Jump for joy: Happiness as the route to increased living standards of entrepreneurs in Zambia

Abstract

Little is known of the effect of entrepreneurs' happiness on living standards in the world's developing countries. This study explores 1) the causal relationship of entrepreneurs' happiness and living standards; and 2) examines the interaction effects of socio-demographics (i.e. gender, age and education) and happiness on living standards in a developing context: Zambia. Following a qualitative pre-study with local experts, we develop a quantitative survey study including a unique sample of 170 entrepreneurs in Zambia. The analyses show that the entrepreneurs are relatively happy and an increasing level of happiness is related to an increasing standard of living. Moreover, the entrepreneurs' happiness moderated by age (i.e. being older *and* happy) and education (i.e. being better-educated *and* happy) is a strong positive determinant of their living standard. The entrepreneurs' awareness of the factors conducive to being happy, as well as the practitioners focussing on the social conditions of happiness, is instrumental.

Keywords

Entrepreneurs, developing countries, firm growth, performance, small firms, well-being

Introduction

Happiness, as part of one's subjective wellbeing, concerns attaining pleasure and life satisfaction while avoiding pain (Malkina-Pykh & Pykh, 2008; Ryan & Deci, 2001; Ryff, 1995). Recent studies in social psychology have shown that it shapes how people behave, feel and make decisions, which may lead to higher productivity (DiMaria, Peroni, & Sarracino, 2019) and increased personal and work performance (Achor, 2011; Boehm & Lyubomirsky, 2008; Lyubomirsky, King, & Diener, 2005; Schnittker, 2008; Walsh, Boehm, & Lyubomirsky, 2018). In entrepreneurship studies, early research on happiness suggests a social environment conducive to happiness has a positive effect on overall entrepreneurial activity—i.e., on country level (Mahadea & Ramroop, 2015; Naudé, Amorós, & Cristi, 2014). Moreover, happiness indicators, such as higher self-esteem, greater purpose or meaningfulness of work, life satisfaction, and greater sense of fulfilment, have been linked with increasing venture success (Chen, Chang, & Lin, 2018; Dijkhuizen, Gorgievski, van Veldhoven, & Schalk, 2018; Hahn, Frese, Binnewies, & Schmitt, 2012). Accordingly, happiness is thought to enhance acquisition of new knowledge and skills necessary to deploy creative responses to dilemmas and uncertainty (Lyubomirsky et al., 2005) critical for better entrepreneurial performance (Audretsch & Belitski, 2015; Hahn et al., 2012).

Notwithstanding the gains made in understanding happiness in entrepreneurship studies, there are three opportunities for further elaboration. First, existing research has not considered entrepreneurial happiness as a determinant of living standards, but rather is limited to business viability and performance outcomes. Measuring performance of entrepreneurs based on business performance outcomes (e.g., revenues, profits, and employee growth), while insightful, is more applicable in formal contexts where there is a legal distinction between business and personal liability. However, in much of the world, informal entrepreneurship (e.g. Eijdenberg, Thompson,

Verduijn, & Essers, 2019; Engström & McKelvie, 2017; Williams & Vorley, 2015) is commonplace in which business performance indicators are missing, or less insightful, than considering living standards. Considering living standards is common practice in different research fields, such as development economics (e.g. Pouw & Elbers, 2012) and marketing (e.g. Ingenbleek, Tessema, & van Trijp, 2013), because it better reflects the close relation between business performance and entrepreneurial quality of life. This provides more accurate and applicable data in developing contexts, operating under resource-constrained circumstances (Kaulihowa & Adjasi, 2018; Paige & Littrell, 2002; Pouw & Elbers, 2012; Reijonen, 2008; Toledo-López, Díaz-Pichardo, Jiménez-Castañeda, & Sánchez-Medina, 2012). Living standards can be defined as 'the resources and services that people use to secure and advance their livelihoods. They may include physical assets and natural resources, schooling, transport, housing, good health, food, and so forth' (Pouw & Elbers, 2012, p. 1360). Likewise, in this paper, living standards (e.g. the ability to build/buy a house, pay school fees and afford food) are used as an alternative for entrepreneurial performance[1].

The second and third opportunity is that the majority of entrepreneurial happiness research has focussed on Western[2] contexts, and that relies heavily on secondary data. While a substantial (necessity-driven) entrepreneurial activity (defined in this study as new organisation creation, see: Gartner, 1988) happens in the developing world (Wennekers, van Stel, Thurik, & Reynolds, 2005), non-Western cultures—such as developing countries in sub-Saharan Africa (SSA)—have received little attention in happiness studies. Meanwhile, the research agenda of studying entrepreneurship in SSA's developing countries is receiving increasingly more attention. SSA is a rapidly growing

[1] While referring to the same measurable outcome of the entrepreneur's business, both terms, 'living standards' and 'performance', are used interchangeably in the remainder of the paper.
[2] 'Western' refers to high developed countries, such as Belgium, Denmark or Sweden; 'non-Western' refers to developing countries such as many in Sub-Saharan Africa (SSA), including Zambia.

region, involving new challenges for the future such as changing governance and economic systems, innovation for inclusive growth, major migration, urbanisation and a rising middle class (Dana, Ratten, & Honyenuga, 2018; Dvouletý & Orel, 2019; George, Kotha, Parikh, Alnuaimi, & Bahaj, 2016; George, McGahan, & Prabhu, 2012; Ratten, 2014; Ratten & Jones, 2018; Ratten, Jones, Braga, & Marques, 2019). Given the practical importance of these challenges, entrepreneurship scholars have set out to understand if and when entrepreneurship enables or constrains economic development.

Developing countries in SSA have other values and beliefs to which happiness is closely related, for example 'Ubuntu'. This concept means Africa's tolerance, kindness and emphasis on helping others as a way of helping oneself (West, 2014). Ubuntu involves collective wellbeing and activity, unification of people, respect for elders, and sharing (Saule, 1998). In traditional, often rural/peri-urban and kinship areas in SSA, Ubuntu is still strongly practised (Khavul, Bruton, & Wood, 2009). It is highly likely that when all values and beliefs of Ubuntu are strongly manifested within a person, then the person's happiness should be high. Nevertheless, we have little insight into these contexts due to entrepreneurial happiness studies drawing primarily on secondary data (e.g., GDP, access to education or health services, corruption indexes or macro-level measures of societal happiness).

Consequently, at the nexus of happiness and living standards in entrepreneurship studies, three research opportunities can be observed: 1) happiness has been under-researched as determinant of living standards; 2) few studies investigate this relationship in developing countries; and 3) almost no studies are based on primary data. To elaborate upon these, this study's primary aim is the exploration of the causal relationship between entrepreneurial happiness and living standards in SSA using primary data of a sample of so-called 'Tuntemba' in Zambia

(comparable with, for example, the 'Mama lishes' in Tanzania, see: Eijdenberg, 2016), who are generally young, low-educated and often coming from traditional, kinship settings. In such settings, Ubuntu considers the kinship ties as beneficial for businesses (Mangaliso, 2001). Our secondary aim is to explore the interaction effects of the most important socio-demographics (i.e. gender, age and education) and happiness on living standards. Thus, we ask the following research questions *(RQ1): 'To what extent does happiness determine living standards of entrepreneurs in a developing country?'* and *(RQ2): 'To what extent is the causal relationship of happiness and living standards influenced by gender, age and education of entrepreneurs in a developing country?'*.

Using a qualitative pre-study with local experts to justify a quantitative survey study, which includes a unique sample of 170 entrepreneurs who are born and raised in Kitwe and its outskirts, a city in the Copperbelt Province of Zambia, we find that happiness indicators positively predict likelihood of higher living standards of entrepreneurs. Furthermore, entrepreneurs being older *and* happy are more likely to have a higher standard of living than their younger and unhappy counterparts. This type of interaction effect also applies for better-educated *and* happy entrepreneurs in contrast to their less-educated and unhappy counterparts. In the next sections, the relevant literature will be discussed and hypotheses will be developed. Thereafter, the study's methodology will be discussed (i.e. descriptive statistics, correlation, reliability and regression analyses), followed by a presentation of the results. The paper closes with a discussion and conclusion.

Literature review and hypotheses

Living standards

Following the example of studies in development economics (e.g. Booysen, van der Berg, Burger, Maltitz, & Du Rand, 2008; Pouw, 2008; Pouw & Elbers, 2012), a growing number of entrepreneurship studies in SSA's developing countries are using living standards as an alternative—and better applicable—measures of entrepreneurial performance (e.g. Eijdenberg, 2016; Eijdenberg, Sabokwigina, & Masurel, 2019). The reason for choosing such alternative measures has to do with the context: in the most informal, impoverished areas, the entrepreneur is often the one-person business and the leader of the household at the same time (see for a descriptive discussion: Kiggundu, 2002). In such areas, entrepreneurs of micro and small-sized enterprises usually form the backbone of the economy, and, are therefore found abundantly (Kuzilwa, 2005). Moreover, professional bookkeeping in such areas is scarce (Frese et al., 2007). Any type of visible progression of living standards is more often than not directly traceable to business performance.

Indicators such as the ability to build/buy a house, pay school fees and afford food are often used as proxies of performance, and, generally, entrepreneurs claim to have realised progress in the last few years of business operation (Eijdenberg & Borner, 2017). Such studies have regressed numerous 'positive', personal attributes (e.g. entrepreneurial motivation, entrepreneurial orientation, environmental sustainability orientations) on the dependent variable of living standards (Eijdenberg, 2016; Eijdenberg & Ehmann, 2019; Eijdenberg, Sabokwigina et al., 2019). More often than not, positive effects of these personal attributes were observed on the dependent variable.

Happiness

One of the most important personal attributes is one's happiness. People may vary in their sources of personal happiness, meaning that there is considerable variability of what happiness means and

whether it has been achieved (Freedman, 1978). For some, becoming wealthy or possessing material is the way to happiness; for others, immaterial factors, religion, spirituality, relationships or love make up for happiness. However, in happiness studies, it is not a matter of what happiness precisely entails, rather the extent to which people *understand themselves to be happy*, or not (Lyubomirsky & Lepper, 1999).

Being or becoming an entrepreneur has long been shown to enhance self-satisfaction, well-being and happiness (Binder & Coad, 2016; Lepeley, Kuschel, Beutell, Pouw, & Eijdenberg, 2019). Research suggests that entrepreneurs in Western countries are happy due to, among others factors, intrinsic motivation, autonomy, and a combination of responsibilities and leisure time (Carree & Verheul, 2012). Moreover, recent studies have shown that Western entrepreneurs' happiness levels positively relates to their entrepreneurial performance (Dijkhuizen et al., 2018). However, in the context of SSA's developing countries, social relationships of family and friends strongly influence meaning of life, and therefore, happiness (Goodman, Gibson, Keiser, Gitari, & Raimer-Goodman, 2018). Happiness is often driven by social aspects that may outweigh monetary factors such as absolute income and wealth (Reyes-García et al., 2016). This especially holds in SSA where collective wellbeing (i.e. Ubuntu) has been practised (Kamwangamalu, 1999; Praeg, 2008). In addition, the strength of the entrepreneurial ecosystem contributes to the entrepreneurs' level of happiness, as evidenced, for example, by a study in South Africa (Mahadea & Ramroop, 2015). Conversely, widespread happiness in the environment (e.g. a nation) has been shown to be positively related to overall entrepreneurial activity (Naudé et al., 2014).

Like in Western countries, SSA's entrepreneurs—as acting individuals—are largely responsible of their own living standards which are, as pointed out earlier, derived from the performance of the business: those who are able to make progress with the business are more likely

to realise greater living standards. Positive feelings and emotions make up for an extended set of skills and behaviours that allow more psychological resources (Lyubomirsky et al., 2005), and, consequently higher performance of the organisation (Hahn et al., 2012). However, this has not been researched in the context of SSA's developing countries: a context that include unique cultures with shared values making up for increased happiness. Therefore, the following hypothesis is formulated:

Hypothesis 1 (H1): Entrepreneurs' happiness has a positive effect on their living standards in a developing country.

Entrepreneurs' socio-demographics

Individual characteristics of entrepreneurs (i.e. gender, age and education) have a certain influence on their performance. Gender is an important personal characteristic that influences the performance of entrepreneurs in developing countries. Female-owned businesses tend to grow more slowly and to be less successful than male-owned ones (Liedholm, 2002; Lyons, Brown, & Msoka, 2014b; Mead & Liedholm, 1998; Morris, Miyasaki, Watters, & Coombes, 2006; Tandrayen-Ragoobur & Kasseeah, 2017). Moreover, being male *and* happy would also have a positive effect on living standards. Hence, the following hypotheses are formulated:

Hypothesis 2 (H2): Male entrepreneurs have higher levels of living standards than their female counterparts in a developing country.

Hypothesis 3 (H3): Male and happy entrepreneurs have higher living standards than their female and unhappy counterparts in a developing country.

Research has shown that, generally, older entrepreneurs in developing contexts have gained more experience by learning on the job and, consequently, perform better than their younger

counterparts (Eijdenberg, 2016; Eijdenberg & Borner, 2017; Isaga, 2015; Kiggundu, 2002; Nichter & Goldmark, 2009; Obeng, Robson, & Haugh, 2014). Additionally, being older *and* happy would also have a positive impact on living standards. Therefore, the following hypotheses are formulated:

Hypothesis 4 (H4): Older entrepreneurs have higher living standards than their younger counterparts in a developing country.

Hypothesis 5 (H5): Older and happy entrepreneurs have higher living standards than their younger and unhappy counterparts in a developing country.

Regarding the education of entrepreneurs in developing countries, some studies suggest that a higher educational level does not automatically lead to better performance (Nichter & Goldmark, 2009). However, in general, more highly educated entrepreneurs perform better than those who are less-educated (Batana, 2013; Gimeno, Folta, Cooper, & Woo, 1997; Nichter & Goldmark, 2009; Rauch & Rijsdijk, 2013). In addition, being better-educated *and* happy would also have a positive impact on living standards. Therefore, the following hypotheses are formulated:

Hypothesis 6 (H6): Better-educated entrepreneurs have higher living standards than their less-educated counterparts in a developing country.

Hypothesis 7 (H7): Better-educated and happy entrepreneurs have higher living standards than their less-educated and unhappy counterparts in a developing country.

Methodology

Context of the study

Data collection took place in February 2018 in Kitwe, the second largest city of Zambia. Zambia is typically a developing country in SSA: it has been one of the fastest growing economies for ten years up to 2014, but due to poor management of resources, depreciation of the kwacha, high unemployment and extreme poverty in the rural areas, the country has fallen back recently. Zambia, like more than 30 other African counties, is classified as one of the 47 so-called 'Least Developed Countries' (LDCs) (United Nations, 2019b). LDCs are characterised by low gross national income per capita, low development of human capital and high economic vulnerability, see: (United Nations, 2019a). The estimated Zambian GDP per capita in 2017 was USD 4000 and almost 61% of the Zambians lives below the poverty line. Like many other countries in SSA, Zambia has a young, but fast growing population (median age of not even 17 years old; annual population growth: 2.93%) that is strongly urbanising (one of the highest in Africa) (Central Intelligence Agency, 2018).

Kitwe is situated in the northern region of Zambia, close to the border of the Democratic Republic of Congo. This northern region is known for copper mining, which is likewise the main economic driver of many cities in this area including Kitwe (Open data for Africa, 2018). The reason for choosing Kitwe as the context for collecting the data is twofold: 1) with around 520 thousand inhabits in a highly economically developing region, this city attracts—and brings forth—much entrepreneurial activity taking advantage of the many people living and working in this area (Choongo, 2017; Choongo, van Burg, Masurel, Paas, & Lungu, 2017; Choongo, van Burg, Paas, & Masurel, 2016); and 2) the data collection revolved around a capacity building workshop at the Copperbelt University (CBU) in Kitwe. The workshop involved the development of entrepreneurship curricula in higher education. In this workshop, several assignments with 16 (i.e. nine men, seven women) local CBU-faculty/entrepreneurship experts were conducted to

collect data. The participants were all working at middle or senior professional level. The participants were born, raised and currently living in the Kitwe-region and they were involved in different ways in local entrepreneurship (e.g. training/educating local entrepreneurs; providing entrepreneurship courses to students at CBU; or being entrepreneurs themselves). These conditions legitimised considering the participants as 'experts' of local entrepreneurship.

Data collection

We followed the 'qual → QUAN' approach to collect data (Molina-Azorín, López-Gamero, Pereira-Moliner, & Pertusa-Ortega, 2012, p. 442). This research design has often been used in developing countries (cf. Eijdenberg, 2016; Eijdenberg, Paas, & Masurel, 2015), and has been shown to be effective to contextualise research measurements, such as items in surveys. In this research design, a qualitative pre-study (i.e. the previously-mentioned workshop) was conducted to justify the quantitative main study. The first author of this paper led the workshop as one of the instructors, after which they coordinated the quantitative main study.

During the workshop, sufficient time was dedicated to research methodologies and data collection. Among other topics and assignments, there was an important group discussion with all the participants (i.e. CBU-faculty, or 'experts') about the development of suitable survey items to measure gender, age, highest level of education completed, happiness and living standards of entrepreneurs in the Kitwe-context. Additionally, the actual fieldwork—collecting the data—was part of the assignment.

First, the participants were paired and were then asked to think of measuring the previously-mentioned items. The duos subsequently presented their results to the other participants. After each short presentation, the participants were asked to reflect and comment on

each other's item suggestions. During this round of reflection and comments, consensus was reached about the final items to be included on the paper-printed surveys. After minor (con)textual adjustments were made to the proposed items, the instructors combined the items from all the duos into one survey. This final survey is presented in Table 1.

< Insert Table 1 about here >

Regarding Table 1, it is important to note that all these items are 1) phrased in such a way that they remain close to the literature (e.g. the socio-demographics and living standards are comparable with Eijdenberg et al., 2015; Eijdenberg, 2016; and happiness stems from Lyubomirsky & Lepper, 1999[3]); yet, 2) are independent from very specific contextual details (e.g. not referring explicitly to certain Ubuntu values). In that way, the survey could become more inclusive, and widely applicable on entrepreneurs of various backgrounds. Moreover, the participants finished the happiness items 4 – 7 with one open-ended qualitative item 'What makes you happy?' to gain deeper insights of what drives the respondents. The participants were asked to summarise and make notes of the (short) stories which the respondents told.

The participants simultaneously developed a survey in the local Bantu language based on the English version. Subsequently, sufficient copies were made and handed out to the participants. At this point, the participants became the data collectors. The participants started immediately with surveying entrepreneurs in Kitwe and they were encouraged to collect *at least* 10 fully completed surveys. Additionally, two experienced students assisted with the data collection and they were given the same task—and same number of paper-printed surveys—to administer. The reason for this data collection approach was twofold. The first reason was that the '"random" walk procedure' (Frese et al., 2007, p. 1486) was followed which has been applied more often in developing

[3] As indication of relevance and importance: this paper has been cited 3398 times as per 7 January 2020, according to Google Scholar.

countries in SSA as a common sampling methodology (cf. Eijdenberg, 2019; Eijdenberg, Isaga, Paas, & Masurel, 2020). The second reason was that by aiming for at least 10 fully completed surveys from 16 participants and two students (thus: ideally, 180 fully completed surveys in total), we ensured to have a solid basis for statistical analyses, following the rule of thumb of $N > 50 + 8m$, where m represents the number of independent variables in the study (Tabachnick & Fidell, 2007). The participants and students spread out to various locations in and outside Kitwe city to ensure that the same entrepreneurs would not be surveyed more than once. Finally, they returned with their completed, paper-printed surveys.

The participants and students were urged to survey food vendors, as collectively concluded in the pre-study as the 'typical type of entrepreneurs in the Kitwe-region': the previously-mentioned 'Tuntemba' businesses). Yet, these entrepreneurs are seen in many cities in SSA (Asiedu & Agyei-Mensah, 2008). These food vendors can be found on the street and/or they operate out of small, self-built kiosks and restaurants (Asiedu & Agyei-Mensah, 2008; Eijdenberg, 2016). In SSA, street vending is important because for many less-educated people, it is the only available employment that enables them to make a living (Bureau & Fendt, 2011; Lyons, Brown, & Msoka, 2014a). The total number of completed surveys was 170, making it a response rate of 94.44% on the basis of the initially aimed 180 fully completed surveys.

The sample of 170 entrepreneurs comprises of 89 women (52.35%) and 81 men (47.65%); 141 are 20 to 50 years old (82.94%)[4]. Furthermore, 40 respondents (23.53%) had no formal education or reported primary school as the highest completed education level, 70 respondents indicated secondary school as their highest (41.18%), and 60 respondents (35.29%) had completed some form of tertiary education of which 11 respondents (6.47%) had a Bachelor and/or Master's

[4] The participants in the workshop suggested to measure age in categories instead of asking for a specific number, because of sensitivity and cultural reasons.

degree. These numbers are representative and comparable with other findings of entrepreneurs in Zambia and elsewhere in SSA (Choongo, 2017; Eijdenberg, 2016; Frese et al., 2007).

In the next section, the results of the analyses will be discussed: the scores of happiness and living standards; correlation and reliability analyses; and regression analyses.

Results

The scores of living standards and happiness

First, the scores are computed of living standards and happiness. Table 2 shows the percentages (in this table and next tables, the item numbers correspond with those in the first column of Table 1).

< Insert Table 2 about here >

From Table 2 can be drawn that the respondents' living standards have become generally (much) better and that they were overall relatively happy.

The notes of the open-ended qualitative item 'What makes you happy?' on the paper-printed surveys were coded, based on frequently-mentioned terms, to make sense out of the (short) stories of the respondents. This process revealed that 49 (28.80%) respondents indicating that aspects related to the (growing) business, such as higher sales, profit, income and customer satisfaction makes them happy; 37 (21.80%) said personal values and activities, such as achievements, having (life) goals, desires and hard work makes them happy; 31 (18.20%) reported that social relations with acquaintances, family and friends makes them happy; eight (4.70%) said that religion, faith and/or God makes them happy; three (1.80%) said not to be sure of, or 'a lot of things' that makes them happy; and 42 (24.70%) did not cooperate by providing an answer to the question.

Correlation and reliability analyses

Table 3 shows the results of the correlation and reliability analyses: these are the necessary steps to the regression analyses. The relevant constructs containing more than one item (i.e. happiness, items 4 – 7; and living standards, items 8 – 12) were tested on reliability. Here, item 9 was recoded into the same direction as the other items of happiness. The reliability values (Cronbach Alpha's) indicate high reliability (values above .70 are acceptable, values larger than .80 are desirable: Gliem & Gliem, 2003), and, therefore, the happiness items 4 – 7 and living standard items 8 – 12 are combined into one happiness and one living standard construct, respectively (hereafter, these constructs are referred to as 'Index happiness' and 'Index living standard'). Furthermore, from Table 3 it can be concluded that imprecise data through multicollinearity can be excluded, as no coefficients (*r*-values) are extremely high ($r > .90$) (Hair, Black, Babin, Anderson, & Tatham, 2006).

< *Insert Table 3 about here* >

Regression analyses

Regressions are performed including the socio-demographic items as controls (i.e. items numbered 1, 2 and 3), 'Index happiness' as main effect, and two-way interactions[5] (i.e. the moderating effects) of the socio-demographics and 'Index happiness'. The results are presented in Table 4. This table shows the results of three models (i.e. the second, third and fourth column): the first model represents the results of only the controls; the second model shows the results of the controls and main effect; and the third model shows all results, including the interactions effects. For all models, we controlled for the conventional regression diagnostics (Hair et al., 2006). Table 4 is

[5] Other main and interaction effects were considered, including additional control variables (e.g. number of employees at the time of the data collection; founding year of the business). However, no significant effects were observed, and, therefore, these variables were removed in the Methodology section of the paper.

structured as follows: first, all standardised Beta (β) coefficients are presented. Second, the R^2, the adjusted R^2 and the *F*-test with the degrees of freedom (df) are presented.

< *Insert Table 4 about here* >

'Model 3' in Table 4 presents the key results. From this column can the following be concluded: age (β = -.14*), 'Index happiness' (β = .45**), age moderated by 'Index happiness' (β = .16**) and highest completed education moderated by 'Index happiness' (β = .18*) all impact living standards.

Regarding the hypotheses, the results from Table 4 show that entrepreneurs' happiness has a positive effect on their living standards (i.e. *H1* is accepted). Furthermore, entrepreneurs being older *and* happy have a higher standard of living than their younger and unhappy counterparts (i.e. *H5* is accepted). This type of interaction effect also applies for better-educated *and* happy entrepreneurs in contrast to their less-educated and unhappy counterparts (hence, *H7* is accepted). Finally, the remaining main and interaction effects, such as entrepreneurs being male (*H2*); being male *and* happy (*H3*); being older (*H4*); and being better-educated (*H6*) are all rejected.

Discussion

Theoretical contributions

This study began by noting the relationship between entrepreneurial happiness and living standards has been neglected in literature, although in most informal, developing countries living standards better reflects venture performance. Firstly, this study extends research on happiness of entrepreneurs (Audretsch & Belitski, 2015; Hahn et al., 2012; Ivanova, Treffers, & Langerak, 2018) by using living standards as alternative measures of performance. While considering living standards is common practice in different research fields, such as development economics (e.g.

Pouw & Elbers, 2012) and marketing (e.g. Ingenbleek et al., 2013), we bring them into entrepreneurship and are among the first to do so. Consequently, our study contributes to entrepreneurial happiness literature by demonstrating that happiness does have a causal relationship to living standards, which suggests that, in line with research in social psychology, one's subjective happiness influences daily life decisions, perceptions and outlooks that benefit entrepreneurial ventures.

Secondly, this study is among the first to focus on the relationship between happiness and living standards where best applicable: the under-researched area of the world's 'bottom billion' (Collier, 2008), mostly living in SSA's developing countries (Eijdenberg, 2016; Eijdenberg & Borner, 2017). In general, entrepreneurship research in SSA is scarce while the region is craving for more scholarly attention (Amankwah-Amoah, 2018; Boso, Adeleye, Ibeh, & Chizema, 2019; Dana et al., 2018; George et al., 2016; Naudé, 2011; Teagarden, 2019): millions of people are making a living as entrepreneurs every day. In fact, entrepreneurial activity—measured as the percentage of adults (18 – 64 years) who are in the process of starting a business or have just started one—in Zambia and the SSA-region is among the highest of the world (Herrington & Kelley, 2012). Moreover, 'the emerging economy context, especially African economies, is gaining importance as these countries take more active roles in the global economy, development, and governance' (Khayesi, George, & Antonakis, 2014, p. 1337). Still, entrepreneurship research is lagging behind this area, and, so, this study contributes by shedding light on the role of entrepreneurs' happiness and its relationship with living standards. Up to now, this relationship as been largely conducted on country or global-level (e.g. Helliwell, Layard, & Sachs, 2018) and especially in Western contexts (e.g. Audretsch & Belitski, 2015; Carree & Verheul, 2012; Dijkhuizen et al., 2018). Against this backdrop, the micro-level findings of this study contribute

to research advocating for more contextualisation (Welter, 2011; Welter, Baker, & Wirsching, 2019), particularly in SSA's developing countries (Eijdenberg, Thompson et al., 2019; Smallbone, Welter, & Ateljevic, 2014).

Thirdly, from a methodological point of view, this study is based on primary data as opposed to the mainly used secondary data (e.g. Carree & Verheul, 2012; Naudé et al., 2014; Reyes-García et al., 2016; Sherman, Randall, & Kauanui, 2016). In this way, the authenticity of the respondents is secured by giving them a voice while generalisability is retained by focussing on a typical type of entrepreneurs which are found everywhere in SSA (cf. Eijdenberg, 2016; Eijdenberg & Masurel, 2013; Frese et al., 2007). This voice has come out by, amongst others, the open-ended qualitative item in the survey: this item allowed specific, personal answers of respondents indicating what made them happy. This item increases reliability of the happiness indicators while at the same time generating valid results from a unique sample survey.

Practical implications, limitations and recommendations for future research

Regarding the practical implications, entrepreneurs in SSA's developing countries should know that a social environment conducive to being happy, as well as simultaneously being older or better-educated, increases likelihood of higher living standards. That does not mean that merely waiting to become older is the key to a better life. Instead, connecting to positive-minded (i.e. 'happy'), older and better-educated role models can be meaningful. Moreover, policy-makers, trainers and educators should not lose focus on the social conditions of happiness (as previously mentioned, for example: greater purpose or meaningfulness of work, higher self-esteem, life satisfaction, relationships) are just as important as material well-being when stimulating entrepreneurial activity.

This study does not stand without limitations, particularly in terms of its methodology. Hence, future research could focus on several aspects to build on this study. For example, the strength of the uniqueness of the sample is a limitation, especially in size. This study has involves a small sample of 170 entrepreneurs that limits possibilities of strong statistic results and generalisations. Therefore, as a recommendation, future research could study multiple—and larger—samples of such entrepreneurs, from multiple countries. This allows for cross-country comparisons and greater generalisations to other entrepreneurs. Moreover, this study used the happiness scale of Lyubomirsky and Lepper (1999) in accordance with the suggestions from experts in the pre-study: although this scale has been widely applied, other scales of happiness may better capture happiness (of entrepreneurs specifically). Future research could take this into account. Finally, future research could extend the open-ended qualitative item in the survey of this study by including more, or even solely, qualitative items. In that way, researchers would take a step back by exploring the methodological fit with the status of the literature (Edmondson & McManus, 2007). In doing so, happiness—as experienced by entrepreneurs in SSA—would receive a deeper meaning that could lead to (re)conceptualisation of happiness. This could be interesting in the light of contextualisation of entrepreneurship research (Welter, 2011; Welter et al., 2019; Zahra, Wright, & Abdelgawad, 2014), particularly in developing country contexts (Smallbone et al., 2014).

Conclusion

This study aimed to 1) explore the causal relationship of entrepreneurs' happiness and living standards; and 2) examine the interaction effects of socio-demographics (i.e. gender, age and education) and happiness on living standards in a developing context. In addition to existing

literature, our study finds that entrepreneurs in Zambia's developing context are relatively happy and an increasing level of happiness is related to an increasing standard of living over the last two years of operation (i.e. the answer to *RQ1*). The entrepreneurs' happiness as well as moderated by age (i.e. being older *and* happy) and education (i.e. being better-educated *and* happy) is a strong positive determinant of their living standard (i.e. the answer to *RQ2*). Thus, happiness can be the route to increased living standards, especially for a large group of under-represented entrepreneurs in developing countries.

References

Achor, S. (2011). *The happiness advantage: The seven principles of positive psychology that fuel success and performance at work*. New York City, NY: Random House.

Amankwah-Amoah, J. (2018). Cultivating greater self-confidence in African management research. *Thunderbird International Business Review*, *60*(4), 511–522.

Asiedu, A. B., & Agyei-Mensah, S. (2008). Traders on the run: Activities of street vendors in the Accra Metropolitan Area, Ghana. *Norsk Geografisk Tidsskrift-Norwegian Journal of Geography*, *62*(3), 191–202.

Audretsch, D. B., & Belitski, M. (2015). Is happiness conducive to entrepreneurship? Exploring subjective well-being - Entrepreneurship relationship across major European cities. *Henley Centre for Entrepreneurship*, *Discussion paper*.

Batana, Y. M. (2013). Multidimensional measurement of poverty among women in Sub-Saharan Africa. *Social Indicators Research*, *112*(2), 337–362.

Binder, M., & Coad, A. (2016). How satisfied are the self-employed? A life domain view. *Journal of Happiness Studies*, *17*(4), 1409–1433.

Boehm, J. K., & Lyubomirsky, S. (2008). Does happiness promote career success? *Journal of Career Assessment*, *16*(1), 101–116.

Booysen, F., van der Berg, S., Burger, R., Maltitz, M. von, & Du Rand, G. (2008). Using an asset index to assess trends in poverty in seven Sub-Saharan African countries. *World Development*, *36*(6), 1113–1130.

Boso, N., Adeleye, I., Ibeh, K., & Chizema, A. (2019). The internationalization of African firms: Opportunities, challenges, and risks. *Thunderbird International Business Review*, *61*(1), 5–12.

Bureau, S., & Fendt, J. (2011). Entrepreneurship in the informal economy: Why it matters. *International Journal of Entrepreneurship and Innovation*, *12*(2), 85–94.

Carree, M. A., & Verheul, I. (2012). What makes entrepreneurs happy? Determinants of satisfaction among founders. *Journal of Happiness Studies*, *13*(2), 371–387.

Central Intelligence Agency (2018). The World Factbook: Zambia. Retrieved from https://www.cia.gov/library/publications/the-world-factbook/geos/za.html

Chen, M.-H., Chang, Y.-Y., & Lin, Y.-C. (2018). Exploring creative entrepreneurs' happiness: Cognitive style, guanxi and creativity. *International Entrepreneurship and Management Journal*, *14*(4), 1–22.

Choongo, P. (2017). A longitudinal study of the impact of corporate social responsibility on firm performance in SMEs in Zambia. *Sustainability*, *9*(8), 1300.

Choongo, P., van Burg, E., Masurel, E., Paas, L. J., & Lungu, J. (2017). Corporate Social Responsibility motivations in Zambian SMEs. *International Review of Entrepreneurship*, *15*(1), 29–62.

Choongo, P., van Burg, E., Paas, L. J., & Masurel, E. (2016). Factors influencing the identification of sustainable opportunities by SMEs: Empirical evidence from Zambia. *Sustainability*, *8*(1), 81.

Collier, P. (2008). *The bottom billion: Why the poorest countries are failing and what can be done about it*. New York City, NY: Oxford University Press.

Dana, L.-P., Ratten, V., & Honyenuga, B. Q. (Eds.). (2018). *African entrepreneurship: Challenges and opportunities for doing business*. Cham, Switzerland: Springer.

Dijkhuizen, J., Gorgievski, M., van Veldhoven, M., & Schalk, R. (2018). Well-being, personal success and business performance among entrepreneurs: A two-wave study. *Journal of Happiness Studies*, *19*(8), 2187–2204.

DiMaria, C. H., Peroni, C., & Sarracino, F. (2019). Happiness matters: Productivity gains from subjective well-being. *Journal of Happiness Studies*, *Early Cite*, DOI: https://doi.org/10.1007/s10902-019-00074-1.

Dvouletý, O., & Orel, M. (2019). Entrepreneurial activity and its determinants: Findings from African developing countries. In V. Ratten, P. Jones, V. Braga, & C. S. Marques (Eds.), *Sustainable entrepreneurship* (pp. 9–24). Cham, Switzerland: Springer.

Edmondson, A. C., & McManus, S. E. (2007). Methodological fit in management field research. *Academy of Management Review*, *32*(4), 1246–1264.

Eijdenberg, E. L. (2016). Does one size fit all? A look at entrepreneurial motivation and entrepreneurial orientation in the informal economy of Tanzania. *International Journal of Entrepreneurial Behavior & Research*, *22*(6), 804–834.

Eijdenberg, E. L. (2019). Exploring sustainability orientation of MSME-owners in Tanzania. *Journal of Enterprising Culture*, *27*(1), 35–59.

Eijdenberg, E. L., & Borner, K. (2017). The performance of subsistence entrepreneurs in Tanzania's informal economy. *Journal of Developmental Entrepreneurship*, *22*(01), 1–22.

Eijdenberg, E. L., & Ehmann, L. (2019). Exploring wellbeing indicators of women micro entrepreneurs in Zambia. In M.-T. Lepeley, K. Kuschel, N. Beutell, N. Pouw, & E. L. Eijdenberg (Eds.), *The wellbeing of women in entrepreneurship: A global perspective* (pp. 359–373). New York City, NY: Routledge.

Eijdenberg, E. L., Isaga, N. M., Paas, L. J., & Masurel, E. (2020). Fluid entrepreneurial motivations in Tanzania. *Journal of African Business*, *Early Cite*, 1–19. DOI: https://doi.org/10.1080/15228916.2019.1695191

Eijdenberg, E. L., & Masurel, E. (2013). Entrepreneurial motivation in a least developed country: Push factors and pull factors among MSEs in Uganda. *Journal of Enterprising Culture*, *21*(1), 19–43.

Eijdenberg, E. L., Paas, L. J., & Masurel, E. (2015). Entrepreneurial motivation and small business growth in Rwanda. *Journal of Entrepreneurship in Emerging Economies*, *7*(3), 212–240.

Eijdenberg, E. L., Sabokwigina, D., & Masurel, E. (2019). Performance and environmental sustainability orientations in the informal economy of a least developed country. *International Journal of Entrepreneurial Behavior & Research*, *25*(1), 129–149.

Eijdenberg, E. L., Thompson, N. A., Verduijn, K., & Essers, C. (2019). Entrepreneurial activities in a developing country: An institutional theory perspective. *International Journal of Entrepreneurial Behavior & Research*, *25*(3), 414-432.

Engström, P., & McKelvie, A. (2017). Financial literacy, role models, and micro-enterprise performance in the informal economy. *International Small Business Journal*, *35*(7), 855–875.

Freedman, J. L. (1978). *Happy people: What happiness is, who has it, and why*. New York City, NY: Harcourt Brace Jovanovich.

Frese, M., Krauss, S. I., Keith, N., Escher, S., Grabarkiewicz, R., Luneng, S. T., . . . Friedrich, C. (2007). Business owners' action planning and its relationship to business success in three African countries. *Journal of Applied Psychology*, *92*(6), 1481–1498.

Gartner, W. B. (1988). 'Who is an entrepreneur?' is the wrong question. *American Journal of Small Business*, *12*(4), 11–32.

George, G., Kotha, R., Parikh, P., Alnuaimi, T., & Bahaj, A. S. (2016). Social structure, reasonable gain, and entrepreneurship in Africa. *Strategic Management Journal*, *37*(6), 1118–1131.

George, G., McGahan, A. M., & Prabhu, J. (2012). Innovation for inclusive growth: Towards a theoretical framework and a research agenda. *Journal of Management Studies*, *49*(4), 661–683.

Gimeno, J., Folta, T. B., Cooper, A. C., & Woo, C. Y. (1997). Survival of the fittest? Entrepreneurial human capital and the persistence of underperforming firms. *Administrative Science Quarterly*, *42*(4), 750–783.

Gliem, J. A., & Gliem, R. R. (Eds.) (2003). *Calculating, interpreting, and reporting Cronbach's alpha reliability coefficient for Likert-type scales*: Midwest Research-to-Practice Conference in Adult, Continuing, and Community Education.

Goodman, M. L., Gibson, D. C., Keiser, P. H., Gitari, S., & Raimer-Goodman, L. (2019). Family, belonging and meaning in life among semi-rural Kenyans. *Journal of Happiness Studies*, *20*(5), 1627–1645.

Hahn, V. C., Frese, M., Binnewies, C., & Schmitt, A. (2012). Happy and proactive? The role of hedonic and eudaimonic well-being in business owners' personal initiative. *Entrepreneurship Theory and Practice*, *36*(1), 97–114.

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). *Multivariate data analysis* (6th ed.). Upper Saddle River, NJ: Pearson Prentice Hall.

Helliwell, J. F., Layard, R., & Sachs, J. D. (2018). *World Happiness Report*. Geneva, Switzerland: United Nations. Retrieved from https://s3.amazonaws.com/happiness-report/2018/WHR_web.pdf

Herrington, M., & Kelley, D. (2012). *Global Entrepreneurship Monitor. African entrepreneurship: Sub-Saharan African regional report.*

Ingenbleek, P. T. M., Tessema, W. K., & van Trijp, H. C. M. (2013). Conducting field research in subsistence markets, with an application to market orientation in the context of Ethiopian pastoralists. *International Journal of Research in Marketing*, *30*(1), 83–97.

Isaga, N. (2015). Owner-managers' demographic characteristics and the growth of Tanzanian small and medium enterprises. *International Journal of Business and Management*, *10*(5), 168–181.

Ivanova, S., Treffers, T., & Langerak, F. (2018). Emotional paths leading to opportunity desirability and feasibility beliefs through controllability. *International Small Business Journal*, *36*(5), 546-573.

Kamwangamalu, N. M. (1999). Ubuntu in South Africa: A sociolinguistic perspective to a pan-African concept. *Critical Arts*, *13*(2), 24–41.

Kaulihowa, T., & Adjasi, C. (2018). FDI and welfare dynamics in Africa. *Thunderbird International Business Review*, *60*(3), 313–328.

Khavul, S., Bruton, G. D., & Wood, E. (2009). Informal family business in Africa. *Entrepreneurship Theory and Practice*, *33*(6), 1219–1238.

Khayesi, J. N. O., George, G., & Antonakis, J. (2014). Kinship in entrepreneur networks: Performance effects of resource assembly in Africa. *Entrepreneurship Theory and Practice*, *38*(6), 1323–1342.

Kiggundu, M. N. (2002). Entrepreneurs and entrepreneurship in Africa: What is known and what needs to be done. *Journal of Developmental Entrepreneurship*, *7*(3), 239–258.

Kuzilwa, J. A. (2005). The role of credit for small business success: A study of the National Entrepreneurship Development Fund in Tanzania. *Journal of Entrepreneurship*, *14*(2), 131–161.

Lepeley, M.-T., Kuschel, K., Beutell, N., Pouw, N., & Eijdenberg, E. L. (Eds.). (2019). *The wellbeing of women in entrepreneurship: A global perspective*. New York City, NY: Routledge.
Liedholm, C. (2002). Small firm dynamics: Evidence from Africa and Latin America. *Small Business Economics*, *18*(1-3), 225–240.
Lyons, M., Brown, A., & Msoka, C. (2014). Do micro enterprises benefit from the 'doing business' reforms? The case of street-vending in Tanzania. *Urban Studies*, *51*(8), 1593–1612.
Lyubomirsky, S., King, L., & Diener, E. (2005). The benefits of frequent positive affect: Does happiness lead to success? *Psychological Bulletin*, *131*(6), 803–855.
Lyubomirsky, S., & Lepper, H. S. (1999). A measure of subjective happiness: Preliminary reliability and construct validation. *Social Indicators Research*, *46*(2), 137–155.
Mahadea, D., & Ramroop, S. (2015). Influences on happiness and subjective well-being of entrepreneurs and labour: Kwazulu-Natal case study. *South African Journal of Economic and Management Sciences*, *18*(2), 245–259.
Malkina-Pykh, I. G., & Pykh, Y. A. (2008). Quality-of-life indicators at different scales: Theoretical background. *Ecological Indicators*, *8*(6), 854–862.
Mangaliso, M. P. (2001). Building competitive advantage from Ubuntu: Management lessons from South Africa. *Academy of Management Perspectives*, *15*(3), 23–33.
Mead, D. C., & Liedholm, C. (1998). The dynamics of micro and small enterprises in developing countries. *World Development*, *26*(1), 61–74.
Molina-Azorín, J. F., López-Gamero, M. D., Pereira-Moliner, J., & Pertusa-Ortega, E. M. (2012). Mixed methods studies in entrepreneurship research: Applications and contributions. *Entrepreneurship & Regional Development*, *24*(5-6), 425–456.
Morris, M. H., Miyasaki, N. N., Watters, C. E., & Coombes, S. M. (2006). The dilemma of growth: Understanding venture size choices of women entrepreneurs. *Journal of Small Business Management*, *44*(2), 221–244.
Naudé, W. (2011). Entrepreneurship is not a binding constraint on growth and development in the poorest countries. *World Development*, *39*(1), 33–44.
Naudé, W., Amorós, J. E., & Cristi, O. (2014). 'Surfeiting, the appetite may sicken': Entrepreneurship and happiness. *Small Business Economics*, *42*(3), 523–540.
Nichter, S., & Goldmark, L. (2009). Small firm growth in developing countries. *World Development*, *37*(9), 1453–1464.
Obeng, B. A., Robson, P., & Haugh, H. (2014). Strategic entrepreneurship and small firm growth in Ghana. *International Small Business Journal*, *32*(5), 501–524.
Open data for Africa (2018). Zambia data portal. Retrieved from http://zambia.opendataforafrica.org/ZMPAD21016/population-and-demography-of-zambia?region=1000150-kitwe.
Paige, R. C., & Littrell, M. A. (2002). Craft retailers' criteria for success and associated business strategies. *Journal of Small Business Management*, *40*(4), 314–331.
Pouw, N. (2008). *The characterization and monitoring of poverty in Uganda. The case of smallholder farmers.* Amsterdam, the Netherlands: Rozenberg Publishers.
Pouw, N., & Elbers, C. (2012). Modelling priority patterns in asset acquisition: The case of smallholder farmers in three rural districts in Uganda. *Journal of Development Studies*, *48*(9), 1360–1374.
Praeg, L. (2008). 'An answer to the question: What is [ubuntu]?'. *South African Journal of Philosophy*, *27*(4), 367–385.

Ratten, V. (2014). Encouraging collaborative entrepreneurship in developing countries: The current challenges and a research agenda. *Journal of Entrepreneurship in Emerging Economies*, *6*(3), 298–308.
Ratten, V., & Jones, P. (2018). Bringing Africa into entrepreneurship research. In L.-P. Dana, V. Ratten, & B. Q. Honyenuga (Eds.), *African entrepreneurship: Challenges and opportunities for doing business* (pp. 9–27). Cham, Switzerland: Springer.
Ratten, V., Jones, P., Braga, V., & Marques, C. S. (Eds.). (2019). *Sustainable entrepreneurship*. Cham, Switzerland: Springer.
Rauch, A., & Rijsdijk, S. A. (2013). The effects of general and specific human capital on long–term growth and failure of newly founded businesses. *Entrepreneurship Theory and Practice*, *37*(4), 923–941.
Reijonen, H. (2008). Understanding the small business owner: What they really aim at and how this relates to firm performance: A case study in North Karelia, Eastern Finland. *Management Research News*, *31*(8), 616–629.
Reyes-García, V., Babigumira, R., Pyhälä, A., Wunder, S., Zorondo-Rodríguez, F., & Angelsen, A. (2016). Subjective wellbeing and income: Empirical patterns in the rural developing world. *Journal of Happiness Studies*, *17*(2), 773–791.
Ryan, R. M., & Deci, E. L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology*, *52*(1), 141–166.
Ryff, C. D. (1995). Psychological well-being in adult life. *Current Directions in Psychological Science*, *4*(4), 99–104.
Saule, N. (1998). Images of Ubuntu in the essays of SEK Mqhayi in Umteteli Wabantu (1912–1939). *South African Journal of African Languages*, *18*(1), 10–18.
Schnittker, J. (2008). Happiness and success: Genes, families, and the psychological effects of socioeconomic position and social support. *American Journal of Sociology*, *114*(S1), S233-S259.
Sherman, C. L., Randall, C., & Kauanui, S. K. (2016). Are you happy yet? Entrepreneurs' subjective well-being. *Journal of Management, Spirituality & Religion*, *13*(1), 7–23.
Smallbone, D., Welter, F., & Ateljevic, J. (2014). Entrepreneurship in emerging market economies: Contemporary issues and perspectives. *International Small Business Journal*, *32*(2), 113–116.
Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics* (5th). Boston, MA: Pearson Education.
Tandrayen-Ragoobur, V., & Kasseeah, H. (2017). Is gender an impediment to firm performance? Evidence from small firms in Mauritius. *International Journal of Entrepreneurial Behavior & Research*, *23*(6), 952–976.
Teagarden, M. B. (2019). Africa rising! *Thunderbird International Business Review*, *61*(1), 3.
Toledo-López, A., Díaz-Pichardo, R., Jiménez-Castañeda, J. C., & Sánchez-Medina, P. S. (2012). Defining success in subsistence businesses. *Journal of Business Research*, *65*(12), 1658–1664.
United Nations (2019a). LDC identification criteria and indicators. Retrieved from https://www.un.org/development/desa/dpad/least-developed-country-category/ldc-criteria.html
United Nations (2019b). List of Least Developed Countries (as of December 2018). Retrieved from https://www.un.org/development/desa/dpad/wp-content/uploads/sites/45/publication/ldc_list.pdf

Walsh, L. C., Boehm, J. K., & Lyubomirsky, S. (2018). Does happiness promote career success? Revisiting the evidence. *Journal of Career Assessment*, *26*(2), 199–219.
Welter, F. (2011). Contextualizing entrepreneurship - Conceptual challenges and ways forward. *Entrepreneurship Theory and Practice*, *35*(1), 165–184.
Welter, F., Baker, T., & Wirsching, K. (2019). Three waves and counting: The rising tide of contextualization in entrepreneurship research. *Small Business Economics*, *52*(2), 319–330.
Wennekers, S., van Stel, A., Thurik, R., & Reynolds, P. (2005). Nascent entrepreneurship and the level of economic development. *Small Business Economics*, *24*(3), 293–309.
West, A. (2014). Ubuntu and business ethics: Problems, perspectives and prospects. *Journal of Business Ethics*, *121*(1), 47–61.
Williams, N., & Vorley, T. (2015). Institutional asymmetry: How formal and informal institutions affect entrepreneurship in Bulgaria. *International Small Business Journal*, *33*(8), 840–861.
Zahra, S. A., Wright, M., & Abdelgawad, S. G. (2014). Contextualization and the advancement of entrepreneurship research. *International Small Business Journal*, *32*(5), 479–500.

Table 1. The final survey.

Item number	Item	Scale
Socio-demographics		
1	Gender	1 = Male; 2 = female
2	Age	1 = < 20 years; 2 = 20 – 30 years; 3 = 31 – 40 years; 4 = 41 – 50 years; 5 = > 50 years.
3	Highest completed education	1 = Less than primary school; 2 = primary school; 3 = secondary school; 4 = college/university diploma; 5 = Bachelor's degree; 4 = Master's degree; 5 = Doctorate; 6 = Other
*Happiness**		
4	In general, I consider myself as:	Not a very happy person 1 – 7 A very happy person
5	Compared to most of my colleagues/friends/family, I consider myself:	Less happy 1 – 7 More happy
6	Some people are generally very happy. They enjoy life regardless of what is going on, getting the most out of everything. To what extent does this characterization describe you?	Not at all 1 – 7 A great deal
7	Some people are generally not very happy. Although they are not depressed, they never seem as happy as they might be. To what extent does this characterization describe you?	
*Living standards***		
8	Ability to build/buy a house	1 = Much worse; 2 = worse; 3 = same; 4 = better; 5 = much better
9	Ability to pay school fees	
10	Ability to afford pay TV	
11	Ability to afford food	
12	Other household income	

** The items measuring happiness were anchored on a continuous scale of ascending order. ** These items were preceded by the description: 'Compared to your neighbour whose economic situation is similar to yours, how do you rate the following over the last two years?'.*

Table 2. Frequencies.

Happiness							
	Not a very happy person 1	2	3	4	5	6	A very happy person 7
4	2.40%	2.90%	5.90%	12.30%	11.20%	18.20%	47.10%
	Less happy 1	2	3	4	5	6	More happy 7
5	2.90%	1.20%	6.50%	14.10%	14.10%	20.60%	40.6%
	Not at all 1	2	3	4	5	6	To a great deal 7
6	2.40%	1.80%	5.90%	17.10%	14.10%	20.60%	38.10%
7	51.80%	20.50%	10.60%	11.80%	2.40%	1.20%	1.70%
Living standards							
	Much worse	Worse	Same	Better	Much better		
8	5.30%	12.40%	24.70%	39.40%	18.20%		
9	4.20%	8.20%	17.60%	47.60%	22.40%		
10	1.20%	5.90%	17.60%	45.30%	30.0%		
11	1.20%	5.30%	10.50%	46.50%	36.50%		
12	5.30%	7.10%	21.10%	46.50%	20.0%		

Table 3. Means (*M*), Standard Deviations (SD), Pearson's coefficients (*r*) and Cronbach Alpha's (α).

Item number	*M*	SD	*r*-values												α
1	1.52	.50	1	2	3	4	5	6	7	8	9	10	11	12	
2	3.27	1.03	.21**	1											
3	3.18	.96	-.08	-.22**	1										
4	5.70	1.61	.05	.02	-.08	1									
5	5.59	1.57	.07	.02	.01	.63**	1								.82***
6	5.54	1.55	.07	.24**	-.11	.61**	.53**	1							
7	2.03	1.40	-.02	-.13	.05	-.49**	-.33**	-.65**	1						
8	3.53	1.09	.01	-.07	.02	.30**	.32**	.23**	-.12	1					
9	3.76	1.02	.05	.03	-.04	.33**	.34**	.35**	-.29**	.65**	1				
10	3.97	.91	-.02	-.10	.08	.36**	.34**	.31**	-.20*	.54**	.60**	1			.86
11	4.12	.88	.03	-.07	.04	.30**	.36**	.22**	-.16*	.56**	.58**	.62**	1		
12	3.69	1.04	.04	-.15*	.15	.26**	.39**	.19*	-.11	.53**	.45**	.42**	.56**	1	

** Correlation is significant at the .05 (two-tailed); ** Correlation are significant at the .01 level (two-tailed); *** Reliability level based on recoded item 11.*

Table 4. Results of regression analyses: Dependent variable 'Index living standards'.

Item	Model 1	Model 2	Model 3
β 1 Gender	.05	.03	.03
β 2 Age	-.09	-.14	-.14*
β 3 Highest completed education	.05	.07	.04
β Index happiness		.45**	.45**
β 1 x Index happiness			-.06
β 2 x Index happiness			.16*
β 3 x Index happiness			.18*
R^2	.01	.21	.25
Adjusted R^2	-.01	.19	.22
F (df)	.68(3,166)	10.75(4,165)**	7.77(7,162)**

*; ** *Significant at .05 and .01 level (two-tailed), respectively.*