, and Agriculture | The findings revealed that crowdfunding success is related to the following factors, as follow;<br>**Positive**<br>description texts and higher video counts<br>higher project quality, more “Like” counts<br>reviews imply better electronic word-of-mouth At the category level, the central route is more important for Agriculture and Science & Technology initiatives, while the peripheral route is |

| | | |
|---|---|---|
| | | more important for projects in Art and Entertainment.<br>**Negative**<br>Duration and targeted goal |

Most studies conducted on crowdfunding have been restricted to a single crowdfunding platform worldwide. Apart from the gap in the literature, several studies have been conducted in developed countries providing contradictory results compared to those in developing countries (Prasobpiboom et al., 2021; Schraven, 2022; Mochkabadi & Volkmann, 2020; Hou & Phillips, 2022), particularly in the African continent. The opposing findings might be influenced by a range of different regulations, cultures, norms, values and attitudes towards entrepreneurship seeking access to finance (Autio, Nambisan, Thomas & Wright, 2018).

Due to the nascent stage of the crowdfunding market in Africa, crowdfunding is characterised by a lower success rate and remains constrained (Wachira & Wachira, 2021). Along similar lines, empirical research on the role of crowdfunding in entrepreneurial finance has revealed few streams of literature. Comparable studies have been conducted in both developed and still developing emerging countries. These streams of literature studies have revealed that rewards offered, images, videos, customer demographics, social media, comments, duration, location, targeted goal amount and number of words all affect access to finance through crowdfunding (Hou & Phillips, 2022; Razak et al., 2021; Hong & Ryu, 2019; Usman et al., 2019). Access to finance through crowdfunding is also widely researched on both equity and reward-based crowdfunding platforms (Mochkabadi & Volkmann, 2020; Block, Hornuf & Moritz, 2018).

The COVID-19 pandemic has posed obstacles for Africans seeking crowdfunding, exacerbating pre-existing challenges (Mamaro & Sibindi, 2023). As financial concerns arising from restrictions took centre stage, crowdfunding, which had previously served as a feasible alternative to traditional financing avenues, encountered difficulties (Zribi, 2022). These obstacles primarily affected small and medium-sized enterprises (SMEs), which are prevalent in Africa and often rely on crowdfunding platforms for fundraising. The pandemic-induced economic downturn led to a more risk-averse financial landscape and a decline in investor trust, making it more difficult for entrepreneurs to secure funding for their projects.

Additionally, individuals facing widespread financial difficulties had limited disposable income, further constraining their ability to contribute to crowdfunding campaigns

(Kenworthy, Jung & Hops, 2023). The disparities in Africa's financial ecosystem have been exacerbated by the digital divide and limited internet access in certain regions (Mamaro & Sibindi 2022). As a result, entrepreneurs in these areas face difficulties in accessing online crowdfunding resources. The pandemic has further highlighted these vulnerabilities, impeding the potential of crowdfunding to stimulate economic growth and innovation in Africa.

Crowdfunding has become a popular alternative financing technique on a global scale, but there is limited research focusing on the specific factors driving its success. Most of the recent research has its origins in economics, leaving substantial gaps in our understanding of how cultural, economic, and institutional differences between African countries could influence the development of crowdfunding. Examining these issues in the context of Africa provides important insight into the potential and feasibility of using crowdfunding as a source of funding for small and local businesses (SMEs). Furthermore, the potential differences across African countries must be considered for policymakers to gain meaningful information.

## 3.1 CHAPTER SUMMARY

The chapter provides a comprehensive overview of empirical evidence from developed and developing economies as well as Africa on the determinants of crowdfunding success for SMEs. It began by discussing the leading crowdfunding models worldwide. This was followed by a discussion on the development and importance of crowdfunding as an alternative access to finance in developed and developing countries and Africa with special emphasis on the unique socio-economic context of Africa. The main findings of this chapter can be summarised as follows: The chapter identifies a significant research gap concerning crowdfunding in Africa. While crowdfunding has gained popularity worldwide, there is not much empirical research dedicated exclusively to African countries. Most of the literature currently in discussion is based on findings made in developed nations, and it suggests that investment crowdfunding models have higher participation percentages. However, these findings do not accurately represent the specifics of crowdfunding in Africa, where socioeconomic circumstances, cultural norms, and legal frameworks differ.

Many studies conducted in developed countries have focused on the investment model of crowdfunding and have investigated elements such as projects, comments, and fixed or flexible funding mechanisms. However, more comparative studies on the African continent are required. Further comparative research on crowdfunding in Africa is necessary to advance our understanding of crowdfunding as a global phenomenon, guide policy formulation, promote inclusivity, and gain an understanding of the unique dynamics of crowdfunding in emerging economies. There a diverse regional dynamics: an important factor is the geographic variation in crowdfunding performance across Africa. For example, only 22 percent and 33 percent of the crowdfunding platforms launched between 2012 and 2020 remain in operation, in the West and North African areas respectively, exhibiting lower rates of crowdfunding platform sustainability. Conversely, those crowdfunding ecosystems in East Africa and South Africa remain particularly resilient, with 70 percent and 55 percent of the platforms still active, respectively Wachira & Wachira (2021).

The findings show that a substantial proportion of crowdfunding platforms operating in Africa, approximately 64 percent as of May 2020, are foreign-based. This underscores the importance of exploring the impact of external actors on Africa's crowdfunding landscape. By considering the importance of context-specific studies that take into account the continent's diverse economic, cultural, and legal structures, this chapter provides the basis for further research on crowdfunding in Africa. It also highlights the potential role crowdfunding may play in fostering innovation, entrepreneurship, and economic growth on the African continent.

The discussion included crowdfunding models and empirical evidence from developed, developing and African countries to achieve access to finance. The pertinent issues concerning crowdfunding include a lack of regulatory framework especially in the African continent which is still in a nascent stage. The evolution of digital finance has disrupted the current traditional form of finance, used in the African continent. It is evident that crowdfunding platforms play a crucial role in financing SMEs and entrepreneurship other than traditional finance and provide alternative access to finance that alleviates and enhances financial inclusion globally, particularly in the African continent.

In conclusion, the literature addressed in this chapter remains fragmented. This chapter reviewed various empirical studies related to crowdfunding, identifying and discussing research gaps in line with the research question of the study. The next chapter presents the development of research hypotheses as a result of these gaps.

# CHAPTER FOUR
# HYPOTHESES DEVELOPMENT

## 4.1 INTRODUCTION

This chapter formulates the research hypotheses about the theories adopted drawing from the empirical literature review presented in the previous chapter. The relationships between theories and factors affecting crowdfunding and empirical evidence. The success of a crowdfunding campaign is influenced by several factors that include videos, images, updates, comments, FAQs, backers, experience, and rewards (Dikapura, Sulung & Kot, 2019); Borrero-Domfnguez, Cordon-Lagares and Hernandez-Garrido (2020); Regner and Crosetto (2020). The first section 4.2 discusses the determinants of crowdfunding success. This is followed by section 4.3 which focuses on concluding remarks.

## 4.2 DETERMINANTS OF CROWDFUNDING SUCCESS

Crowdfunding has become a crucial tool for entrepreneurs, artists, and innovators to bring their ideas to life by receiving financial backing from a group of people. This new funding method has drastically changed the usual ways of obtaining money, providing an equal platform where projects receive support based on their quality and popularity with the public instead of only depending on institutional supporters. Nevertheless, the process from idea to obtaining funding successfully comes with obstacles. A variety of elements, including project-specific factors and market dynamics, as well as campaign management strategies, can impact the probability of a crowdfunding campaign achieving success (Martínez-Cháfer *et al.,* 2021). Furthermore, the factors identified include spelling errors, fixed or flexible funding, duration and crowdfunding platform (Ho, Chiu, Mansumitrchai, Yuan, Zhao & Zou, 2021; Deng et al., 2022; ).

According to the signalling theory proposed by Ross (1977) and Spence (1973), the activities of entrepreneurship serve as a means of conveying valuable information to investors and backers, enabling them to make informed decisions. The theory suggests that effective communication and interpretation of information between the two parties (i.e., the crowd and project creator) is crucial. The signals project creators send, such as their abilities, determination, and project excellence, play a role in influencing backers' opinions and decisions to support a campaign, eventually deciding its success, according to signalling theory in crowdfunding (Connelly, Certo & Ireland, 2011).

Literature on crowdfunding has identified several factors that determine crowdfunding success. The factors include the presence of pictures, and videos, duration of a crowdfunding campaign, average pledge, updates, target amount, experience, spelling free errors, comments, social network, Frequently Asked Questions (FAQs), fixed funding, reward-based campaigns, and represent signals to crowdfunding success (Moradi & Badrinarayanan 2021; Zhang, Liu, Wang, Zhao & Zhang 2022; Block *et al*., 2018; Bi, Genga, & Liu 2019; Lagazio & Querci 2018; Kunzi *et al*., 2017; Yin, Liu & Mirkovski 2019; Moy, Chan & Torgle 2018; Liu, Chen & Fan 2021). These theories are being employed to further explore the relationship between these factors and crowdfunding success, particularly in the African context.

**i. Targeted amount**

The target amount represents the specific monetary goal that a project creator or entrepreneur aims to raise by the end of the campaign period, to ensure the success of their invention idea or project. A crowdfunding campaign is deemed successful when it surpasses or reaches 100 percent of the targeted amount from the crowdfunding platform (Bi *et al.,* 2019; Liang, Hu & Jiang 2020). Fourkan (2021) discovered a negative correlation between the target amount and the number of backers who contribute to the project, whereas Buttice and Noonan (2019) identified a positive correlation between the number of backers and the target amount. The conception's novelty holds paramount significance in luring investors who have faith in the entrepreneur's potential for success.

Liu et al., (2021) assert that higher targeted amounts may not be reachable since backers lose interest. Commonly, small amounts of money targeted result in an increased probability of the project being overfunded projects implying crowdfunding success (Wachira & Wachira, 2021). Many crowdfunding campaign projects become successful when lower amounts are being requested (Datta, Sahaym & Brooks, 2019). Technological innovation has made it possible for financially needy entrepreneurs to access funding cheaply rather than through traditional finance. The current literature shows that the targeted amount influences the success of crowdfunding but this depends on different crowdfunding models (Bilau & Pires, 2018).

Several prior studies support the higher targeted amount negatively affects crowdfunding success as pointed out by Mollick, Liu and Liu as well as Lagazio and Querci (2018) whose investigations reveal that higher funding targets negatively impact the success rate of crowdfunding projects (Xie, Liu, Chen, Zhang, Liu & Chaudhry, 2019; Lagazio & Querci 2018). This leads to the conclusion that there is a negative relationship between the target amount and the probability of crowdfunding success, thus leading to the following hypothesis

$H_1$*: The target amount of money to be raised decreases the likelihood of crowdfunding success.*

### ii. The availability of rewards to potential backers

The reward-based crowdfunding is a contribution made to the fund seeker in exchange for a reward (Wachira, 2021). This type of crowdfunding is a process of contributing lesser amounts of money to fund seekers in exchange for rewards and voting rights that support initiatives for a particular purpose (Yeh, Chen, & Lee, 2019). Popular reward-based crowdfunding platforms include IndieGoGo, Kickstarter and Fundraz. For the crowdfunding platform to be successful, it is important for it to be transparent to meet access to finance requirements.

According to the theory of self-determination, rewards are used as motivation for individuals to act towards something (Deci & Ryan 1985). Reward-based crowdfunding plays a critical role in motivating a large number of backers or supporters to contribute to a crowdfunding campaign (Alhammad, Tan, Alsarhani & Zolkepli, 2022). Furthermore, the prospective supporters of the crowdfunding campaign are motivated by the reward promised by the project owner or SMEs, which can be in the form of money or a product that benefits the supporters or backers of the SMEs. In contrast to the negative and significant influence on crowdfunding, Bukhari, Usman, Usman and Hussain (2020) found no significant positive association between the number of rewards (both non-monetary and monetary rewards) provided to backers and campaign success or access to finance by the SMEs and entrepreneurs. The project owner or SMEs must choose the reward categories to be offered to their backers or supporters of their crowdfunding campaign (dos Santos Felipe, Mendes-Da-Silva, Leal and Santos, 2022). Buttice and Noonan (2019), found that the more reward categories offered increase the probability of access to finance. SMEs need to develop a reward-based structure and the amount that is linked to the campaign’s product or services. The reward can either be tangible or intangible. Martínez-Cháfer, Molina-Morales and Peiró-Palomino (2021) found a negative relationship between rewards and access to finance.

The reward-based model generally encourages acceptance and attracts investors or supporters to take part in the contribution. However, the most difficult part of reward-based crowdfunding is the policies and regulations surrounding it (Yeh et al., 2019). The use of rewards can attract a high number of contributors to the project due to the reward in exchange for the contribution. The reward may be in the form of a product or a monetary value corresponding to the amount contributed to the project.

Yeh *et al*. (2019) perceived reward as the main source of motivation for the backers of the campaign. The findings of several researchers showed a positive association between reward-based crowdfunding and access to finance or success (Regner & Crosetto, 2021). Moreover, the value of the rewards offered to the proposed backers of the campaign is expected to have a positive influence on the backers or supporters. Therefore, the hypothesis is formulated as follows:

$H_2$: *The rewards promised to backers increase the likelihood of crowdfunding success.*

### iii. The number of backers

A large number of backers influence investors' confidence and access to finance through crowdfunding. Furthermore, a high number of early backers can influence and attract more backers, increasing the possibility of accessing more capital. Early participation of contributors to crowdfunding can increase its success as opposed to late participation. Block et al., (2018) found a positive association between several backers contributing earlier to a crowdfunding platform and access to finance.

The large number of supporters or contributors to the crowdfunding campaign has a more significant effect on access to finance through crowdfunding. The higher the number of backers supporting the crowdfunding campaign the higher the probability of success (Bukhari, *et al*., 2020). Tan and Reddy (2021) found that a greater number of backers has a positive association. The involvement of project creators with higher skills and knowledge influences the behaviour of backers to participate in a crowdfunding campaign. The research hypothesis is thus formulated as follows:

$H_3$*: The higher number of backers increases the likelihood of crowdfunding success.*

### iv. The project creator's entrepreneur's experience.

The project creators or entrepreneurs who have created more than two project campaigns previously are more likely to reach their fundraising goals (Kim, Hall & Kim, 2020). It makes sense that founders with more experience can earn credibility which is considered by backers and increases the probability of accessing finance or achieving success. Creating many project campaigns improves learning skills on how to create a successful project campaign in future. This is supported by Huang, Pickernell, Battisti and Nguyen (2022) who found that creating many projects has a positive and significant impact on crowdfunding success.

Entrepreneurs and SMEs with experience in crowdfunding have an increased probability of accessing finance (Huang *et al,* 2022 The expertise and experience of entrepreneurs greatly enhance funding success, increasing their likelihood of attaining their intended financing targets as opposed to individuals with restricted crowdfunding understanding and experience. This observation is supported by Cappa, Pinelli Maiolini and Leone (2021) who also found that most entrepreneurs and SMEs with a higher level of knowledge and experience increase the probability of accessing funds. The effectiveness of a crowdfunding campaign is influenced by the participation of the project creators and the fund seekers. The knowledge and skills of the project founder have a probability of success with crowdfunding.

Experience is measured by the number of campaigns created before and past success or failure in crowdfunding. The experience of previous projects influences potential funders in their decision-making on whether to contribute to the project campaign or not (Piening, Thies & Wessel, 2021). It is commonly known that new investors are attracted to companies that have had successful funding cases. Therefore, there is a positive relationship between experience and crowdfunding access to finance (Lim & Busenitz, 2020).

It is believed that entrepreneurs and SMEs with experience have a higher probability of accessing finance through crowdfunding (Piening et al., 2021). In contrast, Piening, Thies and Benlian (2020) investigated the entrepreneurs' responses to crowdfunding failure. Their study showed that entrepreneurs and SMEs with less or more experience did not influence the success of crowdfunding. However, Lim and Busenitz, (2020) indicate that for SMEs and entrepreneurs to access finance successfully from crowdfunding, their previous experience is important. In contrast, Tan and Reddy (2021) reveal a negative association between creators' (SMEs) experience and access to finance. Arguably, the measurement of an entrepreneur's experience differs. Allison *et al*., (2017) did not measure experience with the lagged variable such as the previous experience; hence, they found a negative relationship. The research hypothesis is thus formulated as follows:

$H_4$*: The experience of entrepreneurs (entrepreneurs who created crowdfunding campaigns more than two) increases the likelihood of crowdfunding success.*

### v. The presence of social media

The presence of social media such as Facebook, Instagram, LinkedIn and Twitter on a crowdfunding campaign can be used as an indicator of crowdfunding success (Singhal & Kapur, 2023). On the African continent, Facebook is the leading social media platform that can be used as an intermediary to mobilise backers. Linking social networks on the crowdfunding campaign page enhances the project's trustworthiness (Mamaro & Sibindi, 2023). This increases the probability of success rather than a project page without a social network (Greenstone & Nigam, 2020). The growth of crowdfunding is influenced by social networking and awareness in the community (Wahjono, Marina, Sezeli & Mahardika, 2019). It is important to strengthen the use of social media to popularise the usage of crowdfunding, especially in the context of the African continent. On the African continent, the usage and popularity of crowdfunding have been low due to limited infrastructure and social media usage.

Consequently, the social network of project creators (entrepreneurs) seeking access to finance increases the probability of success. This view has been advocated by scholars such as Lagazio and Querci, (2018), Clauss, Breitenecker and Kraus, (2018), Kraus, Roig-Tierno and Bouncken (2019), and Borst, Moser, and Ferguson, (2018) who assert that social networks are the drivers that provide information to both entrepreneurs and potential funders. Therefore, social networks increase the probability of accessing finance through crowdfunding. Opposing studies by Pati and Garut (2021) found that social networks decrease the probability of crowdfunding success performance. They argued that potential backers may be discouraged by the presence of social networks on the crowdfunding page. Social screening, trustworthiness, and cultural factors represent substantial sources of strength that increase crowdfunding success (Mamaro & Sibindi, 2022). Owing to the importance of social media in crowdfunding, crowdfunding platforms typically offer a social media integration feature that allows founders to pin their social media accounts and therefore, share their projects with a larger crowd (Hong, Hu & Burtch, 2018).

Network involvement refers to the dissemination of information that enlightens potential supporters about the project's requirement for financial backing. Additionally, social media platforms serve as a means to connect backers with the campaign creators (Park & Loo, 2022). Extensive literature demonstrates that social network involvement plays a pivotal role in enhancing the likelihood of achieving success in crowdfunding endeavours. The usage of social media platforms is considered a strategy that can attract a large number of supporters, friends and family. The involvement of social networks has the potential to influence access to finance for SMEs and entrepreneurs (Zribi, 2022). Therefore, the following hypothesis is posited:

$\mathrm{H}_5$: *Social media presence in a project is positively associated with crowdfunding success*.

### vi. Presence of video

It is regarded as a visual instrument that is used to catch backers' attention and provide information about the project's idea. It is also used to update and share information with the backers or supporters on the platform. Entrepreneurs and SMEs may choose the content of the video; however, it can be challenging to measure. Additionally, the length, information and quality of the video play an important role in attracting supporters to contribute to the crowdfunding platform. These variables can be critical when it comes to a campaign's access to finance since the video provides an entrepreneur's idea to the community, friends, family and backers.

It is believed that the crowd's attention is a crucial factor that enhances contribution, leading to access to crowdfunding finance (Ma & Palacios, 2021). Mamaro and Sibindi (2022) also found that the high-quality signal preparedness of the project has a high probability of access to finance. Lee, Coyle, and Chen, 2021 (2016) found that displaying a video on the project page increases the probability of access to finance including an additional update during a crowdfunding campaign. Therefore, the research hypothesis is stated as follows:

$H_6$: *The presence of a video on a project page has a positive influence on crowdfunding success*.

**vii. The duration of the project.**

The duration of a crowdfunding campaign entails the time taken to raise funds for a project. The longer the duration, the greater the probability of crowdfunding access to finance (Pati & Garut, 2021). A project with a longer duration has a higher probability of accessing capital. However, this is contradictory to the findings of Mamaro and Sibindi (2022) on the determinants of crowdfunding success during the COVID-19 pandemic in Africa. Their findings revealed a negative relationship between duration and crowdfunding success. The campaign duration is the period in which projects can receive financial support from backers (Tajvarpour, 2020). According to Nyberg and Aberg (2017), the longer duration leads to a decrease in crowdfunding access to finance. In contrast, Anglin et al., (2018) found a negative relationship between duration and crowdfunding access to finance. Gompers (2022) posits that the longer or shorter duration is determined by the size of capital needed to fund the project. A large project needs a large amount of money to be raised through crowdfunding which requires a longer duration than small projects. The standing point of the study is that higher duration provides an opportunity for fundraisers to raise capital for fund seekers.

The longer the duration of a crowdfunding campaign, the more likely it is to be successful. On the contrary, the longer duration of a crowdfunding campaign influences the backers to lose focus on contribution, resulting in a negative relationship between longer duration and access to finance (Kunz *et al*., 2017; Clauss, Breitenecker, Kraus, Brem & Richter, 2018). Similarly, dos Santos Felipe, Mendes-Da-Silva, Leal, and Santos, (2022) found that a longer duration of the campaign discourages potential backers from supporting it. However, Legazio and Querci (2018) reported contradicting findings, suggesting that most backers appreciate the longer duration of crowdfunding campaigns and that it can lead to success. Despite the contradictory findings presented, showed that longer duration projects signal lower credibility which leads to unsuccessful. The longer duration shows unpreparedness and trustworthiness to potential backers. The research hypothesis is formulated as follows:

$H_7$: *the duration of a project is negatively associated with crowdfunding success*

### viii. Project updates

An update in a crowdfunding campaign typically refers to new information, improvements, or innovations which the project creator communicates with backers and possible supporters. It serves as a means for the project founder to communicate with existing and prospective funders (Li, Yang, Zhao, Liao & Cao, 2022). The project updates are used as a communication strategy which pertains to information concerning crowdfunding campaigns (de Larrea, Altin, & Singh, 2019). Updates relating to the creator's journey challenges overcome, experiences acquired, and the project's inspiration can strengthen relationships with backers and generate responses of empathy and support. Therefore, the project update has a positive influence on crowdfunding success (Green, Sukumar, Jafari-Sadeghi, Pandya & Khavarinezhad, 2022). Most academic scholars such as Yeh Chen and Lee (2019) suggest that a high number of updates highly influence the success of crowdfunding. This is in line with a study conducted by Mamaro and Sibindi (2022) which found that frequent news updates are a significant influence on the success of the project.

The SMEs or project owners need to provide information that signals the backers about the prospective quality of the project on the platform (Bernardino & Santos, 2020; Kuppuswamy & Bayus 2017). Furthermore, the use of updates in the context of crowdfunding is being used as a signal of the quality project, thus, increasing awareness among prospective backers (Li, Yang, Zhao, Liao & Cao, 2022). This reduces the problem arising from information asymmetry and is positively associated with the decision of potential backers (Dikaputra, Sulung & Kot, 2019). Previous studies conducted by Liang, Hu, and Jiang (2020); Pinkow and Emmerich (2021) and also Liu, Ben, and Zhang (2023) found that updates in crowdfunding platforms have a positive effect on access to finance. Therefore, the research hypothesis is as follows:

$H_8$: *The higher number of updates has a positive influence on crowdfunding success.*

**ix. Number of comments**

The number of comments posted on the crowdfunding project campaign is indicative of its popularity and the number of supporters. More comments posted on the campaign page increase the probability of success (Liang et al., 2020). The active interaction between project creators and backers, as evidenced by the number of comments, is indicative of the effectiveness and participation of the crowdfunding project, thereby, increasing the probability of success (Li *et al.,* 2022). Consequently, the number of comments created must show that a promising communication strategy must be in place for the project to be successful. This finding is supported by Pinkow and Emmerich (2021) who indicate that projects with more positive comments have a higher probability of success in fundraising due to the reduction of information asymmetry between backers and investors.

The project comments during the crowdfunding campaign seem to attract more backers to contribute or invest in the project campaign (Jiang, Han, Xu & Liu, 2020). These project comments are mainly used to indicate the activity of the campaign to investors, and may help to overcome the problem of information asymmetry (Wang, Liang, Xue & Ge, 2021). Project comments can act as an indication to backers showing the existence of the crowdfunding campaign. Lagazio and Querci (2018) found a positive relationship between project comments and access to finance on a crowdfunding campaign. There may be information asymmetry between SMEs and entrepreneurs seeking access to finance from crowdfunding platforms. Project comments can reduce this information asymmetry by providing a signal to project owners about the crowdfunding platform.

The project owners may provide an update on the crowdfunding page by posting a comment. Such interaction informs the backers of the project with information (Pinkow & Emmerich, 2021). The generated comments on the crowdfunding platform represent the communication to the supporters of the campaign about the project and its objectives. It appears that a project page with more comments has a higher probability of overcoming the problem associated with an information asymmetry where the backers and project creators have equal access to information (Ho *et al.,* 2021). In the same vein, Usman *et al.,* (2020) concur that the more comments there are higher the probability of accessing finance through crowdfunding.

Comments may be used as a marketing tool to attract investors and backers of crowdfunding. Communication between the project creator and investors and backers can share information about the project campaign. Cornelius and Gokpinar (2020) found that comments can convince prospective backers to contribute to the crowdfunding campaign. The project's comments can influence access to finance from the crowdfunding platform. Based on this, the research hypothesis is, therefore as follows:

$H_9$: *The number of positive comments posted on the project campaign, or the project description is positively associated with crowdfunding success.*

**x. The presence of images or pictures**

At the start of the crowdfunding campaign platform, the creator should conceptualise a project picture and title. Project images or photos improve the communication between financial seekers (SMEs and entrepreneurs) and financial providers (crowdfunding platforms). The greater number of images on the crowdfunding campaign page increases the likelihood of access to finance through crowdfunding (Ho et al., 2021).

Displaying a picture on the crowdfunding campaign page helps backers to better understand the project campaign (Prasobpiboon, Ratanabanchuen, Chandrachai & Triukose, 2021). Providing only textual descriptions may not be sufficient to attract potential backers to a crowdfunding campaign (Zhou *et al.,* 2018). Furthermore, the presence of images on the crowdfunding project page persuades potential backers to continue browsing the home page to decide. The crowdfunding page with images has a high probability of success compared to the projects without images (Kuppuswamy

& Bayus, 2017). Over 80 per cent of successful project campaigns included images (Kuppuswamy & Bayus, 2017).

In the same vein, Wang *et al.,* (2018) concur that a higher number of images presented on the crowdfunding campaign project increases the probability of success. However, Kunz *et al.,* (2017) argue that the use of excessive images may interfere with readability. The potential investors are attracted by the presentation of visuals on the crowdfunding campaign projects (Mamaro & Sibindi, 2023). Their findings advise that the use of images may be important but should not be overused, as this can lead to unpleasant appeal. Therefore, the study proposes the following hypotheses:

$H_{10}$: *The presence of images or pictures on the crowdfunding campaign page increases the likelihood of success.*

**xi. The presence of spelling errors**

The project pitch, free from spelling errors is readable and can attract many backers to support the crowdfunding campaign. In addition, the project's pitch on the front page is associated with access to finance on crowdfunding (Mamaro & Sibindi 2023). Spelling mistakes indicate an insufficient level of preparedness, which decreases the probability of access to finance from crowdfunding (Dorfleitner, Hornuf & Weber, 2018; Ho et al., 2021). Supporters of the project campaign may not be interested in a project pitch with spelling errors. Zhang, Tao, Wang and Sörensen (2023) found that spelling errors on the project pitch negatively impact access to finance. Conversely, a spelling-free project pitch signals high quality and can facilitate access to finance on crowdfunding. However, Ho *et al.,* (2021) report that more spelling errors on the crowdfunding campaign page decreases the likelihood of success.

The presence of spelling errors on a crowdfunding campaign page signals lower quality, untrustworthiness, and unpreparedness (Courtney, Dutta, & Li, 2017; Zhou, Lu, Fan & Wang, 2018). Sulaiman and Lin (2018) found that higher spelling errors in donation-based crowdfunding decrease the probability of success. This result agrees with the findings of Chan, Moy, Schaffner and Torgler (2021) who assert that reward-based projects with high spelling errors decrease the probability of crowdfunding success by 13 percent. Spelling errors on a crowdfunding page signal lower preparedness and quality, discouraging potential backers. Thus, a spelling-free project campaign increases the chances of crowdfunding success. Therefore, the following research hypothesis is formulated:

$H_{11}$*: The presence of spelling errors on the crowdfunding campaign page decreases the project's prospects of success.*

### xii. The usage of crowdfunding platform

The empirical studies predominantly concentrate on the outlook of the funder and promoter in the realm of non-equity-based crowdfunding, as evidenced by research conducted by Miglo and Miglo (2019), Kuppuswamy and Bayus (2017), and Wang, Zheng, and Wu (2020). However, research on online platforms is still in its nascent stage, and issues such as the role of the online platform, its ethics and operating costs, the pressure to find new revenue-generating methods, the application processes for funder verification and the protection of funders have increasingly attracted the attention of researchers considering its popularity and growth.

The popular reward-based crowdfunding platforms are Kickstarter and Indiegogo platform, which have the potential to enhance access to finance compared to other reward-based crowdfunding platforms. The rationale behind their popularity as crowdfunding platforms is social networks, which improve effective communication between creators and backers (Tan & Reddy, 2021). As such, crowdfunding platforms are regarded as an alternative access to finance for entrepreneurs and SMEs, who are not eligible to access funds from traditional financial institutions (Wachira, 2021).

Through crowdfunding platforms, SMEs and entrepreneurs are assisted with capital finance to test their new innovative and creative ideas. The leading crowdfunding platforms, such as Kickstarter and Indiegogo, provide a practical communication feature between backers and creators through comments and updates (Wachira, 2021). Updates assist the project creator by informing the backers of the project's status. In contrast, backers use comments to ask questions, seek clarifications, express complaints, encourage creators, and allow creators to show appreciation.

Therefore, crowdfunding platforms have created the development of mobile applications that are easily accessible to backers and are deemed to attract backers to influence other backers on the platform as the crowd can identify these experts (Sung, Kim & Viswanathan, 2019). The website quality, content, and transaction conveniences improve the website's credibility and trustworthiness, increasing the backers' participation (Liu, Suh & Wagner, 2018). The loyalty of the crowdfunding platform is influenced by the quality design of the website, hence increasing the probability of access to finance. Therefore, this study proposes the following hypotheses: The crowdfunding platform increases the probability of access to finance, as supported by previous studies.

$H_{12}$*: The use of popular crowdfunding platforms is positively related to crowdfunding success.*

### xiii. The availability of Frequently Asked Questions (FAQs)

The FAQ usage on the crowdfunding page shows interest and activity, which provides a signal of preparedness, commitment, and willingness to contribute. Therefore, backers participate on the project page to support the project campaign. According to Mastrangelo, Cruz-Ros, and Miquel-Romero (2020), an extensive FAQ on the crowdfunding page makes communication transparent so backers and project creators can access the information. It is a way of overcoming information asymmetry concerns with traditional finance. Having transparent information that is freely accessible helps backers make informed decisions about whether to contribute to the success of a crowdfunding campaign project.

In contrast, Martinez-Chafer, Molina-Morales and Peiro-Palomino (2018) found a negative relationship between FAQs and access to finance on crowdfunding. FAQs may arise when backers ask questions concerning the project campaign (Martínez-Cháfer *et al.,* 2021). Such questions may include project functionality, service, safety issues, and campaign delivery time, which must be responded to (Wachira

& Wachira, 2021). Additionally, FAQs are an effective way for backers to respond or deal with common questions rather than individual communication (Kunzi *et al.,* 2017). The more FAQs are responded to on the crowdfunding campaign page, the higher the probability of success or access to finance. Therefore, we postulate the following hypothesis:

$H_{13}$*: The number of frequently asked questions on the project site increases the likelihood of crowdfunding success.*

### xiv. The fixed or flexible funding model

The fixed campaign project is different from the flexible campaign project. The fixed campaign project sets up a precise targeted amount for a specific period (Lagazio & Querci, 2018). Conversely, flexible campaign projects are less specific on the targeted amount since the campaigner receives the collected funds regardless of whether the project target is reached by the set period (Lagazio & Querci, 2018:319). Setting a precise targeted amount and being specific on delivery time attracts backers or investors to contribute within a specific time. Bi *et al. (2019) found that flexible campaigns are less likely to be successful due to unclear targeted amounts and delivery times*.

However, it is important to note that the targeted amount should not be overambitious since it reduces the chances of success (Kuppuswamy & Bayus, 2018). The findings of Lagazio and Querci (2018) showed that flexible campaigns reach an 11 percent success rate. In contrast, fixed campaigns achieve higher success rates owing to the setting of clear goals and precise targets. Fixed campaigns often start projects with high funding (Kunzi et al., 2017). Consequently, the study examines fixed and flexible financing mechanisms and analyses the originator's choice of instrument and the corresponding operational decisions under different conditions. Bi *et al. (2019) underscore the uncertainty created by the flexible funding mechanism,* which may lead to the untrustworthiness of the project campaign by backers. Drawing on the goal-setting theory, this study proposes the following hypothesis:

$H_{14}$*: The flexible funding mechanism is negatively related to crowdfunding success.*

The table below summarises the hypothesis, which shows the relationship between the hypothesis and crowdfunding success. Furthermore, it shows that the studies align with positive success and studies with a negative relationship.

**TABLE 4.1 SUMMARY OF THE PRECEDING DISCUSSION**

| FACTOR | EXPECTED SIGN | CONSISTENT STUDIES | INCONSISTENT STUDIES |
|---|---|---|---|
| Target Amount (TA) | - | Xie, Liu, Chen, Zhang, Liu & Chaudhry (2019) | Yin, Liu & Mirkovski (2019) ; Michelucci & Rota (2018) |
| Reward-based level or return (OUT) | + | Yin, Liu & Mirkovski (2019); Wang *et al.,* (2020) | |
| Backers (BCK) | + | Petitjean (2018), Songa, Berger, Yosipof, & Barnes (2019) | Jiang Han, Xu and Liu ( 2020); Song *et al.* (2019) |
| Video (VID) | + | Mamaro & Sibindi (2023); Usman, Usman & Hussain (2020). | Mollick, (2014). Kuppuswamy & Bayus, (2015) |
| Crowdfunding platform (CFP) | + | New | New |
| Experience (EXP) | + | Domínguez, Lagares, Garrido, (2020); Huang, Pickernell, Battisti and Nguyen (2022); Zhou *et al.,* (2018) | Yeh, Chen & Lee, (2019); Michelucci & Rota, (2018) |

| | | | |
|---|---|---|---|
| Image (IM) | + | Yeh, Chen & Lee, (2019); Wang, Li, Liang, Ye & Ge (2018); Bi *et. al.,* (2017) | Kuppuswammy & Roth, (2016); Medziausyte, & Neugebauer, (2017) |
| Comments (CMM) | + | Wang, Li, Liang, Ye & Ge (2018); Wachira & Wachira (2021). | Liang, Hu & Jiang (2020); Lagazio & Querci (2018). |
| Social network (SN) | + | Shahab, Ye, Riaz & Ntim (2019); Lagazio & Querci (2018); Zhang (2022) | Kerkhof, (2016); Zhang *et al.,* (2022) |
| Duration (DRN) | + | Song et al. (2019) Stanko & Henard, (2017); Gompers (2022 | Prasobpiboon, Ratanabanchuen, Chandrachai & Triukose (2021); Fan-Osuala (2017); Elenchev & Vasilev, (2017) |
| Update (UPD) | + | Liang, Hu & Jiang (2020); Yeh, Chen & Lee, (2019); Borst, Moser & Ferguson (2018); Aleksina, Akulenka & Lublóy (2019). | de Larrea and Singh (2019). Wachira (2021) |
| Spelling errors (SPR) | - | Liang, Hu & Jiang (2020); Ho *et al.,* (2021). | Zhou *et al.,* (2016); Kunz *et al.,* (2017) |

| | | | |
|---|---|---|---|
| Frequently Asked Questions (FAQs) | + | Kunz *et al.,* (2017); Ryoba & Qu & Zhou (2021). | Martínez-Cháfer *et al.,* (2021) |
| Fixed funding (FX) | + | Lagazio & Querci (2018), Kunzi, *et al.,* (2017); Bi *et al.,* (2019) | |

Numerous factors, including platform dynamics, project-specific characteristics, campaign management methods, and broader economic and social influences, determine crowdfunding success. Investigating previous studies and industry insights has given us an important new understanding of the challenges associated with successful crowdfunding. Based on signalling theory, the hypothesis is backed by empirical data. It implies that specific signals like the project creators' experience and expertise, social screening, trustworthiness, and cultural factors significantly impact backers' perceptions and decisions to support a crowdfunding campaign. Furthermore, we contend that sustaining enthusiasm and fostering continuous backing during the campaign duration depends significantly on efficient communication, transparency, and involvement with backers.

The study of the relationship between theories, research hypotheses, and the success rate of crowdfunding is guided by a conceptual framework that provides a framework for understanding the numerous variables associated with this alternative financing method. The study hypothesis, which suggests an association or set of interactions between different factors and the success of crowdfunding campaigns, is at the core of this framework. The hypothesis, which serves as the theoretical basis of the research, is supported by accepted principles and empirical evidence, drawing on theories such as trade-off theory, Information asymmetry, market structure, and signalling theory.

This conceptual framework provides an empirical approach to explore the relationships between theoretical frameworks, research hypotheses, and crowdfunding campaign success. We aim to understand better the factors that influence crowdfunding success and provide stakeholders with practical advice as they navigate this dynamic rapidly evolving environment by utilising theoretical and empirical evidence. The conceptual framework 4.1 is presented below.

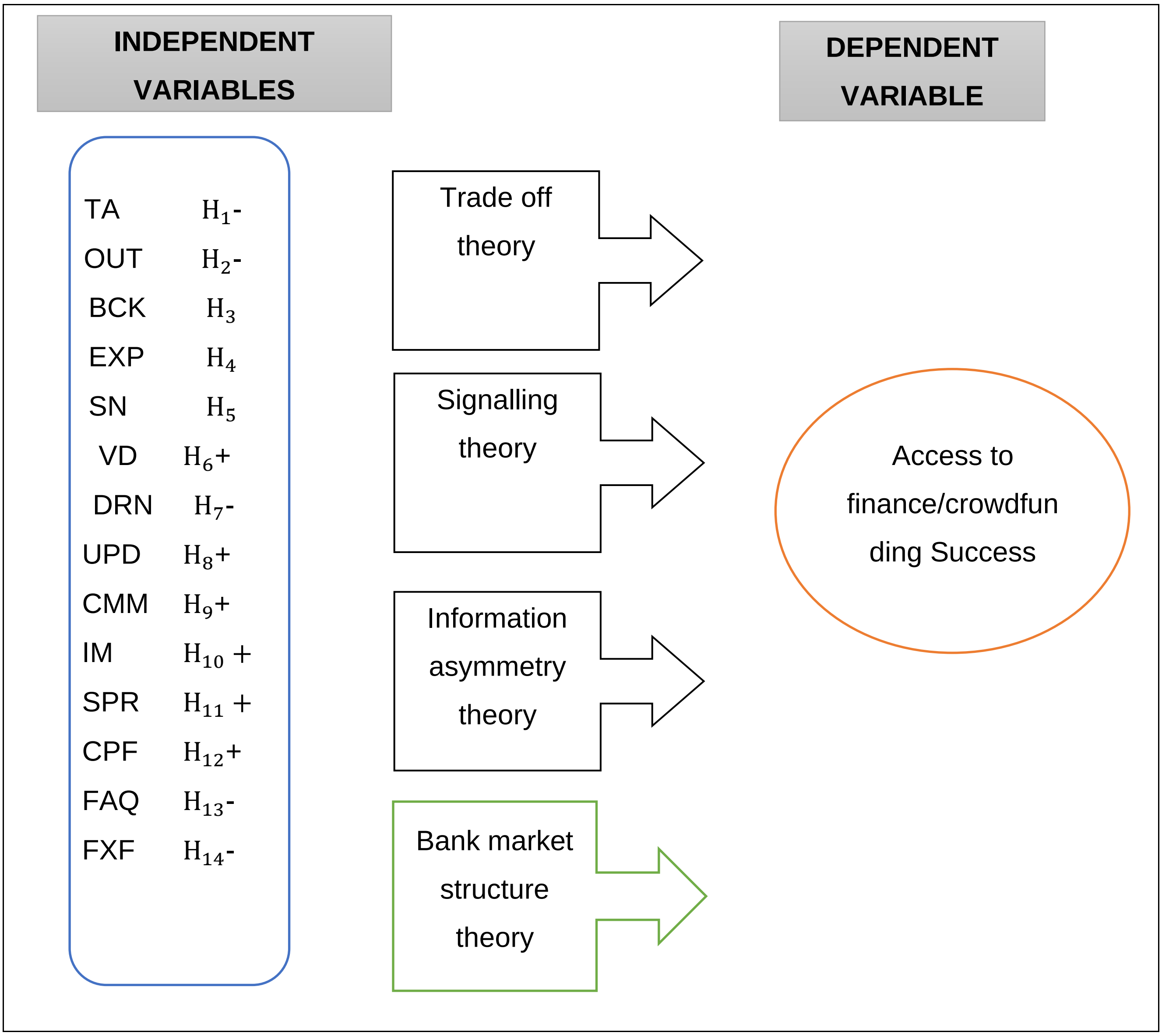


**FIGURE 4.1: CONCEPTUAL FRAMEWORK**
Source: Author's compilation

## 4.3 CHAPTER SUMMARY

The primary aim of the chapter was to formulate research hypotheses and identify factors contributing to crowdfunding success. The initial review of the current literature provided a valuable overview of the factors contributing to crowdfunding success. The review of the empirical literature revealed that some of the crowdfunding success variables, such as video (VID), images (IM), targeted amount (TA), social network (SN) and crowdfunding platform (CFP), are independent variables that influence the access to finance through crowdfunding. Moreover, fixed funding, spelling errors, and description length are less studied compared to duration (DRN), backers (BCK), frequently asked questions (FAQs) and access to finance, which is proxied by ACF. This chapter's conceptual framework is a crucial tool for our research mission. It established a research structure with an explicit investigation by defining the independent and dependent variables. Additionally, it encompasses pertinent theories such as signalling theory, social influence theory, trade-off theory, information asymmetry theory, and intermediary theory, which enhance a deeper understanding of the determinants of crowdfunding success.

In conclusion, this chapter has established the foundational framework for our research journey. Studies have laid a solid foundation for our empirical inquiry by developing hypotheses and identifying the factors determining crowdfunding success. The next chapter describes the research paradigms alongside other methodological considerations employed to address the research questions of the study and research hypotheses developed in the study. This methodological approach expands our knowledge of how these determinants affect access to funds through crowdfunding platforms and makes an important contribution to crowdfunding.

# CHAPTER FIVE
# RESEARCH METHODOLOGY

## 5.1 INTRODUCTION

This chapter presents the methodological strategy and processes used to explore the research objectives or test the hypothesis of this study. The study was underpinned by the following research objectives: (RO1) To empirically examine the determinants of crowdfunding success for SMEs and entrepreneurs in Africa; and (RO2) To examine the influence of entrepreneurs' experience on crowdfunding success in Africa. Thirdly, (RO3) examines the impact of tangible and intangible rewards on crowdfunding success for SMEs and entrepreneurs in Africa, and lastly (RO4) explores the role of social networks in crowdfunding success for SMEs and entrepreneurs in Africa.

Building from this background, the rest of the chapter has the following structure: First, a discussion on the research philosophy of the study is presented in section 5.2, followed by a discussion of the research design and method in section 5.4. In section 5.5, a discussion of population and sample design and strategy is presented, and in section 5.6, data collection is presented. Sections 5.7 and 5.8 present an empirical framework. The discussion of data analysis and reliability and validity is presented in sections 5.9 and 5.10, respectively. Section 5.11 concludes the chapter with chapter summary remarks.

## 5.2 RESEARCH PHILOSOPHY (PARADIGM)

The research worldview is the structure of views and expectations for developing new knowledge. It is precisely concerned with investigation when embarking on the research field to be studied (Saunders, Lewis & Thornhill, 2019). A researcher needs to understand the philosophical worldview of the study and how it relates to research practice. According to Creswell (2014), the worldview of research philosophy should be linked to the research design, method, and strategy of a specific research study. There are four research philosophies or worldviews: post-positivism, constructivism, transformative and pragmatism (Creswell, 2014).

Post-positivism is used to establish the relationship between variables (Tuli, 2010). Similarly, Creswell (2014) asserts that this philosophy determines what influences the outcome or results. Consequently, it is reflected in assessing the cause that impacts the outcome of an experiment. The applicable research paradigm adopted is positivism, which strengthens the use of strategies from the typical sciences when studying social phenomena. Understanding truth explains the post-positivist research worldview through testing and a single objective result. Positivism is an enquiry of social science where explanatory and investigative studies are implemented, and existing theories are tested to confirm or reject the theory's assumption. It is commonly applied when dependent and independent variables are defined and tested using empirical data. The purpose of this study is to investigate the determinants of crowdfunding success.

Research design typically begins with a philosophical worldview in which the researcher plans which research worldview applies to the study (Creswell 2007). The chosen research philosophy is, often, informed by the type of research study and the theories related to the research question. Organisational science research typically takes an objective viewpoint in which the researcher investigates and determines the relationship between variables that test the research hypothesis formulated. It is often applied as a deductive research strategy and quantitative design through empirical and statistical analysis representing an objectivist viewpoint (Saunders, Lewis & Thornhill, 2009). However, most organisational research has recently used a subjectivist viewpoint rather than an objectivist one, focusing on the perceptions and consequential actions created by the social phenomenon (Frydrych et al., 2015).

The researcher adopts a subjective perspective that perceives organisational phenomena as a social change process, thereby casting doubt on an objectivist standpoint qualitative. The contrasting philosophical views of subjective and objective and the different research paradigms include epistemology and ontology beliefs (Creswell, 2013).

In contrast to positivism, interpretivism can take from a research stance, either epistemological or ontological. Babbie and Mouton (2012) argued that interpretivism seeks to understand human behaviours and culture. This perspective holds that social phenomena are distinct from natural science and should be approached differently

(Bryman & Bell, 2011). Interpretivism seeks to uncover a deeper understanding of human behaviour, culture, experiences and thoughts, which depend on subjective propositions.

Axelsson and Lundin (2016) explain subjective proposition as the viewpoint relevant to individuals by gathering knowledge and rejecting objectivism. Interpretivism research paradigm is applied to organisational phenomena by exploring or explaining people's observations. Therefore, researchers should not be subjected to bias when collecting data from human participants that inform study findings. The participation of human knowledge impacts the generation of theories relevant to the study. It commonly adopts qualitative research methods such as case studies and quantitative methods. Most data are gathered through face-to-face interviews or observation to understand people's views (Adebesin *et al.*, 2011; Bhattacherjee, 2012).

This position of constructivism is associated with challenges concerning objectivism, which suggests a set of constructions in terms of external reality (Bryman & Bell, 2011). The availability of current knowledge determines research hypotheses that can be subject to data analysis. Subsequently, perceptions or variables may be used to test the developed hypotheses to accept or reject them as the measurement of results. Deductive research is characterised by the form of data collected for analysis. Additionally, it is used to test developed research hypotheses and existing theories instead of theory generation. Constructivism is often used for qualitative research design since data is collected through observation or case studies.

These two research paradigms acknowledge the differences between positivism and interpretivism. Another philosophical paradigm is critical realism, which is situated between contrasting views of positivism and interpretivism. Critical realism recognises that directly measuring external reality through observable facts is not feasible, as it necessitates more profound observations to comprehend causality. It is important to note that the interpretation of causality is inherently subjective (Bhaskar, 2008). Critical realists use more subjective data collection, and the main objective is to capture beliefs, attitudes and meanings. Data and its interpretation are, therefore, imperfect. The objective of critical realists is to advance the comprehension of truth, limited to what can be probabilistically comprehended. The understanding and objectives of the study affect the relevant research design choices according to the research philosophy. To understand the empirical reality, critical realists suggest using mixed research approaches as an adequate explanation of events.

Quantitative data analysis is used to test research hypotheses on dependent and independent variables to identify the determinants of crowdfunding success for SMEs and entrepreneurs in Africa. Nevertheless, it is important to note that human beliefs, norms and perceptions concerning the development of crowdfunding regulations need to be developed by humans. This creates confusion when adopting research methods about objectivism. Therefore, the study was based on published secondary data accessible from leading crowdfunding platforms that operate on the African continent. Therefore, the suitable ontological approach employed is objectivism as opposed to subjectivism.

Based on these philosophical worldviews, four research perspectives or paradigms relevant to social science research include positivist, interpretive, critical and design science research. Both Creswell (2014) and Sanders *et al.,* (2019) acknowledge that philosophical worldviews have been debated broadly in the literature. However, the use of positivism and interpretivism has applied to the study. Bell and Bryman (2014) believe that positivism is the foundation of quantitative studies. Positivist research philosophy is adopted for the study to address the research hypotheses.

Creswell (2014) represents four philosophical assumptions and lists the most important aspects to consider when following research paradigms of positivism, interpretivism, critical or constructivism and pragmatism used to describe the philosophy underlying my research study. This research study follows a postpositivist philosophy which involves the empirical testing of the research hypotheses formulated and is associated with natural science research design (Greener & Martelli, 2018). Hence, the study adopted a postpositivist worldview to respond to the research question: What are factors influencing the crowdfunding success in Africa? This is used to build based on a philosophical approach. The postpositivist worldview applicable to this study is associated with quantitative research rather than qualitative as it seeks to validate and verify existing theory. Lindroos (2016) asserts that postpositivist assumptions try to identify and assess the cause and the impact of the results through the use of research hypotheses. Therefore, the study followed the postpositivist worldview to identify and assess the variables influencing access to finance through a crowdfunding campaign. In addition, the study collects secondary data concerning the theory to reach the finding of whether to accept or reject the theory and make necessary revisions for an additional test (Creswell, 2014).

The research design is a procedural plan adopted by the researcher to respond to research questions objectively, accurately, validly and economically (Kumar, 2018). Explanatory research design is employed with a quantitative method to test dependent and independent variables to respond to the research question. This research strategy uses explanatory and exploratory research and can also be employed with research methods such as quantitative, qualitative, or a combination of both (mixed method). Moreover, these different research methods and strategies guide the researcher to be able to answer the research question. This quantitative method of investigation uses numerically and statistically analysed existing data concerning the sample collected. Thus, secondary data is then analysed and interpreted statistically.

## 5.3 RESEARCH STRATEGY

Experimental research is strongly associated with the first research strategy, inductive. It involves examining a phenomenon, identifying essential characteristics, and selecting the most appropriate method for collecting data, such as surveys and interviews. Inductive reasoning is particularly suited for producing descriptive findings while gaining a deeper understanding of a phenomenon focusing on qualitative information and observations (Creswell, 2014).

The deductive study approach, on the other hand, begins with theories and hypotheses that are already known, which are tested through data collection and analysis (Saunders, et al., 2019). This approach is characterised by the collection and analysis of quantitative data and the emphasis on supporting or contradicting stated hypotheses. It seeks to create innovative concepts based on empirical evidence to determine cause-and-effect relationships (Bryman & Bell, 2011; Creswell, 2014). The initial research strategy entails the utilisation of the inductive approach, whereby the phenomenon under investigation is thoroughly examined, and a specific set of characteristics is carefully chosen to determine the type and format of data to be collected.

At least, the abductive research strategy combines elements from both the inductive and deductive methods (Saunders, Lewis, & Thornhill, 2009). By combining them, this strategy attempts to overcome the limitations of each approach. In addition to allowing for the exploration of new ideas and unexplained theories, the abductive research approach recognises the importance of using existing theories to guide data collection. It is a mixed methods approach since it enables researchers to consider a variety of ideas and uses a pragmatic research paradigm (Creswell, 2014). In conclusion, selecting an appropriate research strategy is a crucial decision since it affects how data will be collected, analysed, and the theories will be constructed. Researchers should carefully evaluate which technique best suits their research objectives and the nature of the phenomenon because each has unique advantages and applications.

The deductive method of investigation used in this study was consistent with the theoretical framework that served as its guide (Lindroos, 2016). This deductive method entails developing and testing research hypotheses in light of previously published literature and empirical evidence. It is distinguished by the development and testing of theories based on verified sources and experiences. For this study, 14 research hypotheses were focused on the elements impacting the success of crowdfunding in Africa (Bryman & Bell, 2011). These hypotheses were then tested using regression analyses. Considering its emphasis on hypothesis testing grounded in the literature and alignment with the research's objective of examining current theories in the context of crowdfunding success, the deductive approach was selected over the inductive one (Saunders, Lewis & Thornhill, 2012).

A cross-sectional research design was adopted for this quantitative study, which emphasises the examination of relationships between dependent and independent variables at a particular point in time (Saunders, et al., 2012). Studying numerical data and determining relationships is particularly well suited for cross-sectional research, which is related to quantitative analysis (Malhotra, 2010).

In the study technique, a non-experimental design was used to compare several independent variables to a pre-existing dependent variable that was discovered in the literature or in studies that were similar to this one (Creswell, 2014). By the study's empirical nature, this strategy allowed it to investigate the relationship between crowdfunding success and the variables that were considered independent (Bryman & Bell, 2014). In conclusion, this study applied a deductive research methodology that drew on existing theory and literature to develop and test hypotheses about the success of crowdfunding in Africa. The investigation was facilitated by the cross-sectional, quantitative research approach that was used. Figure 5.1 shows the research process and theory used for this study.

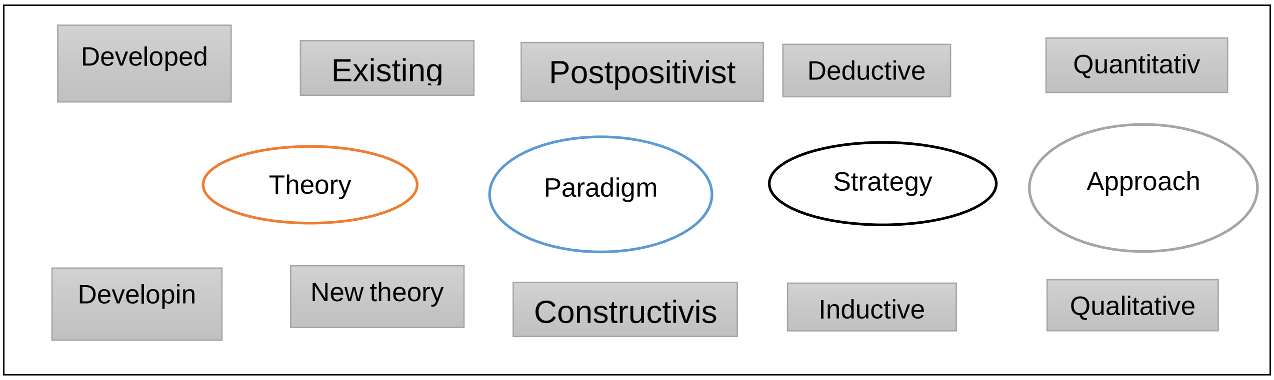


**FIGURE 5.1 THE RESEARCH PROCESS AND THEORY**

Source: Author’s compilation

## 5.4 RESEARCH DESIGN AND METHODS

The research design explains the process of how the researcher responded ethically, objectively and economically to the research question based on the collection and analysis of the results. There are three research designs, quantitative research design, qualitative and mixed methods (Creswell, 2014). Quantitative research aims to collect numerical data and draw conclusions using statistical analysis (Bergin, 2018). It seeks to identify correlations and connections through measuring, quantifying, and analysing occurrences. In qualitative research, non-numerical data is collected to investigate and understand social processes (Adedoyin, 2020). Through the use of methods such as observations, interviews, and content analysis, it is required to reveal insights, meanings, and patterns. Mixed methods research combines qualitative as well as quantitative methods (Brannen, 2017). Researchers collect and analyse each type of data in this way to gain a greater understanding of the research problem.

Drawing from these three research methods, quantitative research is best suited to estimate the results of a larger population considering the involvement of numerical data such as funding amounts, success rates, and backer contributions. Quantitative research allows a more systematic and generalised analysis of crowdfunding and intends to make larger assertions about trends, patterns, or factors influencing crowdfunding success throughout the African continent. Since crowdfunding campaigns and contributors are different, statistical analysis may be utilised to identify crucial trends, associations, or characteristics which influence the success of campaigns for crowdfunding. Quantitative research has an advantage in this analytical method.

The hypothesised relationships were tested through multivariate statistical analysis using a deductive approach. Furthermore, binary logistic and OLS regression were used to test the relationship between two dependent variables (crowdfunding campaign factors and access to finance) and a set of independent variables that measure crowdfunding campaign factors and the relationship between access to finance for SMEs and entrepreneurs. This research study aims to improve research methodology and quantitative analysis by utilising a research approach similar to that employed by scholars like Mamaro and Sibindi (2022) and Wachira (2021). The objective is to enhance the comprehension of entrepreneurial and SME activities in the context of crowdfunding. The proposed research findings to be presented are applicable to respond to the research question in the field of entrepreneurs and SMEs even if they are not part of the sample.

Collecting data from the same individual or organisation over an extended period is called longitudinal data (Kalinauskaitė, 2017). Cross-sectional studies are beneficial for defining a population's qualities, evaluating developments, and examining relationships at a specific period in time (Spector, 2019). In comparison with longitudinal investigations, they are less time and money-consuming (Kumar, 2018). Cross-sectional data may be used to evaluate crowdfunding in Africa today, providing an overview of the types of projects that are backed, the attributes of backers, and the crowdfunding environment overall. The primary objective of the research was to examine the effects of independent variables on the dependent variable, access to finance. Consequently, the cross-sectional approach was considered to be the best way to address the research question, as it allowed for a review of the relationship between dependent and independent factors throughout a predetermined period.

## 5.5 POPULATION AND SAMPLE

For this study, participants were involved in the crowdfunding projects of the leading crowdfunding platforms worldwide. They were also involved in crowdfunding projects for entrepreneurs and SMEs as the study population for the quantitative phase of the proposed research. The population consists of all crowdfunding projects in the African continent. Projects should be drawn from all different crowdfunding categories such as art, dance, design, comic, and music and each project should have more information on funding success.

It is important to note that many crowdfunding campaigns in the African continent take place on an intercontinental platform which does not ultimately enable Africans to utilise fintech (Disse & Sommer, 2020). This could be influenced by the limited legal constraints of crowdfunding in the African continent for innovative access to finance. Africans are unable to make contributions to specific forms of crowdfunding, namely equity-based and debt-based platforms. The population of the study consist of all crowdfunding projects across all African countries from the year 2018 to 2020.

## 5.6 SAMPLE DESIGN AND SAMPLE STRATEGY

It was inappropriate to use probability sampling as there was no guarantee that every element of the population would be represented fully in the sample. Accordingly, non-probability sampling was used to select the sample in a way that ensured the majority of the elements were included (Saunders et al., 2012). The top crowdfunding platforms operating in the African continent were chosen based on data availability for the period 2018-2020 while crowdfunding not covered by that period was excluded from the sample.

It is commonly impractical to collect overall data from the entire population of the study (Saunders et al., 2012). As a result, data were collected in the form of observation of projects funded in leading African crowdfunding platforms from TheCrowdDataCentre from multiple crowdfunding platforms and crowdfunding projects that originated in Africa for the period 2018-2020 after the financial crisis which fuelled the growth of crowdfunding operating in the donation, reward and lending models. Two methods of sampling including non-probability and probability sampling, were considered when collecting data (Manzoor, 2016). The study adopted non-probability sampling owing to the accessibility of data and the research question of the study. This sampling technique reduces bias by involving personal judgment in the selection of the sample (Saunders *et al.*, 2019). The chosen sampling technique was based on the reliability of data collection and consistency (Sundell, 2016).

The secondary data consisted of 2,000 crowdfunding projects accessed from the largest crowdfunding platform that operated solely on reward and donation-based campaigns from 2018 to 2020 after the global financial crisis occurred. The participants of this research phase were purposefully selected based on their involvement in the leading crowdfunding platforms operating in the African continent, the number of participants was further viewed as being sufficient. The sampling process is presented in the figure below.

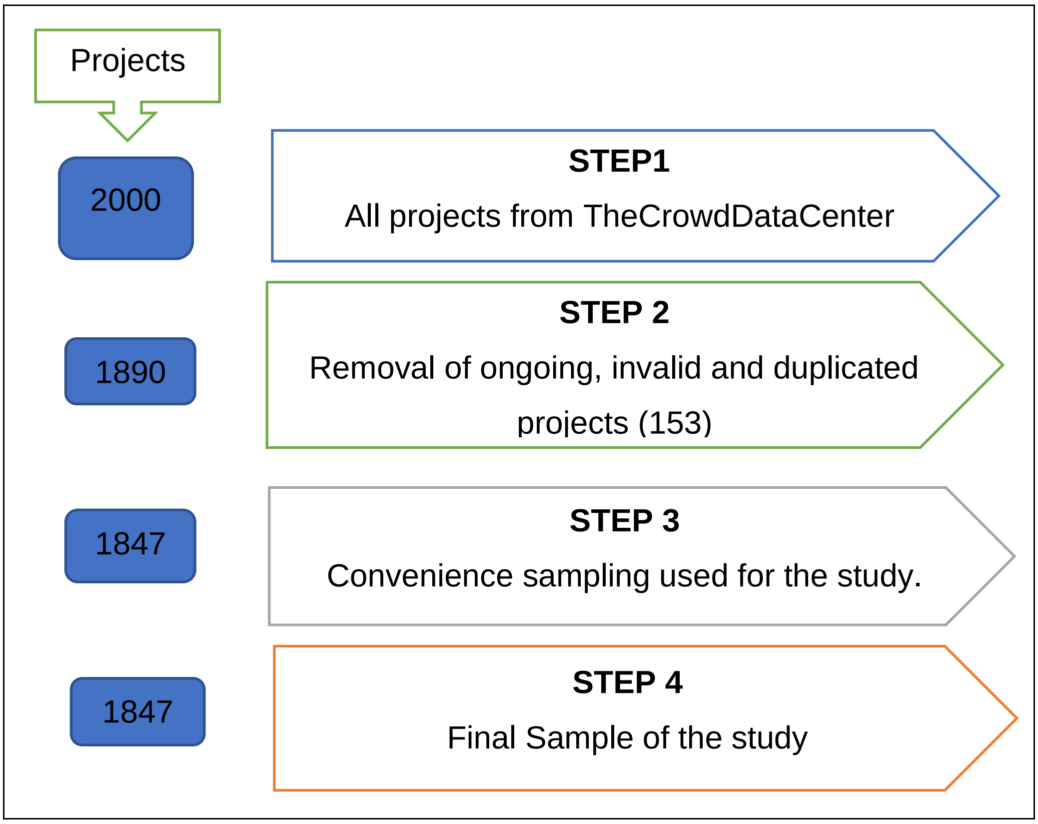


**FIGURE 5.2 THE SAMPLING PROCESS**

Source: Author's compilation

### 5.7 DATA COLLECTION

Secondary data are gathered from sources that already exist and have been received analysed and interpreted. The most suitable approach to collecting data for the study is to use secondary data collection from websites, particularly crowdfunding platforms that consist of crowdfunding projects in Africa. This selection coincides with the deductive research strategy, which is based on existing theories and literature.

TheCrowdDataCentre, which includes campaigns for crowdfunding in Africa from 2018 to 2020, is the main data source mentioned. Projects completed before 2018 have been excluded from the data to avoid bias. The data consists of complete projects within this period. Overall, the paragraph emphasizes the application of secondary data from online sources and promotes the importance of selecting the appropriate data-gathering method that responds to research objectives. The study uses 28 different crowdfunding categories and multiple crowdfunding platforms from 54 countries in Africa. These countries are namely; Angola [AO], Burkina Faso [BF], Burundi [BI], Benin [BJ], Botswana [BW], Congo, the Democratic Republic of the [CD], Central African Republic [CF], Congo [CG], Cote d'Ivoire [CI], Cameroon [CM], Cape Verde [CV], Djibouti [DJ], Algeria [DZ], Egypt [EG], Western Sahara [EH], Eritrea [ER], Ethiopia [ET], Gabon [GA], Ghana [GH], Heard and Mc Donald Islands [GM], Guinea [GN], Equatorial Guinea [GQ], Guinea-Bissau [GW], Kenya [KE], Comoros [KM], Liberia [LR], Lesotho [LS], Libyan Arab Jamahiriya [LY], Morocco [MA], Madagascar [MG], Mali [ML], Mauritania [MR], Mauritius [MU], Malawi [MW], Mozambique [MZ], Namibia [NA], Niger [NE], Nigeria [NG], Reunion [RE], Rwanda [RW], Seychelles [SC], Sudan [SD], St. Helena [SH], Sierra Leone [SL], Senegal [SN], Somalia [SO], Sao Tome and Principe [ST], Swaziland [SZ], Chad [TD], Togo [TG], Tunisia [TN], Tanzania, United Republic of [TZ], Uganda [UG], Mayotte [YT], South Africa [ZA], Zambia [ZM], Zimbabwe [ZW].

## 5.8 EMPIRICAL FRAMEWORK

The empirical framework utilised in this study is explained in depth in this section. The paradigm that has been established is dependent upon the methodological strategies used in previous research on crowdfunding. Despite this, there are not numerous studies that focus on the factors influencing crowdfunding success in the African continent. Therefore, the objective of the research is to investigate the factors that influence crowdfunding success for African SMEs and entrepreneurs. In this regard, selecting the best strategy for the current study relied on an analysis of methodological approaches employed in previous studies.

Additionally, econometrics models including probit and logistic regression analysis have been used to examine the relationship between the dependent variable (success) and its determinants. On the one hand, research that has used secondary data to examine the factors that influence crowdfunding success has embraced econometric models. Economic indicators including GDP, income, real interest rate, and inflation rate have all been used in these studies. Studies that used other variables including Community-oriented messages. A percentage of funders from the same city also embraced econometric models. Consequently, since this study investigated the determinants of crowdfunding success, logistic and OLS regression analyses were adopted to test the relationships between dependent and independent variables. Furthermore, the researcher can estimate interrelationships between several latent constructs and measurable variables at an identical period using the probit or logistic regression method.

**TABLE 5.1 SELECT STUDIES ON CROWDFUNDING SUCCESS.**

| Author | Variables | Estimation methods |
|---|---|---|
| Hsieh and Vu (2021) | Goal amount, Duration, Wordcount, Updates, Rewards, Experience, Reciprocity, Macroeconomic, Uncertainty, NASDAQ, Return, Interest, inflation and Category | The baseline regression is estimated. |
| Appio, Leone, Platania, and Schiavone, (2020) | Delay of rewards delivery, Number of updates, comments FAQs, Time, fraud, amount raised, financial goal, average pledge, new backers and project creator | MM estimators for multivariate |
| Chen (2021) | Competitors, competition intensity, rewards level, movie festival, | Probit or Logit model |
| Liu, Zhao, Song, Zhichao and Zhu (2022) | Recognition, Initiator Identity, Endorser Identity, Closeness, Attitude, Innovativeness, Implication, Feasibility, Reasonable Goal, Background, Condition and Sentiment | OLS Regression analysis |
| Jung, Lee and Hwang (2022) | Pledged, Diversification, Updates, Updates, Comments, Group Dummy | The OLS regression model |

| | | |
|---|---|---|
| Wachira (2021) | Project Success, Constant, Project goal, Pledge, Backers, Funding period, Updates, FAQ (Frequently Asked Questions), Comments, New backers and Returning backers | multiple regression model |
| Fourkan (2021) | Success, USD Goal, Backers, USD Pledged, Age of Projects Year, Time and Main category Country | OLS and probit model. |
| de Larrea∗, Altin, & Singh (2019) | Success rate, Project goal, Campaign duration, Staff pick, No. Words, No. Images, No. Videos, Community-oriented message, Percentage of funders from the same city, No Updates, No. Comments Difference between rewards and pledge tiers and Percentage of limited reward | probit or logit regressions. |
| Pinkow & Emmerich (2021), | Pictures, video, homepage, comments, rewards, description, social media, funding goal, founder and backers | OLS regression |
| Fontana & Ordóñez (2020) | social networks, Number of images, Number of videos, website, Number of rewards, comments, Updates and Staff picked | Binary logistic regression |
| Pati and Garud (2021) | Duration, goal, video, audio, success, product innovation, social interaction and Product Development Stage | Logistic regression |

Source: Author's compilation

## 5.9 DATA ANALYSIS

The following variables were not considered in other comparable studies but seem to be important for this study: target amount and project success rate (as logarithm) as control variables. The study analysis sampled projects from crowdfunding platforms based on successful and unsuccessful funded projects during the 2018-2020 period which was informed by the financial crisis that occurred. The study makes use of a quantitative research approach, analysing which is numerically from secondary data collected. The study involves money-based figures that are different from each other.

### 5.9.1 Econometric analysis

The dependent variable is a dummy variable of 1 if the crowdfunding campaign access 100 percent of the targeted amount. The success performance and total percentage raised) were investigated using different statistical models to empirically examine factors influencing access to finance through crowdfunding. The concept of a binary (or dummy) explanatory variable was discussed, and how simple regression on a binary variable can be used to evaluate randomised interventions was demonstrated. The study also showed how to extend programme evaluation to multiple regression (Wooldridge, 2020). Binary variables (dummy variables) such as duration, backers, and total funding percentage are commonly used, and the most prevalent method for evaluating these is ordinary least squares (OLS) (Ahlers et al., 2015; Bi *et al.,* 2017). The logistic regression model is also occasionally used (Colombo *et al*., 2014; Liang *et al.,* 2020). Access to finance is usually defined as a binary variable indicating whether the financing target has been reached or not.

### 5.9.2 Ordinary Least Squares (OLS) Multiple Regression

The convenience of logistic regression, using a dichotomous dependent variable has some disadvantages because it conveys less information than a continuous one (Mize, 2019). Logistic regression only analyses the influence of factors that can increase the probability of reaching a financing target. Therefore, it may be worthwhile to examine other metric indicators of how access to finance through crowdfunding projects for SMEs to be achieved. These variables include the number of backers a crowdfunding project can draw and the ratio of actual versus target funding. Given that these measures are metric, Ordinary Least Squares (OLS) should be the method of choice.

### 5.9.3 Logistic and probit models

The empirical analysis of factors influencing access to finance for SMEs and entrepreneurs was conducted using logistic regression models. The main dependent variable of the study was a binary indicator of success or unsuccessful. Using either the logistic model would be appropriate in this situation. Logistic regression is commonly used to estimate "the relationship between non-single non-metrics (binary) dependent and a set of metrics on non-metrics independent variable" (Hair et al, 2014). The explanatory variables were used in cross-sectional regression analysis, involving the creation of interactions between qualitative variables and between qualitative and quantitative variables (Wooldridge, 2020).

Logistic regression is straightforward in approach and has a wide range of diagnostics, making it suitable for many situations when we need to predict a binary outcome (e.g access to finance or failure to access finance through crowdfunding, whether an SME will access finance successfully, whether an applicant should be granted credit). For example, if the project obtains 100 percent of the targeted amount, it is considered to be a successful pro and unsuccessful if it fails to obtain the targeted amount in full (Hair et al., 2014).
The logistic regression function is not suitable for the same analysis since it assumes that Y represents the dependent variable and X (for J=1,2,… K) represents the value of independent variables. but in our case, the probability of more than one event occurring where Y is a binary variable of Y=1 is a success and 0 is unsuccess. In the case of more M Multiplelinear probabilities e the same as P(Y) sincenc$E(Y) = 1 * P + 0 * (1 - P) = P$ (1)

Multple linearprobabilites would be $P - E(\quad) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \cdots \ldots . \beta_k X_k$ …(2) dichotomous outcome. therefore, a non-linear logistic function would be as follows for the dependent variable Y:$P = \frac{1}{1+e^{-(\beta_0 \beta_1 X_1 + \beta_k X_k)}} = \frac{1}{1+e^{-(B_0+\beta' \beta)}}$

Logit transformation of the function is stated as follows:ogit

(P)=$In\left(\frac{p}{1-p}\right) = \frac{\frac{1}{1+e^{-(\beta_0+X'\beta)}}}{1-\frac{1}{1+e^{-(\beta_0+X'\beta)}}}$ =$Ine^{\beta_0+X'\beta} = \beta_0 + X'\beta$

*Results of the logit regression model would be* $In\left(\frac{p}{1-p}\right) = \beta_0 + X'\beta + \varepsilon$

*where ε represents the error term*

In the model, β represents the slope of the regression equation which can be interpreted when there is a change in the value of Y and X rather than using log odds when there is a change in the log odds of the event occurring (Y=1) even if success is influenced by an increase in one unit of the independent variables.

The stepwise regression is a common multivariate selection procedure, compromising two types: forward selection and backward selection. The forward stepwise regression is designed to choose a variable from a group or population with a large $R^2$ and T value or significance level and the backwards regression is designed to choose a variable from a group with the smallest $R^2$ and T value, which is influenced by statistically insignificant variables (i.e the dependent variable Y on the independent variables X) until all remaining variables become statistically significant (Jacob & Cohen, 1975). For this study, the stepwise backward elimination method seems to be the most appropriate, as it is less risky when investigating the relationship of variables that already exist in the literature and theory (Menard, 2002). The procedure involves the removal of variables that are statistically insignificant in a stepwise process with a significant level of $P < 0.05$ (Menard, 2002).

The logistic regression model is used to study the relationship between dependent and independent variables where dependent variables are binary or have two values of 0 and 1 or true and false. Multinomial logistic regression is used when the dependent variables have more than two values (e.g.,1, 2 and 3) (Gujarati & Porter, 2009). For this study, binary logistic regression analysis was applied since the dependent variable is a binary indicator of success or failure. Moreover, it provides more standard binary outcomes and a maximum likelihood estimator (MLE), and overcomes the limitations of the linear probability model (LPM) and its problems with dummy variables, as it assumes a standard logistic distribution of errors (Brooks, 2014).

The LPM and OLS were used to overcome the errors that might arise from using the homoscedasticity and normality assumptions of OLS (Brooks, 2014; Wooldridge, 2009). As a result, the EViews 13 version was used to estimate the White test covariance to ensure that the standard error estimate is robust to heteroscedasticity (Brooks, 2014). The data collected from crowdfunding platforms utilised descriptive statistics and regression analysis. The secondary data analysis employed a cross-section using logistic regression and OLS models.

The logit and probit frameworks are consistent with prior crowdfunding studies (Vismara, 2016; Zhao, 2018; Wachira, 2021). Additionally, logit regressions were run to balance the regressions and include an equal number of successful and unsuccessful campaigns. To reduce the problem of multicollinearity between variables, we standardized the independent variables, control variables and the variables included in interaction terms. But the dummy variables, include Image, spelling error, a crowdfunding platform, video, rewards, social network, experience and flexible funding. We have established nine models. Model 1 only consists of the control variables and the dependent variable. The study adds the independent variables to Models 1–9 one by one to test the hypotheses individually. The following models were specified for the study:

**Model 1 (logistic regression)**

$$logit\ (ACF) = \beta_0 + \beta_1 TA + \beta_2 OUT + \beta_3 BCK + \beta_4 EXP + \beta_5 SN + \beta_6 VD + \beta_7 DRN + \beta_8\, UPD + \beta_9 CMM + \beta_{10} IM + \beta_{11} SPR + \beta_{12} CPF + \beta_{13} FAQ + \beta_{14} FXF$$

$$ODL\ (ACF) = \beta_0 + \beta_1 TA + \beta_2 OUT + \beta_3 BCK + \beta_4 EXP + \beta_5 SN + \beta_6 VD + \beta_7 DRN + \beta_8\, UPD + \beta_9 CMM + \beta_{10} IM + \beta_{11}\, SPR + \beta_{12} CPF + \beta_{13} FAQ + \beta_{14} FXF + \beta_{15} C + \varepsilon$$

**Model 2 (OLS)**

$$\boldsymbol{OLS}\ (\boldsymbol{Fund\ raised}) = \beta_0 + \beta_1\, TA + \beta_2 OUT + \beta_3 BCK + \beta_4 EXP + \beta_5 SN + \beta_6 VD + \beta_7 DRN + \beta_8\, UPD + \beta_9 CMM + \beta_{10} IM + \beta_{11} SPR + \beta_{12} CPF + \beta_{13} FAQ + \beta_{14} FXF + \beta_{15} C + \varepsilon$$

$$\boldsymbol{OLS}\ (\boldsymbol{Average\ amount\ pledged}) = \\ = \beta_0 + \beta_1\,TA + \beta_2 OUT + \beta_3 BCK + \beta_4 EXP + \beta_5 SN + \beta_6 VD + \beta_7 DRN \\ + \beta_8\,UPD + \beta_9 CMM + \beta_{10} IM + \beta_{11} SPR + \beta_{12} CPF + \beta_{13} FAQ + \beta_{14} FXF \\ + \beta_{15} C + \varepsilon$$

**Robustness check models $\boldsymbol{OLS}$**

$$\boldsymbol{OLS}\ (\boldsymbol{Fund\ raised}) \\ = \beta_0 + \beta_1\,TA + \beta_2 OUT + \beta_3 BCK + \beta_4 EXP + \beta_5 SN + \beta_6 VD + \beta_7 DRN \\ + \beta_8\,UPD + \beta_9 CMM + \beta_{10} IM + \beta_{11} SPR + \beta_{12} CPF + \beta_{13} FAQ + \beta_{14} FXF \\ + \beta_{15} C + \varepsilon$$

$$\boldsymbol{OLS}\ (\boldsymbol{Access\ to\ finance}) = \\ = \beta_0 + \beta_1\,TA + \beta_2 OUT + \beta_3 BCK + \beta_4 EXP + \beta_5 SN + \beta_6 VD + \beta_7 DRN \\ + \beta_8\,UPD + \beta_9 CMM + \beta_{10} IM + \beta_{11} SPR + \beta_{12} CPF + \beta_{13} FAQ + \beta_{14} FXF \\ + \beta_{15} C + \varepsilon$$

$$\boldsymbol{OLS}\ (\boldsymbol{Average\ amount\ pledged}) = \\ = \beta_0 + \beta_1\,TA + \beta_2 OUT + \beta_3 BCK + \beta_4 EXP + \beta_5 SN + \beta_6 VD + \beta_7 DRN \\ + \beta_8\,UPD + \beta_9 CMM + \beta_{10} IM + \beta_{11} SPR + \beta_{12} CPF + \beta_{13} FAQ + \beta_{14} FXF \\ + \beta_{15} C + \varepsilon$$

The study follows that one of Prasobpiboon, Ratanabanchuen, Chandrachai; and Triukose (2021), Fourkan (2021); Wachira and Wachira (2021) which aim to determine the factors influencing the success or failure of a crowdfunding campaign project.

Access to finance (crowdfunding success) can be defined as follows: a dummy variable of 1 if the project/SMEs obtained more than 100 percent of the targeted amount of money through crowdfunding, and 0 otherwise.

### 5.9.4 Diagnostic test

To determine the predictive power of the binary regression analysis of the study, the researcher tested the following diagnostic tests to ensure that the data met the requirements. Therefore, the following diagnostic tests were conducted to ensure that the results were free from bias; namely, goodness of fit and multicollinearity.

- **Goodness-of-fit tests.**

To ensure goodness of fit in the binary regression model, the research used a likelihood ratio test (LR-test) owing to its chi-squared distribution that ensures a significant value (Field, 2013). The goodness of fit is usually used to determine the predictive power of data collected about data that was predicted by the model. Therefore, it is conducted by having dichotomous outcomes used as a baseline compared to a previous regression model as a frequency. Furthermore, to determine the influence of the predictor or independent variables, the z-statistic was used to indicate whether the β-coefficient for the predictor is significant. As a result, the researcher can suggest that the predictor contributes significantly to the outcomes.

Goodness-of-fit tests perform Peasquared type tests of goodness-of-fit and also assess adjusted expected values to actual values by the group. If the differences are very large, the model is rejected as it provides an insufficient fit to the data. Furthermore, risk quantiles in the EViews results indicate the higher and lower values of the predicted probability for each decile. It also describes the actual and estimated number of observations in each group, along with each group's contribution. Large values indicate large differences between actual and estimated values. The results for the Andrews test statistic and the HL test are reported as the basis of fitted values that fall between the Andrews test structures. A mixed indication of problems can occur when the value for the Andrews test statistic is small while the *p*-value for the HL test is large.

- **Multicollinearity**

The independent variables were tested for multicollinearity as the standard errors of parameter estimates can become extremely large, leading to misrepresentation of results (Wooldridge, 2018). When two independent variables have a collinearity of greater than 0.80, the researcher must consider whether to combine them into one variable and remove the two variables. (James, Witten, Hastie, & Tibshirani*,* 2013) As indicated in Chapter 6, Table 6.2 showed that the correlation matrix did not indicate any problem of multicollinearity. Additionally, the variance inflation factor (VIF) of the explanatory variables did not exceed the cut-off level of 5, indicating that multicollinearity was not observed within the constrained model (James *et al.,* 2013). The predictive power of the model was also considered.

VIF is the ratio of the variance of an explanatory variable, i.e., H. fitted to the full model, to the variance of the same explanatory variable only to itself. Thus, the smallest value that VIF can take is one, indicating no collinearity between the explanatory variables

(Table 6.2). Although there is usually some degree of collinearity between variables, values of 5 or more are considered problematic (James et al., 2013). Since the VIF values in this model do not exceed 2.59, multicollinearity is not an issue.

## 5.10 RELIABILITY AND VALIDITY

Quantitative data were assessed to establish quality analysis. To assess the accuracy of the study analysis concerning the data collected, validity and reliability should be considered (Samara & Torheiden, 2015; Bryman & Bell, 2011). The study collected data from crowdfunding platforms originating from the African continent with more than 1 847 projects for the period after the financial crisis. To ensure internal and external reliability, the sample was drawn from the entire population, namely, crowdfunding projects operated in four models. The data collected covered a period from 2018-2020 to reduce the influences of short-term analysis and ensure external validity. A regression analysis was applied to find the impact of explanatory variables on the access to finance of entrepreneurship and SMEs in the African continent. The logistic regression model was found to be dependable in the field of crowdfunding, as data will be extracted in numerical values (Mollick, 2014; Mullerleill & Joeinnssen, 2014).

## 5.11 CHAPTER SUMMARY

Methodological research design choices made in this study were discussed in detail in section 5.2 of this chapter. This was followed by a discussion of post-positivism as the preferred worldview, which is characterised by a deductive research strategy of the study. Much of the research within the crowdfunding literature relies on single-method research and crowdfunding platforms, while the infusion of quantitative methodological processes and procedures in a single study seems to be receiving less attention as most studies adopted qualitative research methods.

Section 5.4 presented the research design and method adopted in the current research. The population and sampling frame were then discussed in Section 5.5, followed by sample design and strategy in Section 5.6. The initial plan was to analyse the empirical role of crowdfunding project campaigns in Africa and their potential to finance entrepreneurs from 2018 to 2020. However, due to missing data, the final sample was restricted to studying 1,847 crowdfunding projects. This was because some of the crowdfunding campaign projects in the African continent could not be accessed due to missing data despite numerous attempts to gather that data.

In Section 5.7, the data collection, capturing and analysis procedures were followed as detailed. Primary data were not utilised due to the challenges associated with its process; thus, secondary data analysis was preferred. Data capturing was a team approach involving the researcher and the statistician. Data cleaning and validation procedures were executed to ensure that reliability and validity threats were addressed, as these have the potential to compromise the data analysis process, and consequently, lead to spurious research results. The last part of Section 5.9 presented a discussion on how the results of quantitative data analysis could be reported and diagnostic tests used to ensure that the model does not suffer from problems of multicollinearity. In Section 5.10, the reliability and validity were addressed in detail; this current section is the last one for the chapter and presents concluding remarks. The next chapter presents the results and a discussion of the signal of an association between selected CFP and ACF as the indicator of crowdfunding success, in line with the research objective (RO1) of the study.

# CHAPTER SIX

# EMPIRICAL RESULTS AND DISCUSSION OF FINDINGS

## 6.1 INTRODUCTION

The previous chapter described the methodological procedure and research design that guided the current research. This chapter presents the empirical results of testing the hypotheses developed in Chapter Four about crowdfunding success. Principally, there were four main research objectives namely: (RO1) to empirically examine the determinants of crowdfunding success for SMEs and entrepreneurs in Africa; (RO2) to examine the influence of entrepreneurs' experience on crowdfunding success in Africa; (RO3) to examine the impact of tangible and intangible rewards on crowdfunding success for SMEs and entrepreneurs in Africa and (RO4) to investigate the influence or role of social networks on crowdfunding success.

Fourteen research hypotheses associated with research questions are presented in Section 6.4. The findings indicate whether the developed research hypotheses were accepted or rejected. Section 6.2 presents a description of the dataset. Section 6.3 des categories crowdfunded projects in Africa. This is followed by the correlation matrix in Section 6.4, the results in Section 6.5, and a discussion of the binary logistic and OLS regression analyses results and multivariate regression analysis, in Section 6.6, as well as a robustness test of the model. The empirical model and implications of the proposition's results are presented. The conclusion and implications consist of theory, practical implications and lastly, limitations and future studies.

## 6.2 DESCRIPTIVE ANALYSIS

This section presents the descriptive statistics of the study. The descriptive statistical analysis shows the overall trends of the data analysed in the study focusing on the minimum, maximum, median, mean and standard deviation values of the variables. Furthermore, through an interpretation of goodness-of-fit, skewness and kurtosis are also explored to indicate the symmetry and peakiness of the data. A set of data that has been properly well-modelled is likely to provide a good fit, while data that has been poorly modelled produced an inaccurate fit (West, Taylor & Wu, 2012). Table 6.1 presents descriptive results for the dependent, independent and control variables over a period from 2018 to 2020.

The mean and standard deviations of flexible funding (FXF), spelling error (SPR), targeted amount (TA), image (IM), social media (SN), updates (UPD), rewards (OUT) and duration exhibited high variation, compared to other variables. This observation is supported by the maximum and minimum values of the variables. The skewness fell between -0.5 and 0.5 for video (VD), duration (DRN) and image (IM) was fairly symmetrical. Nevertheless, the access to finance (ACF), targeted amount (TA), backers (BCK), video, experience, (EXP), comments (CMM), updates (UPD), spelling errors (SPR) and frequently asked questions (FAQs) were greater than 1, indicating that they were highly skewed to the positive. On the other hand, crowdfunding platforms (CPF), image (IM), social networks (SN) and flexible funding (FXF) were negatively skewed, as their skewness was less than -1. The high kurtosis reported for crowdfunding success (ACF), targeted amount (TA), backers (BCK), crowdfunding platform (CPF), experience (EXP), comments (CMM), social network (SN), updates (UPD), frequently asked questions (FAQs) and flexible funding (FXF) exhibited high kurtosis (> 3), indicating the presence of outliers. Reward (OUT), video (VD), image (IM) and duration (DRN) showed the absence of outliers as exhibited platykurtic (kurtosis < 3) characteristics. According to Cain, Zhang and Yuan (2017) stated that normal univariate distribution may be determined by the researcher when the skewness and kurtosis values are within the threshold of -2 and +2. Given this was the case with this collection of data, it was expected that the data would have a normal distribution.

The descriptive statistical analysis shows the overall understanding of the data analysed in the study focusing on minimum, maximum, median, mean and standard deviation. The mean and standard deviation of duration (DRN), frequently asked questions (FAQ), comments (CMM) and targeted amount (TA), exhibited high variation, compared to other variables as indicated by their maximum and minimum values.

Access to finance (ACF), a proxy for crowdfunding success, shows that on average, 0.085 of crowdfunding projects in the African continent are successful. ACF deviates by 0.2782 among variables with a minimum of 0.00 and a maximum of 1.00. These imply that 9 percent of the crowdfunding projects under the study are successful. With a minimum and maximum was 0 and 1.

The mean of the targeted amount was USD 30,0880.30 and the standard deviation of 4 231 312. It suggested that the targeted amount for crowdfunding campaigns was USD 30,0880.30. The median of the targeted amount was USD 10,000, indicating that half of the crowdfunding campaign aimed to raise USD 1,000 or less. The presence of images (IM) is based on the pictures posted on the crowdfunding campaign page and had a mean (median) of 0.69 (1). This median was 1, indicating that 1 or 0 pictures were included in the crowdfunding campaign. It suggests that 69 percent on average, images were presented in the crowdfunding projects of SMEs and entrepreneurs.

Presence of video (VD) was 0.48, with a standard deviation of 0.51. This implies that on average, there is 48 percent presentation of video on the crowdfunding projects under this study. The minimum and maximum of 0 and 1. The mean of the entrepreneur's experience was 0.177 and the standard deviation of 0.381. Therefore, it implies that on average, there was an 18 percent representation of the experience of the crowdfunding projects under study. The mean of flexible funding was 0.807 and a standard deviation of 0.395 respectively, implying that on average, 81 percent of the flexible funding mechanism is used for crowdfunding projects in Africa. With a minimum and maximum of 0 and 1 respectively.

The mean value of spelling error was 0.248 with a standard deviation of 0.4320. These statistics imply that, on average, there was 25 percent of spelling errors on the crowdfunding projects under the study. The social network reported a mean of 0.860 and the standard deviation was 0.347 respectively. The implication of the statistics states that on average, 86 percent represent the influence on access to finance. On average, the statistic of return (OUT) which is a proxy for return on crowdfunding platforms to backers was 0.6490 with a standard deviation of 0.477. This statistic implies that 65 percents of rewards provided to backers improve access to finance under the study in Africa with a minimum of 0 and a maximum of 1.

The usage of crowdfunding platforms (CFPs) as a proxy of popular reward based crowdfunding platforms reported 0.99 percent, with a standard deviation of 0.058. This statistic implies that on average, 99 percent of the popular usage of crowdfunding platforms highly attracts a greater number of backers to support projects financially with a minimum value of 0 and a maximum of 1.

The mean and standard deviations of duration were 46.06; and 16.78 respectively. The statistics imply that, on average 46 days duration for crowdfunding projects under the study. With a minimum and maximum was 1 and 90 respectively. The median duration was 55 days, indicating that half of the campaigns ran for 55 days or fewer. The mean and standard deviation of comments were 1.703 and 22.73 respectively. The implication of these statistics is that, on average 170 percent of comments received on the study. Reported a minimum and maximum of 0 and 13 respectively.

The mean of updates indicates that, on average 93 percent of crowdfunding projects under the study and the standard deviation was 3.086. The minimum and maximum of 0 and 41. The frequently asked questions reported a mean and standard deviation of 0.068 and 0.703 respectively. These imply that there were 7 percent of frequently asked questions on average, represented in the study. The average statistics of backers was 13 percent, with a standard deviation of 77.67. This implies that most of the crowdfunding projects in the study were dependent on the backers. The highest value was 1398 backers, with a minimum of 0.

**TABLE 6.1: DESCRIPTIVE STATISTICS**

| **Variables** | **Observation** | **Mean** | **Standard deviation** | **Minimum** | **Median** | **Maximum** | ***Skewness*** | ***Kurtosis*** |
|---|---|---|---|---|---|---|---|---|
| Crowdfunding success (ACF) | 1 796 | 0.085 | 0.279 | 0.000 | 0.00 | 1.000 | 2.97 | 9.83 |
| Targeted amount (TA) $ | 1 796 | 30 0880.30 | 423 1312 | 50.00 | 10000.00 | 0.000000014 | 27.706 | 836.1168 |
| Rewards or return (OUT) | 1 796 | 0.649 | 0.477 | 0.000 | 1.00 | 1.000 | -0.63 | 1.39 |
| Backers (BCK) | 1796 | 13.00 | 77.67 | 0.000 | 0.00 | 1398.00 | 12.30 | 177.04 |
| Video (VD) | 1 796 | 0.480 | 0.507 | 0.000 | 0.00 | 1.000 | 0.08 | 1.006 |
| Crowdfunding platform (CPF) | 1 796 | 0.990 | 0.058 | 0.000 | 1.00 | 1.000 | -17.21 | 297.33 |
| Experience (EXP) | 1 796 | 0.177 | 0.381 | 0.000 | 0.00 | 1.000 | 1.70 | 3.89 |
| Image (IM) | 1 796 | 0.693 | 0.462 | 0.000 | 1.00 | 1.000 | -0.84 | 1.70 |
| Comments (CMM) | 1 796 | 1.703 | 22.73 | 0.000 | 0.00 | 781.00 | 26.68 | 834.05 |
| Social media usage (SN) | 1 796 | 0.860 | 0.347 | 1.000 | 1.00 | 1.000 | -2.08 | 5.32 |
| Duration (DRN) | 1 796 | 46.06 | 16.78 | 1.000 | 55.00 | 90.00 | -0.62 | 2.12 |
| Updates (UPD) | 1 796 | 0.926 | 3.086 | 0.000 | 0.00 | 41.00 | 6.16 | 53.71 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Spelling errors (SPR) | 1 796 | 0.248 | 0.432 | 0.000 | 0.00 | 1.000 | 1.17 | 2.36 |
| Frequently Asked Questions (FAQs) | 1 796 | 0.068 | 0.703 | 0.000 | 0.00 | 13.00 | 12.45 | 174.74 |
| Flexible funding (FXF) | 1 796 | 0.807 | 0.395 | 0.000 | 1.00 | 1.000 | -1.55 | 3.42 |

A summary of crowdfunding datasets is provided in Table 6.3, along with significant information about the sample process such as size, variables covered, and time frame. This overview helps researchers choose the right data for the analysis by providing an understanding of the datasets that are accessible for crowdfunding research.

**TABLE 6.2: DESCRIPTION OF CROWDFUNDING DATASETS**

| **Crowdfunding campaign period** | **2018-2020** |
|---|---|
| Number of campaigns | 2000 |
| Successful campaign (access to finance) | 159 |
| Failed campaign projects | 1427 |
| Cancelled/suspended and invalid projects | 254 |
| The rate of access to finance (success rate) | 0,326802% |
| Number of supporters (backers) | 23,370 |
| Money pledged overall USD | 3,086 125 |
| The money targeted in overall USD | 944,339 567 |

There are considerable differences regarding the success rate number of campaigns and the amount of money pledged across all crowdfunding categories in the African continent was USD 3,086 124 while the targeted amount was USD 944,339 567. However, the success rate of crowdfunding campaigns was low. There are categories with a larger number of campaigns, but little money pledged and vice versa.

Figure 6.1 below presents an overview of the 28 main crowdfunding categories in Africa. Additionally, it shows the leading crowdfunding categories in Africa during the study period.

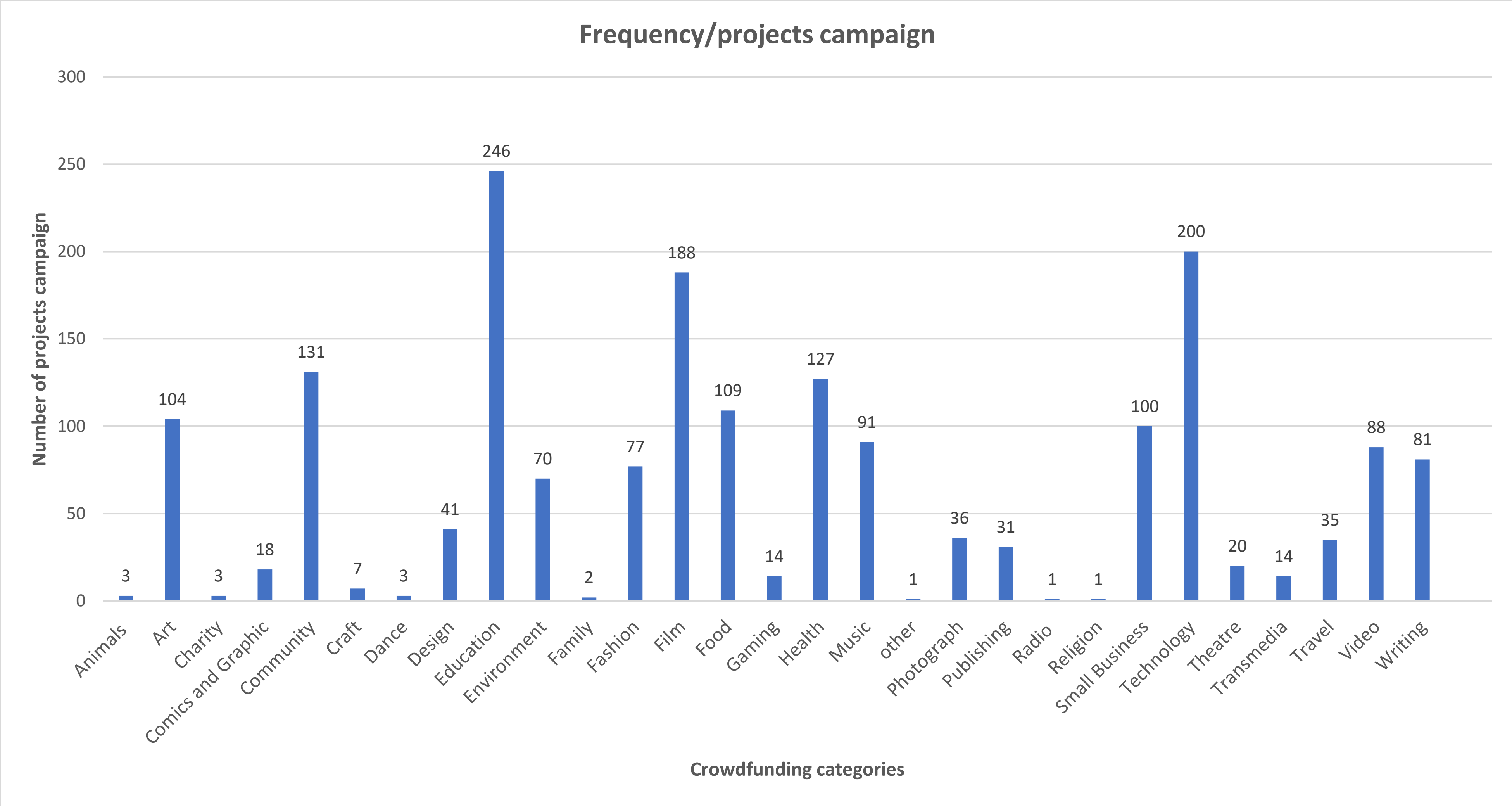


**FIGURE 6.1: CROWDFUNDING PROJECTS CAMPAIGN IN AFRICA**

Source: TheCrowdDatacentre (2020)

Figure 6.1 presents an overview of the 28 main crowdfunding categories in Africa. The x-axis represents the crowdfunding categories, while the y-axis displays the number of crowdfunding projects per category. The findings depicted in Figure 6.1 reveal that religion, radio, theatre, travel transmedia, publishing, photography, gaming, family, design, craft comics, and graphics, charity were not popular in the African continent, with less than 50 crowdfunding projects per category. However, education, technology, film, community, health, art, and small business emerged as the leading crowdfunding categories in Africa, followed by food, music, writing, video, environment, and fashion.

Figure 6.2 below presents an overview of the crowdfunding projects in Ari. Additionally, it shows the leading crowdfunding categories in Africa during the study period.

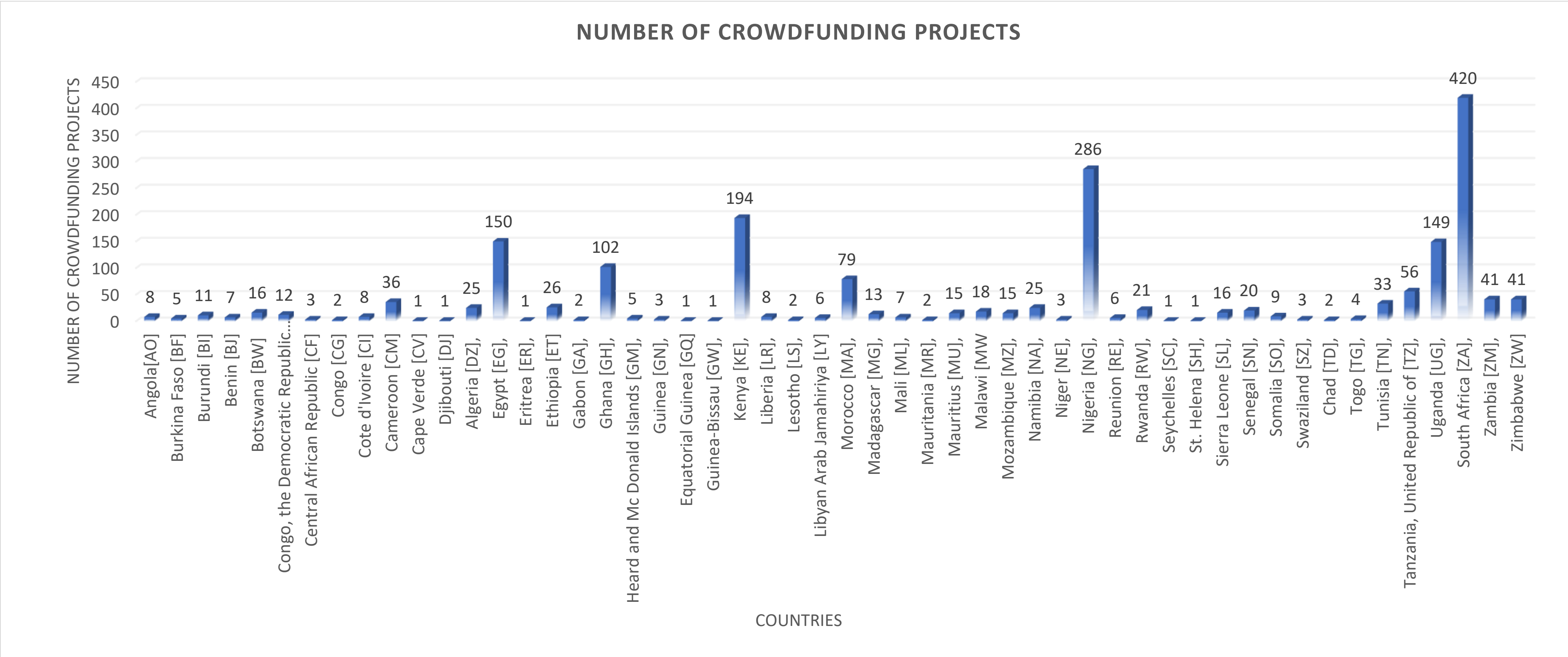


**FIGURE 6.2: CROWDFUNDING PROJECTS PER AFRICAN COUNTRY**

Source: authors' compilation

The crowdfunding projects in the African continent vary in terms of the number of campaign projects. Most countries in Africa have less than 50 crowdfunding campaigns, indicating lower participation and awareness of crowdfunding. However, there are several countries with a higher number of crowdfunding campaigns. These include Tanzania United Republic, Morocco Ghana, Uganda, Egypt, Kenya, Nigeria, and South Africa with 56, 79, 102, 149, 150, 194, 286 and 420 crowdfunding projects, respectively. South Africa leads the way with 420 projects followed by Nigeria Kenya is the third largest in terms of crowdfunding campaigns with 194 projects, followed by Egypt with 150 projects, Uganda, Ghana and Morocco have 149, 102 and 79 projects, respectively. The focus is primarily on English-speaking countries. Additionally, many African countries have limited ICT infrastructure; resulting in lower internet usage which is necessary for crowdfunding participation.

The Variance Inflation Factor (VIF) values for the predictor variables in our regression analysis are shown in Table 6.4 below. Higher values of VIF indicate greater correlations between predictors and reflect the level of multicollinearity between the predictors. the study evaluates the level of multicollinearity in the model by examining these VIF values, allowing them to ensure the reliability of regression results.

**TABLE 6.3: THE VARIANCE INFLATION FACTOR (VIF)**

| Variables | VIF |
|---|---|
| Image (IM) | 1.752 |
| Video (VD) | 1.409 |
| Experience (EXP) | 1.085 |
| Flexible funding (FXF) | 1.202 |
| Spelling errors (SPR) | 1.059 |
| Social network (SN) | 2.150 |
| Reward (OUT) | 1.441 |
| Crowdfunding platform (CFP) | 1.009 |
| Duration (DRN) | 1.100 |
| Comments (CMM) | 1.209 |
| Updates (UPD) | 1.398 |
| Backers (BCK) | 1.139 |
| Frequently Asked Questions (FAQs) | 1.122 |
| Targeted amount (TA) | 1.039 |

Source: author's compilation

The number of observations and Variance Inflation Factor (VIF) are used to indicate and interpret the goodness of fit of the study. The VIFs which are less than 5 suggest that multicollinearity is not a significant concern among predictor variables. In contrast, VIFs greater than 5 indicate potential multicollinearity issues that may affect the reliability of regression results. Therefore, the VIF should be less than 5. We have calculated the VIF for all variables, and the mean value VIF is 1.55 with a maximum VIF of 2.28, both within the thresholds suggested by Akinwande, Dikko and Samson (2015). Therefore, the models will not suffer from multicollinearity problems because all variables are within the threshold of 5.

## 6.3 CORRELATION ANALYSIS

This section presents the correlation results of the study. Table 6.4 shows the correlation matrix of the study.

## TABLE 6.4: CORRELATION MATRIX

| | ACF | IM | VD | EXP | FXF | SPR | SN | OUT | CFP | DRN | CMM | UPD | BCK | FAQ | TA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ACF | 1.000 | | | | | | | | | | | | | | |
| IM | 0.138*** | 1.000 | | | | | | | | | | | | | |
| VD | 0.166*** | -0.0002 | 1.000 | | | | | | | | | | | | |
| EXP | 0.126*** | 0.077*** | 0.163*** | 1.000 | | | | | | | | | | | |
| FXF | -0.331*** | -0.109*** | -0.173*** | -0.058*** | 1.000 | | | | | | | | | | |
| SPR | -0.014 | 0.131*** | 0.111*** | 0.014 | 0.017 | 1.000 | | | | | | | | | |
| SN | 0.099*** | 0.580*** | 0.371*** | 0.178*** | -0.059** | 0.228*** | 1.000 | | | | | | | | |
| OUT | 0.162*** | 0.365*** | 0.323*** | 0.153*** | -0.191*** | 0.109*** | 0.495*** | 1.000 | | | | | | | |
| CFP | -0.017 | 0.0241 | -0.002 | 0.027 | 0.069*** | -0.011 | 0.032 | 0.018 | 1.000 | | | | | | |
| DRN | -0.190*** | 0.0498** | -0.030 | -0.061*** | 0.222*** | 0.019 | 0.051** | -0.029 | 0.014 | 1.000 | | | | | |
| CMM | 0.186*** | 0.034 | 0.071** | 0.100*** | -0.121*** | 0.006 | 0.029 | 0.051** | -0.008 | -0.059*** | 1.000 | | | | |
| UPD | 0.475*** | 0.142*** | 0.192*** | 0.193*** | -0.239*** | 0.012 | 0.114*** | 0.142*** | -0.020 | -0.089*** | 0.391*** | 1.000 | | | |
| BCK | 0.258*** | 0.080*** | 0.102*** | 0.020 | -0.177*** | 0.0135 | 0.054** | 0.074*** | 0.008 | -0.083*** | 0.170*** | 0.273*** | 1.000 | | |
| FAQ | 0.217*** | 0.057*** | 0.091*** | 0.038* | -0.197*** | -0.0042 | 0.039* | 0.071*** | 0.006 | -0.049** | 0.226*** | 0.282*** | 0.188 | 1.000 | |
| TA | -0.085*** | 0.022 | 0.052** | -0.0233 | 0.0128 | -0.0042 | 0.017 | 0.0388 | -0.001 | 0.171*** | -0.014 | 0.007 | 0.034 | 0.005 | 1.000 |

**ACF (Access to finance); IM (Image); VD (Video); EXP (Experience); FXF (Flexible funding); SPR (Spelling error); SN (Social network); OUT (Return/Rewards); CFP (Crowdfunding platform); DRN (Duration); CMM (Comments); UPD (Updates); BCK (Backers); FAQs (Frequently Asked Questions) and TA (Targeted amount).**

***Note (*) (**), and (***):***

***significant at the 10%, 5% and 1% levels, respectively.***

Table 6.4, the results show that the models presented were free associations of independent variables in the analysis. The correlation matrix serves as a benchmark for detecting the problems related to multicollinearity among the independent variables. The threshold for multicollinearity suggested by Wooldridge (2018) is 0,80, which can be applied to any form of regression analysis model. In this study, the correlations between the critical variables are below 0.8, which indicates the absence of multicollinearity between independent and control variables. The evidence of the results indicated that there was some degree of correlation between the dependent variables and the predictors of interest, or independent variables. An inverse significant correlation is observed in certain cases.

Regarding the correlation between the predictors of interest (independent variables) and the dependent variables, the results indicate a degree of correlation. Some variables show a strong relationship between the dependent and independent variables, as indicated by their level of significance. The correlation analysis is presented in Table 6.4, which provides three levels of significance (i.e., 1 percent, 5 percent, and 10 percent) for the degree of correlation between the dependent, independent, and control variables. Based on this analysis consider the advice of Barrowman (2014) that correlation does not necessarily mean causality.

As shown in Table 6.4 there is evidence of a strong correlation between image and crowdfunding success ($\beta$=0.138; $p<0.01$) with a 1 percent level of significance. This implies that the presence of an image on the crowdfunding campaign page increases success by 14 percent. The strong association between video and crowdfunding success ( $\beta$=0.166; $p<0.01$) at 1 percent significant. Therefore, the existence of video on the crowdfunding campaign increases success by 17 percent. A strong association was established between experience on crowdfunding success ($\beta$=0.126; $p<0.01$), indicating a 1 percent level of significance. Whereas flexible funding reported a strong negative relationship with success ($\beta$=-0.331; $p<0.01$) significant at 1 percent. Duration showed a strong association with crowdfunding success ($\beta$=-0.19; $p<0.01$) at a 1 percent level of significance. Indicating that a longer duration decreases the success rate by 19 percent. The targeted amount showed a low negative associated with crowdfunding success ($\beta$ -0.085; $p<0.01$) at a 1 percent level of significance.

The presence of social networks is strongly associated with crowdfunding success (β =0.099; $p<0.01$) at 1 level of significance. It implies that the association is very low but highly significant, hence increasing crowdfunding success by 9 percent. Comments reported a strong association with crowdfunding success (β=0.186; $p<0.01$) with a 1 percent level of significance. The updates strongly associated with crowdfunding success (β=0.475; $p<0.01$) are significant at 1 percent. The potential backers showed a strong relationship with crowdfunding success (β=0.258; $p<0.01$) at a 1 percent level of significance. Frequently asked questions strongly related to crowdfunding success (β =0.217; $p<0.01$) at a 1 percent level of significance. The correlation between rewards and crowdfunding success was positive (β=0.162; $p<0.01$) and significant at a 1 percent level. These variables showed a strong correlation with crowdfunding success. The correlation between spelling errors and crowdfunding success was negative (β=-0.014) but not significant. Also, negative correlation between crowdfunding platforms and crowdfunding success (β=-0.017) but not significant.

## 6.4 REGRESSION ANALYSIS

This section presents the results of the regression analysis. The research hypotheses of the study were tested by conducting diagnostic tests for the logistic regression analysis. Table 6.5 displays the results, revealing that the majority of variables are statistically significant. However, only two independent variables were found to have an insignificant impact on access to finance (crowdfunding success). Most variables are also jointly significant at the confidence level above 99.99 percent, with a p-value of 0.000. Secondly, the McFadden pseudo-R squared is greater than 0.2 which is considered a perfect fit for the logit model (refer to Domencich & McFadden, 1975). Specifically, both nine dummy variables reported pseudo-R squared values ranging from 30 percent to 33 percent, indicating a strong explanatory power in both models. Both models showed an excellent fit. Thirdly, the chi-squared test showed a probability of zero, demonstrating that all variables are significant. Lastly, the results of the likelihood ratio test (LR-test) are significant at the 1 percent level, providing sufficient evidence to reject the null hypothesis of the study which states that the smaller model is appropriate.

Binary logistic regression was employed in the study to test the hypotheses. The study standardised the independent, control, and interaction terms between variables to reduce the problem of multicollinearity between variables (Aiken & West, 1991). However, there are dummy factors such as spelling errors, videos, pictures, flexible funding, social networks, experience, and rewards. Nine models have been established. The dependent variable and the control variables were the only variables in Model 1. One by one, we add the independent variables to Models 2-7 so that we may test each hypothesis independently. Model 8 shows the entire model, complete with main effects. Furthermore, in Model 9 variables are included together with the moderator.

Both the research hypotheses were tested in the logistic regression results presented in Table 6.5. The dependent variable, access to finance (success), is represented as a binary logistic dummy variable in all models. The second part of the OLS regression analysis will be tested in Table 6.6. Due to the nature of the dependent variable, logit regression was used to test the hypotheses developed in section 4.2 of Chapter 4. In terms of the explanatory power of the models, the F-statistics of all models are significant ($p < .001$), indicating that the independent variables explain a huge portion of the variance in the dependent variable. These results are consistent with prior studies (e.g., Mollick, 2014; Zhao, 2018; Liang, Hu, and Jiang, 2020). We use binary logistic regression to test the hypotheses since the dependent variable (crowdfunding success) is a dichotomous variable that can have a value of either 1 or 0. We standardised the independent, control, and interaction term variables to reduce the problem of multicollinearity between variables.

## TABLE 6.5: BINARY LOGISTIC REGRESSION ANALYSIS RESULTS ON CROWDFUNDING SUCCESS

| Variables | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 | Model 6 | Model 7 | Model 8 | Model 9 |
|---|---|---|---|---|---|---|---|---|---|
| | Image | Crowdfundin g platforms | Return | Social network | Spelling errors | Flexible funding | Experience | Video | control |
| **IM** | 1.226** (0.303) | | | | | | | | |
| **VD** | | | | | | | | 0,823*** (0,227) | |
| **EXP** | | | | | | | 0,394* (0,237) | | |
| **FXF** | | | | | | -1,627*** (0,218) | | | |
| **SPR** | | | | | -0,252 (0,250) | | | | |
| **SN** | | | | 1,540*** (0,527) | | | | | |
| **OUT** | | | 1,500*** (0,312) | | | | | | |
| **CFP** | | 0,014 (1,509) | | | | | | | |
| **DRN** | -0.036*** (0,006) | -0,0331*** (0,006) | -0,034*** (0,006) | -0,035** (0,006) | -0,033*** (0,006) | -0,024*** (0,006) | -0,033*** (0,006) | -0,033*** (0,006) | -0.033*** (0,006) |
| **CMM** | -0,003 (0,006) | -0,005 (0,005) | -0,005 (0,005) | -0,005 (0,005) | -0,005 (0,004) | -0,005 (0,005) | -0,006 (0,005) | -0,004 (0,004) | -0,005 (0,005) |
| **UPD** | 0.321*** (0.033) | 0,341*** (0,034) | 0,326*** (0,032) | 0,326*** (0,033) | 0,342*** (0,033) | 0,315*** (0,032) | 0,334*** (0,034) | 0,312*** (0,033) | 0,341*** (0,033) |
| **FAQ** | 0.246** (0.108) | 0,275*** (0,108) | 0,238** (0,108) | 0,265*** (0,107) | 0,280*** (0,109) | 0,135 (0,105) | 0,286*** (0,110) | 0,249** (0,108) | 0,275*** (0,108) |
| **BCK** | 0,003*** (0,001) | 0,004*** (0,001) | 0,004*** (0,001) | 0,004*** (0,001) | 0,004*** (0,001) | 0,004*** (0,001) | 0,004*** (0,001) | 0,004*** (0,001) | 0,004*** (0,001) |
| **TA** | -0,578*** | -0,540*** | -0,596*** | -0,577*** | -0,538*** | -0,605*** | -0,536*** | -0,590*** | -0,540*** (0,148) |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | (0.149) | (0,148) | (0,149) | (0,149) | (0,148) | (0,155) | (0,148) | (0,150) | |
| **C** | -0,279<br>(0,611) | -0,373<br>(1,611) | -0,504<br>(0,618) | -0,773<br>(0,731) | 0,441<br>(0,568) | 1,363<br>(0,609) | 0,280***<br>(0,572) | -0,157<br>(0,580) | -0,387<br>(0,566) |
| **N** | 1801 | 1802 | 1802 | 1802 | 1799 | 1802 | 1800 | 1801 | 1802 |
| **Pseudo $R^2$** | 0.3198 | 0.3003 | 0.3294 | 0.3127 | 0.301572 | 0.352 | 0.302725 | 0.3133 | 0.300 |
| **LR statistic** | 334.8734 | 314.5000 | 345.0029 | 327.5352 | 315.6718 | 368.9591 | 316.9323 | 328.1299 | 314.4999 |
| **Prob (LR statistic)** | 0.000000 | 0.000000 | 0.000000 | 0.0000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 |
| **countries** | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 |

**ACF (Access to finance); IM (Image); CFP (Crowdfunding platform); OUT (Return/rewards); SN (Social network); SPR (Spelling error); FXF (Flexible funding); EXP (Experience); VD (Video); DRN (Duration); CMM (Comments); UPD (Updates); FAQs (Frequently asked questions); BCK (Backers) and TA (Targeted amount).**

Note (*) (**), and (***): significant at the 10%, 5% and 1% levels, respectively.

Table 6.5 presents the binary regression analysis that responds to the research hypothesis developed in Chapter 4 and addresses the research question of the study. The regression coefficients β indicate the direction of the impact between the access to finance criterion (dependent variable) and each signal (independent variable) and they can be used as a means for hypotheses testing.

Hypothesis 10 was tested in model 1 which showed that the presence of an image on the crowdfunding page increases the probability of crowdfunding success ($\beta=1.25$; $p<0,001$) and is significant at a 1 percent level. The results suggest that the availability of images or visual increases the likelihood of attracting backers to participate in crowdfunding campaign projects in the African continent. The popular crowdfunding platform enhances the likelihood of crowdfunding success but is not significant ($\beta=0,014$) tested in hypothesis 2. The potential backer does not participate in the unpopular crowdfunding platform as compared to popular crowdfunding platforms. Moreover, the findings conclude that reward-based crowdfunding platforms have the potential to finance entrepreneurs in Africa.

The crowdfunding projects that offer rewards or returns to backers increase the likelihood of accessing finance. Additionally, the presence of a social network or media also increases the probability of accessing finance ($\beta=1,500$ and 1,540, respectively; $p<0.001$) as tested in hypothesis 2 and model 3. The rewards influence crowdfunding success for SMEs and entrepreneurs in Africa. The findings suggest that backers are motivated by the tangible and intangible rewards or returns they receive in exchange for their investment or contribution. The social network increases the probability of accessing finance ($\beta=1,540$; $p<0.001$) and is significant at a 1 percent level in hypothesis 5 model 4. The results suggest that social media platforms such as Facebook, Twitter, blogs, LinkedIn, and Myspace improve awareness and participation in crowdfunding, leading to increased access to finance.

Spelling errors on the crowdfunding page decrease the probability of accessing finance ($\beta=-0,252$) in hypothesis 11 model 5. The results imply that spelling errors on the crowdfunding campaign page discourage backers from supporting the campaign as they doubt its validity and reliability. Therefore, spelling errors on the crowdfunding campaign project indicate lower quality and lack of unpreparedness.

The flexible funding decreases the probability of access to finance (β=1.627; p<0.001) as tested in hypothesis 14 model 6. The results suggest that crowdfunding projects with a less specific or unclear goal amount are less likely to succeed as compared to fixed campaign projects. Conversely, fixed campaign projects are more likely to access finance because they have a precise target amount and a set period, which increases their reliability and commitment to backers.

The project creators or entrepreneurs with experience increase the likelihood of crowdfunding success (β=1.394; p<0.1) significantly at a 10 percent level, as tested in hypothesis 4 model 7. It implies that an entrepreneur's experience improves the credibility and trustworthiness of potential backers or investors to support their projects. A video on the crowdfunding page increases the probability of access to finance (β=0.823; p<0.001) at a 1 percent level of significance in hypothesis 6, model 8. The backers are attracted by the visibility of the video which helps them make decisions on investing or financing. The video usage on the crowdfunding platform provides more information and complete details on the project campaign page.

Model 9 includes control variables, duration, comments and target which are negatively associated with access to finance (β=-0.033, -0.005 and -0.540 respectively; p <.001). It indicates that a longer duration of the crowdfunding campaign signals lower credibility and trust, thus decreasing the likelihood of success reported in Hypothesis 7. Hypothesis 9 implies that comments discourage potential backers from supporting the crowdfunding campaign. The results showed that unreasonable or higher targeted amounts decrease the likelihood of success presented in Hypothesis 1. Conversely, updates, FAQs and backers are positively related to access to finance (β=0.341, 0.275 and 0.004, respectively; p <.001). The results imply that updates positively associated with crowdfunding success presented hypothesis 8. Consistency updates on the crowdfunding campaign overcome the information asymmetry problem. Hypothesis 13, the frequently asked question on the crowdfunding campaign increases the likelihood of success tested. Hypothesis 3 Implies that a greater number of backers increases the likelihood of crowdfunding success.

In conclusion, the study revealed that crowdfunding in Africa has the potential to finance entrepreneurship and reduce the high capital demand for financial resources from traditional sources such as commercial banks and angel funding. The provision of tangible and intangible rewards to backers helps alleviate the financial constraints faced by SMEs and entrepreneurs. The fixed funding mechanism creates trust between backers and entrepreneurs increasing the likelihood of success. Lastly, the use of social networks helps alleviate uncertainties and risks associated with crowdfunding campaign projects leading to success.

Table 6.7 presents the OLS regression analysis used for robustness check to confirm the results of earlier analytical techniques. By reducing the sum of squared differences between actual and predicted values, OLS regression is a famous statistical technique that examines the relationship between a dependent variable and one or more independent variables.

**TABLE 6.6: ORDINARY LEAST SQUARES (OLS) REGRESSION ANALYSIS**

| **Variables** | **Model 1** | | **Model 2** | | **Model 3** | |
|---|---|---|---|---|---|---|
| | **Fund Raised (FR)** | | **Access to Finance (ACF)** | | **Average amount pledged (AVP)** | |
| **IM** | 0.359*** | (0.113) | 0.042*** | (0.016) | 0.139*** | (0.055) |
| **VD** | 0.415*** | (0.094) | 0.024* | (0.013) | 0.263*** | (0.046) |
| **EXP** | -0.084 | (0.102) | 0.013 | (0.015) | -0.032 | (0.053) |
| **FXF** | 0.003 | (0.102) | -0.123*** | (0.016) | -0.308*** | (0.056) |
| **SPR** | 0.077 | (0.096) | -0.015 | (0.013) | -0.059 | (0.046) |
| **SN** | -0.274 | (0.176) | -0.024 | (0.023) | -0.209*** | (0.081) |
| **OUT** | 0.065 | (0.108) | 0.017 | (0.014) | 0.176*** | (0.048) |
| **CFP** | -0.077 | (0.625) | 0.027 | (0.095) | -0.291 | (0.332) |
| **DRN** | 9.82E-05 | (0.003) | -0.001*** | (0.0003) | 0.002* | (0.001) |

| | | | | | | |
|---|---|---|---|---|---|---|
| **CMM** | -0.002 | (0.002) | -0.0004 | (0.0003) | -0.003*** | (0.001) |
| **UPD** | 0.0302 | (0.011) | 0.034*** | (0.0021) | 0.042**** | (0.007) |
| **FAQ** | 0.048*** | (0.045) | 0.0202** | (0.0083) | -0.023 | (0.029) |
| **BCK** | 0.0034*** | (0.0004) | 0.0003*** | (7.45E-05) | 0.002*** | (0.0003) |
| **TA** | -0.040 | (0.055) | -0.027*** | (0.0067) | -0.098*** | (0.023) |
| **ANIMALS** | -0.0521 | (0.643) | 0.1500 | (0.136) | 0.3457 | (0.477) |
| **CHARITY** | 0.665 | (0.630) | 0.321** | (0.135) | 1.9912*** | (0.471) |
| **COMICS** | -0.284 | (0.335) | -0.112** | (0.057) | 0.043 | (0.201) |
| **COMMUNITY** | 0.322* | (0.192) | 0.0248 | (0.028) | 0.223** | (0.098) |
| **CRAFT** | -0.531 | (0.632) | 0.019 | (0.090) | -0.359 | (0.315) |
| **DANCE** | -0.237 | (1.069) | -0.174 | (0.231) | 0.622 | (0.809) |
| **DESIGN** | 0.077 | (0.263) | 0.1143*** | (0.041) | 0.097 | (0.144) |
| **EDUCATION** | 0.159 | (0.174) | 0.0375 | (0.024) | 0.056 | (0.085) |
| **ENVIRONMENT** | 0.039 | (0.232) | 0.030 | (0.034) | 0.186 | (0.118) |
| **FAMILY** | 1.111 | (0.763) | 0.238 | (0.164) | 0.993* | (0.576) |
| **FASHION** | 0.356 | (0.346) | 0.053 | (0.047) | 0.0036 | (0.171) |
| **FILM** | 0.045 | (0.171) | 0.081*** | (0.026) | 0.104 | (0.090) |
| **FOOD** | 0.003 | (0.219) | -0.0003 | (0.029) | -0.093 | (0.103) |
| **GAMING** | -0.320 | (0.382) | 0.116* | (0.066) | -0.200 | (0.232) |
| **HEALTH** | 0.3236 | (0.209) | 0.036 | (0.028) | 0.094 | (0.099) |
| **MUSIC** | -0.048 | (0.216) | 0.112*** | (0.031) | -0.068 | (0.108) |
| **PHOTOGRAPHY** | 0.4368 | (0.311) | 0.161*** | (0.044) | 0.0273 | (0.154) |

| | | | | | | |
|---|---|---|---|---|---|---|
| **PUBLISHING** | -0.402 | (0.279) | 0.024 | (0.048) | 0.123 | (0.168) |
| **RADIO** | -1.180 | (1.070) | -0.25 | (0.231) | 0.006 | (0.809) |
| **RELIGION** | 0.555 | (1.071) | 0.048 | (0.231) | 1.739** | (0.808) |
| **SMALL_BUSINESS** | 0.057 | (0.226) | 0.021 | (0.0301) | 0.036 | (0.106) |
| **TECHNOLOGY** | 0.057 | (0.178) | 0.005 | (0.025) | -0.010 | (0.087) |
| **THEATRE** | 0.652 | (0.394) | 0.091* | (0.055) | 0.150 | (0.191) |
| **TRANSMEDIA** | 0.431 | (0.632) | 0.112 | (0.065) | 0.007 | (0.226) |
| **TRAVEL** | 0.839*** | (0.324) | 0.095 | (0.043) | 0.144 | (0.152) |
| **VIDEO** | -0.188 | (0.233) | -0.017 | (0.031) | -0.184* | (0.109) |
| **WRITING** | 0.018*** | (0.217) | 0.0462 | (0.0320) | 0.1439 | (0.1121) |
| **C** | 2.126*** | ((0.678) | 0.226** | (0.100) | 1.257*** | (0.352) |
| **Number of observations** | 758 | | 1796 | | 1789 | |
| $R^2$ | 0.235134 | | 0.332069 | | 0.173658 | |
| **African countries** | 54 | | 54 | | 54 | |

The study utilised the OLS method to analyse the funds raised, which was the dependent variable. This approach was similar to the studies conducted by Anglin *et al.* (2018). In model 1, the funds raised were used as the dependent variable following the adoption of OLS estimation, which was also similar to the approach used by Fourkan, (2021). In Model 2, Table 6.4 examined the access to finance (success) using the OLS estimation, which is aligned with Fourkan (2021). The study included 28 categorical variables, including crowdfunding categories, writing and travel. These variables were found a positive and significant impact on the funds raised, as shown in model 1 of Table 6.6. On the other hand, variables such as animals, comics, craft, dance, gaming, music, publishing, radio, and video had a negative impact on access to finance, but this impact was not statistically significant.

In Model 1 of Table 6.6, the dependent variable is funds raised, which includes crowdfunding categories as independent variables. The presence of images or visuals, videos, FAQs and backers has a positive influence on access to finance (β =0.359, 0.415, 0.048 and 0.003 respectively $p<0.01$). The fixable funding, spelling errors, return, duration, and updates also have a positive effect on access to finance, but they are not significant (β=0.003, 0.077, 0.065, 0.000 and 0.0302 respectively). On the other hand, experience, social network, a crowdfunding platform, comments, and targeted amount negatively influence access to finance (-0.084, -0.274, -0.077, -0.002 and -0.002 respectively but not significantly).

Animals, comics, crafts, dance, gaming, music, publishing, radio and video categories have a negative influence on access to finance (β =-0.052, -0.284, -0.531, -0.237, -0.320, -0.402, -1.180 and -0.188 but these effects are not significant). On the other hand, charity, design, education, environment, family, fashion, film, food, health, photography, religion, small business, technology, theatre, and transmedia categories positively influence access to finance (β= 0.665, 0.077, 0.159, 0.039, 1.111, 0.356, 0.045, 0.003, 0.3236, 0.437, 0.555, 0.057, 0.057,0.652 and 0.431 respectively but these effects are also insignificant). Finally, the travel and writing categories have a positive influence on access to finance (β= 0.839 and 0.018 respectively; $p<0.01$). However, the community category has a positive effect on access to finance (β =0.322 and $p<0.10$).

In model 2, access to finance is used as the dependent variable for the OLS model in Table 6.6. Access to finance is represented as a dummy variable, with a value of 1 if the project campaign is successful and 0 otherwise. The variables image, update and backers have a positive influence on access to finance (β =0.042, 0.034 and 0.003 respectively; $p<0.001$). Additionally, FAQ and video have a positive influence on access to finance (β=0.020 and 0.024 respectively; and $p<0.01$ and $p<0.10$ respectively). However, experience, return and crowdfunding platforms have a positive effect on access to finance but are not statistically significant (β=0.013, 0.017 and 0.027 respectively). On the other hand, flexible funding, duration and targeted amount have a negative influence on access to finance (-0.123, -0.001 and -0.027 respectively; $p<0.01$). There are spelling errors in the variables social network and comments which, have a negative influence on access to finance but are not statistically significant (-0.015, -0.024 and -0.0004).

Animal, community, craft, education, environment, family, fashion, health, publishing, religion, small business, technology, transmedia, travel and writing positively influence access to finance (β= 0.150, 0.025, 0.019, 0.038, 0.030, 0.238, 0.053, 0.036, 0.024, 0.048, 0.021, 0.005, 0.112, 0.095 and 0.0462 respectively but not significantly). Additionally, charity, design, film, music, photography, gaming, and theatre positively influence access to finance (β =0.321; p<0,05; 0.114, 0.081, 0.112 and 0.161 respectively; p<0.01; 0.116 and 0.091, p<0.10). On the other hand, dance, food, radio, and video categories negatively influence access to finance (β=-0.174, -0.0003, -0.251 and -0.017 but not significantly). Furthermore, the charity category negatively influences access to finance (β=-0.112, p<0.05).

Additional analyses were conducted to assess the reliability of the findings presented in Table 6.6, specifically in model 3 where the average amount pledged was used as a dependent variable, following a similar approach to Zhao (2018). To examine the robustness check of the results, an alternative measure of crowdfunding success was employed in this section. Instead of using a binary variable to represent access to finance (success), the variable "average amount pledged" is utilised as a proxy for crowdfunding success. The variable represents the natural logarithm of the average funding amount received in a crowdfunding campaign project.

To conduct the robustness, check the dependent variable "success" in model 3 was replaced by the new dependent variable, "average amount pledge". Subsequently, similar regression analyses were carried out. Further analysis was conducted to examine the robustness check of the overall study. The dependent variable is average funding serves as a proxy for access to finance (success). The study found that images or visuals, video, returns, updates, and backers are all positively and significantly associated with access to finance (β=0.139, 0.263, 0.042 and 0.002 respectively; p<0.01). Duration is also positively and significantly associated with access to finance (β=0.002; p<0.10). On the other hand, flexible funding, social networks, comments, and targeted amount are all negatively and significantly associated with access to finance (β=-0.308, -0.209, -0.003 and -0.098 respectively; p<0,01). Additionally, experience, spelling errors, crowdfunding platform and FAQ are negatively and insignificantly associated with access to finance (β=-0.032, -0.059, -0.291 and -0.023 respectively).

The categories of animal, comic, dance, design, education, environment, fashion, film, health, photography, publishing, radio, small business, theatre, transmedia, travel and writing crowdfunding are all positively but insignificantly related to access to finance (β= 0.346, 0.043, 0.622, 0.097, 0.056, 0.186, 0.004, 0.104, 0.094, 0.027, 0.123, 0.006, 0.036, 0.150, 0.007, 0.144 and 0.144 respectively). Additionally, the charity, community, religion, and family crowdfunding categories are all positively and significantly associated with access to finance (β=1.991; $p<0,01$; 0.223 and 1.739 respectively; $p<0.05$; 0.993, $p<0.10$). On the other hand, craft, food, gaming, music, and technology all negatively but insignificantly affect access to finance (β= -0.359, -0.093, -0.200, -0.068, and -0.010 respectively). Lastly, the video crowdfunding category negatively and significantly influences access to finance (β =-0.184; $p<0.10$).

The results of logistic regression analysis to test hypotheses for the research variables are shown in Table 6.8 below. The purpose of the research hypotheses was to investigate the relationships between different variables and the end variable, crowdfunding success.

In hypothesis testing, researchers typically set up two competing hypotheses: the null hypothesis (denoted as $H_0$) and the alternative hypothesis (denoted as $H_0$) or $H_1$). The null hypothesis represents the default assumption, while the alternative hypothesis proposes a difference, effect, or relationship between variables.

**TABLE 6.7: THE RESEARCH HYPOTHESES AND RESULTS**

| RESEARCH OBJECTIVES | HYPOTHESIS | RESULTS | SUMMARY |
|---|---|---|---|
| | $\mathrm{H}_1$: The higher funding target decreases the probability of African entrepreneurs and SMEs accessing finance. | Fail to reject the null hypothesis | The targeted amount is negatively influencing the access to finance at the 1% level of significance. |
| | $\mathrm{H}_3$: More backers of a crowdfunding campaign positively influence access to finance. | Fail to reject the null hypothesis | More backers positively influence access to finance at the 1% level of significance. |
| | $\mathrm{H}_6$: A video on the crowdfunding page has a positive influence on accessing finance through crowdfunding. | Fail to reject the null hypothesis | Video is positively influencing access to finance at the 1% level of significance. |
| **Research Objective (RO1)** | $\mathrm{H}_7$: As the duration of a crowdfunding project increases, the probability of accessing finance decreases. | Fail to reject the null hypothesis | The crowdfunding duration is negatively influencing the access to finance at the 1% level of significance. |
| | $\mathrm{H}_8$: Project updates on the crowdfunding page increase the probability of crowdfunding success and access to finance. | Fail to reject the null hypothesis | The updates are positively influencing access to finance at the 1% level of significance. |
| | $H_9$: The presence of comments on a project description is positively associated with access to finance. | Reject the null hypothesis | The more comments are negatively influencing the crowdfunding success at the 1% level of significance. |
| | $\mathrm{H}_{10}$ Images on the project's pitch have a positive impact on the accessibility to finance on crowdfunding platforms. | Fail to reject the null hypothesis | Images or visuals influence access to finance at the 5% level of significance |

| | | | |
|---|---|---|---|
| | $H_{11}$: The spelling-free project has a positive influence on access to finance through crowdfunding | Fail to reject the null hypothesis | The presence of spelling errors negatively influences access to finance but not significant |
| | $H_{12}$: The popular crowdfunding platform increases the likelihood of accessing finance | Fail to reject the null hypothesis | The popular crowdfunding platform is positively influencing access to finance but not significant |
| | $H_{13}$Increasing the number of entries in the FAQ on the project site enhances the likelihood of success. | Fail to reject the null hypothesis | The number of entries or FAQs positively influences access to finance at the 1% level of significance. |
| | $H_{14}$: Flexible funding crowdfunding campaigns are more likely to access finance and achieve success compared to flexible funding | Reject the null hypothesis | Flexible funding negatively influences access to finance at a 1% level of significance |
| **Research Objective (RO2)** | $H_4$: experience in successfully creating campaigns has a positive correlation with success. | Fail to reject the null hypothesis | The experience is positively influencing the access to finance at the 10% level of significance |
| **Research Objective (RO3)** | $H_5$: The crowdfunding campaign which offers returns or rewards to backers increases the likelihood of accessing finance | Fail to reject the null hypothesis | The returns provided to backers positively influence access to finance and are significant at the 1% level |
| **Research Objective (RO4)** | $H_2$: The presence of social networks in a crowdfunding campaign increases the likelihood of accessing finance. | Fail to reject the null hypothesis | The presence of social networks is positively influencing access to finance and is significant at a 1% level |

Despite the popularity and potential for growth of crowdfunding in Africa, its success rate remains low compared to developed continents. In developed countries, the success rate reaches approximately 90 percent, due to their advanced ICT infrastructure, technologies and internet usage. However, the adoption and awareness of crowdfunding in Africa are limited due to these factors.

## 6.5 DISCUSSION OF FINDINGS

The findings are discussed in four research objectives, as presented below.

### 6.5.1 Findings on the Determinants of Crowdfunding Success

In this section, the study discusses the findings on the determinants of crowdfunding success. The following factors were considered in the analysis: spelling Errors (SPR), fixed funding (FXF), social network (SN), experience (EXP), return (OUT), video (VD), images (IM), crowdfunding platform (CPF), duration (DRN), backers (BCK), comments (CMM), frequently asked questions (FAQs), number of Updates (UPD) and targeted amount (TA).

The results suggest that the availability of images or visuals increases the likelihood of attracting backers to participate in crowdfunding projects in the African continent. These findings are consistent with the findings of Zhang, Lyu and Luo (2021), Simons, Kaiser and vom Brocke (2019), Liang, Hu, and Jiang (2020) and Ma and Palacios (2021), who also reported a positive association between access to finance and presence of images. In contrast to these findings, Buttice, Colombo and Wright (2017), Aleksina, Akulenka and Lublóy (2019) and Courtney *et al.* (2017) found a negative relationship between images and access to finance. It has been concluded by Liang et al. (2020) that images or pictures on a crowdfunding campaign page positively increase access to finance in Africa. Nevertheless, visuals such as images or pictures improve a better understanding of the information related to a crowdfunding project and indicate the campaign's preparedness and quality, thereby increasing the probability of success.

The results of this study revealed a negative association between flexible funding and crowdfunding success. Flexible funding is less specific or requires an unclear goal amount; hence, the project creators take the raised amount irrespective of whether the target amount has been achieved. Conversely, fixed campaign projects are more likely to access finance because they have a precise target amount and a set period, which increases their reliability and commitment to backers. These findings align with the research conducted by Lagazio and Querci (2018) and Bi, Geng and Liu (2019), which found that fixable funding negatively affects access to finance due to its lack of specificity regarding the funding goal amount. To date, no contradictory findings suggest a negative association between fixed funding and access to finance. Therefore, fixed funding signals a positive probability of access to finance (success).

The video presentation on the crowdfunding campaign is positively associated with crowdfunding success. The findings suggest that backers are attracted by the video's visibility, which helps them decide about investing or financing. The video usage on the crowdfunding page provides more information and complete details on the project campaign page. The study results, supported by Ma and Palacios (2021), Xu and Ni (2022) and Petitjean (2018), confirm that video usage increases the probability of access to finance. However, these findings contradict those of Lagazio and Querci (2018) and Schraven *et al.* (2020), who found that a video does not influence access to finance on crowdfunding. Therefore, a video on the crowdfunding platform signals trustworthiness and credibility, reducing the distance between the fund seeker (entrepreneur) and backers. The issue of entrepreneurs or fund seekers not disclosing certain information to potential backers or investors is also addressed by videos on the crowdfunding page, as they signal crowdfunding success.

The findings of this study reported a negative relationship between duration and crowdfunding success. Logically, a longer-duration crowdfunding campaign discourages backers from contributing to projects that align with previous findings (Stok, 2018; Buttice & Noonan, 2020). Typically, crowdfunding campaigns last between 30 to 60 days rather than 90 days. A shorter campaign duration increases the likelihood of accessing finance compared to a longer duration. However, Kunz *et al.* (2017) and Salahaldin, Angererb, Krausa, and Trabelsic (2019) found that increasing the duration increases the probability of accessing finance. A longer duration signals a lack of confidence, discouraging potential backers from successfully raising funds (Mollick, 2014). This can undermine backers' confidence in the project creator’s ability to complete the project within a specified time and quality.

There is a negative relationship between comments and crowdfunding success. The comments on crowdfunding make it easy for entrepreneurs and backers to communicate (Shneor & Vik, 2020). However, the results show that this communication hurts access to finance. The comments made on the platform include information about the number of comments posted and the timing of those comments. It makes sense that this kind of communication would discourage backers from investing or contributing to access to finance. These findings contradict studies by Liang *et al.* (2020); Zhang, Liu, Wang, Zhao and Zhang (2022) found a positive association between comments and crowdfunding success. The findings do not align with the information asymmetry theory and signal theory. The possible reason for this negative association could be that online communication is still in the infancy stage in African countries. Responses to comments can provide more accurate information and address any misconceptions or predicted risks associated with crowdfunding projects, influencing backers' investment decisions and the crowdfunding campaign's success.

The study found a negative significant impact between duration and crowdfunding success. It implies that duration decreases the likelihood of crowdfunding success. Therefore, project creators or entrepreneurs need to set a smaller, targeted amount and shorter to successfully reach their funding goals (Prasobpiboon *et al.*, 2021; Wachira, 2021; Buttice & Noonan, 2020; Zhang *et al.,* 2022). The findings of this study are consistent with signal and agency theory.

A negative relationship between the targeted amount and crowdfunding success was found. This implies that the targeted number is more significant, and backers are less likely to contribute to or support the project campaign due to its longer duration. The targeted amount significantly negatively affected access to finance or crowdfunding projects in Africa. The study's findings confirmed by Ma and Palacios (2021) and Dikaputra *et al*. (2019**)** reported a negative relationship between higher funding targets and success. However, increasing the project goal and the funding period reduces the chances of success for the crowdfunding campaign. The result aligns with the goal-setting theory, which implies that setting a reasonable goal amount leads to crowdfunding success.

The results suggest that making more updates during the crowdfunding campaign increases the likelihood of accessing finance. For entrepreneurs or project creators, updates serve as progress reports that inform their backers about the progress of the crowdfunding campaign project. These findings align with those of Ho *et al.* (2021) and Clauss, Breitenecker, Kraus, Brem and Richter (2018), who found that updates function as quality signals attracting backers and addressing the issue of information asymmetry. In conclusion, updates reduce confusion among backers and encourage their contribution to the crowdfunding campaign project.

Therefore, keeping the crowdfunding campaign page current presents the best opportunity to inform potential donors about the new development and motivate their involvement in the campaign. Furthermore, updates provide an excellent opportunity to demonstrate the fundraiser’s enthusiasm. Consistent updates on the crowdfunding platform strengthen the relationship between the crowd and entrepreneurs, fostering trust. As a result, they can mitigate the information asymmetry issues by enhancing trust and fostering universal consensus. Therefore, backers and entrepreneurs must exchange information and communicate through updates during the crowdfunding campaign to ensure the campaign's success.

The FAQ is used to communicate between project creators or entrepreneurs and backers regarding the quality of the crowdfunding project. It provides transparent information, increasing the likelihood of accessing finance due to trustworthiness (Wachira, 2021; Lagazio & Querci, 2018). The FAQ is a section aimed to address common or project-specific questions. However, Martínez-Cháfer *et al.* (2023) found a negative relationship between the FAQ and access to finance. Despite these contradictory findings, it is logical that FAQ helps overcome the problem of information asymmetry. Therefore, a consistent FAQ can improve access to information regarding entrepreneurs and the crowdfunding campaign, allowing potential backers to make an informed decision.

The notion that many backers are always necessary to support a crowdfunding campaign is flawed as a single backer can support a campaign. However, having many backers who contribute to the crowdfunding campaign platform increases the likelihood of accessing finance (Wachira, 2021; Petitjean, 2018; Konhäusner, Shang

& Dabija, 2021). Therefore, attracting potential backers or investors with lower pledge amounts encourages investment and donations in the crowdfunding campaign. On the other hand, a separate study found a negative correlation between backers and access to finance (Tasneem, 2020). Consequently, backers can support the crowdfunding project to gain access to social communication within the crowdfunding platform.

In conclusion, providing tangible and intangible rewards to backers helps alleviate the financial constraints SMEs and entrepreneurs face. The fixed funding mechanism creates trust between backers and entrepreneurs increasing the likelihood of success. Lastly, the use of social networks helps alleviate uncertainties and risks associated with crowdfunding campaign projects, leading to successful outcomes. The study found various factors associated with access to finance, such as images, videos, social networks, an entrepreneur’s experience, return or rewards to backers, reward-based crowdfunding platforms, many backers, more updates, and frequently asked questions (FAQ). On the other hand, spelling errors, flexible funding options, long durations, comments, and targeted amounts were negatively associated with access to finance through crowdfunding. Both independent and control variables were identified as determinants of crowdfunding success.

### 6.5.2 Findings on the influence of entrepreneur’s experience on crowdfunding success

In this section, the study discusses the findings of the influence of an entrepreneur’s experience on crowdfunding success.

The research objective was to examine the influence of an entrepreneur’s experience on crowdfunding success. It is logical to assume that entrepreneurs who have previously financed through crowdfunding have an advantage in accessing finance capital through crowdfunding platforms compared to inexperienced entrepreneurs. The research reveals a strong relationship between entrepreneurs' knowledge or experience and crowdfunding's success in Africa. A thorough examination shows that entrepreneurs with proven experience and ability have a better chance of achieving successful crowdfunding outcomes.

Based on this correlation, entrepreneur experience plays a vital role in establishing the specifics of crowdfunding campaigns, fostering greater investor trust, and leading to a higher project success rate in Africa. The impact of entrepreneur experience on crowdfunding success in Africa has practical implications for empowering stakeholders to utilise strategically developed skills, enhancing crowdfunding campaigns' overall effectiveness and appeal for sustained entrepreneurial growth on the continent.

These results are consistent with studies conducted by Cappa, Pinelli, Maiolini &Leone (2021) and Huang, Pickernell, Battisti and Nguyen (2022), who found that entrepreneurs with more experience in crowdfunding campaigns were more likely to access finance compared to those with less experience. However, Schraven (2022) and Schraven, van Burg, van Gelderen and Masurel (2020) discovered a negative relationship between knowledge and access to finance. The experience of an entrepreneur earns more trust and credibility from backers, thus signalling the potential of a crowdfunding success. Consequently, there is no universal association between knowledge and access to finance, highlighting the need for further research in this area.

### 6.5.3 Findings on the impact of tangible and intangible rewards on crowdfunding success for SMEs and entrepreneurs in Africa

This section discusses the findings on the tangible or intangible rewards of crowdfunding success.

The crowdfunding projects that offer rewards or returns to backers increase the likelihood of accessing finance. The findings suggest that backers are motivated by the tangible and intangible rewards or returns they receive in exchange for their investment or contribution.

These findings align with previous studies by Buttice *et al. (2017), Courtney et al. (2017), Kunz et al.* (2017), and Sewaid (2020). The potential backers prefer a form of reward in exchange for contributions or investments made on the crowdfunding campaign, which increases the probability of access to finance (Kunz *et al.,* 2017). However, Martínez-Cháfer, Molina-Morales and Peiró-Palomino (2023) and Moradi and Badrinarayanan (2021) found a negative association between rewards access to finance. Therefore, it can be concluded that the impact of rewards in accessing finance is not universally consistent. Hence, there are no universal findings concerning the influence of a reward provided to backers on access to finance. The tangible or intangible rewards promised to potential backers or investors may signal the project creator or entrepreneur's preparedness as they try to provide rewards that best suit the needs of their potential backers. Consequently, more backers may be attracted to support the crowdfunding campaign, increasing its chances of success. The rewards provided strengthen the backers' motivation and, thus, increase the success rate of the crowdfunding campaign.

The study shows that offering a tangible and intangible return to the backers improves access to finance in Africa. Several uncertainties and dataset limitations prevented an in-depth understanding of the factors affecting crowdfunding outcomes; the study on the drivers of crowdfunding success was not conclusive except for the positive association between the return and ACF which was not significant. This suggests that crowdfunding projects offering rewards increase the likelihood of due to their popularity worldwide. Therefore, crowdfunding platforms in Africa increase the accessibility of capital, particularly for entrepreneurs in need. The findings were conclusive based on consistent results from other findings in the study. The influence of tangible and intangible rewards on crowdfunding success for SMEs and African entrepreneurs has practical implications for creating effective reward structures, encouraging more excellent campaign support and securing long-term financial backing.

### 6.5.4 Findings on the role of social networks in crowdfunding success for SMEs and entrepreneurs in Africa:

In this section, the study reports the findings on the influence of social networks on crowdfunding success.

The results suggest that social media platforms such as Facebook, Twitter, blogs, LinkedIn, and Myspace improve awareness and participation in crowdfunding, leading to increased access to finance. How do social networks influence crowdfunding success? Social network involvement between potential investors, backers, and entrepreneurs may reduce uncertainty caused by information asymmetry (Liu *et al.,* 2020). Effectively using social networks signals the quality and reputation of a crowdfunding campaign project. As a result, social skills and networks are the most important factors influencing the success of entrepreneurs in crowdfunding (Hootsuite. 2020). Utilising social networks on crowdfunding campaign sites reduces uncertainties and risks associated with crowdfunding projects and ultimately signals trustworthiness. The use of social media alleviates the problems of information asymmetry for crowdfunding stakeholders.

The availability of social media platforms such as Twitter, Facebook, LinkedIn, and Instagram on the crowdfunding campaign page increases the awareness of potential backers and encourages them to support the project. This improves the overall model. The study's findings align with those of Wu, Huang, Wu, and Tsai (2022), Kunz *et al.* (2017) and Liu *et al.* (2018). However, Zhao, Chen, Wang and Chen (2017), Liu *et al.* (2018) and Lagazio and Querci (2018) found a negative impact of social networks on access to finance. Therefore, entrepreneurs or project creators who link social networks with their crowdfunding campaign pages increase the likelihood of accessing finance. Additionally, the social network of those seeking financing influences the success of entrepreneurial financing efforts, which determines the success of projects. Similarly, in crowdfunding, social networks also play a role in spreading misinformation and fraud, assessing the quality of funded projects and ensuring trustworthiness.

The social networking applications showcased on the crowdfunding campaign page can potentially entice more supporters to fund the project campaign. The social network is attracting backers' participation in a crowdfunding campaign to access finance. The increased involvement of backers on the crowdfunding platform leads to a higher probability of access to finance. Therefore, the social network's involvement in a crowdfunding platform in Africa improves access to finance or success. The number of social network friends or followers available to any crowdfunding fundraiser can be referred to as the fundraiser's social capital, which plays an important role in crowdfunding success. Investigating the influence or role of social networks on crowdfunding success has practical applications for entrepreneurs and crowdfunding platforms. It gives them an understanding of how to effectively use relationships to increase communication, build confidence, and enhance crowdfunding success in the dynamic crowdfunding environment. Table 6.8 compares the main regression results and the robustness check. When the outcome is binary, such as either succeeds or fails, logistic regression might be more appropriate in crowdfunding. Logistic regression analysis was suitable for responding to the study's research questions. OLS regression might be appropriate when predicting continuous outcomes, such as the amount of funding raised. The type of dependent variable you have and each model's fundamental hypotheses will influence which option is best for the study.

**TABLE 6.8: COMPARISON OF MAIN RESULTS AND ROBUSTNESS CHECK**

| Variables | Sign | Probit or Logistic regression | Robustness OLS (Model 1) Dependent variable (Completion ratio) | Robustness OLS (Model 2) Dependent variable (Crowdfunding success) | Robustness OLS (Model 3) Dependent variable (Average amount pledged) |
|---|---|---|---|---|---|
| C | | -0,279<br>(0,611) | 2.126***<br>(0.678) | 0.226**<br>(0.100) | 1.257***<br>(0.352) |
| Image (IM) | + | 1.226**<br>(0.303) | 0.359***<br>(0.113) | 0.042***<br>(0.016) | 0.139***<br>(0.055) |
| Video (VD) | + | 0,823***<br>(0,227) | 0.415***<br>(0.094) | 0.024*<br>(0.013) | 0.263***<br>(0.046) |
| Experience (EXP) | + | 0,394*<br>(0,237) | -0.084<br>(0.102) | 0.013<br>(0.015) | -0.032<br>(0.053) |
| Flexible funding (FXF) | - | -1,627***<br>(0,218) | 0.003<br>(0.102) | -0.123***<br>(0.016) | -0.308***<br>(0.056) |
| Spelling errors (SPR) | - | -0,252<br>(0,250) | 0.077<br>(0.096) | -0.015<br>(0.013) | -0.059<br>(0.046) |
| Social network (SN) | + | 1,540***<br>(0,527) | -0.274<br>(0.176) | -0.024<br>(0.023) | -0.209***<br>(0.081) |
| Rewards (OUT) | + | 1,500***<br>(0,312) | 0.065<br>(0.108) | 0.017<br>(0.014) | 0.176***<br>(0.048) |
| Crowdfunding platform (CFP) | + | 0,014<br>(1,509) | -0.077<br>(0.625) | 0.027<br>(0.095) | -0.291<br>(0.332) |
| Duration (DRN) | - | -0.036***<br>(0,006) | 0.0005<br>(0.003) | -0.001***<br>(0.0003) | 0.002*<br>(0.001) |
| Comments (CMM) | + | -0,003 | -0.002 | -0.0004 | -0.003*** |

| | | | | | |
|---|---|---|---|---|---|
| | | (0,006) | (0.002) | (0.0003) | (0.001) |
| Updates (UPD) | + | 0.321***<br>(0.033) | 0.0302<br>(0.011) | 0.034***<br>(0.0021) | 0.042****<br>(0.007) |
| Frequently Asked Questions (FAQ) | + | 0.246**<br>(0.108) | 0.048***<br>(0.045) | 0.0202**<br>(0.0083) | -0.023<br>(0.029) |
| Backers (BCK) | + | 0,003***<br>(0,001) | 0.0034***<br>(0.0004) | 0.0003***<br>(0.000) | 0.002***<br>(0.0003) |
| Targeted amount (TA) | - | -0,578***<br>(0.149) | -0.040<br>(0.055) | -0.027***<br>(0.0067) | -0.098***<br>(0.023) |
| N | | 1801 | 758 | 1796 | 1789 |
| Pseudo $\boldsymbol{R^2}$ | | 0.3198 | 0.235134 | 0.332069 | 0.173658 |
| LR statistic | | 334.8734 | | | |
| Prob (LR statistic) | | 0.000000 | 0.00000 | 0.0000 | 0.0000 |
| countries | | 54 | 54 | 54 | 54 |

## 6.5 CHAPTER SUMMARY

The chapter presented findings on the determinants of crowdfunding success of SMEs and entrepreneurs in Africa to enhance access to finance. The findings revealed that image, video, return, social network, entrepreneur’s experience, updates, frequently asked questions and backers are the determinants of crowdfunding success. Whereas comments, targeted amount, duration and flexible funding were found to be negatively associated with crowdfunding success. The entrepreneur’s experience is positively associated with crowdfunding success. Therefore, there is a need to encourage training programmes and mentorship programmes that increase the abilities and knowledge of entrepreneurs, acknowledging the favourable association between experience and crowdfunding successes. It was also found that tangible and intangible rewards were positively related to crowdfunding success. The findings of the study could expand our awareness of the motivations behind backers' backing of crowdfunding campaigns, especially about the part rewards play in attracting and retaining backers. Lastly, the presence of social networks increases crowdfunding success. Through empirical research, the study may identify specific factors within social networks that play a crucial role in determining the success of crowdfunding campaigns. This could include the influence of the size of the network, the engagement level of supporters, or the types of connections involved.

This chapter presents the findings of the overall study remains inconclusive about factors that determine crowdfunding success. The study concludes by outlining a summary and the significance of the findings. The next chapter concludes the study by summarising the findings of this research effort and proffering recommendations for future research.

# CHAPTER SEVEN
# SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

## 7.1 INTRODUCTION

The final chapter of this thesis addresses the summary of findings, conclusion and recommendation for future study. The study was anchored on four research objectives as follows: Firstly, (RO1), to empirically examine the determinants of crowdfunding success for SMEs and entrepreneurs in Africa. Secondly, (RO2), examines the influence of entrepreneurs' experience on crowdfunding success in Africa. Thirdly, (RO3), examines the impact of tangible and intangible rewards on crowdfunding success for SMEs and entrepreneurs in Africa. Fourthly, (RO4) explores the role of social networks in crowdfunding success for SMEs and entrepreneurs in Africa.

The rest of the chapter is organised as follows: Section 7.2 discusses the theoretical and empirical findings from the study. Section 7.3 provides a summary of empirical findings; Section 7.4 discusses contributions of the study; Section 7.5 discusses the limitation of the study and Section 7.5 provides suggestions for future research.

## 7.2 THEORETICAL AND EMPIRICAL FINDINGS

In this section, the main findings are discussed based on the theoretical and empirical literature reviewed.

### 7.2.1 Theoretical Findings on the Determinants of Crowdfunding Success

Theories are considered an essential tool that guides and drives the research journey. The significance of the theoretical framework is to provide an understanding, thus advancing knowledge in the field of study.

To broaden the understanding of the study in crowdfunding, the following theories were discussed, Bank Market Structure, pecking order theory, Agency Theory, Signal Theory and Trade-off Theory. Chamberlin and Robinson (1984) improved the market structure theory by arguing that numerous businesses sell differentiated goods. The theory emanates from market power and monopoly. The bank market structure theory revealed the influence of financial intermediaries on the environment around crowdfunding (Haas, Blohm & Leimeister, 2014). It has been found that the success of crowdfunding campaigns in Africa can be strongly impacted by the availability of reliable and easily accessible financial infrastructure. However, restrictions exist when traditional banking services are absent or insufficient, which might hinder the efficient transfer of capital between investors and entrepreneurs.

Pecking order theory and crowdfunding lie in the preference for internal financing and debt over equity by Myers and Majluf (1984). The principal-agent relationship that exists among project creators and backers has been investigated by agency theory. It demonstrated how backers' ability to evaluate a project's potential can be affected by information asymmetry, which can be particularly evident in the African crowdfunding scene (Vries, 2019). Agency conflicts were recognised as possible risks, yet the theory made it clear that these conflicts might be prevented with good communication and alignment of interests.

The Capital structure theory was modified by Modigliani (1982) and Myers (1991). The focus of this theory discussion has focused on the type of finance sources available to SMEs and entrepreneurs. Crowdfunding platforms become necessary because of the special difficulties that the African setting provides with accessing a wide range of financial opportunities. It has been found that although crowdfunding may provide substitute funding methods, an over-dependence on it might end up in unbalanced capital structures and possible problems with sustainability over the long term.

The signalling theory is used to address imbalances in access to information between the project creator and the fund seeker (entrepreneur) (Akerlof, 1970; Spence, 1973). Based on signal theory, individuals with varying levels of knowledge may use signals to demonstrate their sincere characteristics to others. The importance of signal theory in crowdfunding campaigns was addressed, emphasising why signals enable prospective supporters to understand the quality and reliability of a project. It has been shown that the lack of social networks and experience of African entrepreneurs frequently makes it difficult for them to project credibility. This limitation emphasises the importance of innovative methods to create positive signals that supporters can identify with. The capital structure theories which were investigated provide an advanced perspective on the financial choices enterprises make. Though each theory emphasises a different component, a firm's capital structure decisions are influenced by several factors that function together, such as taxes, risk, market conditions, and information asymmetry.

### 7.2.2 Empirical Findings on the Determinants of Crowdfunding Success

The findings revealed several factors that were positively associated with crowdfunding success namely, images, videos, updates, frequently asked questions and backers influencing crowdfunding success. Conversely, comments, duration and targeted amount were found to have a negative association with crowdfunding success countries revealing that regulatory developments have been established and utilised or tried throughout various stages (Mamaro & Sibindi, 2023; Li, Yang, Zhao, Liao & Cao, 2022; Chen, 2021).

The literature review on the determinants of crowdfunding success in Africa from a developed country perspective requires understanding the contextual differences between developed and African countries, particularly in terms of ICT infrastructure, financial markets, and ICT adoption (De Crescenzo, Ribeiro-Soriano & Covin, 2020). These differences can provide valuable insights into how crowdfunding operates and succeeds in diverse environments. The internet penetration and the usage increase the popularity of crowdfunding (Mamaro & Sibindi, 2022).

Information and communication technology (ICT) infrastructure typically is solid and well-established in wealthy countries (Manawar, Lukita & Meria, 2023). Numerous individuals have access to high-speed internet, which makes the ability to do business as well as interact online efficient. Developed nations frequently have strong digital economies and innovative mobile networks, that promote crowdfunding platforms and campaigns (Foà, 2019). The presence of reliable facilities cultivates confidence in prospective investors and entrepreneurs on crowdfunding. Several advanced countries have strong legal and regulatory frameworks in place to regulate crowdfunding compared to African countries (Cumming, Vanacker & Zahra, 2021). In protecting both investors and entrepreneurs equally, these guidelines seek to boost confidence in the crowdfunding industry. In contrast with numerous African nations, where the laws and regulations may be less advanced or less favourable to crowdfunding projects (Mamaro and Sibindi, 2023).

Developed countries frequently provide an entrepreneurial and entrepreneur-friendly environment, including guidance for entrepreneurs, and startups. This network of resources can help entrepreneurs effectively organise and launch their campaigns, which can be essential to the success of crowdfunding (Fortezza, Pagano & Bocconcelli, 2021).

Findings from developing economies confirm that limited ICT infrastructure, internet penetration and trust and regulation decrease crowdfunding success (Ogwu, K., Hickey, Okeke, Haque, Pimenidis & Kozlovski, 2022). Crowdfunding in the African continent is characterised by a lower success rate compared to developed nations. Developed countries' cultural and behavioural traits could potentially have an impact on the dynamics of crowdfunding (Bernardino & Santos, 2022). These developed-country findings provide the literature analysis with a strong foundation for understanding how the factors influencing crowdfunding success might be different in the African setting. Thus, these gaps show that developing countries are currently lagging behind ICT, internet penetration and regulation compared to the developed countries.

The findings of the study have significant implications for numerous stakeholders in Africa's crowdfunding ecosystem. By developing crowdfunding methods that meet the identified requirements, entrepreneurs and SMEs can benefit, making their ideas more appealing to potential backers. Policymakers can use this knowledge, when addressing important drivers such as legislative frameworks and technology infrastructure, creating policies that encourage crowdfunding. The findings also highlight the need for programs to improve participant knowledge and confidence, supporting the growth of crowdfunding. Investor education is therefore crucial. Crowdfunding platforms can enhance their models by aligning them with established factors and improving accessibility, safety, and user experience. Furthermore, all parties involved can establish proactive risk mitigation plans based on an understanding of the determinants of crowdfunding success.

## 7.3 SUMMARY OF RESEARCH FINDINGS

A summary of research findings detailing the summary of research methodology and research findings is presented in this section.

### 7.3.1 Summary of the Methodological Approach

The present study responded to increasing appeals for the use of multiple crowdfunding platforms for data collection (see for instance: Kunz et al., 2017; Songa, Bergerb, Abraham Yosipof & Barnes, 2019). The study addressed the increasing need to collect data from multiple crowdfunding platforms to capture a wide range of projects and funding trends, improving the findings' representativeness and generalisation. Owing to several studies that applied interpretivism, which is characterised by an inductive research approach, this study followed a positivist research approach which adopted a deductive approach and ultimately binary regression analysis to achieve the research objective. Many studies have traditionally collected data from single crowdfunding platforms, such as Kickstarter and IndieGoGo, limiting the scope of research findings. However, researchers are increasingly recognising the importance of collecting data from multiple platforms and countries to gain a more comprehensive understanding of crowdfunding dynamics. (refer to amongst others: Mollick, 2014; Thies, Huber, Bock & Benlian, 2023 & Kraus, 2019).

Hence, the current study collected secondary data from multiple crowdfunding platforms to overcome the missing opportunities of studies conducted which limited to a single crowdfunding platform. Therefore, this study collected secondary data from 54 African countries and utilised multiple crowdfunding platforms to supplement the studies limited to a single country and single crowdfunding platform, especially in the African countries based on its uniqueness in terms of nature, culture and internet activity as compared to developed nations.

The population of the study consisted of 2,000 crowdfunding projects from multiple crowdfunding platforms. Therefore, cross-sectional data was used to examine the determinants of crowdfunding success. However, due to missing data, the final sample of the study was 1,847 crowdfunding projects. The study utilised 28 different crowdfunding categories and multiple crowdfunding platforms from 54 countries in

Africa. Therefore, Econometrics analysis is used to examine the determinants of crowdfunding success. Unlike previous studies in this realm that have focused on Africa, they have largely been conceptually in nature. The principal point of departure was that the study empirically examined the crowdfunding phenomena within the context of African countries. To the best knowledge of this researcher, this was the first study to utilise cross-country data on crowdfunding projects in the African continent. Most studies conducted were limited to developed countries (see for example Block *et al.,* 2017; Wang, Li, Kang & Zheng, 2019) despite the potential growth of crowdfunding in the African continent. The last distinctive aspect of this study is the period under study. None of the studies conducted collected data from multiple reward based crowdfunding platforms which consist of crowdfunding projects from all 54 African countries; hence a unique contribution.

### 7.3.2 Summary of Empirical Results

In this section, the empirical results are summarised based on the four research objectives. These are presented hereunder.

I. *Findings on testing RO1: To empirically examine the determinants of crowdfunding success for SMEs and entrepreneurs in Africa.*

The results of the study documented that the following factors namely, image (IM), video (VD), social media (SN), return (OUT) experience (EXP), crowdfunding platform (CFP), updates (UPD), frequently asked questions (FAQ) and backers (BCK) have a positive effect on crowdfunding success. The findings are in line with prior studies by Wachira, (2021), Bukhari, *et al*., 2020; Mamaro and Sibindi (2023) and Huang et al., (2022), and also consistent with agency and signal theories. The results of the study also found that the following factors namely, flexible funding (FXF), spelling errors (SPR), comments (CMM), duration (DRN) and targeted amount (TA) were negatively related to crowdfunding success. Consistent with signal theory and the research studies by Pati and Garut (2021); and Li and Wu (2021). However, findings are not in agreement with prior research studies by Jiang et al., (2020); Legazio and Querci (2018). Therefore, this finding remains inconclusive.

II. *Findings on testing RO2:To examine the influence of entrepreneurs' experience on crowdfunding success in Africa.*

The findings of the study revealed that entrepreneurs with experience have a higher likelihood of success. Therefore, it is important to note that an entrepreneur's experience enhances trust certainty and credibility between entrepreneurs and backers, thereby increasing the likelihood of crowdfunding success. The finding has relevance to previous research on information asymmetry in crowdfunding. More experienced entrepreneurs might be more adept at describing their ideas and filling in knowledge gaps, enhancing backers' opinions and boosting their trust in the crowdfunding campaign (Domínguez et al., 2020; Huang et al., 2022). However, Yeh et al., (2019); and Michelucci and Rota (2018) found a negative relationship. Despite contradictory findings, human capital theory is consistent with the results that an entrepreneur's experience and skills significantly impact venture success.

III. *Findings on testing RO3: To examine the impact of tangible and intangible rewards on crowdfunding success for SMEs and entrepreneurs in Africa.*

The study found a positive association between tangible and intangible rewards (OUT) and access to finance. Therefore, the rewards offered were seen as a motivating factor that attracts backers and provides access to finance for entrepreneurs and SMEs. The findings confirmed that crowdfunding platforms focused on rewards can enhance access to finance in Africa (Yin, Liu & Mirkovski, 2019); Wang *et al.,* 2020). According to previous research on crowdfunding, backers frequently view their contributions as a form of social exchange which is consistent with signal theory.

IV. *Findings on testing RO4: To explore the role of social networks in crowdfunding success for SMEs and entrepreneurs in Africa.*

The presence of social network apps on the crowdfunding page attracts more backers to finance the project campaign. Backers are drawn to participation in crowdfunding campaigns through social networks to access financing. Research has shown that social networks (SN) have a positive association with access to finance (Lagazio & Querci 2018 and Zhang 2022) increase access to finance. However, the findings are not in line with Zhang *et al.,* (2022) who found a negative association between social networks on crowdfunding success. Network size and quality have a positive relationship with campaign success, and entrepreneurs who can effectively utilise their social networks which include friends, family, and broader connections tend to experience favourable effects. Consequently, the involvement of social networks increases the likelihood of successful performance. Therefore, the findings suggest that social contacts or networks reduce uncertainty caused by information asymmetry.

## 7.4 CONTRIBUTION OF THE STUDY

This section presents the contribution of the study to the body of knowledge, practice and policy. These are enumerated as follows.

### 7.4.1 Contribution to Body of Knowledge

The study contributes to the body of knowledge mainly threefold as enumerated below:

*I.* *Existing studies that have been conducted in the African continent yielded inconsistent findings and have been conceptual rather than empirical (Hiller, 2017; Chao et al., 2020). The principal point of departure of this study is that it has been empirically based.*

*II.* *Some independent variables identified in the literature were rarely examined in African countries, hence the study contributes to fragmented literature.*

*III.* *Most of the studies which examined these variables were limited to a country specific and did not consider the African continent.*

The research contributes to understanding that extends beyond the current global literature by taking into factors including cultural characteristics, institutional frameworks, and financial realities specific to Africa, providing a more specialised understanding of crowdfunding dynamics in this region. To increase the chances of a crowdfunding campaign's success, the project creator and platform managers must have a solid understanding of social media or networking. They must also provide adequate returns to backers, which are key factors in reward-based crowdfunding. Additionally, using videos, images, and FAQs is important in attributing crowdfunding stakeholders to participate in the project campaign. These elements effectively bridge the information gap between the project and potential backer, thereby increasing access to finance.

The study contributes to the body of knowledge by providing factors that influence crowdfunding success in Africa. The study bridges the gap between conceptual frameworks and actual results by employing rigorous research methods and analysing data specific to the area to provide tangible findings that can serve as a foundation for future research and practical implementations. The study also adds to the body of knowledge already available on social networks, online communities, and crowdfunding. A greater awareness of the relationships between social networks and crowdfunding success may result from this study. It might clarify how relationships with others influence campaign finance results. The study sheds light on the significance of rewards for campaigns' success in general.

Most studies are either collected data from a single crowdfunding platform and countries such as Kickstarter and IndieGoGo with researchers (for example, Mollick, 2014; Thies, Huber, Bock & Benlian, 2023 & Kraus, 2019). There is a missed opportunity to collect data from multiple crowdfunding platforms since this approach improves the generalisation of research findings across different crowdfunding platforms and allows a more thorough analysis. Hence, the current study collected secondary data from multiple crowdfunding platforms to overcome the missing opportunities of studies conducted which limited to a single crowdfunding platform. In addition, the current study collected secondary data from 54 African countries and utilised multiple crowdfunding platforms to supplement the studies limited to a single country and single crowdfunding platform, especially in the African countries based on its uniqueness in terms of nature, culture and internet activity as compared to developed nations. Consequently, to the best knowledge of the researcher, no previous studies within crowdfunding research adopted this methodological approach in the African context. Therefore, this study makes a unique methodological contribution in this regard.

### 7.4.2 Contribution to Practice

The findings of the current research offer managerial implications for crowdfunding entrepreneurs and SMEs by providing insights into the determinants that may impact their projects' ability to attract financing. The contribution to practice is as follows:

- It guides entrepreneurs and SMEs in creating crowdfunding projects, reducing the high failure rate. Reliable and transparent information regarding reward-based crowdfunding is crucial for crowdfunding success. Several studies have shown that an entrepreneur's contribution to their crowdfunding campaign increases the crowdfunding success.

- The entrepreneurs and SMEs might encourage innovation and growth in the economy by enhancing their business plans and funding methods.
- Campaigners might find the study's findings valuable in developing engaging and attractive reward-tier ideas. Developing a campaign can benefit from understanding this information because it can influence the incentives which are offered and associated funding targets. Crowdfunding platforms might be impacted by the study's recommendations and principles regarding incentives.
- Platforms could utilise this information to encourage campaigns to choose rewards that are more likely to be funded successfully.

This study presents managerial implications that can be derived from the investors or backers, entrepreneurs, or project creators who back crowdfunding platforms. Additionally, various to the findings, several management implications for entrepreneurs, project creators, backers, investors, and administrators can be derived from the findings of the study. Entrepreneurs must recognise that different types of crowdfunding projects have varying access to finance. Crowdfunding campaigns for these projects have a higher likelihood of accessing finance. Therefore, entrepreneurs and platform managers should have a clear understanding of the factors or variables that influence the success of these project's campaigns.

The current literature provides implications to the crowdfunding platform owners and entrepreneurs to build a sustainable crowdfunding platform that potentially alleviates or reduces the highest demand for capital finance from traditional finance such as bank and angel capital. As a result, the limited financial constraints faced by entrepreneurs in Africa provide awareness and an understanding of how crowdfunding platforms operate. Given this knowledge, best practices, requirements, and educational resources may be created to increase the likelihood that crowdfunding campaigns succeed.

Encourage enterprises to establish and cultivate relationships by sponsoring networking events, forums, and online spaces. Recognise the importance of social media in the success of crowdfunding and support campaigns that provide entrepreneurs with the necessary resources to promote their projects on crowdfunding platforms effectively. Insights gained from these studies can further enhance our understanding of the policy needed to support technology-enabled financial innovation, specifically crowdfunding for financial inclusion. It may be of scholarly interest to examine the influence of crowdfunding regulations on crowdfunding activity and its success. Policymakers can implement targeted strategies that address the complex factors that affect the success of African entrepreneurs' in crowdfunding by adapting policy recommendations based on critical findings. This will create a more favourable and supportive environment for SMEs.

### 7.4.3 Contribution to Policy

The findings provide valuable insights for governmental bodies in formulating objectives and standards for financing small and medium enterprises (SMEs), including non-entities, thereby facilitating informed decision-making based on knowledge. Contribution to policy is as follows:

- Considering the beneficial association between experience and crowdfunding success, the policy required to support mentorship programs and training initiatives that increase entrepreneurial skills and knowledge. Creating and implementing these programs may require collaboration between government agencies, business groupings, and educational institutions.
- It might guide platform design and regulations, assisting in the creation of an environment that encourages positive social relationships and promotes successful crowdfunding projects.
- Policymakers can benefit from the study's findings to formulate policies that foster a supportive environment for crowdfunding activities. This includes regulatory frameworks, tax incentives, and infrastructure development to facilitate the growth of crowdfunding as a viable financing option for SMEs.

This collaboration is crucial to ensure that no one is left behind and to provide guidelines to policymakers such as the government on how best to regulate the crowdfunding platform to overcome the problems, related to the risk of fraud among others. It is important to avoid overregulation and overconcentration of the crowdfunding platform, as this may restrict the freedom of backers and have a negative consequence. Growing awareness of crowdfunding as an accessible alternative to traditional financing options for SMEs and entrepreneurs should be the main objective of government policies. Developing educational programmes that explain the advantages, risks, and different crowdfunding methods could help potential campaign creators to navigate the crowdfunding environment more effectively.

Government and regulators to develop an appropriate legislation framework for crowdfunding in Africa. Creating a balance between encouraging innovation and protecting investors from potential risks should be achieved through this approach. Providing unambiguous procedures for divulgence, documentation, and risk evaluation may encourage confidence in crowdfunding platforms and promote increased involvement. Furthermore, the policies that increase internet accessibility and affordability ensure that entrepreneurs have fair access to crowdfunding opportunities across all regions. Providing rewards for individuals or businesses who support crowdfunding projects may promote more involvement. Further financial support for SMEs and entrepreneurs might be encouraged through tax incentives, recognition, or potential incentives for backers. Regulatory bodies and policymakers are facing an escalating challenge due to the surging popularity of reward-based crowdfunding, along with the imperative to efficiently oversee cross-border transactions and enforce regulations to combat fraudulent activities (Liao *et al.,* 2018).

## 7.5 LIMITATIONS OF THE STUDY

This study has several limitations. The study relied on secondary data and utilised a quantitative approach, focusing specifically on the African continent as the unit of analysis. It is important to note that crowdfunding is still relatively new in both research and practice, particularly in African countries. As such, this limited scope may restrict the generalisation of the study's findings to other regions. Additionally, it is worth mentioning that most of the previous studies on crowdfunding have been conducted in developed nations such as Europe, Asia and America, further limiting the applicability of this study to those regions.

The findings might yield different results compared to other regions based on differences in culture, regulations, and the popularity of the crowdfunding market. Several theories currently in use have originated from models developed for established markets, which may not accurately represent how crowdfunding operates in developing nations like Africa. These theories may consider the unique challenges and opportunities posed by the emerging state of crowdfunding in specific industries. Additionally, these theories may be adaptable enough to account for the diverse cultural contexts found in different African nations, which is one of their limitations.

## 7.6 RECOMMENDATIONS FOR FUTURE RESEARCH

Despite the limitations and findings of the research study acknowledged in the previous section, the recommendations for future research aim to guide further investigation into crowdfunding and its popularity. These are addressed as next in turn. Despite the predominantly exploratory nature of this study, there exists a necessity for additional research to address more profound inquiries about the "why," "how," or "when" aspects. This is crucial to attain a more comprehensive comprehension of crowdfunding within the African context. The scarcity of data could make it challenging to validate theories and conduct in-depth analyses, potentially leading to incorrect or biased conclusions.

Another study could be conducted using longitudinal data to gain better insight into causal or temporal relationships or changes between factors. The scope of the research could be expanded in the future by increasing the sample size and the study area, especially in developing countries to address gaps in the literature and contribute to a more inclusive understanding of crowdfunding practices worldwide. The developed model can be applied to research focused on other crowdfunding models, such as donation crowdfunding instead of equity crowdfunding is essential for broadening the scope of research and facilitating comparisons across different crowdfunding contexts. Finally, comparative studies with other industrialised and/or developing countries would be valuable research contributions. To crowdfunding experiences, which promote more inclusive and sustainable entrepreneurial ecosystems and contribute to the advancement of knowledge.

The research studies on crowdfunding remain complicated due to the lack of a single theory to fully explain this field. Therefore, a multi-theory approach complemented and enhanced the understanding of crowdfunding in Africa. One theory that can be applied to comprehend better and improve the factors that determine the success of crowdfunding in Africa is the Resource-Based View (RBV) philosophy. The RBV philosophy emphasises the strategic management of resources for competitive advantage. Although the RBV is a practical theoretical framework for examining a company's competitive advantage based on internal resources and skills, there may be some limitations when applying it to specifically this study on the determinants of crowdfunding success because it involves several stakeholders and external financing sources. It is recommended that future studies and business experts examine the unique resources possessed by entrepreneurs, the role of crowdfunding, the internet, and the regulatory environment in Africa using RBV as a foundation. By identifying and effectively utilising these tools, stakeholders can enhance the effectiveness of crowdfunding projects. Furthermore, considering the dynamic nature of the environment, the institutional theory can provide insight into how both formal and informal institutions contribute to the development of crowdfunding activities. A detailed understanding of how institutional issues impact entrepreneurs and backers in African environments can assist in developing more effective strategies.

The subsequent suggestions encompass methodological recommendations for forthcoming research endeavours. To fully understand this association, it is necessary to explore further the less studied and equally important variables related to access to finance variables through crowdfunding, such as language, awareness, investors or backers' behaviours and internet connectivity availability. It is recommended that secondary data, such as desktop surveys and qualitative studies focused on document analysis, be utilised due to the novelty and popularity of crowdfunding in Africa.

Using secondary data, surveys and interviews would enable triangulation in the interpretation of research findings. Additionally, future research could incorporate interviews to gain insights into perspectives on the significance of crowdfunding in the African context. This study suggests further investigation into the success factors of investment-based models (such as equity and debt-based models), as the current study solely focused on non-investment-based models, including rewards and donation crowdfunding in Africa. Considerations on longitudinal business cycles (macro-economic factors). Whether crowdfunding sources complement or substitute traditional financing sources.

First, this is a cross-sectional study and cannot provide a comparative scenario of before and after crowdfunding adoption by SMEs and entrepreneurs. The sampling method used in this study might not be representative of the entire population, which could cause sampling bias due to data scraping from each crowdfunding campaign project. The present researcher attempted to respond to calls for more quantitative studies within crowdfunding. However, there is still a need to conduct more longitudinal studies, especially quantitative studies spanning from 2019 to 2023 or beyond. Therefore, a similar study with an extended period could yield different results. This research can also be expanded to include other forms of crowdfunding to increase the data's richness, validity and reliability. Lastly, the only research hypotheses tested and validated were related to crowdfunding. Research on crowdfunding in African countries presents a unique avenue for future research. Comparative studies within and across continents, mainly from Europe, Asia and the Americas could be undertaken to understand and gain insights into the differences in crowdfunding performance and its role in financing entrepreneurs.

## 7.7 CONCLUSION

This chapter concludes the research by summarising the findings, contributions, limitations, and recommendations. The study aimed to establish the determinants of crowdfunding success of SMEs and entrepreneurs in Africa to enhance access to finance.

This study made significant contributions to the existing body of knowledge by utilising a conceptual framework based on several theories, conducting empirical research, and thoroughly reviewing crowdfunding campaigns throughout the African continent. The findings of this study provide valuable insights into the complex variables that impact the success of crowdfunding in Africa. Specifically, the research revealed the crucial role of entrepreneurial experience, the influence of regulatory frameworks, the significance of technological infrastructure, the impact of investor awareness, the effectiveness of risk mitigation strategies, and the influence of social networks on crowdfunding outcomes.

The present research has effectively broadened and applied current concepts in the theoretical context, particularly in signalling theory and information asymmetry. This research has strengthened the theoretical foundation for understanding the changing dynamics of crowdfunding in emerging countries, specifically in Africa. By utilising these frameworks, the analysis provided a structured perspective to examine the findings.

With a comprehensive understanding of identified drivers of crowdfunding success, entrepreneurs and SMEs can now effectively adjust their crowdfunding campaigns. As crowdfunding can potentially drive economic growth, policymakers can formulate policies that foster an ideal environment for it. Additionally, with increased knowledge, investors can make informed decisions when supporting crowdfunding projects.

The research findings contribute to the ongoing discussion about entrepreneurship, finance, and economic growth in developing nations. This study fills the gaps in the existing literature and lays the groundwork for future research by validating and expanding theoretical frameworks within the African context. Based on the journey undertaken for this thesis, it is clear that the knowledge gained has implications beyond academia. The practical applicability of the findings makes them valuable information for various stakeholders, including entrepreneurs, investors, governments, and crowdfunding platforms. This study advances theoretical frameworks and practical implementations in the dynamic context of developing nations, thereby enhancing our understanding of crowdfunding in Africa.

This response examines the determinants of crowdfunding success in Africa. Tangible and intangible rewards to the crowd increase the likelihood of success. Offering rewards attracts more prominent potential backers willing to contribute to the crowdfunding campaign. Backers tend to prefer projects that offer a return on their investment. Additionally, the experience of the entrepreneurs and the presence of social media and networks also increase the likelihood of crowdfunding success, attracting backers to support the project. Fixed funding has a higher probability of accessing finance compared to flexible funding. Therefore, entrepreneurs or project creators need to set a specific target amount to avoid the failure rate of crowdfunding. The lack of a standardised regulatory framework and awareness about crowdfunding needs to be addressed. The fragmented regulatory framework and instruments are factors that hinder access to finance in crowdfunding.

In conclusion, there is a need for ICT infrastructure in most African countries and an improved regulatory framework that will enhance the current African Crowdfunding Association regulatory body. ICT infrastructure is usually reliable and well-established in advanced countries. Several individuals possess high-speed internet access, making it possible to conduct business and interact online efficiently. Developed nations often possess robust digital economies and innovative mobile networks supporting crowdfunding platforms and campaigns. The presence of reliable facilities develops confidence in prospective investors and entrepreneurs. Therefore, the African government must pursue Foreign Direct Investment (FDI) to unlock investment in ICT infrastructure to overcome the problem of lack of access to the internet in most African countries. This will ensure transparency and effectiveness of crowdfunding campaign projects on the continent. Consequently, the evidence reveals that crowdfunding has the potential to fund entrepreneurs and SMEs, thereby ensuring economic development and growth in Africa.

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# APPENDIX A: LANGUAGE EDITING CERTIFICATE

22 Oshe Street

The Reeds

Centurion

0157

19 December 2023

**TO WHOM IT MAY CONCERN**

This certificate serves to confirm that I have edited L P Mamaro's thesis entitled, **DETERMINANTS OF CROWDFUNDING SUCCESS OF SMALL-TO-MEDIUM-ENTERPRISES AND ENTREPRENEURS : EMPIRICAL EVIDENCE FROM AFRICA.**

I found the work easy and intriguing to read. Much of my editing basically dealt with obstructionist technical aspects of language, which could have otherwise compromised smooth reading as well as the sense of the information being conveyed. I hope that the work will be found to be of an acceptable standard. I am a member of Professional Editors' Guild.

Hereunder are my contact details:

Jack Chokwe (PhD)

Contact numbers: 072 214 5489

jackchokwe@gmail.com

Professional EDITORS Guild

APPENDIX C: ETHICAL CERTIFICATE

UNISA university of south africa

**UNISA DEPARTMENT OF FINANCE, RISK MANAGEMENT AND BANKING ETHICS REVIEW COMMITTEE**

Date: 12 May 2020

ERC Reference # : 2020/CEMS/FRMB/008
Name : Mr L Mamaro
Student #: 45964424
Staff #: 90216652

Dear Mr L Mamaro

**Decision: Ethics Approval from 12 May 2020 to 30 June 2026**

---

**Researcher(s):** Name: Mr L Mamaro

E-mail address mamarlp@unisa.ac.za, telephone 082 794 2080

**Supervisor (s):** Name: Prof D Makina
E-mail address makinad@unisa.ac.za, telephone 012 429 4832

**Working title of research:**

An empirical analysis of crowdfunding in Africa

**Qualification:** PHD: Management Studies

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Thank you for the application for research ethics clearance by the Unisa DFRB Ethics Review Committee for the above mentioned research. Ethics approval is granted for the period from 12 May 2020 to 30 June 2026.

*The **low risk application** was **reviewed** by a Sub-committee of URERC on 12 May 2020 in compliance with the Unisa Policy on Research Ethics and the Standard Operating Procedure on Research Ethics Risk Assessment. The decision will be tabled at the next Committee meeting for ratification.*

The proposed research may now commence with the provisions that:

1. The researcher will ensure that the research project adheres to the relevant guidelines set out in the Unisa Covid-19 position statement on research ethics attached.

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Open Rubric

## APPENDIX B: TURNITIN REPORT

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DETERMINANTS OF CROWDFUNDING SUCCESS OF SMALL-TO-MEDIUM-ENTERPRISES AND ENTREPRENEURS : EMPIRICAL EVIDENCE FROM AFRICA

by

LENNY PHULONG MAMARO

submitted in accordance with the requirements.
for the degree of

DOCTOR OF PHILOSOPHY

in the subject

MANAGEMENT STUDIES

at the

UNIVERSITY OF SOUTH AFRICA

2023

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