

**POVERTY AND THE VARIETIES OF ENTREPRENEURSHIP IN THE PURSUIT  
OF PROSPERITY**

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*Forthcoming in Journal of Business Venturing*

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# POVERTY AND THE VARIETIES OF ENTREPRENEURSHIP IN THE PURSUIT OF PROSPERITY

## Abstract

In this paper, we revisit the entrepreneurship and poverty relationship under a eudaimonic perspective that brings together conversion factors, and future prosperity expectations. Based on an fsQCA of changes in life circumstances of 166 farm households in rural Kenya, we explore how different combinations of conversion factors enable distinct forms of entrepreneuring in the pursuit of prosperity. Results show that strong entrepreneurship-enabled future prosperity expectations result from three combinations of enabling conversion factors shaping up three varieties of entrepreneurial endeavors: *family-frugal*, *individual-market*, and *family-inwards*, which show a much more diverse and counterintuitive reality. Our research contributes to literature by revealing and theorizing on a split picture portraying the many ways in which farmers, acting as everyday entrepreneurs, exploit real opportunities in seemingly identical impoverished communities. It also reveals a central disconnect between entrepreneurship, life-satisfaction and financial improvements when assessed against expectations of future prosperity. In doing so, this paper responds to calls for a better understanding of the processes whereby entrepreneurship can distinctively improve current and future life circumstances, and the many ways in which this may happen.

**Keywords:** poverty alleviation, future prosperity expectations, conversion factors, fsQCA; human development; farming entrepreneurship; resource-constrained contexts; Kenya

## 1 Executive summary

Concrete solutions to global poverty remain elusive with a growing body of research focusing on the relationship between poverty reduction and entrepreneurial behavior (Bruton et al. 2013). In the current “remedial” view, entrepreneurship is viewed as a means for addressing financial insecurity and improving the lives of individual entrepreneurs (Sutter et al. 2019). However, this represents an incomplete picture of human development, relying on a hedonic perspective which underplays its multi-dimensional nature (Ryan and Deci 2001). Similarly, current research is reliant on limited linear assumptions regarding the causal effects of entrepreneurship on human development (Chliova et al. 2015).

In this paper, we tackle these issues by drawing from Sen’s (1999) capabilities perspective and the role of conversion factors (social, environmental, and personal) as enablers of the *future prosperity expectations* among farming households in Kenya. Unlike its hedonic counterpart, *future prosperity expectations* represent a eudaimonic outcome for farmers with a focus on “prosperity of the rising generation” (i.e. the betterment of their family). We surveyed 166 farming households twice over a one-year period and use fuzzy-Set Qualitative Comparative Analysis (Ragin 2000) to analyze six conditions (two conditions per conversion factor) against the *future prosperity expectations* of farmers. Through this focus, we reveal three distinct paths for entrepreneuring among that depart from yet complement the current remedial views existing within this debate.

Our findings show three varieties of entrepreneurship in the pursuit of prosperity that we theorize as: *family-frugal*, *individual-market*, and *family-inwards* entrepreneuring. First, *family-frugal* entrepreneuring indicates that present life satisfaction of the entrepreneur is irrelevant for producing future prosperity expectations. This effect combines with an absence in improvements of income for the entrepreneur. In this solution, improvements in family relationships and their physical health must occur for future prosperity expectations to improve.

Second, *individual-market* entrepreneuring views life satisfaction and improvements in income as being central and combining to engender increases in future prosperity expectations. In this solution set, hedonic explanations are brought back into explanatory relevance for future prosperity expectations, consistent with classic market inclusion approaches. Third, *family-inwards* entrepreneuring showcases how entrepreneurs on more isolated farms counteract environmental constraints (lack of access to markets and agricultural inputs) through a very strong family unit, thus producing improvements in future prosperity expectations.

The three identified solutions demonstrate the varied nature of entrepreneurship in a context of poverty when adopting a eudaimonic rather than hedonic philosophy, aligned with Amartya Sen's capabilities approach. As such, the paper makes several contributions. First, we expand the current remedial view of entrepreneurship and poverty by demonstrating how future prosperity expectations may be elicited even in the absence of conditions regarded as necessary for poverty reduction. In doing so, our findings bring into our domain new ways of understanding the role and functioning of entrepreneurship as a solution to poverty.

Second, our findings challenge knowledge on the (dis)connect between income, life satisfaction and entrepreneurship when human development is viewed eudaimonically in terms of future prosperity expectations. The disconnect we demonstrate highlights that future prosperity expectations are possible through many varieties of entrepreneuring. Third, we contribute to broader theoretical debates on entrepreneurship, poverty and development. Through our complexity-informed analysis of interdependent conversion factors, we add to prior applications of Sen's work which have relied on limited linear assumptions regarding the relationship between entrepreneurship and capabilities. Last, the novel methodology applied offers a useful non-linear approach to discussion on entrepreneurship and poverty. We further discuss the policy implications attached to these counterintuitive, non-linear combinations.

## **2 Introduction**

In impoverished contexts, entrepreneurship has emerged as a potential elixir to income poverty and many societal challenges (McMullen 2011). This draws on a set of assumptions regarding the effect of the former on the latter, and the role of income as a baseline condition (Bradley et al. 2012). In this view, poverty can be alleviated through entrepreneurship by addressing financial scarcity, which implies that i. since poverty is the result of a lack of income, the provision of income will allow entrepreneurship to flourish (Sutter et al. 2019) and ii. once entrepreneurship is stimulated, the value captured by the entrepreneur in the form of income will contribute to alleviating suffering and improving life satisfaction (Bruton et al. 2013). The trickle-down effect might enable a dramatic reengineering of the institutional and social contexts (Sutter et al. 2019).

However relevant, this view has been criticized for important shortcomings. First, it over-emphasizes the hedonic aspects of human development despite its multi-dimensional nature (Ryan and Deci 2001). By portraying alleviation as a reflection of income and/or life-satisfaction, this remedial view provides incomplete representations of life purpose, human achievement, functioning and expectations of a better future. Second, it tends to rely on limited linear assumptions regarding economic development, specifically regarding the causal effects of entrepreneurship on human development (Chliova et al. 2015). In doing so, it hides away the many possible entrepreneurial manifestations in the pursuit of betterment. Linear, income-driven understandings of entrepreneurship and development naturally evoke a particular traditional type of enterprising, yet many more paths may exist if broader life circumstances and outcomes are considered.

In this paper, we focus on understanding the enabling role of circumstances – labelled conversion factors – in entrepreneurial action and the pursuit of prosperity, and whether such interactions can yield alternative forms of entrepreneuring beyond the income-satisfaction

equation. Such alternatives can be found within a eudaimonic understanding of human development (Ryan and Deci 2001). Consequently, we ask two inter-related questions: Which entrepreneurial configurations of life circumstances, seen as conversion factors, lead to strong future prosperity expectations in impoverished contexts? What different combinations of entrepreneurial actions and life circumstances emerge in the pursuit of prosperity?

Drawing on Sen's (1999) capabilities approach and conversion factors (Robeyns 2005), we use fuzzy-Set Qualitative Comparative Analysis (Ragin 2000) to assess how changes in six circumstantial conditions across farming households in rural Kenya lead to stronger future prosperity expectations. We argue that expectations regarding what the future may hold for the next generation in these contexts change dynamically and sequentially over relatively short periods of time, as a form of long present (Kim et al. 2019). In this sense, present (entrepreneurial) actions are driven by evolving conversion factors and present evaluative representations of possible future states.

Our results show that strong future prosperity expectations in this setting can result from three combinations of enabling conversion factors, which, in turn, reveal three varieties of entrepreneurial endeavors under conditions of poverty, which we theorize as: *family-frugal*, *individual-market*, and *family-inwards entrepreneuring*. Alongside the *individual-market* type, which resonates with the current "market inclusion" view of the phenomenon, we found two additional counterintuitive configurations of entrepreneurial activity. The *family-frugal* type relies on health and bonding within the immediate social sphere. A better future, enabled by entrepreneurial activity, depends on family stability rather than individual satisfaction or financial improvement. Indeed, the lack of income growth appears as central to the formation of strong prosperity expectations, with a minimum consideration of the role of business inputs or access to markets despite being open to trading. *Family-inwards* shows a self-sufficient type of entrepreneuring, common in isolated local communities. Despite the dramatic

marginalization from markets and exchange, which is normally deemed as necessary for entrepreneurship to flourish, action has indeed a role to play in fostering expectations of a better tomorrow. We also observe positive changes in agricultural inputs and financial situations, both assumed central in the relationship between entrepreneurship and development, playing surprisingly a peripheral role at best.

Our research makes several contributions at the intersection of entrepreneurship, poverty and human development. First, we expand the prevailing remedial view of entrepreneurship as a solution to poverty by introducing three varieties of entrepreneuring in the pursuit of a better tomorrow. Through these combinations, we reveal a split picture of the many ways in which heads of farm households, acting entrepreneurially, exploit real opportunities in seemingly identical impoverished communities (Shantz et al. 2018). This shapes up distinct structural and cultural systems upholding the entrepreneurial occupation in the pursuit of better life circumstances. By doing so, our findings bring into our domain new ways of understanding the role and functioning of entrepreneurship as a solution to poverty.

Second, the findings challenge existing knowledge by revealing a central disconnect between entrepreneurship, life-satisfaction and financial improvements when assessed against expectations of future prosperity. Contrary to our current understanding, our research shows that income increments and present satisfaction, resulting from enterprising activities, are of limited relevance when the potential contribution of entrepreneurship to human development is observed in terms of prosperity expectations. This disconnect shows that prosperity expectations can be formed in different ways, different from the prevailing understanding of the phenomenon. Finally, our research also contributes to the wider literature on entrepreneurship, poverty and development. We show that not all positive social outcomes are synonymous with capabilities, suggesting a need to go much deeper into how entrepreneurship may or may not be a vehicle for improved capabilities (Chliova et al. 2015).

### **3 Literature review**

#### *3.1 Entrepreneurship and poverty alleviation*

Entrepreneurship is widely appreciated as a key method of alleviating income poverty and fostering development in impoverished contexts (McMullen 2011; Alvarez and Barney 2013). Our collective efforts have been successful in explaining the relationship between entrepreneurship and poverty (Sutter et al. 2019), which has predominately revolved around the connection between entrepreneurial agency and a particular set of antecedents and consequences. In the former, a large body of research discusses access to resources as a crucial ingredient of poverty reduction (Bruton et al. 2011). In the latter, business performance and income generation are assumed to be critical consequences of entrepreneurship (Bradley et al. 2012).

With a limited set of resources, the assumed knock-on effect of income generation is that entrepreneurship increases individual prosperity and of those who rely on him or her (Sutter et al. 2019). It is argued that entrepreneurship could indeed counteract the associated negative effects of poverty, improving present and future circumstances, or at least prevent living conditions from declining even more (Chliova et al. 2015). Similarly, by expanding the number of choices individuals may have, entrepreneurship can also potentially reverse the negative spiral of fewer choices leading to less freedom and chances of betterment (Sen 1999). For the poor, entrepreneurship can enable returns in the form of income, higher relative consumption (Robeyns 2005), hence social mobility and higher life satisfaction (Kautonen et al. 2017).

At the basis of this “remedial” view, poverty is understood as the result of scarce resources with the provision of resources allowing entrepreneurship to flourish; this is viewed as the set of actions that address immediate resource concerns (Sutter et al. 2019). Thus, when entrepreneurship among the poor is unleashed, markets are more likely to flourish, and individuals can benefit. In Sutter et al.’s (2019) review, this requires three sets of means:

investment in human capital, provision of financial resources and the development of social networks and relationships. These combined are shown to have demonstrable effects on entrepreneurial outcomes in impoverished settings (Bradley et al. 2012): the creation of markets for the poor, increments in income and life satisfaction. The ultimate outcome is a “new” state where poverty has been remedied or alleviated (Sutter et al. 2019).

While relevant, this explanation of the relationship between entrepreneurship and poverty is limited and therefore incomplete. From this “remedial” point of view, it is expected that entrepreneurship in resource-constrained environments will be driven by income generation as a means of improving basic living conditions. This indicates a hedonic perspective of entrepreneurship and poverty alleviation. In this view, development is portrayed as a reflection of income-propelled present life-satisfaction which entrepreneurship is viewed as contributing to (Uy et al. 2017) or detracting from (Bhuiyan and Ivlevs 2018). In this sense, entrepreneurship is seen as a mere vehicle for producing economic outcomes (Muñoz and Kimmitt 2018).

From this standpoint one can infer that human aspirations such as life purpose, self-realization, and belonging (Robeyns 2005) will be mostly understood to be secondary in such contexts, and become undermined in light of more profound and urgent problems (Hall et al. 2012). This suggests that eudaimonic aspects of development can constitute neither the primary drivers nor the expected outcome of entrepreneurship.

Such understanding of desires and decision-making has led to the assumption that people in poverty contexts make decisions for today, lacking planning and forward thinking (Banerjee and Duflo 2007; Bruton et al. 2011; Pennings and Garcia 2005). Whilst this may sometimes be the case in a strictly business sense, it does not preclude individuals from thinking about the future and how today’s decisions will change tomorrow and beyond (Sen 2013). Kim et al. (2019) discuss the “long present” of decision making in such contexts; this exists as a set of distinct resource flows and rhythmic processes that occur for an extended duration rather than

a single moment in time. In progressing, people create images of the future by continuously reflecting on and self-appraising their values, actions, capacities and motivations to produce and pursue routes to life goals (Snyder 2002). Consequently, understanding whether entrepreneurship can deliver such a better tomorrow cannot be captured by looking at solely entrepreneurial activities and immediate life satisfaction, but rather the expectations and desires they have for a better future, based on the appraisal of their values, life goals and broader life circumstances.

These issues combined reveal a black box in our current theorization of the space, where entrepreneurial decisions today remain conceptually detached from prosperity expectations, neglecting the effects of a multi-dimensional concept and thus the many ways in which entrepreneurship can enable future pursuits (Shantz et al. 2018).

### *3.2 An alternative view: poverty, entrepreneurship and prosperity expectations*

Pioneered by Sen (1999), the capabilities approach has had a long-standing relationship with human development research as it enables a more holistic understanding of poverty, inequality and development (Alkire 2002; Anand et al. 2009; Robeyns 2003). It has also had some application within entrepreneurship research to frame positive social outcomes amongst microfinance entrepreneurs (Chliova et al. 2015) and analyzed in terms of its relationship with financial inclusion (Kimmitt & Muñoz, 2017) and institutional variables (Kimmitt et al. 2016)

This approach represents a fundamental shift in the development debate in the sense that it puts forward an alternative, eudaimonic understanding of development. This approach does not ignore the role of income and resources; rather it sees resources as possible instruments in the enhancement of human freedom (Drèze and Sen 2002). The capabilities approach focuses on the substantive freedoms of a person and the goals they have reason to value, which are relevant in developing a person's opportunity to pursue valuable outcomes (Nussbaum 2001).

The achievements of these valued outcomes are known as ‘achieved functionings’. Therefore, a person’s capabilities are the “the freedom to achieve: the alternative functioning combinations from which this person can choose” (Sen, 1999, p. 75). In the following, we elaborate on an alternative eudaimonic outcome and set of enablers.

### *3.2.1 Future prosperity expectation: an alternative eudaimonic outcome*

In contrast to the hedonic view, a eudaimonic perspective pertains to a virtuous life-purpose of human flourishing and self-realization in human development, rooted in Sen’s work (Ryan and Deci 2001). This perspective suggests that human development concerns how entrepreneurs think about present needs and perceive the potential circumstances of future generations given present decisions and entrepreneurial courses of action. This resonates with the notion of substantive freedoms as related to development, in the sense that the examination thereof should be applied within and also between generations, because present lives are strictly connected to future expectations (Anand and Sen 2000).

Considering what expectations of future prosperity may look like for an entrepreneur in a resource-constrained context requires considering the “positive evaluative representations of possible future states” (Seligman et al. 2013: 121) tangled with an “overall perception that goals can be met” (Henry 2004: 385). Combined, these represent a central organizing feature of perception, enabling a better understanding of agency and choices and “a positive motivational state that is based on an interactively derived sense of successful goal-directed energy and pathways to goals (Snyder 2002). Thus, *future prosperity expectations* represent an important consideration for understanding the effect of entrepreneurship on development outcomes from a eudaimonic perspective as it captures the link between how (entrepreneurial and broader) life circumstances and actions today shape perceptions of a better future.

### 3.2.2 *Conversion factors: alternative configural enablers*

Our alternative eudaimonic outcome calls for a different set of enabling life circumstances. Drawing on the capabilities approach we turn our attention to personal, social and environmental conversion factors (Sen 1995). They refer to variations in how a particular set of means form an individual's capability set and influence the choices that are available to them, reflecting the real opportunities open to an individual (Robeyns 2005).

For *personal conversion factors*, if an individual is restricted by some internal factors (e.g. emotions, satisfaction physical condition, reading skills, intelligence and so forth) then what can be achieved will be limited in scope and have limited help in enabling a functioning. Not surprisingly, many of the current approaches to poverty reduction focus on personal conversion factors such as the self-help initiatives like microfinance whereby improvements in personal factors are assumed to generally improve life circumstances (Bradshaw 2007; Banerjee and Duflo 2007; Narayan 2009). One important personal conversion factor is life satisfaction, mostly given its association with affect, psychological health and wellbeing. This is particularly relevant in poor economies given its relationship with income (Diener and Diener 1995). Life satisfaction has hedonic or eudaimonic dimensions (Ryan and Deci 2001). In the former, life satisfaction pertains to achieving pleasure but, in the latter, it is understood as self-realization and human flourishing. Although life satisfaction is a critical psychological resource, the latter highlights potential weaknesses in terms of how human development research infers links between life-satisfaction and development outcomes.

In terms of *social conversion factors*, they reflect the societal elements which may be combined with personal conversion factors to inhibit or lead to achieved functionings (Robeyns 2005). Factors could include social norms, discriminating practices, gender roles, societal hierarchies, power relations, family relationships and so forth. For example, if self-employment is viewed as a root out of poverty but society imposes a social norm against women interacting

with men in subsistence markets, then the goods they control are not able to obtain any achieved functioning. There is clear link between social relationships and development. To whom, where and how person's interact with one another within their close societal context is a core activity of how individual's lives are shaped and the type of capabilities they enjoy (Sen 1999). Nussbaum (2001) discusses the idea of affiliation as being critical: "Being able to live with and toward others, to recognize and show concern for other humans, to engage in various forms of social interaction; to be able to imagine the situation of another" (p.79). Thompson and Prottas (2006) emphasize the relevance of work-life balance, the role of family relationships, and how this is supported by employers and linked to human development outcomes. DeNeve (1999) stresses the positive relationship between personality types, relationships and human development.

Lastly, *environmental conversion* factors pertain to the elements of the environment (e.g. geographic location, climate), which individuals may be able to convert into an individual functioning (Robeyns 2005). This introduces to the discussion the idea that human development depends on the features of the place-based context of the individual. Here, the relevant components of this conversion factor may refer to 'hard' features of the context such as infrastructure obstacles that prevent an individual from achieving (Kimmitt et al. 2016). The extent to which the environment provides for an individual is place-specific; a contrast which is exacerbated across developing countries where development is typically uneven and urban focused (Baker et al. 2005).

Inherent to Sen's (1999) capabilities approach is the interdependent relationship between functionings and conversion factors. For example, as an entrepreneur acts their income will change for better or for worse (personal conversion factor). Similarly, the success (or failure) of their entrepreneurial endeavors may elicit new or changing relationships (social conversion factors) or an ability to navigate environmental constraints.

Thus, conversion factors are cumulative and interdependent in nature; accumulating (or perhaps contracting) between the actions of the entrepreneur and functioning outcomes thus constituting a holistic ‘toolkit’ of the entrepreneur’s capabilities. As Bradshaw (2007) highlights, we can observe and account for the most rapid and effective changes amongst the poor when numerous factors combine and change to break the complex cycle of poverty; thus our human development approach requires understanding the inter-dependence between conversion factors. This could be improving financial situations to an extent that shocks are easier to absorb (Bruton et al. 2011), ameliorating prevailing health conditions through entrepreneurial action (Shepherd and Patzelt 2015) or developing vital access to markets (Khavul et al. 2009) which may, taken together, expedite future prosperity expectations. We may therefore expect to see rapid changes in expected future prosperity as conversion factors combine in a conjunctural manner.

## **4 Research methods**

### *4.1 Methodological approach*

To examine how life circumstances combine to produce strong expectations of future prosperity, our research draws on Fuzzy-Set Qualitative Comparative Analysis - fsQCA (Ragin 2000). FsQCA is a set-theoretic method that uses Boolean algebra, counterfactual analysis and logical minimization to observe and analyze causal complexity. It allows for comparing cases as configurations of factors (Ragin 2008), dealing with complex causal relationships in a more parsimonious way and making causal inferences based on the notions of causal necessity and causal sufficiency. This method is particularly well-suited for addressing research questions in an inductive manner and dealing with multi-dimensional constructs and complex causal relationships (Misangyi et al. 2017), such as those proposed here.

#### 4.2 *Research context and sample*

Kenya was chosen as the context for the research, with the sample drawn from smallholder farming households, since they hold a diverse mix of family groups and an identifiable 'head-of-household'. Farming households constitute a rudimentary agrarian form of family business and as such constitute a legitimate unit for the research.

Kenya is a lower-middle income country (World Bank, 2017) in East Africa, with a low ranking on the Human Development Index (145 of 186). The agricultural sector employs around 75% of the workforce (USAID, 2017); from which most of the output comes from smallholder farms (CIA, 2017). Approximately 43% of the population are below the \$1.24 poverty line (*ibid*, 2017), life expectancy is a low 61 years (UNICEF, 2017) and infant mortality is high with 38 deaths per 1,000 (CIA, 2017). Many smallholder farms (less than 1 acre) operate at subsistence levels, where families are living day-to-day and have no financial or food reserves, with an estimated 2.6 million people acutely food insecure (USAID, 2017). In these circumstances of negligible resources, planning is difficult. It is estimated that 21% of children between ages 6-13 do not attend school (KNBS, 2009), and during planting season children become a necessary part of the agricultural labor force. At least 412,000 children younger than five years of age are acutely malnourished (USAID, 2017) and a big family is one of the few ways of planning for the future (with an average of 4.6 children per woman) given the high child mortality rate (PRB, 2011).

Access to quality agricultural inputs can be poor, with inconsistent availability of seeds and varying levels of agricultural knowledge. The road infrastructure is also poor, with only 9% of roads motorable/tarmacked (CIA, 2017); hampering access to markets for farming households. Whilst this snapshot paints a bleak picture, huge progress has been made in recent years in developing a better quality of life for Kenyans, with life expectancy up from 48 years in 1963 to 61 in 2017 (UNICEF, 2017); children living longer (child mortality rate decreased

34% between 2000 and 2012); renewed focus on an agricultural ‘new green revolution’ in Africa and new roads being built and tarmacked, with 2,600km built between 2013 and 2015 (BD, 2016).

#### 4.3 Data collection

Data were collected in rural communities near Nairobi over two rounds, during 2015 and 2016. The communities were chosen as being representative of mixed smallholder farming, where most farming households farm less than 1 acre of land, with a typical mix of crops (maize, beans and potatoes) and livestock (a cow and perhaps some chickens). Farming households were within 30km of Nairobi, the capital city and major market hub.

Prior to the surveys, permission was sought from the local chiefs, and a local community elder was hired to generate community approval for the research. An initial exercise mapped the number of farming households in the communities, then initial selection was made by a rubric of visit 1-in-every-3 households. A group of young adults were recruited and trained to conduct the survey. They all came from other local farming communities and spoke the local language: *Kikuyu*. To ensure reliability of our instrument, we use the back translation method.

A baseline survey was conducted during January 2015, a period just before the short rainy/planting season, achieving 555 respondents out of 1,000 (55% response rate). To explore for non-response bias, key variables were analyzed for statistical significance using date of collection as a proxy for willing versus reluctant participants - no significant difference was found. Regular quality checks were made by local supervisors. The enumerators captured key locational details (including GPS coordinates) to support identification of the participants in round two. The same team was recruited and trained for round two in January 2016 and the original participants re-surveyed, achieving 214 matched respondents, giving a response rate of 43%. FsQCA is sensitive to missing data and manual imputations (Meuer and Rupietta

2016), thus to increase the reliability our analyses we dropped 48 cases with missing data for a final sample of 166 heads of farm households.

In order to make sense and explore the empirical richness behind our configurational results, we conducted a third round of data collection in July 2017, comprising in-depth interviews with two key informants living in the area. These are members of local support organizations and international NGOs with deep knowledge of the local realities, who have been working with the groups of farming households for the past years. The qualitative data obtained from the interviews were not used as a direct input for the configurational analysis, rather as a way of understanding the reality behind each causal recipe. Thus, this is a post-hoc exercise guided explicitly by our results, where we asked our informants about their views on specific cases confirming each solution and is consistent with our inductive approach. This proved instrumental for the development of our explanations and theorizing.

#### *4.4 Measurement and calibration*

##### *4.4.1 Outcome condition*

In line with the eudaimonic view of entrepreneurship and poverty amelioration, our outcome of interest is *future prosperity expectations* (FPE). We were particularly interested in the farmers' appreciation of future concerns and the way in which they think about the future circumstances of their off-spring given goals, decisions and evolving life circumstances. This exists as an extension or consequence of present farming and entrepreneurial-related decisions, actions and circumstances, which are context-specific in terms of place and business activity. Given the latter and the logic of evolving circumstances, we therefore decided to explore changes - increments or reductions - in FPE after a one-year period, by focusing on the extent to which the heads of the farm household were confident that *their children will be able to prosper through farming*. In the context of development, prosperity is an elusive concept. Its

use may be even more problematic when prompted in non-western, impoverished contexts. The specific word used in our study was *Ustawi*. As a standalone word, *Ustawi* can be translated from Swahili to English as welfare or wellbeing and from Kikuyu to English as quality of life or prosperity. However, in spoken Kikuyu it is commonly used to represent “prosperity of the rising generation”. This was captured by means of a 7-point Likert scale.

#### 4.4.2 Causal Conditions

Since life circumstances should not be seen in isolation (Sen 2013) we suggest that the “pathways” to expectations of future prosperity depend on a configurational effect of social, environmental and personal conversion factors. Whilst others have drawn from a capabilities framework to highlight positive human development outcomes amongst entrepreneurs in these contexts (Chliova et al. 2015; Gries and Naudé 2011), the factors that combine to reinforce human development tend to be ignored. This would seem particularly crucial to an appropriate application of Sen's (1999) work, where different factors associated with substantive freedom are said to have mutual connections.

Our selection of measures for causal conditions leading to strong or weak FPE was thus based on specific theoretical considerations, including personal, social and environmental conversion factors relevant to entrepreneurship in our context of interest. In order to strengthen our confidence in the operationalization of conversion factors and the overall internal validity of study, we returned to previous empirical studies using Sen’s framework where we were able to corroborate the adequacy of our methodological choices.

In terms of *personal conversion factors*, we focused on changes in life satisfaction and financial situations. In the former, life satisfaction has been shown to be linked to a person’s income generation abilities in resource constrained contexts (Diener and Diener 1995). This is measured through a 7-point Likert scale using the following statement: *I am very satisfied with*

*my overall life nowadays*. This is consistent with how prior studies have measured life satisfaction (Kimmitt and Muñoz 2017). For financial situation we also use a 7-point Likert scale with the following statement: *I am very satisfied with my financial situation*. This perceptual measure allows us to capture income poverty in more relative than absolute terms, which is more accurate in observing its relationship with FPE in Sen's capabilities approach. Here, financial situation constitutes an enhancement of the person's abilities to generate income and sustain their family (Bradley et al. 2012).

In terms of *social conversion factors*, we focused on the farmers' immediate family. It is worth noting that regardless of size and success, it is rare for traders in this context to grow to a point where they would hire employees, instead most of them rely on their children and other family members to operate the enterprise (Khavul et al. 2009). Therefore, family becomes a reliable support network and apparatus for the farmer (Webb et al. 2010; Shantz et al. 2018). Given the natural overlaps between farmers and families, and their relevance as safety nets and seasonal labor, we focused on two interrelated social conversion factors: family relationships and physical health. Our operationalization resonates with previous studies using Sen's framework to assess the effect of community safety nets (Kimmitt & Muñoz 2017) and family health on well-being outcomes (Bhuiyan and Ivlevs 2018). Using 7-point Likert scales, we asked them specifically in both rounds about the extent to which they are satisfied with the social relationships within their family units and the physical health of their families. Social and health issues within families are closely linked. While the risk of multicollinearity is clear, our two measures do capture different aspects across the social conversion factors spectrum, which is confirmed by the low correlation value between the two variables (.233\*\*).

For our measures of *environmental conversion factors*, we focused on two aspects of the material environment: physical access to markets, captured as road infrastructure (tarmacked or non-motorable roads), and availability of agricultural inputs. These are context-specific

enablers and central to the development of the farming business and thus farming prosperity. In terms of the former, the literature has highlighted roads as a critical piece of infrastructure for rural communities where, in its absence, people tend to migrate to cities (Banerjee and Duflo, 2007). Most notably, non-motorable roads become potholed and unusable during rainy seasons, restricting physical access to markets. While we did not observe significant changes in the road infrastructure between 2015 and 2016 (despite the 2,600 kilometers of new roads built in Kenya in that period) there is variance across the sample in terms of their access to tarmacked roads. At the time the data were collected, 64.5% of the sample had access to tarmacked roads, whereas 35.5% had only access to unreliable dirt roads that become unusable during rainy seasons. This is critical for the both access to agricultural inputs and the distribution of produce and easy access to local markets. Since the ability to progress as a farm household depends to a great extent on the availability of agricultural resources nearby, particularly high-quality seeds, our second environmental conversion factor is focused on the heads' satisfaction regarding the availability of agricultural inputs, which is also captured by means of a 7-item Likert scale. Such high-quality seeds, which enhance productivity and are somewhat resistant to the challenging environmental conditions of such contexts, are of particular relevance for the development of farming enterprises in this context.

Since our interest was to capture changes in conditions, we created a 15-point scale for each condition, capturing the positive and negative changes (ranging from -7 to 7) from round one to round two.

#### *4.4.3 A note on timeframes for capturing and assessing evolving circumstances*

To avoid arbitrary decisions as to what is the most appropriate timeframe for capturing evolving life-circumstances in relation to changes in prosperity expectations, we turn our

attention to three lines of reasoning: context dynamics, theoretical concerns and observed distribution, which led us to establishing one year as the most meaningful timeframe.

First, we reflected on the specific circumstances surrounding micro farming in rural Kenya, and how it can shape self-assessments and expectations for the future. In this agro-ecological zone, there are two sowing/planting periods (March and October) a year<sup>3</sup>, which allows us to capture changes in decisions, reactions and expectations over a full agricultural cycle, including two dry seasons and two wet seasons. This means that during the course of a year, a head of farm household would have interacted with its environment seen the consequences of decisions and life-circumstances, produced images of the future and made corrections, if necessary, for the following period. This is consistent with other such time frames adopted within the entrepreneurship literature where capturing responses to particular events over the course of a year is relevant (Sutter et al., 2013 van Gelderen et al. 2018; Muñoz et al. 2019). Most notably, Kim et al. (2019) observe that, in dealing with apparent present-future trade-offs, tea producers in Kenya tend to enact a long-present perspective, normally a calendar year as this represents a full cycle of crops and income.

Second, and as we touch upon in our theoretical review, we can expect to see a more rapid and significant change in such an observed outcome through a configurational approach. If analyzing net effects, we could observe the effects of individual factors on human development outcomes. However, this contrasts sharply with the notion of poverty being a consequence of complex, inter-dependent and cyclical factors (Bradshaw 2007). Thus, when analyzing net effects, in most circumstances, the effect on human development outcomes may be weaker and therefore deemed to play out much further in the future. However, by combining factors in an

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<sup>3</sup> See Lower Highland Zone 3 (LH3, LH4, LH5) in FAO's crop calendar for Kenya <http://www.fao.org/agriculture/seed/cropcalendar/welcome.do>

inter-dependent configurational manner, we are able to see that future prosperity expectations can change much more quickly when taken holistically (Muñoz and Dimov 2015).

Finally, we returned to our data to assess whether our previous inferences regarding changes in circumstances and expectations are sufficiently meaningful. Table 1 shows the distribution of changes for the one-year period. As observed, changes of at least one point are significant for all conversion factors, with a 37.7% of the sample improving their circumstances (in average for all six conversion factors) from 2015 to 2016, 32.2% worsening their circumstances and 30.2% experiencing no change in the one-year period. Exploring the subgroup of those having experienced substantial increments ( $\geq 3$  points) and detriments ( $\leq 3$  points), we can notice 15.8% of the sample substantially improving their circumstances in the one-year period and 9.3% having experienced a substantial deterioration of their life circumstances, also on average for all six conversion factors.

---Insert Table 1 about here---

#### 4.4.4 Calibration

Calibration in configurational studies is essential as it enables systematic comparison, ensuring that each of the measures match or conform to dependably known standards<sup>4</sup>. In the definition of set memberships, calibration requires the definition of three thresholds; full membership, full non-membership and a crossover point. In this research, we sought to develop fuzzy-set scores representing strong membership in casual conditions and the outcome. In line with the principles of maximum ambiguity and irrelevant variation, we therefore define 8 as the cross-over point (8 equals no change) and 2 and 14 as thresholds for full exclusion (0.05) and full inclusion (0.95) in the sets. The calibration table for the 166 observations is available from the authors upon request. In Table 2, we report the descriptive statistics and correlations for the

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<sup>4</sup> The calibration procedure is presented in Appendix A

calibrated scores. The low correlation values between pairs of conversion factors do not raise divergent validity concerns.

---Insert Table 2 about here---

## 5 Findings

Table 3 presents the results of our truth table analysis<sup>5</sup>, which lists the different logically possible combinations of causal conditions along with the cases conforming to each combination. It shows 20 combinations of conditions and 127 cases relevant to the outcome, with 89 cases (70%) exceeding the minimum acceptable frequency and consistency thresholds and 38 cases (30%) below the bar<sup>6</sup>. 39 cases are momentarily excluded from the truth table in line with the frequency and consistency criteria. The remaining 44 rows (including those with one and no observations) are retained for the final step of the configurational analysis, which uses easy counterfactuals to conjecture about the most plausible outcomes of combinations not present in the data set.

---Insert Table 3 about here---

### 5.1 *Identifying Necessary Conditions*

In light of the assumed prominence of positive changes in economic conversion factors for the formation of future prosperity through entrepreneurship, we conducted a necessity analysis. A necessity argument can be sustained when instances of an outcome constitute a subset of instances of a cause and proves to be highly consistent in the degree to which instances of an outcome agree in displaying the causal condition thought to be necessary and the empirical relevance of each causal condition (i.e. consistency score of  $>0.95$ ).

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<sup>5</sup> Full truth table analysis procedure can be found in Appendix B.

<sup>6</sup> The 70-30 proportion of positive and negative cases offers us the most adequate distribution for a configurational analysis.

Results show that no condition is necessary or almost necessary for FPE. While relatively high, the consistency scores for health (0.719), relationships (0.756) are not high enough to argue that these are necessary or almost necessary for the formation of strong FPE. Likewise, absence of improvement in the financial situation (0.678) of the farmer is not necessary for FPE, despite its prominence in the results of the sufficiency analysis. These results do not violate the strong causal relationship we show exists between social conversion factors, absence of financial improvements and future prosperity expectations. It simply proves that perfectly consistent set relations are relatively rare in social research (Ragin 2006), which in turn brings to light the shortcoming of the restrictive assumption of causal necessity inherent to the linear understanding of the entrepreneurship and poverty relationship<sup>7</sup>.

## 5.2 *Identifying Sufficient Solutions*

Based on the frequency and consistency thresholds described above (3 and 0.89 respectively), fsQCA applies a Boolean algorithm based on counterfactual analysis and logical minimization to reduce the truth table rows to a set of simplified combinations of conditions (Table 4), which can be understood as different solution paths for strong future prosperity expectations. By means of systematic comparison of causal and outcome conditions, the analysis yielded three empirically relevant configurations of conversion factors leading to strong expectations of future prosperity: two solution terms and one superset. Given the overlaps between the first two solution terms and the fact that they share presence of positive change to family physical health and lack of positive change to financial situation as core conditions, we labelled them solutions 1a and 1b and we present them as a superset, which are used to explain the union of partially overlapping sets in a more parsimonious way<sup>8</sup>.

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<sup>7</sup> Results and key scatterplots with the fuzzy subset relationship between financial situation, life satisfaction, health, relationships and future prosperity expectations can be found in the supplementary material online.

<sup>8</sup> Details of the sufficiency analysis procedure can be found in Appendix C.

---Insert Table 4 about here---

Table 4 allows us to delineate three varieties of entrepreneurial action in Kenya through alternative configurations of changing conditions explaining future prosperity expectations. We label these as: family-frugal, individual-market and family-inwards entrepreneuring.

### 5.2.1 *Family-frugal entrepreneuring (Solution terms 1a and 1b)*

Our first solution 1a, within the S1 superset, presents a causal combination where changes in *family physical health* is a core condition for FPE; *family relationships* and *physical access to markets* are peripheral conditions to this outcome. Interestingly, absence of *financial situation* is also core here (i.e. no positive change in financial circumstances) despite the presence of FPE and the analysis demonstrates that *life satisfaction* and *agricultural inputs* are irrelevant. As FPE is inherently family oriented, we would expect to see positive changes in family conditions as being central to improvements in FPE.

The solution demonstrates two counterintuitive relationships by highlighting that *life satisfaction* is neither necessary nor a core condition for FPE. In a hedonic sense, research places *life satisfaction* as a central ingredient of human development. However, our findings show that this is not relevant in terms of expectations of future prosperity. The interview findings support this by highlighting the importance of faith in Kenya, where approximately 80% of the population are practicing Christians and as such:

*the majority of [Kenyan] people are hopeful and optimistic about their future. In India they are much more fatalistic, but here we hope things will be better every year and that the future will be better for our children. (Interview 1)*

This suggests that how an entrepreneurial actor feels satisfied today may have little or no bearing on how they think about the future – emphasizing further attention to how notions of satisfaction and subjective wellbeing may be linked (or disconnected) to an individual's eudaimonic purpose (Nix et al. 1999). This suggests that whilst he/she may experience

(dis)satisfaction from attaining a goal that he/she wants, those goals are not necessarily conducive to changing goals relating to one's life purpose, for example, providing for the family.

Within the aggregate *personal conversion factor* dimension, the lack of *life satisfaction* is further explained when seen in conjunction with the absence of any change in *financial situation*. This implies that whilst an entrepreneurial actor may be experiencing dissatisfaction, it is likely to relate to goals that are distinct to broader life-purpose aims, understood here as FPE. The causal combination for Solution 1b shares core similarities with Solution 1a (thus creating a superset) but differs in that *agricultural inputs* is a peripheral condition in the former but *physical access to markets* in the latter. This highlights the complimentary features that elements of *environmental conversion factors* seem to have with engendering changes in family circumstances and ultimately future prosperity expectations. According to the interviews, this relates to building a legacy and the acquisition and improvement of land is a key factor here:

*I want to build the asset base and in Kenya we are really interested in doing this through gaining land. Land is the most important asset, so we want to acquire it first of all, then we want to develop it (Interview 1)*

*Here I consider what I am leaving my children and their children. Our legacy will always be important. As a farmer that received 1/2 acre from their parents, if I have 2 children then my aspiration will be to gain another 1/2 acre so that I can hand down (Interview 2)*

Thus, land acquisition in this context is an important explanatory dimension to agricultural inputs whereby heads of farm households clearly require the necessary agricultural materials to farm their existing land but also grow into future land plots. Access to a decent road infrastructure improves access to markets (Kimmitt et al. 2016), but also drives up the value of the land and improves this legacy. The improved connectivity to services also improves *physical family health* and is a factor in social mobility that may ultimately contribute to harnessing improved family relations. Similarly, improved agricultural inputs for the low-

income farmers means an ability to more productively farm the land over time. This works in conjunction with improvement in family health and relationships. This suggests that improvements in business practices are contributing to the family unit rather than manifesting themselves through improved personal *life satisfaction* or *financial situation*. Overall, the findings in Solutions 1a and 1b indicate that the improvement of the *family physical health* and *relationships* work through the presence of a supporting *environmental conversion factor* thus producing FPE.

### 5.2.2 *Individual-market entrepreneuring (Solution term 2)*

In Solution 2, we observe a causal combination that brings presence of positive changes in the *life satisfaction* and the *financial situation* (personal conversion factors) of farmers back into the realm of explanatory relevance. In this configuration, improved *life satisfaction* and *physical access to markets* represent core conditions for FPE. An improved *Financial Situation* and *Family Relationships* are peripheral conditions that complement the effects of *satisfaction* and *physical access to markets*. *Family Physical Health* is no longer relevant and *agricultural inputs* is required and core in its absent form. The interviews explain this solution:

*... with money a farmer can pay school fees for a child, with roads they can put them on a Matutu [mini-bus]. Of course they will feel better about today, but they might also be able to dream of tomorrow. (Interview 1)*

Contrary to *family-frugal entrepreneuring*, this *individual-market entrepreneuring* reveals a clearer link between *life satisfaction* and FPE in a context when an individual has an improved *financial situation* and the environmental support of *physical access to markets*, which translates into easy access to markets and services such as healthcare and education. This suggests a more ‘conventional’ set of relationships between the factors as providing the conditions for FPE through business activities. Road infrastructure improvements seem critical to be able to transport agricultural products to local markets. This ease of access seems to mean

that external support (agricultural inputs) is no longer relevant and can be sourced by the individual. These factors associated with ease of trade quite naturally seem linked to improved *life satisfaction* and ultimately their *financial situation*.

To understand why *life satisfaction* is present here and nowhere else, and corroborate the insights observed in this solution, we run an additional test to assess the conditions leading to overall life satisfaction<sup>9</sup>. We found consistency with explanations of this market inclusion approach (Sutter et al., 2018), highlighting how *financial situations* and *life satisfaction* are closely intertwined. Thus, *financial situation* becomes more relevant when *life satisfaction* is the outcome but there is disconnect when the outcome is FPE. Particularly, across several solution terms we see that *financial situation* is a core condition for *life satisfaction*. This reinforces our notion that the pursuit of *life satisfaction* seems to occur through the pursuit of a goal the farmer wants when entrepreneuring, but that are not necessarily conducive to forming expectations of a better tomorrow.

### 5.2.3 *Family-inwards entrepreneuring (Solution term 3)*

These diverse and many forms of entrepreneuring are further highlighted in Solution 3. In *family-inwards* entrepreneuring, we again observe that *life satisfaction* is not relevant, but that *family physical health* is a core condition which is complemented by improvements in *family relationships* and *financial situation*. In this configuration, *physical access to markets* and *agricultural inputs* are required to be absent in the yielding FPE, suggesting the presence of self-sufficient inward-facing family entrepreneurs. While this is the less predominant of the three types, the solution term shows nevertheless a relatively strong unique coverage suggesting that *family-inwards entrepreneuring* is empirically relevant and far from being an outlier. This type of entrepreneurship is commonly seen in isolated local communities

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<sup>9</sup> Results can be found in the supplementary material online.

marginalized from main markets, yet capable of fostering improvements from a range of complementary activities:

*an unproductive farmer, with no prospects of improving the farm income, will be forced to seek work off-farm. This is usually the male householder and the money they bring will reduce family tensions [of income poverty] and enable access to healthcare and education. (Interview 1)*

Like Solutions 1a and 1b, family stability is closely linked to expectations of future prosperity. While it is difficult to imagine a causal combination where a decline in family circumstances increase FPE, this combination provides an intriguing complementary set of results. We observe that *environmental conversion factors* are not supporting entrepreneurial action, yet they still report improvements to their financial situation. This suggests a very close relationship between the financial productivity of the entrepreneur and the family unit, who most of time play a central role as part of the micro-farming labor force. Despite the marginalization from inputs, markets and exchange, which is normally deemed as necessary for entrepreneurial action to flourish, an unusual type of entrepreneuring seems to nevertheless play an important role in fostering expectations of a better tomorrow.

In this case, the strength of the family unit seems to counteract environmental constraints. This may not make the individual feel satisfied with their lives in the moment (i.e. *life satisfaction*) but it allows them to have hope about the future life circumstances of their children. In contrast with Solution 2, the individuals in Solution 3 operating family farming enterprises in community contexts are more isolated because of poor physical access to markets. Whilst some communities enjoyed access to tarmacked roads, others had dirt roads which can inhibit others from travelling to the community as well as restricting the travel of families in and out of it.

### 5.3 *Robustness tests*

In line with prior research we conducted three robustness tests (Muñoz and Dimov 2015). For the first two tests we assessed the sensitivity of our results by readjusting the calibration and frequency thresholds. This allows for testing whether our results, particularly those of necessity and sufficiency, are robust to the use of alternative specifications of causal conditions and assess the stability of the solutions. We also conducted a negate test to eliminate alternative explanations regarding possible causal relationships between conditions and absence of the outcome. This involves assessing the conditions or configurations of conditions leading to the absence of FPE. The sensitivity tests show that the results are robust and remain stable to the use of alternative frequency and calibration thresholds. These are available from the authors upon request.

## **6 Discussion**

While entrepreneurship is closely associated with human development (Shir 2015), we still know very little about the interrelationship between these two dimensions of human life, even more so in impoverished contexts (Chliova et al. 2015). In the opening of this paper, we emphasized that in such contexts three interrelated shortcomings need to be addressed. First, the over-emphasis on the hedonic aspects of human development despite its multi-dimensional nature. Second, the flawed linear assumptions regarding the causal effects of entrepreneurship on development. Third, the missing temporal aspects of prosperity, despite the future-oriented nature of its eudaimonic features, such as purpose, goal pursuit, self-determination and personal growth. We argue that, given the inner complexity of the poverty and entrepreneurship relationship, and the shortcomings in our examination thereof, it is likely that entrepreneurship in such contexts will take many different forms as entrepreneurial individuals pursue a better tomorrow.

In tackling these interrelated issues, we focused our analysis on what future prosperity expectations would look like in context of poverty. Drawing on Sen's (1999) capabilities approach and conversion factors (Robeyns 2005), we argue that expectations regarding what the future may hold for entrepreneurial individuals, living in these contexts, change dynamically and sequentially over relatively short periods of time, as a form of "long present" (Kim et al. 2019). In this respect, today's entrepreneurial actions are driven by evolving conversion factors and present evaluative representations of possible future states.

We focused on understanding what combinations of enabling factors across heads of farm households, acting as entrepreneurs in such contexts, can eventually lead to higher or lower expectations of future prosperity. These causal recipes draw from Sen's (1999) work on capabilities, which emphasizes the relevance of personal, social and environmental conversion factors as key components of poverty and prosperity outcomes.

By adopting this lens to observe farmers in pursuit of prosperity, our results reveal three alternative entrepreneurial paths. Collectively, they paint an interesting picture with counterintuitive results. *Individual-market entrepreneuring* resonates with the literature explaining the entrepreneurship-poverty relationship, where entrepreneurial action leads to positive changes in life satisfaction and financial situations, which conjuncturally produce stronger perceptions of future prosperity. The individual side of *individual-market* label stems from the relative irrelevance of the family ties and health conditions. Here, trading occurs more fluently through access to markets thus improving the ability to acquire relevant farming inputs. This type portrays the classic interrelationship between conditions currently existing with the literature on market inclusion. In this solution, market development is fostered through the development of social and material practices that enable and improve market participation (McKague et al. 2015). The monetarization of exchanges, in the market inclusion perspective, is viewed as a central ingredient of market development and ultimately poverty reduction (Mair

and Marti 2009). Through this type of market engagement, entrepreneurship is seen to perform a particularly powerful role by tackling poverty reduction by increasing personal wealth and quality of life (Tobias and Barbosa-Leiker 2013).

Our view of the phenomenon is challenged by family-frugal and family-inwards entrepreneurship in the production of prosperity expectations. *Family-frugal entrepreneuring* relies on health and bonding within the immediate social sphere. Entrepreneurial endeavors can enable better future expectations, but this depends on family stability rather than individual satisfaction or financial improvements. Indeed, the lack of financial improvement appears as central to forging prosperity expectations, with a minimum consideration of the role of business inputs or access to markets, despite being open to trading.

It is also interesting that *financial situation* as a condition is absent across the two solutions comprising *family-frugal entrepreneuring*, which strongly shows that expectations of future prosperity can still be propelled by entrepreneurship even when income poverty prevails. Thus, understanding how entrepreneurs consider the future can be seen differently when the nature of the goal (i.e. hedonic or eudaimonic) is understood. This challenges our understanding of future orientation in poverty contexts that tends to focus on performance and return rates, as highlighted by Bruton et al. (2011) in their study of microlending. Consequently, the contributing conditions may combine in a different manner, revealing the different entrepreneurial paths in such contexts.

This is counterintuitive since life satisfaction and financial circumstances largely dominate and resonate with mainstream entrepreneurship and poverty literature, particularly the remedial view (Sutter et al. 2019). However, a focus on this narrower set of conditions and outcomes restricts the complex understanding of the different ways an entrepreneur may exploit real opportunities to pursue eudaimonic expectations. This casts light on the relationship between entrepreneurship and human development whereby business activities are presumed to

engender capabilities, poverty related outcomes (Chliova et al. 2015) and/or quality of life (Kautonen et al. 2017). When human development is considered in a eudaimonic and complex multi-dimensionality sense, involving agency and pathways towards life goals (Snyder et al. 1997), the linearity of this relationship is challenged.

Thus, in contrast to the literature on entrepreneurship (Abreu et al. 2018; Shir et al. 2018) and poverty (Bruton et al. 2013), the divergence between family-frugal and individual-market entrepreneurship (solutions 2 and 1 respectively), along the results of the life satisfaction test, shows the disconnect between *life satisfaction* and the *financial situation* of the entrepreneur. This reveals contrasting paths of entrepreneurship in such resource-constrained contexts, despite living in close-by communities. If following a hedonic logic, we would likely only see a more ‘conventional’ set of conditions rooted in ideas of market inclusion, as spelled out in detail in the entrepreneurship and broader development literature. However, by showing the diverse range of valued goals that characterize the eudaimonic view, we reveal this disconnect and reveal many entrepreneurial paths amongst these family farming enterprises.

*Family-inwards* is perhaps the most counterintuitive of the three varieties of entrepreneuring. In the absence of decent physical access to markets and agricultural inputs, these entrepreneurial actors are particularly marginalized geographically so strong ties within the family unit and this isolated community become critical and substitute for the contextual challenges (Khavul et al. 2009). Thus, these individuals in such contexts work more closely with family members and others in the community to access markets and improve their financial situations. The response of the family as a collective has been identified elsewhere in contexts where access to resources and infrastructure is restricted (Baker et al. 2005). Thus, when *environmental conversion factors* are absent, FPE is again explained by improvements in the health of the family. This suggests that where entrepreneurs may be so constrained by their environmental setting that they engage in varying economic opportunities to enable their

financial circumstances (Banerjee and Duflo, 2007) in order to improve their family circumstances.

Thus, the family collective substitutes for a lack of formal access to markets, leading to improved future prosperity expectations. In such resource constrained contexts, it is the nature and perseverance of the family unit amidst environmental conditions which would typically be thought of as being absent of hope or expectation (Gras and Nason 2015). However, for this type of entrepreneurial activity it indicates that there is a crucial role for the family unit in mobilizing resources in this environment such as through additional income generating activities (Aldrich and Cliff 2003). Similarly, the importance of family seems less relevant when analyzed against life satisfaction, when placed against the eudaimonic framing of future prosperity expectations, it plays a much more significant role. Interestingly, the relationship with family health becomes counterintuitive, reinforcing the problems of focusing the analysis on present states rather than future prosperity expectations.

We summarize our inferences in an equifinal model depicted in Figure 1. In our multiple conjunctural elaboration, distinct combinations of changing life circumstances form three varieties of entrepreneuring which distinctively enable future prosperity expectations via: a. market inclusion and present business focus; b. thrifty, connected families and future business orientation and c. detached, self-sufficient families and alternative business activities.

---Insert Figure 1 about here---

### *6.1 Theoretical contribution*

Our study contributes to entrepreneurship theory as it relates to human development in several ways. First, we expand the prevailing remedial view of entrepreneurship as a solution to poverty by introducing three varieties of entrepreneurial action in the pursuit of a better tomorrow. The discovery of alternative combinations of enabling life circumstances points us to a split picture in terms of how heads of farm households, acting as entrepreneurs, exploit

real opportunities in seemingly identical communities (Shantz et al. 2018). We show that entrepreneurial action in poverty contexts comes in many varieties. This sits against the assumed homogeneity of entrepreneurial activity in such contexts that result from a hedonic understanding of the phenomenon, that is: linear, present-focused, and income-based.

When the pursuit of a better tomorrow is viewed through the narrower hedonic lens, explanations naturally revolve around the productivity of the entrepreneur, their income generation and link with life satisfaction, normally identified as market inclusion (McKague et al. 2015). However, when this pursuit is viewed through a broader eudaimonic perspective, entrepreneurship becomes a part of a larger set of conditions. Entrepreneurship, as an entrepreneurial endeavor, can take many forms and we begin to observe that some conditions previously assumed as central to unleashing action in poverty contexts do not matter as much as we think. Indeed, only one of our three solutions resonate with the above mentioned market inclusion view.

This shows that the small family farming enterprises in our study are the home to many varieties of entrepreneurial action. While this resonates with Shantz et al.'s (2018) multiple occupational identities, our findings include conventional market inclusion conditions but also lesser known combinations existing within the same community context, showing that the possible varieties of entrepreneurship can diverge significantly from the norm. This becomes particularly revealing in our empirical context, since family-farming entrepreneurship has been traditionally understood as one of the most stable and uniform types of entrepreneurship, as suggested by Sutter et al. (2017) who present farmers' individual and relational practices as standardized since they are aligned with formal market standards. Even when they transition collectively from informal to formal markets. As theoretical statements, family-frugal and family-inwards entrepreneurship, in the pursuit of a better tomorrow, bring into our domain two

new ways of understanding the role and functioning of entrepreneurship as a solution to poverty.

Our second contribution pertains to the fundamental disconnection between life-satisfaction, financial situation and entrepreneurship when prospection and prosperity are factored in and assessed in light of changing life circumstances. While changing the lens is not a contribution in itself, we argue that doing so empirically and showing how it works open up the black box of entrepreneurship and human development, revealing previously unseen varieties of equally productive entrepreneurship whilst challenging some determinants normally assumed as necessary. When entrepreneurs in resource-constrained contexts reflect on the effect of entrepreneurship on possible future states, alongside other entrepreneurial life circumstances, neither life-satisfaction nor financial situation are necessary for forging strong prosperity expectations. In our context of interest, Chliova et al. (2015) for example, relying on linear logic and presumed necessity, shows that access to economic facilities has a positive impact on the personal financial wellbeing of entrepreneurs – such a problematic linear logic has similarly been applied elsewhere in entrepreneurship and human development research (Kautonen et al. 2017; Uy et al. 2017). However, building on the emergence of a critical view that such entrepreneurs require more than just income to be successful (Bradley et al. 2012), we show that income is indeed of limited relevance when human development, as it relates to entrepreneurship, is observed in terms of expectations of future prosperity and as a result of a number of accompanying conversion factors.

Entrepreneurship has been traditionally understood as a driver for freedom, promising higher incomes and therefore higher life satisfaction, in both developed (Abreu et al. 2018) and developing (Seelos and Mair 2007) contexts. However, our results show that entrepreneurship, and the assumed resulting freedom, is only a part of a broader set of freedoms. This, at the

same time, provides a more robust and comprehensive approach to observe, discuss and further theorize on the phenomenon.

Our research also contributes to the wider literature on entrepreneurship, poverty and development. Firstly, despite the relevance of the capabilities framework, its application within the entrepreneurship literature has so far been insufficient in the sense that any positive social outcome tends to become synonymous with capabilities (Chiova et al. 2015). It also seems that we need to go much deeper into how entrepreneurship may or may not be a vehicle for improved capabilities (Gries and Naudé 2011) given the diverse set of contexts and constraints entrepreneurs face. To link entrepreneurship with capabilities, our findings suggest that we should be looking at the complex set of factors that may or may not contribute to human development outcomes. This is ultimately required to provide a more reliable representation of Sen that captures the means-end distinction – and therefore freedom - within the capabilities framework. Secondly, we build specifically on the critique of the over emphasis of hedonic perspective and need for eudaimonic understanding (Ryan and Deci 2001). By leveraging the ideas of prospection, as positive evaluative representations of possible future states (Seligman et al. 2013) and goal-oriented actions (Snyder 2002) in the “long present” (Kim et al. 2019), we offer a particularly novel way of thinking about eudaimonic outcomes (i.e. prosperity expectations) within the context of entrepreneurship. In turn, this allows us to unpack an empirically-based alternative to the problematic black box prevailing in the “remedial” view of entrepreneurship and poverty alleviation (Sutter et al. 2019), where entrepreneurial decisions today have remained detached from prosperity tomorrow and only articulated through a logical scaffolding borrowed from linear economic development.

Lastly and very importantly, the study draws from a novel two-stage data collection effort in the developing economy of Kenya. In spite of the proliferation of studies in impoverished contexts, we have mostly relied on a cross-sectional understanding of entrepreneurship in such

settings (Bruton et al. 2013). Although scholars have sought to unpack the different sets of conditions that produce positive outcomes for entrepreneurs (e.g. Bradley et al. 2012), the theoretical focus and methodological application in this research offer a different way of thinking about the relationship between entrepreneurship, poverty and human development, which is complex, multi-conjunctural and non-linear. In doing so, we also respond to recent calls for studies embracing complexity and advancing conjunctive theorizing.

## *6.2 Practical implications*

With our research setting in mind, we also identify important practical policy implications. Our findings suggest that entrepreneurship support programs that predominantly focus on improving the incomes of entrepreneurs (for example through microfinance), may only have limited relevance for understanding and improving eudaimonic outcomes. An emphasis on the hedonic tradition, which tends to prevail across support programs, is not entirely consistent with Sen's (1999) work on capabilities, which places values and purposes as being central to understanding human development. Whilst an endeavor to improve happiness or satisfaction is not likely to be counterproductive, an overemphasis on this misses many of the wider conversion factors that contribute to human development.

Similarly, our findings echo critics of policies which over-emphasize the role of entrepreneurship in such contexts – the most notable movement in this area coming from the work of Yunus (2007) in the field of microfinance. However, as others have noted recently, the success of entrepreneurs in those environments is unlikely to stem just from the provision of financial resources (McMullen 2011). Our findings echo this sentiment by highlighting where an entrepreneur's finances sit within the causal recipe of entrepreneurial wellbeing. By understanding the complex nature and inter-complementarities of the factors associated with poverty, it is possible to conceive of social interventions which are more context dependent

and embrace this complexity. Such a complexity paradigm has recently been discussed in development thinking (Ramalingam 2013) and our configurational analysis provides one approach to understanding the context of social interventions.

### *6.3 Limitations and future research*

There are inevitable limitations to our study. One concern pertains to the empirical boundaries of the study. While resource-constrained contexts tend to be encapsulated and culturally homogenized under rather futile classifications such as developing economies or the global south, we are aware of the major cultural and social differences between different resource-constrained contexts. Our study captures the realities and expectations for the future in agro-ecological zones in Kenya, and therefore suffers from the same limited diversity faced by most case-based comparative studies. While replication is unusual in management and entrepreneurship research, we would like to encourage future studies to test out our multiple conjunctural theory, in terms of the configurations leading to prosperity expectations as well the dynamic and reinforcing nature of the model.

This takes us to a second concern, which pertains the timeframe chosen to capture configural life circumstances and prosperity expectation in the “long present” of our farming households (Kim et al. 2019). While we are confident on our procedures, results and inferences, given the three arguments justifying our decision for the assessment timeframe, we nevertheless wonder what would happen if the same analyses were conducted using shorter or longer timeframes. We suspect that it would be difficult for farming entrepreneurs to notice eudaimonic changes in shorter timeframes, ranging e.g. from three to six-month, and that the attention will be focused on more superficial changes, e.g. sudden increments in income due to selling produce in a Nairobi market leading to immediate life satisfaction.

On the other hand, while a longer timeframe would allow us to capture material changes, the causal proximity between life-circumstances and such changes would make causal inferences challenging to support. Nevertheless, we suspect that if the relationship is seen through a prospective lens in longer timeframes there will be more reinforcing loops with material eudaimonic outcomes entering the evaluative space. We believe that exploring the connections between entrepreneurial decision-making, prosperity and amelioration under alternative timeframes constitutes an interesting avenue for future research. This also raises the possibility that there may be more than one variety of approach per farmer when longer time frames are accounted for. Entrepreneurs may move between the different styles or new combinations may be needed; this would be a promising avenue for further research.

There is a third concern that may challenge our theorizing in the future, which pertains to the fact that new generations are not taking over family businesses in developing contexts (White 2012), despite the fact these are run by families. While parents always make decisions with an eye on the future of their off-spring, if the inter-generational detachment becomes culturally embedded, we suspect that the answer to our outcome question (i.e. whether children will be able to prosper through farming) will likely differ from what we captured in this study. We hope to see new studies a few years from now reassessing the role of entrepreneurship in nurturing future prosperity expectations.

To conclude, in this paper we address the limitations of the current remedial understanding of entrepreneurship as a solution to poverty. We do so by broadening the scope of human development enablers and outcomes. We discover a variety of entrepreneurial forms that emerge as heads of farming households in impoverished contexts, acting entrepreneurially, in pursuit of a better tomorrow. We hope that our findings and contribution will not only provide a better understanding of the underlying complex relationships but also open the field to a new

way of appreciating the relationship between poverty, entrepreneurship and human development.

## 7 References

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## 8 Tables and figures

**Table 1. Distribution of changes in life circumstances**

Roads	Change	Inputs	Satisf.	Finance	Relations	Health	FPE
64.5% (T)	Increase ( $\geq 1$ )	34.3%	51.8%	54.2%	25.3%	22.9%	34.3%
36.5% (G)	Decrease ( $\leq 1$ )	40.4%	32.5%	33.1%	18.7%	35.5%	36.7%
	Equal	25.3%	15.7%	12.7%	56.0%	41.6%	28.9%
	Increase substantially ( $\geq 3$ )	15.1%	23.5%	27.7%	2.4%	10.2%	20.5%
	Decrease substantially ( $\leq 3$ )	12.7%	7.8%	8.4%	7.8%	9.6%	14.5%

T: Tarmac, G: Gravel (non-motorable)

**Table 2. Descriptive statistics and correlations**

	Mean	SD	1	2	3	4	5	6
1 Inputs	0.49	0.26						
2 Satisfaction	0.58	0.27	0.049					
3 Finance	0.58	0.27	-0.002	.237**				
4 Health	0.47	0.22	-0.145	.222**	.176*			
5 Relations	0.50	0.17	-0.051	.274**	.233**	.179*		
6 Markets	0.64	0.48	0.018	-0.019	-0.022	0.074	0	
7 FPE	0.52	0.28	-.182*	0.05	0.052	.268**	.195*	.154*

\* 0.05 \*\* 0.01

**Table 3. Truth table for strong future prosperity expectations**

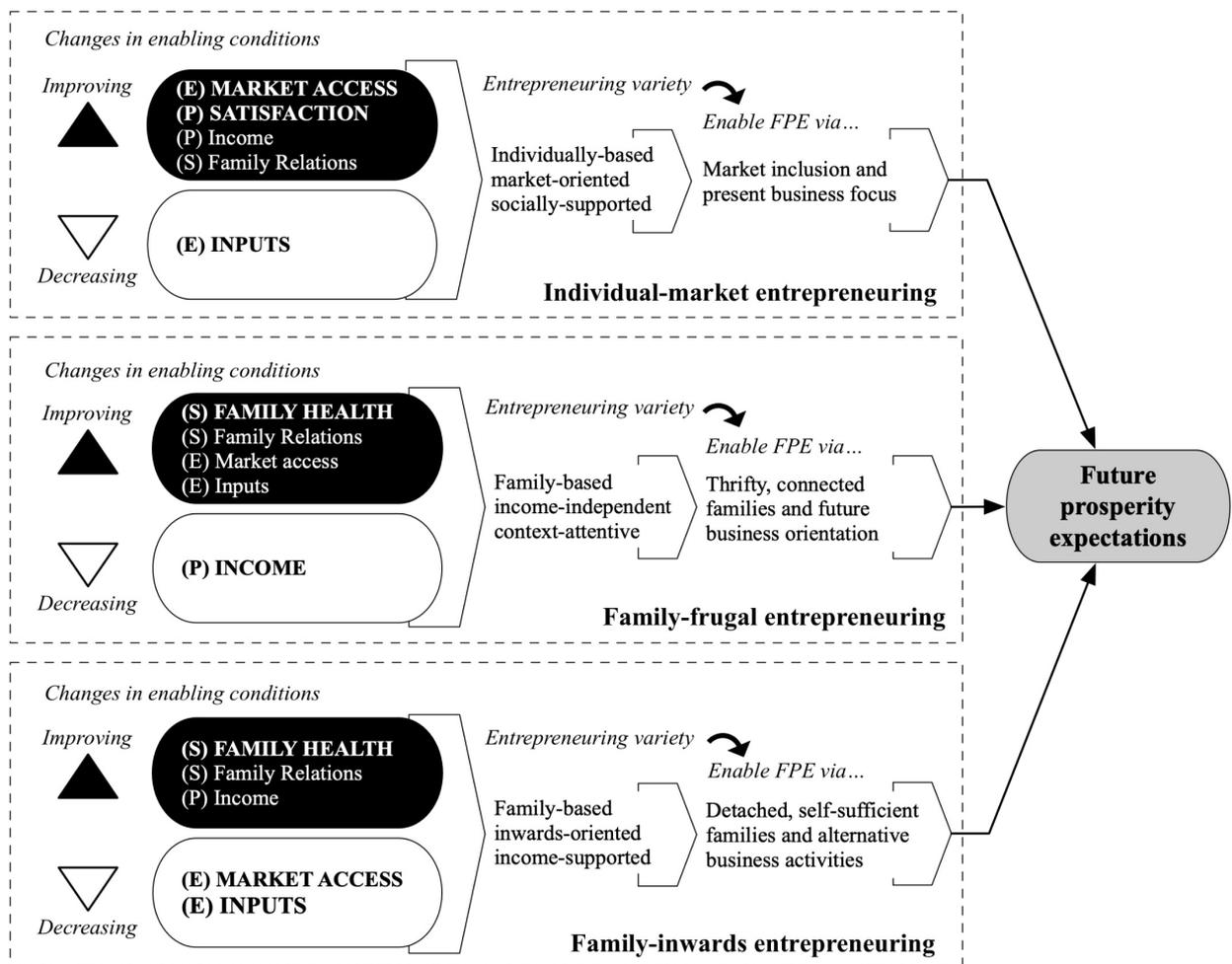
Markets	Inputs	Satisf.	Finance	Health	Relations	Cases	FPE	Consist.
0	1	1	0	1	1	3	1	0.94454
1	1	1	0	1	1	3	1	0.936993
0	1	0	0	1	1	5	1	0.93602
0	0	0	1	1	1	4	1	0.93301
1	0	1	1	1	1	14	1	0.92743
0	1	1	1	1	1	5	1	0.918595
1	0	1	0	1	1	7	1	0.918155
1	1	0	0	1	1	4	1	0.915643
1	0	0	0	1	1	3	1	0.915249
1	0	1	1	0	1	3	1	0.911268
1	1	1	1	1	1	25	1	0.897885
0	0	1	1	1	1	13	1	0.890903
1	1	0	0	0	1	4	0	0.887926
1	1	1	1	0	1	7	0	0.884288
1	0	0	1	0	1	3	0	0.884224
1	1	0	1	1	1	8	0	0.881307
0	1	1	1	0	1	3	0	0.876753
0	1	1	0	0	1	5	0	0.846999
0	0	1	1	0	1	4	0	0.836215
0	1	1	1	0	0	4	0	0.803749

**Table 4. Solutions for strong future prosperity expectations**

Configurations	Solutions			
	1a	1b	2	3
Physical access to markets	●	-	●	⊗
Agricultural inputs	-	●	⊗	⊗
Life satisfaction	-	-	●	-
Financial situation	⊗	⊗	●	●
Family relationships	●	●	●	●
Family physical health	●	●	-	●
	<i>Family-frugal</i>		<i>Individual-market</i>	<i>Family-inwards</i>
Consistency	0.89	0.925	0.891	0.889
Raw coverage	0.292	0.394	0.317	0.173
Unique coverage	0.024	0.007	0.023	0.010
Overall consistency	0.858			
Overall coverage	0.648			

frequency cutoff: 3; consistency cutoff: 0.890903; no assumptions.

**Figure 1. Equifinal model for future prosperity expectations in conditions of poverty**



## **Appendix A. Notes on calibration procedure**

Calibration converts a raw score into one that reflects degree of membership in a set, rescaling the original measure into scores ranging from 0.0 to 1.0. During the calibration procedure, the research team is required to specify the score that would qualify a case for full membership in the sets of entrepreneurs with strong FPE, as well as in the set of each causal condition (e.g. entrepreneurs having experienced strong positive changes in their financial situation) and also the score that would completely exclude it from each of the sets (e.g. entrepreneurs with absence of strong FPE for the future having not experienced strong positive changes in their financial situation). It does so by using a simple estimation technique, automated in fsQCA 3.0 (Ragin and Davey, 2016), that transforms variable raw scores into set measures, rescaling the original measure into scores ranging from 0.0 to 1.0 [0, 1] (Ragin 2007). It is important to note that low membership scores do not represent the opposite of the assessed condition, simply the absence of it. For example, low scores in positive changes in the financial situation or in strong FPE do not mean necessarily that the entrepreneur is worse off financially or has lower future prosperity expectations, it simply means that there is an absence of positive change in both cases. This is relevant in the making of causal attributions because the combinations of conditions leading to no prosperity expectations are not simply the opposite of those leading to strong FPE. This brings to light one of the fundamental differences between configurational and correlational analyses, where relationships are seen as causally symmetrical (Fiss 2011), i.e. inverse models lead to same results except the sign of the coefficients.

## **Appendix B. Notes on truth table analysis procedure**

Once the data are collected and the measures calibrated, the software constructs a *truth table* listing all 64 ( $2^6$ ) logically possible combinations of causal conditions along with the cases conforming to each combination. In line with the limited diversity of the empirical world, we did not find evidence for all 64 possible combinations. In order to reduce the truth table to simplified combinations, we applied a frequency threshold of three, which specifies the minimum amount of cases to be considered in the analysis. After testing alternative thresholds, we concluded that using combinations with three cases allows for both parsimony and sufficient variance. This is also in line with previous studies dealing with similar sample sizes (e.g. Fiss 2008; Fiss 2011; Muñoz and Kibler 2016; Muñoz and Kimmitt 2019). The elaboration of the truth table requires a simultaneous definition of a consistency threshold that defines the minimum acceptable level to which a causal combination is reliably associated with the outcome. Consistency thresholds of at least 0.8 are deemed acceptable (Ragin 2007). With the aim of working only with highly consistent causal combinations, we set a consistency threshold of 0.89.

## **Appendix C. Notes on the sufficiency analysis procedure**

Because of the exploratory nature of our study, we do not make assumptions regarding the presence or absence of conditions in the delineation of counterfactuals, meaning that all positive and negative expressions are considered plausible.

The Solution Table (4) distinguishes core and peripheral conditions, which is based on how causal components are causally connected to a specific outcome. Core conditions are decisive causal ingredients that distinguish configurations, and peripheral conditions act as complementary ingredients that only make sense as contributing factors. Large black circles

represent core conditions with small black circles being a reflection of peripheral conditions. Circles with an X are used to indicate the absence of condition e.g. improved life satisfaction is not present. No circle indicates that the condition is irrelevant for explaining the outcome under examination (Ragin, 2008).

The facts that solutions 1a and 1b share their core conditions and exhibit high levels of raw coverage, yet lacking high levels of unique coverage, suggest that there is an overlap in the coverage of the solutions. In order to reduce the effect of overlaps, fsQCA allows for creating union of sets or supersets.