Immigrant entrepreneurship with a focus on human and social capital as determinants of success: evidence from South Africa

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Abstract

Purpose – As a consequence of global changes, the landscape of immigration is changing. This brings opportunities for researching more nuanced aspects related to immigrant entrepreneurship in new contexts. The purpose of this paper is to establish the extent to which Africa-to-African immigrants leverage their social capital and human capital towards improving the success of their entrepreneurial ventures.

Design/methodology/approach – First-generation immigrant entrepreneurs within the Johannesburg area in South Africa were surveyed (n = 230). Instrument validity and reliability was first established, and then the hypotheses were tested using multiple regression analyses.

Findings – Hypotheses are supported insofar African immigrant entrepreneurs in South Africa rely on their structural and resource-related dimensions of social capital to achieve entrepreneurial success. Furthermore, human capital in terms of both work experience and entrepreneurial experience was found to be a significant predictor of entrepreneurial success.

Research limitations/implications – There is value in developing policies that promote African immigrant entrepreneurs with higher levels of human and social capital. These African immigrants have the potential to increase the national skills base and knowledge required for successful entrepreneurship development in South Africa.

Originality/value – While both human capital and social capital have been associated significantly with the generic entrepreneurship literature, this paper provides an empirical contribution by focusing on the relevance of these constructs in the context of immigrant entrepreneurship from an African emerging market perspective.

Keywords Immigrant entrepreneurs, Social capital, Human capital, Entrepreneurial success, South Africa

Paper type Research paper

Introduction

Scholarship in the domain of immigrant entrepreneurship literature spans across several different topics and categories. These include immigrant motivations, endowments, home and host country characteristics, discrimination and various associated outcomes

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(Aliaga-Isla and Rialp, 2013; Dabič *et al.*, 2020; Malerba and Ferreira, 2021; Duan *et al.*, 2021). Several different theoretical perspectives have been used to clarify "ethnic entrepreneurship", "minority entrepreneurship" and "diaspora (returnee) entrepreneurs", all of which are associated with "immigrant entrepreneurs" (for an overview see, Indarti *et al.*, 2021; Duan and Sandhu, 2021). Studies often focus on themes of immigrants and refugees largely moving from the developing world into developed countries mostly to Western Europe and North America (Zhou, 1997; Dana and Morris, 2007; Zolin *et al.*, 2016; Gurău *et al.*, 2020). Once the immigrants have moved to the host countries, research focus shifts to assimilation paradigms, specifically on how the immigrants will integrate or acculturate (Brzozowski, 2017). Despite a lack of focus on immigration from an emerging market research perspective, immigrants are often typecast as an underclass with low economic contribution to the host countries (Bakewell, 2008; Kahn *et al.*, 2017; Chan and Mustafa, 2021). In many instances, immigrants who are self-employed are depicted as ethnic entrepreneurs plying their trade in the informal sector or presented as small corner or convenient shop operators catering to their fellow immigrants and lower-class members of the host communities (Urban and Ratsimanetrimanana, 2015). Although this may be true in many instances, it does not capture the entire picture of immigrant entrepreneurship, particularly in the context of intra-Africa migration (Dana and Morris, 2007; Venter and Urban, 2015; Maphaka *et al.*, 2020).

Although several research themes relate to the negative or potentially harmful socio-political effects of immigrants on the host communities, limited attention in research has been given to a growing phenomenon that views immigrants as viable entrepreneurs within emerging economies' immigration dynamics (Dana and Morris, 2007; Dheer, 2018; Dabič *et al.*, 2020). Moreover, currently, as a result of the global changes, the landscape of immigration is shifting, which includes immigrants in developed countries who are also relocating to emerging economies (Venter and Urban, 2015; Lilius and Hewidy, 2019; Gurău *et al.*, 2020) such as China and South Africa. This transformation is generating opportunities for investigating new contexts, specifically as there have been calls for researchers to see emerging economies such as the Brazil, Russia, India, China and South Africa countries (Urban, 2019; Prah and Sibiri, 2020) as a fertile topic for studying immigrant entrepreneurship (Chan and Mustafa, 2021).

We see this as an opportunity to fill the gap in entrepreneurship literature by empirically investigating the relevance of human and social capitals to immigrant entrepreneurship in a developing sub-Saharan African (SSA) country context, namely, South Africa. A significant growing population of highly educated Africans are migrating to emerging economies within Africa in search of both security and opportunities in new countries (Tengeh, 2013; UN, 2019). Recent studies show that as a result of having access to additional home-country entrepreneurial capital, "immigrants have higher entrepreneurship rates than native-born populations" (Duan *et al.*, 2021). This category of immigrants often have the human and social capital capabilities to identify new opportunities in the host nations (Chou and Chow, 2008; Prah and Sibiri, 2020). Studies show that immigrants depend on their social capital and their networks, which are often organized to preserve their community beliefs and values while at the same time providing essential resources to start and grow their ventures (Dana and Morris, 2007; Turkina and Thi Thanh Thai, 2013; Brzozowski, 2017; Li *et al.*, 2018).

The significance of human and social capitals is emphasized as being essential to immigrants as they require these forms of capital to mobilize and leverage other forms of entrepreneurial capital (Sequeira and Rasheed, 2006). Consequently, in recognising the significance of human and social capital to immigrant entrepreneurship, the purpose of this article is to determine the extent to which Africa-to-African immigrants mobilise and leverage their social capital and human capital towards improving the success of their entrepreneurial

ventures. In this regard, the research question guiding this article is formulated as – *To what extent do the dimensions of human capital (educational levels, work experience and entrepreneurial experience) and social capital dimensions (structural, relational and resource) impact the success of African immigrant entrepreneurs in South Africa?*

This paper provides a number of contributions to the growing knowledge base of immigrant entrepreneurship by recognising that research in this field has been dominated by a viewpoint of immigrants as "refugees" or "economic dependents" draining local resources or being a burden to the host communities (Urban and Ratsimanetrimanana, 2015; Gomez *et al.*, 2020). However, in a global context, migration is no longer predominantly a developing-to-developed-economy phenomenon, but a topical issue between poor-to-poor countries and poor-to-emerging economies, encompassing the SSA region (Aliaga-Isla and Rialp, 2013; Williams and Krasniqi, 2018; Dabič *et al.*, 2020; Malerba and Ferreira, 2021; Duan and Sandhu, 2021). In case of the latter, immigration is researched from either a political or an economic refugee paradigm or a combination of both, where most immigrants in emerging economies are perceived to be destined to be assimilated into the local underclass, trapped in perpetual poverty (Tengeh, 2013; Urban and Ratsimanetrimanana, 2015; Prah and Sibiri, 2020).

While both human capital and social capital have been associated extensively with the generic entrepreneurship literature (Batjargal, 2003; Unger *et al.*, 2011; Stam *et al.*, 2013), there is little empirical research focused on these constructs in the context of African immigrant entrepreneurship (Chou and Chow, 2008; Duan *et al.*, 2021). Consequently, this paper provides a novel empirical understanding of how different forms of capital are associated with immigrant entrepreneurial success in the South African context. Social capital in the form of structural and relational capital is concerned with social interactions and the sum of relationships within a social structure (Adler and Kwon, 2002, 2014). These social exchanges and networks seem to play an important role in securing various types of resources and benefits for immigrant entrepreneurs (Sequeira and Rasheed, 2006). In addition, social capital combined with other forms of human capital can provide benefits to immigrant entrepreneurs where studies emphasise that the more social capital is available, the better the opportunity for immigrant entrepreneurs to transform such capital into other required resources such as financial capital (Williams and Krasniqi, 2018).

A further contribution of the article is the focus on Africa-to-African immigrants, where there have been calls for empirical considerations into a wide number of under-examined and evolving issues (Zelekha and Dana, 2019; Chan and Mustafa, 2021). During its post-apartheid era, for a variety of reasons such as political causes, war and globalization, South Africa had experienced an increasing influx of immigrants, who are often from the SSA region (Maphaka *et al.*, 2020). While South Africa may be one of the most advanced economies within the emerging African economies, it is also saddled with serious socio-economic challenges such as high unemployment rate and high poverty levels and has the world's highest level of socio-economic inequality as measured by a Gini co-efficient (World Bank, 2018). Naturally, these challenges have created an environment where anti-immigration sentiments have mutated into xenophobia against African migrants (Crush *et al.*, 2017; Gordon, 2020). Considering this adverse context, the findings of this study may potentially help South African policy makers better understand and apply measures to advance immigrant entrepreneurship. Furthermore, by focusing on human and social capital factors, an enhanced understanding of how immigrant entrepreneurs in South Africa confronted the COVID-19 crisis may emerge. Immigrants who are able to develop resilience by leveraging or exploiting their existing human and social capital may manage to deal with the effects of COVID-19 more successfully (Castro and Gómez Zermeño, 2021).

This study is structured to first provide a theoretical overview of the main theories and constructs under study, upon which the hypotheses are articulated. Then the research

methods are detailed in terms of sampling, data collection and the types of measures used. Statistical analysis includes regression analyses whereupon the findings are interpreted. Conclusions and implications follow, and study limitations and future research options are mentioned.

Theoretical perspectives

Immigrant entrepreneurship

Because of the multidimensional nature of immigrant entrepreneurship, numerous theories and frameworks have been propositioned to explain the phenomenon. The theories, amongst others, include the "middleman minority theory, the enclave economy hypothesis, the interactive model, and the notion of mixed embedment" (Duan *et al.*, 2021). Additionally, the framework of the entrepreneurial ecosystem (Stam *et al.*, 2013; Urban, 2019) has gained prominence because of the significance of both host-country and home-country business environments affecting immigrant entrepreneurial activities and outcomes (Aliaga-Isla and Rialp, 2013). The present study relies on the entrepreneurial ecosystems framework, which in turn is supported by classical theories of human and social capital as underpinned by social cognitive perspectives (Zhou, 1997; Duan *et al.*, 2021).

Immigrant entrepreneurship is a critical socio-economic occurrence, which has given rise to much research conducted across diverse disciplines (Aliaga-Isla and Rialp, 2013; Dabič *et al.*, 2020; Indarti *et al.*, 2021; Malerba and Ferreira, 2021; Duan *et al.*, 2021). Most reports on immigrant entrepreneurship have concentrated on the USA context, trailed by Europe and Oceania contexts (Aliaga-Isla and Rialp, 2013). For an overview of investigations of immigration in an emerging economy context, refer to Chan and Mustafa (2021) who provide a meta-overview of the key topics addressed by their 90 review articles.

In the Africa-to-Africa migration system (Maphaka *et al.*, 2020), successful immigration integration is typically measured through indicators such as native-born social networks, upward trajectories in wages, education, property acquisition and local acceptance. Moreover, the general increase of immigration globally has produced a number of studies on immigrants in terms of their participation not only as employees but also as entrepreneurs, starting and growing new enterprises (Dabič *et al.*, 2020; Duan *et al.*, 2021).

Regarding the case of South Africa, despite being the most advanced economy on the African continent, the country's entrepreneurship ecosystem is challenging for both immigrant and indigenous entrepreneurs (Urban, 2019). There are few opportunities available for nascent or immigrant entrepreneurs to access affordable start-up funding and working capital and gain market access. Research on immigrant entrepreneurship reveals that in hostile and dynamic environments, immigrants are often pushed to the periphery of the host nations (Dana and Morris, 2007). In addition, immigrant entrepreneurs are often unable to formalise their ventures, which prevents them from partnering with large corporate firms and public entities to gain market access (Gordon, 2020; Urban, 2019). Moreover, in South Africa, several institutional barriers seem to reinforce local communities' negative attitudes towards immigrants, which in theory also negatively impact immigrants' perception of the local entrepreneurial ecosystem (Urban, 2019; Maphaka *et al.*, 2020).

Scholars have investigated different determinants of immigrant entrepreneurship (Dana and Morris, 2007; Aliaga-Isla and Rialp, 2013; Malerba and Ferreira, 2021; Duan *et al.*, 2021), which highlight the relevance of personal attributes, the entrepreneurial environment, the co-ethnic community, as well as a number of host and home country factors (Fairlie and Lofstrom, 2015; Brzozowski, 2017). Both exogenous and endogenous elements drive the entrepreneurial process and in the broad entrepreneurial literature the view that social networking and human capitals are important within the entrepreneurial ecosystem is

widely supported (Anderson *et al.*, 2007; Unger *et al.*, 2011; Stam *et al.*, 2013). Social capital is exogenous in nature and includes networks and social relationships which stimulate network exchanges (Adler and Kwon, 2002, 2014). On the other hand, human capital is endogenous in nature and comprises of the knowledge, skills and competencies acquired by an individual through investments in formal and informal education and training (Marvel *et al.*, 2016). Investments in social and human capital are generally believed to improve individual or collective performance of ventures across the entrepreneurial process (Unger *et al.*, 2011; Venter and Urban, 2015).

Some authors propose that the significance of human and social capital is even more important among immigrants since they have much less of these types of capitals in relation to other forms of entrepreneurial capitals (Sequeira and Rasheed, 2006; Malerba and Ferreira, 2021). However, other researchers suggest that a category of immigrants with high pre-migration capitals such as social and human capitals would seek alternative opportunities for upward integration as opposed to joining the ranks of other immigrants and the "local underclass" (Chou and Chow, 2008; Brzozowski, 2017). Notwithstanding the many unresolved debates surrounding issues of human and social capital, there is growing evidence which identifies the influence of the home country as a significant determinant of immigrant entrepreneurship (Dabič *et al.*, 2020). These home-country factors relate to market accessibility, knowledge and technology spill out, culture diversity, role models and family ties and religion (Duan *et al.*, 2021). Recognising the relevance and importance of social capital and human capital to successful immigrant entrepreneurial activity, these determinants are further explained in the following sections to demonstrate how they inform the study hypotheses.

Social capital and immigrant entrepreneurship

One important pre-immigration capital form that immigrant communities preserve would be social capital (Chou and Chow, 2008; Fairlie and Lofstrom, 2015; Gomez *et al.*, 2020; Duan and Sandhu, 2021). If immigrants engage in entrepreneurship pursuit of upward socio-economic integration, it follows that immigrant entrepreneurs must rely more on their social network resources due to the general scarcity of other forms of entrepreneurial capital within the host country ecosystem (Sequeira and Rasheed, 2006).

There is a widespread body of literature on social capital (Adler and Kwon, 2002, 2014; Urban, 2019; Zelekha and Dana, 2019), which views entrepreneurial activity as rooted in social exchanges, where networks play an important role in securing various types of resources and benefits (Stam *et al.*, 2013; Venter and Urban, 2015). The concept of social capital is well established in generic entrepreneurship research where the debate has predominantly converged on "structural and relational dimensions of social capital" (Granovetter, 1973; Light and Dana, 2013; Gedajlovic *et al.*, 2013). In terms of the "structural dimension, social capital is concerned with social interactions and the sum of relationships within a social structure". From a "relational perspective, social capital refers to the direct relationships between the entrepreneur and others together with the assets embedded in these relationships" (Adler and Kwon, 2002, 2014; Urban, 2019). Moreover, Anderson *et al.* (2007) proposed that resources are a third dimension of social capital theory which is concerned with the resources held by the entrepreneur's network contacts. In this regard, social capital affects entrepreneurship through its influence on transaction costs, capital costs and other costs the entrepreneur encounters (Batjargal, 2003; Turkina and Thi Thanh Thai, 2013).

Social capital is also a significant factor in immigrant entrepreneurship in the Africa-to-Africa migration context (Venter and Urban, 2015; Gordon, 2020; Maphaka *et al.*, 2020). In many African countries, socio-political and economic challenges hinder immigrant

entrepreneurial activity insofar the local communities often reject and resent the presence of immigrants (Gordon, 2020). Accordingly, in order to marshal their entrepreneurial capital, immigrants adapt to build tight social networks by maintaining and supporting immigrant community beliefs and values (Li *et al.*, 2018; Jones, 2019). Consequently, by focusing on the relatively well-established dimensions of social capital, it seems justified to formulate that:

H1. A positive relationship exists between the level of an immigrant's social capital in the form of (a) structural, (b) relational and (c) resource dimensions and the success of their entrepreneurial venture.

Human capital and immigrant entrepreneurship

Human capital is relevant to immigrant entrepreneurship, particularly in terms of capabilities before and after migration, and capabilities tend to increase entrepreneurial resources and success (Dana and Morris, 2007; Chou and Chow, 2008; Brzozowski, 2017). Recent research shows that some immigrant ventures speedily accomplished elevated export levels by relying on their own human capital realized back in the home country (Duan *et al.*, 2021).

There are widespread studies available on human capital attributes, which include meta-analytical studies (Unger *et al.*, 2011) that demonstrate the relevance of various forms of human capitals to establish different enterprise outcomes (Venter and Urban, 2015; Marvel *et al.*, 2016). Human capital aids in the acquisition of useful resources, such as financial capital, which then allows for the exploitation of business opportunities. In the generic entrepreneurship literature, there are several arguments on how human capital could increase entrepreneurial success (Unger *et al.*, 2011; Marvel *et al.*, 2016). Studies reveal that the common spectrum of dimensions of the human capital construct includes "formal education, training, employment experience, start-up experience, knowledge, skills, on-the-job training and other experiential exposure" (Unger *et al.*, 2011).

An important observation relevant to the study of immigrant entrepreneurship is the "transportability" of human capital as a dynamic "value" which does not evolve in a vacuum (Chou and Chow, 2008). Particularly important for immigrant entrepreneurship is knowledge as a form of human capital, and experience previously acquired which assists in adapting to and integrating into new scenarios (Sequeira and Rasheed, 2006). Prior studies on immigrant entrepreneurship highlight how immigrant-specific attributes may account for successful enterprising. These attributes often refer to human capital traits that differentiate immigrant entrepreneurs from natives (Li *et al.*, 2018; Malerba and Ferreira, 2021) and include innate risk-taking propensities, a higher education level, a strong sense of identity and greater intrinsic motivation (Aliaga-Isla and Rialp, 2013; Dabič *et al.*, 2020; Duan *et al.*, 2021). Furthermore, research supports the view that immigrants are generally seen to have a greater entrepreneurial orientation as they already have pre-existing global ties and cross-cultural and foreign language skills allowing for better identification, evaluation, development and exploitation of opportunities (Williams and Krasniqi, 2018).

Therefore, immigrants with higher levels of human capital are more likely to identify or create opportunities in the sectors from which they gained experience prior to immigrating (Jones, 2019; Indarti *et al.*, 2021). Consequently in acknowledging that various human capital attributes influence enterprise success, the following hypothesis is proposed:

H2. A positive relationship exists between the level of an immigrant's human capital in the form of (a) education, (b) work experience and (c) entrepreneurial experience dimensions and the success of their entrepreneurial venture.

Methodology

The article was a cross-sectional quantitative study, which used a survey to collect data from African immigrants in South Africa in the greater Johannesburg area.

Study context

Johannesburg is situated in the Gauteng province in South Africa, which is the major contributor to the GDP of the country, according to the Department of Small Business Development (DSBD, 2018). There are close to 3 million African immigrants in South Africa, the majority of who are from the SSA region and who range from illegal immigrants with low or no skills to highly educated professionals and skilled migrants (UN, 2019). South Africa had experienced an influx of immigrants, particularly from the SSA region, who often settle in the Johannesburg inner city area. Despite the harassment suffered by the migrants at the hands of border officials, including immigration officials, the police and army, a large dynamic exists in the centre, which is represented by the Johannesburg inner city (Moyo and Nshimbi, 2019).

Sampling and data collection

The individual level of analysis was used to collect data as it is frequently used to study immigrant entrepreneurship as it adds to the appreciation of the heterogeneity of immigrant communities (Aliaga-Isla and Rialp, 2013). The ensuing criteria were taken into consideration to determine the study sampling frame:

- International immigrant entrepreneurship is defined as 'individuals who, as recent arrivals in the country (have been outside their origin country for at least 12 months), start a business as a means of economic survival" (Indarti *et al.*, 2021; Duan *et al.*, 2021; Duan and Sandhu, 2021).
- "Immigrant entrepreneurship scope as it relates to self-employed and business owner/manager was considered as entrepreneurship" (Dana and Morris, 2007).

Currently in South Africa, there is no categorical classification on immigrant entrepreneurs or immigrant enterprises and no single conclusive database was available based on the study sampling criteria. Furthermore, there was no formal or uniform database that could document this population and it was difficult to differentiate an enterprise by origins of the owners from any publicly available records. Given these practical considerations, purposeful sampling was used (Cooper and Schindler, 2014), which relied on sampling frames such as voluntary membership business associations for African immigrant entrepreneurs and the Gauteng Department of Economic Development. After 800 physical and email surveys were administered to potential respondents, in line with the pre-determined sampling criteria, a total of 230 valid and comprehensively completed responses were received, representing a 29% response rate, deemed as acceptable and consistent with similar survey threshold rates (Cooper and Schindler, 2014). A plausible reason for obtaining a relatively low response rate is that collecting data among African immigrants is difficult as there is a reluctance to participate in formal data collection given the constant victimization of foreign-owned business in South Africa (Gordon, 2020). In terms of sampling bias tests, distinctions "between respondents and non-respondents were tested, using a Wilcoxon–Mann–Whitney test", based on age and educational levels. No significant differences were discovered and *t*-tests also established no significant differences between early and late respondents in age, gender and educational levels.

Strict ethical standards were applied, ensuring the respondents' privacy and confidentiality. Each questionnaire required explicit consent before the respondent started answering any questions, and the information was treated with care and consideration. In this regard, all of the respondents were informed that the information gathered was confidential and that there were no risks or benefits to them directly as a result of them participating.

Measures

Measurement items were adapted and modified from instruments used in previous studies. In addition, sampling parameters, which also served as control variables, included gender and age of the immigrant entrepreneur. Prior studies indicate that there are predetermined relationships between these variables and venture performance (Batjargal, 2003; Sequeira and Rasheed, 2006; Dabič *et al.*, 2020). The final instrument was divided into three sections reflecting the study constructs, namely entrepreneurial success, human capital and social capital. The instrument applied a seven-point Likert scale ranging from "1 = strongly disagree to 7 = strongly agree".

The first section of the instrument focused on human capital, as the first independent variable (IV). Human capital was operationalized on the basis that it yields a higher recompense in return for an entrepreneur's variation of skills, training and experience, which are all linked to entrepreneurial performance (Marvel *et al.*, 2016). Work experiences and the founders' prior entrepreneurial experience lead to experientially developed skills and abilities that, in turn, lead to more knowledgeable decisions and actions (Unger *et al.*, 2011). Hence, human capital was measured with five items using questions such as "My previous work experience is related to my business" and "I have been involved in the creation of a new business before my current business".

For social capital as the second set of IVs, the structural dimension was operationalized as the network structure and the social interactions within a social structure (Granovetter, 1973; Batjargal, 2003). Five items were used to measure this dimension with questions such as "I have a large number of people that I consulted, sought advice from and got opinions from prior to starting my business". For the relational dimension, three items measured the perspective of strength and longevity of relationships as well as the extent to which confidential business information is shared (Adler and Kwon, 2002, 2014) with questions such as "I would share with my main contacts any relevant or confidential information regarding my project or business". In terms of the resource dimension, both the availability of resources and the actual mobilisation of such resources in the form of financial capital, customers and important business information were measured since they are instrumental in entrepreneurial performance (Batjargal, 2003). Three items were used with questions such as "I have actually used my contacts or relationships to get access to markets/customers/contracts".

In terms of the dependent variable (DV), entrepreneurial success was focused on subjective indicators such as entrepreneurs' satisfaction from running an enterprise, workplace relations, personal fulfilment, financial rewards and community involvement (Wach *et al.*, 2018). In line with this trend, the DV was measured using the Subjective Entrepreneurial Success-Importance Scale (SES-IS), which has been used successfully across several studies (Wach *et al.*, 2018). The SES-IS is an eight-item scale with questions such as "I have strong relationships with my employees" and "being an entrepreneur has allowed me to have personal work flexibility".

Data analysis and quality checks

Data analysis encompassed both descriptive and inferential statistics based on the IBM SPSS software version 25. Descriptive statistics were calculated, and scales were tested for

reliability and validity using exploratory factor analysis (EFA). Principal axis factoring analysis was chosen for the EFA procedure to estimate the underlying (latent) factors and relied on orthogonal rotation (Varimax). Factor loadings were suppressed to only display values over 0.3 and then grouped in order of size. To run the EFA, inter-item correlations were run on each scale, and the correlation matrix revealed that the coefficients of the scales were statistically significant at the 1% significance level and the items correlated with each other, providing an indication that they could be grouped together. The final determination of factors to be retained was further confirmed visually by using Cattel's scree plot of eigenvalues on each scale.

Considering that data was collected through a cross-sectional survey, which inherently presented the potential problem of common method bias, procedural and statistical steps were used to minimize any potential risk. Procedurally, the survey used a uniform scale format where scale items had already been tried and tested (Podsakoff *et al.*, 2012). Statistically Harman's one-factor test option was applied, where the principal component analysis output showed that all three components with eigenvalues greater than 1.0 showed a cumulative variance of less than the 50% threshold, confirming that there was no evidence of common method bias in this study (Podsakoff *et al.*, 2012). The hypothesised theoretical framework was tested through multiple regressions.

Results

Sample descriptions reveal that 69% of the respondents were male and 31% were female. In terms of age, 49% of the respondents were in the 36–45 age group, 27% were in the 46 and above age group, while 20% were in the 25–35 age group. In terms of participation in business sectors, the highest numbers of respondents were involved in the wholesale and retail sector (15%), followed by transport, storage and communication sector (13%), manufacturing sector (12%) and financial services sector (11%).

EFA using the Kaiser–Meyer–Olkin Measure (KMO) of sampling adequacy and the Bartlett's test of sphericity was used to determine whether the measurement items could be grouped together into specific factors (Cooper and Schindler, 2014). The KMO for all constructs combined was higher and significant than the minimum and desired value of 0.6. Entrepreneurial success = KMO = X^2 = 0.832 (p = 0.000), MSA = 0.832; social capital = KMO = X^2 = 0.858 (p = 0.000), MSA= 0.858; human capital = KMO = X^2 = 0.714 (p = 0.000), MSA = 0.714.

Based on the Kaiser criterion to only retain factors with eigenvalues above 1, seven factors emerged from the EFA that explained 68% of the total variance. The overall factor structure did not depart from the theoretical model where all the constructs successfully loaded as distinct factors and were all used for future analysis in terms of the following factors: human capital (HC) = education (HCED), work experience (HCWE), entrepreneurial experience (HCEE); social capital (SC) = structural dimension (SCST), resource dimension (SCRS), relational dimension (SCRLT); and entrepreneurial success (ES). In addition, the composite scores per factor were also computed by calculating the average of the items within a factor.

Cronbach's alpha was computed for each construct to assess the reliability of the overall scales, and the results indicate that all of the factors had acceptable reliability scores ($\alpha \geq 0.7$) (Cooper and Schindler, 2014): HCED (α = 0,706), HCWE (α = 0,811), HCEE (α = 0,866), SCST (α = 0,831), SCRS (α = 0,898), SCRLT (α = 0,944) and entrepreneurial success (ES) (α = 0,767).

Descriptives and correlations

In terms of descriptives and correlations, the mean scores, standard deviations and Pearson coefficients are shown in Table 1. The mean scores are all above the scale midpoint average and are ranked according to the highest mean score with standard deviation as follows: SCRLT (5.757; 1.219); SCRS (5.118; 1.667); SCST (5.032; 1.311); HC (4.588; 0.981); HCWE (4.313; 0.885); SC (4.119; 1.087); ES (4.032; 1.110); HCED (3.775; 1.006); HCEE (3.543; 0.996). The correlation output shows several positive and significant correlations between the constructs at both the $p < 0.05$ and $p < 0.01$ levels of significance. The relatively high Pearson's coefficient values in some instances are indicative of relatively "strong" correlations between the study factors. Notwithstanding the positive and significant correlations between the study constructs, the variance inflation factor (VIF) was calculated to determine any issues related to multicollinearity, where the VIF values were >1, denoting that there was no clear evidence of multicollinearity (Cooper and Schindler, 2014).

To establish the influence of the control variables in terms of gender and age, "means tests were used to evaluate the effects of single control variables on the DV in separation to other control variables" (Cooper and Schindler, 2014). The results of these *t*-tests showed no significant relationship with each of the control variables, and additionally, an individual one-way ANOVA test proved to be non-significant insofar the influence of controls on the DV. Hence, control variables were not included in any supplementary statistical examination.

Hypotheses testing

Initially, all of the assumptions for conducting regression analyses were established, namely "linearity, homoscedasticity, independence of error terms, multicollinearity and normality of error terms" (Cooper and Schindler, 2014). For *H1*, Tables 2 and 3 show the regression model diagnostic results and the regression coefficients, respectively. The composite *R*-value for social capital of 0.367 indicated a small but significant relationship and suggested that the model was a good predictor of the outcome. The R^2 value of 0.14 indicates that 14% of the variation in entrepreneurial success can be explained by social capital. Similar regression runs were performed for the three dimensions of social capital as hypothesised and are presented in Table 2. The results indicated small but significant relationships for the structural and resource dimensions but a non-significant relationship for the relational dimension. The analysis of variance (ANOVA) results indicate a significant score of F (3,116) = 6.027 (p = 0.001). In terms of the regression coefficients,

	Mean	SD	1	2	3	4	5	6	7	8	9
1. ES	4.032	1.110	1.000								
2. HC	4.588	0.981	0.342**	1.000							
3. SC	4.119	1.087	0.316**	0.314**	1.000						
4. HCED	3.775	1.006	0.150	0.660**	0.243**	1.000					
5. HCWE	4.313	0.885	0.296**	0.917**	0.262**	0.583**	1.000				
6. HCEE	3.543	0.996	0.264**	0.495**	0.169	−0.102	0.210*	1.000			
7. SCST	5.032	1.311	0.300**	0.296**	0.915**	0.265**	0.219*	0.177*	1.000		
8. SCRS	5.118	1.667	0.329**	0.264**	0.780**	0.195*	0.251**	0.099	0.545**	1.000	
9. SCRLT	5.757	1.219	0.140	0.195*	0.783**	0.066	0.178*	0.150	0.604**	0.448**	1

Table 1.
Descriptive and correlations matrix

Notes: ** = $p < 0.05$; * = $p < 0.01$. Human capital (HC) = Education (HCED), work experience (HCWE), entrepreneurial experience (HCEE); (2) social capital (SC) = Structural dimension (SCST), resource dimension (SCRS), relational dimension (SCRLT); (3) entrepreneurial success (ES)

Table 3, shows the extent to which the predictor variables contribute to the model. While the structural dimension ($B = 0.48$, $p = 0.05$) and the resource dimension ($B = 0.83$, $p = 0.02$) significantly contributed to the model, the relational dimension ($B = -0.43$, $p = 0.30$) did not. Hence, in terms of the model where: $Y = B0 + B1X1 + B2X2 + B3X3$, based on the regression data produced, the following predictive model was formulated: entrepreneurial success = 75.24 + (0.48*structural dimension) − (0.43*relational dimension) + (0.83*resource dimension), which lends partial support for *H1*.

For *H2*, Tables 4 and 5 show the regression model diagnostic results and the regression coefficients, respectively. The composite *R*-value for human capital of 0.360 indicated a small but significant relationship and suggested that the model was a good predictor of the outcome. The R^2 value of 0.13 indicates that 13% of the variation in entrepreneurial success can be explained by human capital. Similar regression runs were performed for the three dimensions of the predictor variable as hypothesised and are presented in Table 4. The results indicated small but significant relationships for work and entrepreneurial

					Change statistics		
	R	*R*-square	Adjusted *R*-square	Std. error of the estimate	*R*-square change	*F* change	Sig. *F* change
Social capital	0.367	0.14	0.11	10.52	0.14	6.03	0.00
Structural dimension	0.300	0.09	0.08	10.62	0.09	11.84	0.00
Relational dimension	0.140	0.02	0.01	11.06	0.02	2.36	0.13
Resource dimension	0.329	0.11	0.10	10.56	0.11	14.41	0.00

Note: Dependent variable: Ent. success

Table 2. Regression model diagnostic results for *H1*

	Unstandardized coefficients		Standardized coefficients		
Model	*B*	Std. error	Beta	*t*	Sig.
(Constant)	75.24	10.00	–	7.53	0.00
Structural dimension	0.48	0.25	0.23	1.95	0.05
Relational dimension	−0.43	0.42	−0.12	−1.04	0.30
Resource dimension	0.83	0.35	0.25	2.39	0.02

Note: Dependent variable: Ent. success

Table 3. Regression coefficients for *H1*

					Change statistics		
Model	*R*	*R*-square	Adjusted *R*-square	Std. error of the estimate	*R*-square change	*F* change	Sig. *F* change
Human capital	0.360	0.13	0.11	10.47	0.13	5.87	0.001
Education	0.150	0.02	0.01	11.01	0.02	2.75	0.1
Work experience	0.296	0.09	0.08	10.63	0.09	11.57	0.001
Ent. experience	0.264	0.07	0.06	10.74	0.07	9.01	0.003

Note: Dependent variable: Ent. success

Table 4. Regression diagnostic model results for *H2*

experience, while education showed a non-significant and small relationship with the DV. The ANOVA results indicated that the regression model is a significant predictor of entrepreneurial success, with F (3,118) = 5.872 (p = 0.001). In terms of the regression coefficients, Table 5 shows the extent to which the predictor variables contribute to the model. While work experience (B = 0.68, p = 0.05) and entrepreneurial experience (B = 1.06, p = 0.02) significantly contributed to the model, education (B = 0.24, p = 0.71) did not. Hence, in terms of the model where: Y = B0 + B1X1 + B2X2 + B3X3, based on the regression data produced, the following predictive model was formulated: entrepreneurial success = 83.14 + (0.24*education) + (0.68*work experience) + (1.06*entrepreneurial experience), which lends partial support for *H2*.

Discussion

This article provides a greater understanding of African immigrant entrepreneurship in an emerging country context, namely South Africa. The findings add to the classical theories of social capital and human capital, which are used as a theoretical framework to analyse entrepreneurial success. In this regard, *H1* is supported in terms of significant results obtained showing that African immigrant entrepreneurs rely on their structural and resource-related dimensions of social capital to achieve entrepreneurial success. From a structural network viewpoint, the present study findings indicate that social interactions and the sum of relationships within a social structure are positively related to entrepreneurial success. For immigrant entrepreneurs, the network structure and the nature and type of role that the entrepreneur plays in this network are important, as denoted by the significant findings obtained in the present study. In terms of the resource-related dimensions of social capital, the resources held by the entrepreneur's network contacts affects performance through its effect on transaction costs, capital costs and other costs encountered by the entrepreneur (Malerba and Ferreira, 2021). Moreover, resources in the form of funding, labour, expertise and physical goods are a necessary input for venture success (Venter and Urban, 2015). However, immigrants typically lack access to such resources, which indicates that any form of access afforded through the pre- and post-migration social networks is of crucial importance to success (Kahn *et al.*, 2017; Li *et al.*, 2018). However, it was surprising that the relational dimension of social capital did not feature as a significant predictor of entrepreneurial success. This was unexpected, which led to re-examination of the statements in the research questions related to this factor. Upon scrutiny of these statements, it was evident that they relate to longevity and strength of relationships, as well as sharing of business information with network contacts. When considering that the study respondents were first-generation immigrants, a plausible explanation for the non-significant findings is that they had not yet developed substantial post-immigration long-term social contacts and that they were not open

Table 5. Regression coefficients for *H2*

Model	Unstandardized coefficients		Standardized coefficients		
	B	Std. error	Beta	*T*	Sig.
(Constant)	83.14	2.20		37.80	0.00
Education	0.24	0.64	0.04	0.37	0.71
Work experience	0.68	0.34	0.22	2.01	0.05
Ent. experience	1.06	0.45	0.22	2.37	0.02

Note: Dependent variable: Ent. success

to sharing their confidential business information with their network contacts (Kahn *et al.*, 2017; Gurău *et al.*, 2020). Therefore, while social capital is important, the relational dimension of this capital is subject to a longer period time over which it develops to generate significant returns. Indeed, research shows that a successful network structure requires consideration to the configuration and quality of constituent ties, which relates to network frequency, intensity and multiplicity (Adler and Kwon, 2002).

With respect to *H2*, higher levels of human capital in the form of work experience and entrepreneurial experience were found to be significant predictors of entrepreneurial success. These positive findings support prior theoretical frameworks that demonstrate that for immigrant entrepreneurship, the "transportability" of human capital is valuable (Chou and Chow, 2008), and experience previously acquired assists in adapting to and integrating to new circumstances (Sequeira and Rasheed, 2006). Therefore, work-related experience creates better chances of success as it provides the immigrant entrepreneur with a better understanding of the subtleties of their respective industries and they are more likely to identify or create opportunities in the sectors from which they gained experience prior to immigrating. These findings fit with prior theory and findings, which show how immigrant entrepreneurs often rely on their prior experience acquired living abroad, which tends to have a positive impact insofar it acts as a buffer to uncertainty and has been linked to increased self-efficacy and venture performance (Dheer, 2018; Duan *et al.*, 2021).

Conclusion and implications

This article contributes to the emerging stream of research on African immigrant entrepreneurship. While both human capital and social capital are ubiquitously studied in the generic entrepreneurship literature, this article fills the research gap by linking these constructs in the context of African immigrant entrepreneurship. Specifically, the findings augment the theory that immigrants with higher levels of social and human capital are capable of achieving higher levels of success in their ventures. This resonates with theoretical frameworks that highlight that different forms of capitals are necessary to leverage other forms of entrepreneurial capitals, such as financial capital, which ultimately impact venture success. Consequently, there emerges a significant scope for researchers to expand the body of knowledge by empirically testing different facets of human and social capital theory as it relates specifically to immigrants in emerging and African countries. This approach would shift the focus of perceiving immigrant entrepreneurship in a largely negative light to instead view them as productive entrepreneurs within emerging economies dynamics, who can have a positive impact in terms of job creation and economic growth.

Several policy and practical implications emerge from this study, which relate to immigrant entrepreneurship as an alternative pathway to socio-economic integration as opposed to the largely marginalisation route. Based on the study findings, there appears to be value in developing policies that promote immigrants with higher levels of human and social capital into the mainstream entrepreneurial sector because they have the potential to increase the national skills base and knowledge required for high-growth type of entrepreneurship. Moreover, as the influence of COVID-19 on businesses in general has been severe, so is the future of African immigrant entrepreneurs in peril. In this regard, the government should develop a region-specific assortment of immigrant business-friendly incentives that advance their human and social capital qualities while reducing their vulnerabilities because of the long-lasting effects of COVID-19.

The primary limitation of this study relates to the cross-sectional design, which does not allow causal relationships to be determined. Therefore, subsequent longitudinal studies may provide richer data on a broad African immigrant sample population. Another limitation of this

study is that it was a perceptual exercise where the possibility of prejudicial and biased responses is ever present in terms of perceptual and cognitive biases. These limitations present an opportunity for future studies, which would use more advanced and refined research methods and measures. For instance, future studies could focus on different mediating and moderating variables such as the perceptions of the local communities on the entrepreneurial capitals of immigrant entrepreneurs. This article opens up several research avenues for future researchers, given the observation that Africa-to-Africa migration is more likely to grow as the continent moves ever closer to becoming the world's largest open-trade region.

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