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Aspirations of Small-scale Entrepreneurs: Evidence from Urban Retailers in Indonesia*

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Abstract

Small-scale entrepreneurs are ubiquitous in developing countries, yet very few graduate to become larger businesses. We ask whether such entrepreneurs even aspire to grow, and if so on which dimensions of the business? Among a representative sample of retail shop owners in Jakarta, we find that the average business has strong short- and long-term aspirations for growth in shop size, number of employees, number of customers, and sales. Yet, there is pronounced heterogeneity with more than half the businesses reporting no aspirations for growth in the next 12 months, and 16 percent failing to imagine an ideal business over the long-term. We find that entrepreneurs with low profits, business skills, and agency beliefs, as well as those who are older, female, and less educated have significantly lower aspirations. We also show that aspirations predict future-oriented behaviors such as savings, credit use, business expansion, and innovation, even after controlling for business practices. These results have important implications for the design and targeting of business growth programs and policies.

Keywords: Aspirations, micro-enterprises, innovation, small business growth, firm performance, technology adoption, self-efficacy, locus of control

JEL Codes: O12; L26; M20; O17; M50

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I Introduction

Small-scale and informal enterprises are the source of employment for more than half the labor force in developing countries (Maloney 2004; Gollin 2008; Nichter and Goldmark 2009; for the Indonesian case, see Ministry of Cooperatives and SMEs Indonesia 2011). A key policy question is whether these firms have the potential to grow, or whether they merely represent a source of subsistence income for individuals unable to find alternative work. Empirical evidence shows that these firms typically tend to remain small or disappear. This creates a right-skewed distribution with disproportionately few mid-sized and large firms [Hsieh and Klenow, 2014]. A very important question is why this happens? Is it that these entrepreneurs lack the financial, technical, managerial, or informational resources to grow or is it that they do not aspire to grow their businesses? The available evidence is not yet conclusive but it hints at the fact that solely providing external resources such as credit [see, e.g., Banerjee et al., 2015], cash or in-kind capital [de Mel et al., 2008], saving instruments [see, e.g., Dupas and Robinson, 2013a,b], or business training do not always lead to business growth [for a review, see McKenzie and Woodruff, 2014]. Take-up rates of many such programs are typically low, and even when firms do take advantage of new opportunities they often do not experience significant growth [McKenzie and Woodruff, 2014].

One plausible unexplored factor that could rationalize both low take-up and low business growth is entrepreneurial aspirations. Aspirations motivate greater effort to raise future standards of living [Bogliacino and Ortoleva, 2014, Dalton et al., 2016, Genicot and Ray, 2017]. They act as reference points, increasing the marginal net benefit of exerting effort on a costly activity for future benefit. Without aspirations for growth, there may be no reason to have business savings, obtain credit, attend a business training program, introduce product or process innovations, or implement new profitable business practices. Moreover, without aspirations for growth, simply providing ready access to resources may not directly imply that people will take advantage of them [Bandura, 2009]. Another aspect highlighted in the literature is that lack of aspirations can become an (internal) psychological constraint, which can perpetuate poverty [Ray, 2006, Bogliacino and Ortoleva, 2014, Dalton et al., 2016, Genicot and Ray, 2017]. In turn, poverty can stifle the "capacity to aspire", i.e., the aspirational resources to contest and alter the conditions of one's own poverty [Appadurai, 2004]. Indeed, the association between poverty and low aspirations has been empirically documented across a wide range of countries and settings [see The World Bank, 2015, for a review].

Despite its importance in the poverty literature, we know very little (if anything) about the aspirations of small-scale entrepreneurs in developing countries. Do they aspire to grow their busi-

nesses? If so, on which dimensions? How many employees do they aspire to have, what business size, how much revenue? Is there heterogeneity in aspirations across businesses, and if so, what are the determinants of such heterogeneity? What is the typical time horizon for setting and achieving aspirations? Finally, do aspirations predict forward-looking behavior tied to firm performance and growth, such as savings, credit use, and product and process innovation?

These are all important outstanding questions for research and policy. The answers will help create a better understanding of a population that is often the target of policies aimed at releasing external constraints, taking for granted (unobserved) entrepreneurial aspirations. It would help policymakers better target their policies, by distinguishing the type of entrepreneur who has the potential and aspiration to grow; from one who has a business to subsist. It would also help reconcile why some seemingly profitable opportunities are not taken up, and why policies aimed at raising aspirations, for example by changing mental models, can be an effective way to break a poverty trap [Bernard et al., 2014, The World Bank, 2015].

This paper addresses these questions with a unique data set on the aspirations for business growth among a representative sample of small-scale urban retailers in Jakarta, Indonesia. First, we identify whether these entrepreneurs even aspire to grow in size, number of employees, number of customers, and sales. This exercise allows us to discern "imagination failure", which we define as the failure to imagine an ideal business in the long-term. We then distinguish between short-term (in one year) and long-term (in a life time) business aspirations. This distinction allows us a) to present a realistic picture of entrepreneurial aspirations in a relatively short period of time and b) to learn about the aspiration horizons entrepreneurs have in mind when they think about the ideal business they aspire toward. Based on these findings, we identify "planning failure", which we define as the failure to imagine a time-frame to achieve an ideal business. Both imagination and planning failures are novel contributions to the literature and aim to capture behavioral biases in setting aspirations, which have been deemed important for aspirations-based poverty traps [Dalton et al., 2016]. In addition, we collect measures of the entrepreneurs' level of agency by eliciting self-efficacy and locus-of-control beliefs. This allows us to distinguish pure hope from aspirations grounded in beliefs [Lybbert and Wydick, 2017]. This distinction is very important, in particular for the context of this paper, since we pose aspirations as a predictor of deliberate future-oriented actions.

We find that on average entrepreneurs in our sample aspire towards positive business growth on all dimensions. Within one year, the average business aspires to grow in size by 23%, to have 17% more employees, 24% more customers, and 160% higher sales. In the long term, the average entrepreneur sees her ideal business 95% larger in size, with 42% of more employees, and 54% more

customers. The average time horizon to achieve aspirations in less than three years, with a high level of perceived agency. Although we do not have a benchmark to compare the relative magnitude of these aspirations, whether they are realistic or not and whether entrepreneurs will fail to live up to their aspirations, is an important and open empirical question. According to Ray [2006] and Genicot and Ray [2017] unrealistically high aspirations can generate frustration and discourage investment in future betterment.

Despite the high average levels of growth aspirations in our sample, we observe a pronounced heterogeneity. More than half the sample does not aspire to grow beyond current levels in size, employees, or customers in the next 12 months. Moreover, in the long-term, a non-trivial proportion (16%) of entrepreneurs depict imagination failure and 28% show planning failure. In addition, consistent with the literature on poverty and aspirations, we find that businesses with lower profits are more likely to depict imagination failure. In a similar vein, businesses with less employees, low credit use, and low scores on indices of business practices, especially marketing and stocking-up, are significantly more likely to have imagination and planning failure. These findings are in line with the literature on management practices, which finds that marketing skills can spur an expansionary mindset [Anderson et al., 2017]. On entrepreneur characteristics, we find that older, female, and low perceived agency owners have lower aspirations to grow their businesses.

Finally, we find significant association between aspirations and measures of future-oriented behavior such as business savings, plans for credit, business expansion, and process and product innovation. Entrepreneurs that depict imagination failure are 7% less likely to have business savings, 11% less likely to apply for a loan in the next 12 months, 7% less likely to expand their business, 15% less likely to improve record-keeping, and 21% less likely to develop a business plan. We find similar significant effects for entrepreneurs with planning failure. These results persist even after controlling for the entrepreneur's business practices and a comprehensive set of firm- and individual-level characteristics.

Our paper contributes to three main strands of the literature. First, we complement the literature on small business growth in developing countries, by providing an aspirations-based view of entrepreneurial behavior. There is a recent literature showing that better business practices predict higher survival rates and faster sales growth [e.g., McKenzie and Woodruff, 2017]. Our paper complements this literature by asking whether aspirations on their own can become an important predictor of entrepreneurial future-oriented behavior that can eventually lead to firm growth. Our paper also contributes to an emerging literature that aims to identify entrepreneurs with rapid business growth potential [Fafchamps and Quinn, 2016, Fafchamps and Woodruff, 2017]. Fafchamps

and Woodruff [2017], for instance, construct a proxy for entrepreneurial attitudes to grow by asking the entrepreneur how many employees they expect to have in five years' time, and why they stay in business (e.g., because they make enough to feed their family or because they want to grow to provide employment). From the answers to these two questions, the authors construct an index of attitudes towards growth. They find that the strongest predictor of future growth is entrepreneurial ability, and that the attitudinal measures are not associated with subsequent growth. They acknowledge that this may be due to the inherent difficulties in measuring attitudes. Bjorvatn et al. [2015] measures Tanzanian secondary school students' ambitions to start their own business by asking whether they would like to spend a gift of 1 million Tanzanian shillings on starting a business or not. Our paper complements this strand of literature by providing a comprehensive characterization of entrepreneurial aspirations. We show that, indeed, entrepreneur aspirations do predict behavior oriented towards future business growth, on top of entrepreneurial ability and skills.

Second, we contribute to the emerging but rapidly growing literature of aspirations in the context of poverty. Much of the existing empirical literature on aspirations studies the link between household wealth, income, and socio-economic status on occupational and educational aspirations [see, e.g., Serneels and Dercon, 2014, Pasquier-Doumer and Risso Brandon, 2015, Favara, 2017, Mukherjee, 2017]. In this paper, rather than focusing on households and parental aspirations for their children, we focus on small-scale entrepreneurs and their aspirations for their businesses. This population is of particular interest, as it constitutes one of the most important sources of employment in the developing world. Bernard et al. [2014] also studies the aspirations of self-employed households in rural Ethiopia. However, rather than measuring aspirations for income-generating activities directly, they focus on the aspirations of these households for their general wealth, social status, and children's education.

A third contribution of this paper is methodological. We provide a unique and novel data set on entrepreneurial aspirations that combines insights from different literatures. We study both aspirations for a fixed and an open time horizon, and in four key business dimensions. We elicit the time estimated by the entrepreneur to realize their aspired business [adapted from Laajaj, 2017]. In addition, we introduce two new measures for imagination and planning failure [in the spirit of Dalton et al., 2016], and distinguish aspirations from hope [in the spirit of Lybbert and Wydick, 2017]. Using this comprehensive framework, we provide first evidence of the growth aspirations of small-scale entrepreneurs in a developing country setting.

The remainder of the paper is organized as follows. Section II introduces the conceptual framework and hypotheses. Section III describes the methodology and data. Section IV presents the

results. Section V discusses our results in view of the existing literature, and Section VI concludes.

II Framework and Hypotheses

Since Simon [1955] and Selten [1998] and more recently Bogliacino and Ortoleva [2014], Dalton et al. [2016], Genicot and Ray [2017], aspirations have been conceptualized as reference points. Thus, losses and gains relative to the initial level of aspirations are what determine effort.[1] Understanding the determinants of reference points, in this case of entrepreneurial aspirations, has both research and policy relevance. This section lays out hypotheses for the determinants of business aspirations of entrepreneurs. We also study the type of entrepreneurial future-oriented behavior that can be predicted by aspirations. Since the literature on entrepreneurial aspirations is still in its infancy, the hypotheses tested in this paper are inspired by several strands of the existing empirical and theoretical literature on household aspirations, and by insights from research in psychology.

A The Formation of Business Growth Aspirations

According to the nascent literature in this field, the main factor determining individuals' aspirations is poverty. As Ray [2003, p.1] argues "Poverty stifles dreams, or at least the process of attaining dreams." Poorer individuals are more likely to suffer from aspiration levels below their potential, either due to a lack of positive role models [Ray, 2006] or because poverty exacerbates the consequence of a behavioral bias in setting aspirations [Dalton et al., 2016]. It is empirically well documented that lower socio-economic status, income, and overall wealth are associated with lower educational and occupational aspirations [see, e.g., Serneels and Dercon, 2014, Bernard et al., 2014, Pasquier-Doumer and Risso Brandon, 2015, Favara, 2017, Mukherjee, 2017, Janzen et al., 2017]. However, we are not aware of any study that explores the link between wealth and entrepreneurial aspirations.

We proxy the wealth of entrepreneurs with measures of shop size, number of employees, number of customers, profits, and formality (i.e. registration for taxes and the formal separation of private residence and business premises). If the formation of household and business aspirations follow a similar process, we should expect that the smaller (i.e. the poorer) the business, the lower the aspirations of the entrepreneur. However, the formation of business aspirations for entrepreneurs may follow a completely different process. It may be that, unlike poor households, small entrepreneurs are particularly motivated individuals who choose to have a retail shop to make it grow, and precisely

[1] This literature builds on the contribution of Köszegi and Rabin [2006] who model reference dependent preferences with reference points endogenous to the economic environment.

those poor entrepreneurs are the ones with higher aspirations to grow. This is an open empirical question.

A second key determinant of aspirations is gender. Dercon and Singh [2013] find a gender gap in the educational aspirations of parents for their children and of children for themselves. Parental aspirations at an early age are biased towards boys in India and Ethiopia, while in Vietnam they are in favor of girls. In a sample of rural Ethiopians, Bernard et al. [2014] report that men aspire to higher income, education, and social status than women. Bloem et al. [2017] find that women have lower levels of aspirations for agricultural land and income in a cross-section from rural Myanmar. In an experimental setting in India, Mukherjee [2017] shows that women's educational aspirations deteriorate after being primed with gender cues. In our sample of small-scale entrepreneurs, differential returns to capital may give rise to gender differences in aspiration levels. Experimental evidence from Sri Lanka and Ghana shows that the returns to capital investments in micro-enterprises are significantly lower for female firm owners compared to male entrepreneurs [de Mel et al., 2009, Fafchamps et al., 2014]. Accordingly, we expect that aspirations of female entrepreneurs to be lower than the aspirations of their male counterparts.

Third, we hypothesize that aspirations change over the life cycle of an entrepreneur. Since aspirations adapt to the outcomes realized (Dalton et al. [2016]), we expect aspiration gaps to be higher for younger entrepreneurs. However, previous literature on the relationship between age and individual aspirations is inconclusive. In a study set in rural Myanmar, Bloem et al. [2017] find that aspirations generally show no association with age. Older respondents do, however, express higher aspirations for remittances. This finding ties into results of a study using household-level data from rural China. Measuring income aspirations as the *minimum income need* for the household to be sustained for a year, Knight and Gunatilaka [2012] find households with older members to have greater requirements for minimum income. The opposite association may also be true, as consistent with increased risk-aversion, older individuals may not aspire to more change but to more resources to sustain the current state.

A fourth important determinant of aspirations is educational attainment. The existing literature today concerns itself largely with educational aspirations. It shows that mothers with higher educational attainment have higher educational aspirations for their children [Serneels and Dercon, 2014, Bloem et al., 2017]. Closest to our study, Bernard et al. [2014] find aspirations to be higher for individuals with more formal education in a cross-section from rural Ethiopia. On a related note, Knight and Gunatilaka [2012] show that the minimum income needs of rural Chinese households increase as a positive function of education. Building on this, we expect entrepreneurs with more formal

education to aspire to higher minimum income and measurably demonstrate higher aspirations for business growth.

Fifth, we investigate the relationship between aspirations and the entrepreneur's business ability as measured by the set of best practices as per McKenzie and Woodruff [2017]. Although this paper provides first evidence on this relationship, we build on previous research on business practices and management. As per McKenzie and Woodruff [2017], beyond changes in productivity, business practices may engender further effects. While marketing practices can affect the demand faced by the firm, the use of record-keeping may be better suited to hone in on more efficient procedures and to bring down costs in order to streamline the production process. Consistent with this mechanism, Anderson et al. [2017] find that, in a sample of small-scale businesses in South Africa, firms treated with marketing training adopt a growth focus on higher sales while those treated with finance training adopt an efficiency focus on lower costs. Therefore, in our sample of small-scale retail businesses, we expect marketing practices to be positively associated with growth aspirations.

Finally, according to the literature of social psychology, goals and aspirations are determined by the perception people have about their capacity to achieve the outcomes they care about with their own effort. As ethnographer MacLeod [1995, p.15] points out "aspirations reflect an individual's view of his or her own chances for getting ahead". These beliefs are measured in two well-known psychological constructs: self-efficacy [Bandura, 1993] and locus of control [Rotter, 1966, 1990]. We elicit both beliefs in our sample of entrepreneurs, and hypothesize that they are positively associated with business aspirations.

B Aspirations as Predictor of Future-Oriented Behavior

In addition to studying how entrepreneurial aspirations are formed, we explore how aspirations affect future-oriented decisions of entrepreneurs. Rather than focus on contemporaneous performance measures where causality is difficult to establish, we analyze behaviors that are indicative of how businesses will perform in the future, as well plans for business enhancement and expansion.

One commonality of the relevant theoretical literature is that aspirations affect the level of costly investment [see, e.g., Dalton et al., 2016, Genicot and Ray, 2017, Lybbert and Wydick, 2017]. The empirical literature by and large corroborates this prediction. For example, in a cross-section of rural households in Nepal, Janzen et al. [2017] find aspirations to positively predict investment in education, loan usage for investment purposes, and saving behavior. Likewise, in an experiment in rural Ethiopia, Bernard et al. [2014] show that watching an inspirational movie increases loan

usage and total savings. Kosec and Mo [2017] find that higher levels of aspirations are positively associated with the total volume of cash loans outstanding in a cross-section from rural Pakistan. Bernard et al. [2012] complement this finding with cross-sectional data on households from rural Ethiopia. The authors show that narrow aspirations gaps correlate with both lower demand for credit and smaller loan sizes. Consistent with these established studies, we expect our aspirations measures to have predictive power on future-oriented behaviors such as savings, loan usage, business expansion, and innovation.

III Empirical Method and Data

A Study Location and Sample

This study was conducted in urban Jakarta, Indonesia. For logistical reasons, we limited the area of study to the urban core of Jakarta ("DKI Jakarta"), home to approximately 10.1 million inhabitants. Our sample comprises businesses in the traditional retail sector (called *Warung* or *Toko Kelontong*), which employs about 35% of the working population of Jakarta [Statistics Indonesia, 2016].

We randomly selected 29 districts (*Kelurahans*) out of the 112 districts in all of Jakarta. We then applied a series of inclusion criteria to cull down to a list of 2,042 eligible businesses. The inclusion criteria were as follows: (i) the business is a multi-product retail store, (ii) the size of the business is at least 4 square meters, (iii) the shop is an independent store and not part of any large retail chain, and (iv) there is a linear distance of at least 30 meters between each shop. This last criterion was necessary to avoid spillovers as the baseline survey was part of a larger field experiment study.

Within each district, the sampling procedure started with our team of enumerators contacting the local authority to request a map of *community-level* boundaries. Locally known as 'Rukun Warga', these are non-official but well-established administrative zones which separate each district into ten community-level zones on average. Conditional on the inclusion criteria, the enumerators then listed the entirety of businesses within each zone until the final count surpassed 2000 firms.

Out of the 2042 establishments listed through this protocol, we randomly selected 1301 to be interviewed and allocated the remaining 741 business to a back-up list. Business from this list were used to replace observations lost to refusals or aborted interviews, in random order. In terms of timeline, the listing exercise was carried out in January 2016, and the survey in March and April 2016.

B Data

B.1 Measurement of Variables

Our detailed business survey included questions on both entrepreneur and business characteristics. These included questions on demographics, cognitive skills, attitudes, and preferences, as well as business assets, management practices, and business performance. Finally, the survey included detailed question on entrepreneurial aspirations.

Business and Entrepreneurial Measures

Regarding business characteristics, we consider the age of the establishment as well as whether the firm is formally registered for taxes. Since formalization levels tend to be low in traditional sectors of emerging economies, we additionally proxy formality by whether the firm address is different from the owner's home address. We also collect data on the size of the business premises in square meters, the number of full-time employees working in the business, the total number of customers visiting the shop on a typical day, and the firm's typical daily sales and profits. Relevant to our study, we collect information on entrepreneurs' future-oriented behaviors leading to firm growth and innovation. For instance, we gather information on daily business savings and plans for taking out loans. We proxy product innovation with a dummy that is equal to one if the entrepreneur has offered at least one new product for sale in the past 12 months. We further ask about plans to start or improve book-keeping habits, and any plans to expand the business and develop a business plan.

In terms of entrepreneur demographics, we gather data on the age and gender of the entrepreneur as well as formal education. We collect detailed data on individual business practices implemented by the entrepreneur and construct sub-scores for marketing, stocking-up, record-keeping, and financial planning as proposed in McKenzie and Woodruff [2017].

Regarding time and risk preferences, we make use of simple self-reported measures. Respondents are asked whether they "usually want things now rather than later or whether they are generally willing to wait" in i) financial matters, ii) business decisions, and iii) in general. On a 10-point scale, respondents are then asked to indicate how patient they are in each of the three categories. For the final analysis, we use the aggregate of the three answers. Risk attitudes are measured analogously. Here, respondents are asked whether they usually "avoid taking any risk" or whether they are "fully prepared to take risks" in each of the three categories and indicate their answers on a 10-point scale. Again, we use the aggregate of all three scores.

As a proxy for the entrepreneur's intelligence, we administer a standard digit span task. Digit span tasks are thought to be a measure of several related intellectual capabilities and are thus commonly used in the psychometric literature to proxy for intelligence independent of acquired knowledge and skills [see, e.g., Engle et al., 1999, Hale et al., 2002, Colom et al., 2005, Kane et al., 2005]. Sequences of digits of increasing length are read out one by one and the respondent is asked to repeat the respective sequence. The final score is equal to the number of digits of the longest sequence repeated without mistake. Following the literature, we conduct the exercise in two different ways asking the respondent to repeat the sequence i) in the order of presentation and ii) in reverse order. We aggregate the two scores and use this composite for the final analysis.

The cognitive style of the entrepreneur is measured according to the 10-item questionnaire by Sagiv et al. [2010]. This includes five statements measuring an intuitive approach to working and thinking (e.g., "I often follow my instincts.") and five statements measuring a systematic approach (e.g., "Before I do something important, I plan carefully."). Respondents indicate on a 5-point rating scale how much each statement describes their own approach. Following [Sagiv et al., 2010, 2014], we create one unified measure for which we invert the score on the items measuring an intuitive approach and subsequently aggregate the answers of all questions to one composite characterizing the systematic cognitive style of the entrepreneur.

The perceived agency of the entrepreneur is measured in relation to their sales aspirations. We adapt the concepts of self-efficacy [Bandura, 1993] and locus of control [Rotter, 1966, 1990] from the psychological literature on motivation and agency beliefs. These concepts enjoy common usage in economics [see, e.g., Bernard et al., 2014, Heckman et al., 2006, Heckman and Kautz, 2012]. Specifically, we ask how confident respondents are in their capabilities for achieving their sales aspirations (self-efficacy) and how important they believe their own effort is in contrast to the role of "destiny, good or bad luck, or other people" (locus of control). In each case, respondents answer on a 6-point scale, and we construct the "Perceived Agency" variable as the aggregate score of the two answers.

Aspirations Measures

Regarding aspirations, we elicit short-term (in the next 12 months) and long-term (open-ended) aspirations for different dimensions of the business. Responses on each dimension are primed by reminding respondents of their current levels, for example prior to asking about aspirations for business sales the respondents are reminded of the answer they provided for daily sales earlier in the survey.

For short-term aspirations, we ask: "Please imagine your business a year from now. How large do you imagine your business premises to be? How many people will work there? How many customers will come by on a normal day? What are the daily sales you aspire to have?". Shop owners answer with estimates in square meters, numbers of employees and customers, and amounts of daily sales in Indonesian Rupiah.

Long-term aspirations are measured in a similar fashion: "Please imagine your ideal business. How large is your shop? How many people work there? How many customers come by on a normal day?". Specific to long-term aspirations, we also measure the aspirations horizon, which is elicited by the following question: "How many years do you think it will take for you to achieve your ideal business?"

For each aspirations dimension, we calculate "Aspirations Gap" as the difference between the aspired value and the current value, normalized by the current value. If a denotes an individual's aspired state and s denotes the current state, the aspirations gap g of shop owner i is defined as:

$$g(a_i, s_i) \equiv \frac{a_i - s_i}{s_i} \tag{1}$$

Hence, the aspirations gap is a measure of how far the entrepreneur wants to grow the business. Zero-gapped entrepreneurs aspire to no further growth, while higher values of the gap indicate greater growth aspirations.[2]

Finally, based on the responses to the aspirations questions, we construct two additional variables that we label "Imagination Failure" and "Planning Failure." Imagination failure is a dummy variable equal to 1 if the entrepreneur has never imagined an ideal business, and likewise planning failure is a dummy equal to 1 if entrepreneurs cannot estimate their aspirations horizon.

B.2 Summary Statistics

Table 1 presents summary statistics for the variables we use in the analysis. Entrepreneurs in our sample are mostly female (71%) and, on average, 45 years old. Educational backgrounds are mixed: the average educational attainment is nine years of schooling, with 46% of the sample with a high-school diploma but only 4% a college degree. Digit span scores are fairly low, with an average score of 1.71 on a scale of (0-8); while the average perceived agency is quite high, with an average score of 0.83 on a (0-1) scale.

In terms of business characteristics, the average business age is 14 years yet most of the businesses

[2]For sales aspirations gap, we restrict the set of possible values to be non-negative. While we allow for zero-gapped entrepreneurs, negative gaps are indicative of a gradual withdrawal from business.

in our sample (81%) operate without tax registration. 79% of the businesses are located in the owner's home, with an average of two employees besides the owner. The average business owner earns USD 497 PPP in monthly profits, which is equivalent to 82% of Jakarta's monthly minimum wage in 2014 [Statistics Indonesia, 2016]. Goods on offer include a variety of fast moving consumer goods from toiletries and cleaning products to ready-made food, snacks, and cigarettes. Staples such as nuts, rice, and beans are also on offer. Due to the simple production process and low entry costs, retail businesses of this kind are common not only in Indonesia but across the developing world [see, e.g., McKenzie and Woodruff, 2017].

With respect to business skills, average scores on business practices in our sample are comparably low. In particular, with an average of 16% of the measured marketing practices implemented, advertising and customer service are less prevalent in our sample than in comparable samples from Bangladesh, Sri Lanka, Kenya, Mexico, or Chile (5-country mean = 32%) [see Table 1 in McKenzie and Woodruff, 2017]. Stocking-up practices are slightly lower in our sample (46%) than across these countries (56%), while reported record-keeping practices and financial planning skills are about on par (46% vs. 42% and 21% vs. 24%).

Table 2 summarizes the measured variables on aspirations and shows that on average, entrepreneurs aspire to considerable growth. Within the next 12 months, the average entrepreneur aspires to increase daily sales by 160% over current levels, operate on 23% larger premises, to have 24% more daily customers, and to employ 17% more employees. Yet, there is considerable heterogeneity as can be observed in the median values, which are 0 for aspirations gaps related to business size, employees, and customers. Hence, more than half the sample does not aspire to grow beyond current levels in the next 12 months.

Long-term aspirations for an ideal business are in general higher, as would be expected and the median values are positive for all but the aspirations gap for employees. The average shop owner aspires to an ideal business 95% larger in size, with a 54% greater customer base, and 42% more labor. The aspirations horizon to achieve one's ideal business likewise shows great heterogeneity: the average entrepreneur sees their ideal business realized in nearly three years time, but responses range between a minimum of 1 and a maximum of 40 years. The heterogeneity in the data is further reflected in our computed measures of aspiration failures, where we find an imagination failure rate of 16% and a planning failure rate of 28%.

C Estimation strategy

We use simple ordinary least-squares (OLS) regression models to identify the determinants of entrepreneurial aspirations. In order to assess the independent relationship between potential determinants and each of our measures of business aspirations, we condition on a number of firm- and individual-level characteristics as well as the business practices of the entrepreneur. We further use fixed effects at the district level to absorb geographic shocks.

As our main outcomes of interest, we consider simple aspirations and aspirations gaps, both for the short- and long-term, on four different dimensions of the business: the size of the firm's premises, the number of employees, the number of daily customers, and daily sales.[3] Beyond direct aspirations measures, we consider the entrepreneur's estimated time horizon to achieve their long-term aspirations and measures for imagination failure and planning failure.

We estimate the following linear OLS specification:

$$Y_i = \alpha + \beta \mathrm{F}_i + \gamma \mathrm{I}_i + \zeta \mathrm{P}_i + \theta + \epsilon_i \tag{2}$$

where Y_i is the outcome of interest of entrepreneur i, F_i is a vector of firm-level controls and I_i is a vector of individual-level controls. P_i contains the four business-practices sub-scores according to McKenzie and Woodruff [2017]. θ represents district-level fixed effects and ϵ is the error term.

IV Results

A Determinants of Aspirations

Tables 3 to 6 report the results of OLS regressions of entrepreneurial aspirations for business size (Table 3), number of employees (Table 4), number of customers (Table 5), and sales (Table 6). For each dimension, we present regressions of short-term aspirations in the first four columns and aspirations gap in the fifth column. Columns (6)-(10) repeat the same pattern for long-term aspirations.

Several key findings emerge. For business size, Table 3 shows that younger firms and those with higher marketing sub-scores are significantly more likely to report higher short- and long-term aspirations. Aspirations gaps are strongly positive and significant for businesses with higher marketing subscores, with 23% higher short-term and 51% higher long-term aspirations for shop

[3] Regarding sales aspirations, only data for the short-term are available.

size. These findings are consistent with an expansionary entrepreneurial mindset. Indeed, we find corroborating evidence in entrepreneur characteristics where higher systematic thinking style and perceived agency are associated with higher aspirations gaps. Other entrepreneur characteristics, such as being younger and male also predict higher aspiration levels as well as higher aspirations gaps in the long-term. These results on entrepreneur's age and gender hold true for all other dimensions of business aspirations as well. More educated entrepreneurs, however, have lower aspirations gaps which is indicative that these shop owners are already significantly closer to their ideal business size.

For employee aspirations, Table 4 shows that business factors play an important role in determining aspirations gaps. Specifically, entrepreneurs who run businesses on premises outside their household have significantly higher short- and long-term aspirations gaps for their number of employees. Similar to shop size, entrepreneurs with higher perceived agency aspire for more employees and have higher aspirations gaps. On business characteristics, we find that business age is again a significant determinant of employee aspirations, with younger businesses having higher aspiration levels. This association holds true for aspirations for number of customers (Table 5) and sales (Table 6) as well.

Turning to aspirations for customers and sales, proxies for the level of formality, specifically whether the business has a tax ID and whether the business premises is separate from the entrepreneur's residence, are significant and positive determinants of sales aspirations in Table 6, though aspirations gaps are not significantly different on either variable.

Table 7 reports our findings on imagination and planning failure, two variables that encapsulate all business dimensions of aspirations. On business characteristics, we find that businesses with more employees, higher past profits, higher incidence of credit, and that are younger, are significantly less likely to depict imagination failure. All subscores on business practices are negatively associated with imagination failure, with marketing and stocking-up scores remaining statistically significant in the combined regression in column (4). These coefficients suggest that businesses that score higher on business practice scores are less likely to depict imagination failure, which is consistent with the literature on business practices which argues that successful adoption of business practices is a key pathway to achieving improvements in performance. Entrepreneur characteristics also matter, in particular younger, more educated entrepreneurs, and those with higher perceived agency are less likely to depict imagination failure. These results are consistent with the earlier findings on individual business dimensions of aspirations.

Much of the same patterns hold for planning failure in columns (5) to (8) of Table 7. We additionally find that businesses that are registered with tax IDs and have separate premises from

the owner's residence are significantly less likely to depict planning failure. On practices, financial planning subscores are strongly negative and significant, which reassuringly indicates that business that employ more financial planning practices are significantly less likely to suffer from planning failure.

Finally, in Table 8 we explore the determinants of aspiration horizons. We find that businesses with higher profits and those operated by male and younger entrepreneurs have significantly longer horizons for achieving business aspirations. The entrepreneur characteristics significant here are also important determinants of aspiration levels, as shown in earlier results, which is suggestive of higher ambitions and longer time-frames for achieving them.

B Predicting Future-Oriented Behavior with Aspirations

Tables 9 and 10 study whether our aspirations measures have predictive power over future-oriented business behaviors. Specifically, we analyze business savings, plans for applying for a business loan, and plans for business expansion in Table 9. In Table 10, we analyze product and process innovation with a measure for offering a new product in last year, plans to start or improve book-keeping, and plans to develop a business plan.

We find our measures for aspiration failures, especially imagination failure are very strong negative predictors of these future-oriented behaviors, even after controlling for our complete set of entrepreneur and enterprise level characteristics, scores for all management practices, and district fixed effects. Entrepreneurs who depict imagination failure are 7% less likely to have business savings, 11% less likely to apply for a loan in the next 12 months, 7% less likely to expand their business, 11% less likely to have offered a new product in the past 12 months, 15% less likely to work on their book-keeping, and 21% less likely to develop a business plan.

Similarly, entrepreneurs who depict planning failure are 10% less likely to have business savings, 5% less likely to apply for a loan, 9% less likely to improve record-keeping, and 11% less likely to develop a business plan in the next 12 months. Combined, these results show that our aspirations measures have strong predictive and explanatory power for future business performance beyond traditional business and entrepreneur characteristics, or even management practices. These findings are in line with the literature on household aspirations, which shows aspirations are closely tied to forward-looking behaviors on the household- and individual-level, such as savings, investment, and the use of credit [Bernard et al., 2014, Janzen et al., 2017].

V Discussion

The analysis presented in this paper ties in with several strands of the literature. First, while the gender effects of men aspiring higher than women has been documented in the literature on aspirations [see, e.g., Bernard et al., 2014, Bloem et al., 2017], the size of the effect in our study is remarkable. Gender differences in the returns to capital, as per de Mel et al. [2008], Fafchamps and Quinn [2016], arguably drive the effect. Another source of variation may be gender differences in preferences for the types of investments made in the household. Women's income share has been found to predict child expenditures and levels of household consumption [see, e.g., Bobonis, 2009, Duflo, 2003, Lundberg and Pollak, 1993, Qian, 2008], while men's share is associated with investment and savings [see, e.g., de Mel et al., 2009, Fafchamps et al., 2014, Haushofer and Shapiro, 2016, Robinson, 2012]. One avenue of future research would be to study entrepreneurial aspirations and family aspirations jointly to determine whether gender effects exist on both dimensions and whether these aspirations are complements or substitutes.

Second, the robust association we find between aspirations and perceived agency is backed by the theoretical literature on aspirations [Dalton et al., 2016, Genicot and Ray, 2017, Lybbert and Wydick, 2017] and warrants further empirical study. How exactly agency beliefs spur higher aspirations and whether such belief-grounded aspirations are more realistic than pure hope remains an open question. Moreover, the question of whether aspirations and hope are amenable to change awaits more rigorous evaluation with experimental data.

Third, while the finding of differential associations of marketing practices and book-keeping practices with aspirations reinforces recent literature on business training and small-firm growth, it is novel in the literature on aspirations. It is an interesting and open question whether entrepreneurial growth-mindsets, which have been shown to be enhanced by marketing training to small-business owners [Anderson et al., 2017], can equally be strengthened by lower-cost interventions targeting the entrepreneur's "capacity to aspire" [Appadurai, 2004]. Through this channel, simple interventions designed to lift the individual's growth aspirations can have the potential to affect business growth.

VI Conclusion

This paper extends the research on aspirations and poverty to the field of small-scale entrepreneurship in developing countries. We find that these entrepreneurs do indeed aspire to grow their business, however, there is considerable heterogeneity with more than half the businesses reporting

no aspirations in the short-term and several depicting imagination and planning failures in the long-term. Our analysis sheds light on which entrepreneur and business characteristics are associated with higher aspirations. In addition, we show that business aspirations have explanatory power over future firm performance indicators even after controlling for individual and firm characteristics and management practices.

These findings have important implications for policy and future research. In terms of policy, these findings can help reconcile why policies aimed at alleviating physical and human capital constraints are often unsuccessful at spurring business growth. The heterogeneity in our findings make a strong case for better targeting of business aid programs based on aspirations for growth. Given that aspirations are a strong predictor of forward-looking behavior, they are likely to complement policies targeting business investment, savings, credit use, and business innovation. We expect that these policies will be more effective for entrepreneurs with higher aspirations for growing their businesses.

In terms of future research, our findings motivate further work on the causal implications of entrepreneurial aspirations. In particular, research on understanding what kinds of policies and programs boost aspirations, and mapping the causal channel that leads to successful impacts on business growth, would be a valuable extension of this work.

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Table 1: Summary Statistics

	Mean *N = 1301*	SD	Median
Entrepreneur Characteristics			
Gender (Male=1)	0.29		
Age (Years)	45.27	(11.31)	45.00
Formal Education (Years)	9.39	(3.78)	9.00
Time Preference (0-10 Scale)	5.18	(2.26)	5.33
Risk Preference (0-10 Scale)	3.73	(2.09)	3.67
Digit Span (0-8 Scale)	1.71	(0.83)	1.5
Systematic Thinking Style (0-1 Scale)	0.68	(0.09)	0.68
Perceived Agency (0-1 Scale)	0.83	(0.13)	0.83
Business Characteristics			
Business Age (Years)	13.60	(11.79)	10.00
Business Has Tax ID	0.19		
Business Separate From Residence	0.21		
Business Size (Square Meters)	13.22	(12.34)	10.00
Total Number of Employees	2.00	(1.22)	2.00
Business Has Outstanding Loan	0.16		
Total Daily Customers	49.33	(43.32)	40.00
Total Daily Sales (USD PPP)	239.83	(585.97)	123.39
Total Profits Last Month (USD PPP)	496.66	(6452.28)	139.76
Business Practices			
Marketing Subscore	0.16	(0.19)	0.17
Stocking-up Subscore	0.46	(0.3)	0.33
Record-keeping Subscore	0.46	(0.19)	0.44
Financial Planning Subscore	0.21	(0.17)	0.13

This table presents summary statistics for entrepreneur and business characteristics. Columns (1) and (2) present the mean and standard deviation, and Column (3) presents the median.

Table 2: Business Aspirations

	Mean *N = 1301*	SD	Median
Short-term Aspirations (in Next 12 Months)			
Aspirations for Business Size (Square Meters)	15.56	(15.13)	12.00
Aspirations Gap for Business Size	0.23	(0.66)	0.00
Aspirations for Number of Employees	1.72	(1.33)	2.00
Aspirations Gap for Employees	0.17	(1.24)	0.00
Aspirations for Number of Customers	56.85	(68.24)	40.00
Aspirations Gap for Customers	0.24	(1.01)	0.00
Aspirations for Daily Sales (USD PPP)	500.26	(643.85)	246.78
Aspirations Gap for Daily Sales	1.60	(1.44)	1.00
Long-term Aspirations (Open-ended)			
Aspirations Horizon for Ideal Business (Years)	2.76	(2.84)	2.00
Aspirations for Ideal Business Size (Square Meters)	24.19	(26.69)	16.00
Aspirations Gap for Ideal Business Size	0.95	(1.32)	0.50
Aspirations for Ideal Number of Employees	2.09	(1.62)	2.00
Aspirations Gap for Ideal Employees	0.42	(1.35)	0.00
Aspirations for Ideal Number of Customers	73.35	(100.22)	50.00
Aspirations Gap for Ideal Customers	0.54	(1.19)	0.20
Aspiration Failures			
Imagination Failure (Yes/No)	0.16		
Planning Failure (Yes/No)	0.28		
Innovation and Expansion			
At Least One New Product in Last 12 Months (Yes/No)	0.50		
Plans to Expand Business in Next 12 Months (Yes/No)	0.38		
Plans to Develop Business Plan for Next 12 Months (Yes/No)	0.63		
Plans to Start/Improve Book-keeping in Next 12 Months (Yes/No)	0.53		

This table presents summary statistics for all aspiration variables used in the paper. Columns (1) and (2) present the mean and standard deviation, and Column (3) presents the median.

Table 3: Determinants of Aspirations for Business Size

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Short-term Aspirations				Short-term Aspirations Gap	Long-term Aspirations				Long-term Aspirations Gap
Aspirations Horizon for Ideal Business (Years)						1.579***	1.355***	1.624***	1.411***	0.096***
						(0.391)	(0.405)	(0.405)	(0.403)	(0.018)
Business Size (Square Meters)	0.981***	0.982***	0.986***	0.977***		1.281***	1.300***	1.346***	1.229***	
	(0.076)	(0.074)	(0.070)	(0.078)		(0.134)	(0.186)	(0.190)	(0.130)	
Total Number of Employees	0.146			0.103	0.004	2.132**			2.368**	0.040
	(0.244)			(0.254)	(0.014)	(0.966)			(0.992)	(0.030)
Total Daily Customers	0.009*			0.004	-0.000	0.054***			0.032**	0.001
	(0.005)			(0.005)	(0.000)	(0.016)			(0.015)	(0.001)
Total Profits Last Month (IHS)	0.056			0.054	0.002	0.160*			0.141	0.001
	(0.035)			(0.034)	(0.003)	(0.094)			(0.096)	(0.005)
Business Has Tax ID	1.841*			1.461	0.038	4.523***			2.632	0.020
	(1.004)			(0.899)	(0.055)	(1.689)			(1.819)	(0.104)
Business Separate From Residence	-0.367			-0.503	-0.063	-0.163			-0.281	-0.065
	(0.581)			(0.589)	(0.044)	(1.261)			(1.230)	(0.088)
Total Loans Outstanding (IHS)	-0.086			-0.106	-0.005	0.141			0.038	0.009
	(0.067)			(0.065)	(0.005)	(0.162)			(0.160)	(0.011)
Business Age (Years)	-0.042***			-0.027*	-0.002	-0.152***			-0.104*	-0.010***
	(0.015)			(0.016)	(0.002)	(0.053)			(0.055)	(0.003)
Gender (Male=1)		0.627		0.418	0.006		7.093***		6.618***	0.434***
		(0.634)		(0.616)	(0.043)		(1.615)		(1.433)	(0.088)
Age (Years)		-0.033**		-0.012	-0.002		-0.219***		-0.145***	-0.008*
		(0.016)		(0.020)	(0.002)		(0.053)		(0.050)	(0.004)
Formal Education (Years)		0.061		0.008	-0.011*		0.230*		0.162	0.017*
		(0.079)		(0.071)	(0.006)		(0.131)		(0.136)	(0.010)
Time Preference (0-10 Scale)		-0.152		-0.145	-0.010		0.288		0.272	-0.002
		(0.108)		(0.112)	(0.009)		(0.324)		(0.243)	(0.016)
Risk Preference (0-10 Scale)		0.026		0.021	0.004		0.433		0.212	0.003
		(0.114)		(0.117)	(0.010)		(0.473)		(0.300)	(0.017)
Digit Span (0-8 Scale)		-0.136		-0.137	-0.008		-0.012		-0.009	0.012
		(0.282)		(0.276)	(0.020)		(0.753)		(0.756)	(0.047)
Systematic Thinking Style (0-1 Scale)		4.802		4.163	0.447*		7.524		5.645	0.321
		(2.988)		(3.024)	(0.250)		(5.702)		(5.488)	(0.395)
Perceived Agency (0-1 Scale)		1.612		0.376	0.320*		10.081***		7.467*	0.516*
		(2.642)		(2.622)	(0.177)		(3.700)		(4.082)	(0.269)
Marketing Subscore			2.965**	2.392*	0.234**			6.907**	4.075	0.513**
			(1.347)	(1.315)	(0.116)			(3.495)	(3.721)	(0.226)
Stocking-up Subscore			-0.240	-0.351	-0.043			1.629	0.996	-0.073
			(0.848)	(0.848)	(0.074)			(1.932)	(1.850)	(0.142)
Record-keeping Subscore			1.523	0.882	-0.066			5.910	3.641	0.122
			(1.660)	(1.663)	(0.127)			(3.652)	(3.846)	(0.258)
Financial Planning Subscore			2.019	1.355	0.240			1.534	-3.103	0.064
			(1.829)	(1.888)	(0.162)			(3.962)	(3.966)	(0.265)
R-squared	0.684	0.683	0.683	0.688	0.060	0.512	0.476	0.455	0.532	0.175
Sample Size	1301	1301	1301	1301	1301	1301	1301	1301	1301	1301

This table presents results from regressions of aspirations and aspirations gaps for business size (in square meters) on firm- and individual-level characteristics, as well as managerial practices. Columns (1) to (4) present results for short-term aspirations and column (5) for aspirations gaps (i.e. in the next 12 months). Columns (6) to (10) present the same analysis for long-term aspirations and aspirations gaps (i.e. open-ended). An aspirations gap is defined as the difference between aspirations and current level, normalized by current level. All regressions include district fixed effects. Robust standard errors are reported in parentheses. Statistically significant p-values are highlighted by: * (10% significance level), ** (5% significance level), and *** (1% significance level).

Table 4: Determinants of Aspirations for Employees

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Short-term Aspirations				Short-term Aspirations Gap	Long-term Aspirations				Long-term Aspirations Gap
Aspirations Horizon for Ideal Business (Years)						0.053***	0.045**	0.056***	0.045**	0.022
						(0.020)	(0.020)	(0.020)	(0.020)	(0.023)
Business Size (Square Meters)	-0.002			-0.002	-0.004	0.004			0.003	-0.003
	(0.002)			(0.003)	(0.002)	(0.004)			(0.003)	(0.003)
Total Number of Employees	0.683***	0.676***	0.670***	0.685***		0.680***	0.696***	0.683***	0.693***	
	(0.034)	(0.038)	(0.038)	(0.034)		(0.042)	(0.043)	(0.043)	(0.042)	
Total Daily Customers	0.001			0.001	-0.000	0.004***			0.003***	0.000
	(0.001)			(0.001)	(0.001)	(0.001)			(0.001)	(0.001)
Total Profits Last Month (IHS)	-0.000			-0.000	0.002	-0.002			-0.003	-0.001
	(0.004)			(0.004)	(0.005)	(0.006)			(0.006)	(0.005)
Business Has Tax ID	-0.077			-0.123	-0.178*	-0.006			-0.098	-0.169
	(0.082)			(0.085)	(0.093)	(0.118)			(0.126)	(0.110)
Business Separate From Residence	0.043			0.058	0.274***	-0.008			0.007	0.240**
	(0.075)			(0.076)	(0.103)	(0.092)			(0.095)	(0.106)
Total Loans Outstanding (IHS)	-0.008			-0.008	0.002	0.019			0.018	0.012
	(0.008)			(0.009)	(0.010)	(0.013)			(0.013)	(0.012)
Business Age (Years)	-0.005**			-0.006**	0.002	-0.011***			-0.013***	-0.003
	(0.002)			(0.002)	(0.004)	(0.003)			(0.003)	(0.004)
Gender (Male=1)		0.073		0.068	0.113		0.381***		0.304***	0.344***
		(0.069)		(0.071)	(0.089)		(0.097)		(0.104)	(0.098)
Age (Years)		0.003		0.006**	0.004		-0.003		0.003	0.001
		(0.003)		(0.003)	(0.004)		(0.004)		(0.004)	(0.004)
Formal Education (Years)		0.011		0.015*	0.004		0.017		0.022*	0.011
		(0.008)		(0.008)	(0.011)		(0.011)		(0.011)	(0.012)
Time Preference (0-10 Scale)		0.013		0.015	0.027		0.021		0.023	0.030*
		(0.013)		(0.012)	(0.016)		(0.017)		(0.017)	(0.018)
Risk Preference (0-10 Scale)		0.019		0.021	-0.003		0.014		0.008	-0.005
		(0.016)		(0.015)	(0.016)		(0.020)		(0.021)	(0.018)
Digit Span (0-8 Scale)		-0.032		-0.031	-0.003		-0.034		-0.029	0.003
		(0.037)		(0.038)	(0.043)		(0.052)		(0.052)	(0.046)
Systematic Thinking Style (0-1 Scale)		-0.139		-0.163	-0.601		0.364		0.290	-0.309
		(0.310)		(0.315)	(0.418)		(0.441)		(0.444)	(0.450)
Perceived Agency (0-1 Scale)		0.348		0.315	0.487**		0.831***		0.760**	0.785***
		(0.232)		(0.242)	(0.245)		(0.307)		(0.316)	(0.271)
Marketing Subscore			0.109	0.067	-0.087			0.224	0.129	-0.138
			(0.171)	(0.172)	(0.181)			(0.269)	(0.277)	(0.197)
Stocking-up Subscore			-0.053	-0.077	-0.082			0.208	0.113	0.028
			(0.101)	(0.103)	(0.131)			(0.138)	(0.138)	(0.142)
Record-keeping Subscore			-0.392**	-0.398**	0.008			-0.446*	-0.654***	-0.102
			(0.181)	(0.186)	(0.259)			(0.242)	(0.247)	(0.273)
Financial Planning Subscore			0.593***	0.510**	0.107			0.475*	0.230	0.051
			(0.209)	(0.209)	(0.274)			(0.281)	(0.287)	(0.295)
R-squared	0.452	0.451	0.450	0.463	0.063	0.324	0.325	0.310	0.343	0.067
Sample Size	1301	1301	1301	1301	1301	1301	1301	1301	1301	1301

This table presents results from regressions of aspirations and aspirations gaps for the number of employees on firm- and individual-level characteristics, as well as managerial practices. Columns (1) to (4) present results for short -term aspirations and column (5) for aspirations gaps (i.e. in the next 12 months). Columns (6) to (10) present the same analysis for long-term aspirations and aspirations gaps (i.e. open-ended). An aspirations gap is defined as the difference between aspirations and current level, normalized by current level. A ll regressions include district fixed effects. Robust standard errors are reported in parentheses. Statistically significant p-values are highlighted by: * (10% signi ficance level), ** (5% significance level), and *** (1% significance level).

Table 5: Determinants of Aspirations for Customers

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Short-term Aspirations				Short-term Aspirations Gap	Long-term Aspirations				Long-term Aspirations Gap
Aspirations Horizon for Ideal Business (Years)						3.519***	2.880**	3.623***	2.851**	0.041**
						(1.328)	(1.314)	(1.365)	(1.326)	(0.020)
Business Size (Square Meters)	0.224			0.192	0.006	0.246			0.119	0.001
	(0.153)			(0.161)	(0.004)	(0.193)			(0.190)	(0.003)
Total Number of Employees	0.054			-0.034	-0.002	0.912			1.366	0.013
	(1.321)			(1.354)	(0.029)	(1.944)			(1.986)	(0.031)
Total Daily Customers	1.040***	1.029***	1.036***	1.018***		1.444***	1.389***	1.449***	1.379***	
	(0.104)	(0.100)	(0.102)	(0.103)		(0.189)	(0.180)	(0.183)	(0.181)	
Total Profits Last Month (IHS)	-0.009			-0.037	0.002	0.275			0.203	0.008*
	(0.210)			(0.212)	(0.004)	(0.320)			(0.322)	(0.005)
Business Has Tax ID	-5.596			-8.041*	-0.117	-0.398			-4.196	-0.027
	(4.329)			(4.615)	(0.097)	(6.488)			(7.343)	(0.102)
Business Separate From Residence	1.082			1.325	0.002	4.804			4.421	0.004
	(4.337)			(4.359)	(0.069)	(6.597)			(6.456)	(0.084)
Total Loans Outstanding (IHS)	0.306			0.169	0.002	0.880			0.568	0.007
	(0.397)			(0.412)	(0.008)	(0.736)			(0.727)	(0.010)
Business Age (Years)	-0.417***			-0.313**	-0.008***	-0.564***			-0.391*	-0.008***
	(0.105)			(0.123)	(0.002)	(0.181)			(0.204)	(0.003)
Gender (Male=1)		2.380		2.991	-0.094		19.783***		19.117***	0.173**
		(3.087)		(3.260)	(0.063)		(5.308)		(5.578)	(0.085)
Age (Years)		-0.309**		-0.177	-0.002		-0.702***		-0.559**	-0.007**
		(0.147)		(0.165)	(0.003)		(0.207)		(0.232)	(0.003)
Formal Education (Years)		0.478		0.543	0.008		-0.169		-0.131	-0.001
		(0.419)		(0.454)	(0.009)		(0.592)		(0.605)	(0.010)
Time Preference (0-10 Scale)		0.558		0.686	0.028**		-0.240		-0.010	0.009
		(0.539)		(0.557)	(0.012)		(0.875)		(0.938)	(0.015)
Risk Preference (0-10 Scale)		1.129		1.217*	0.022		2.621**		2.567**	0.010
		(0.703)		(0.705)	(0.015)		(1.076)		(1.062)	(0.017)
Digit Span (0-8 Scale)		1.238		1.600	-0.027		7.253**		7.185**	0.056
		(2.020)		(1.983)	(0.037)		(3.336)		(3.331)	(0.042)
Systematic Thinking Style (0-1 Scale)		-21.864		-17.544	-0.283		10.543		12.380	0.141
		(18.480)		(18.761)	(0.349)		(29.705)		(30.455)	(0.398)
Perceived Agency (0-1 Scale)		15.587		13.501	0.078		8.857		7.229	-0.063
		(11.287)		(11.552)	(0.265)		(20.181)		(20.680)	(0.280)
Marketing Subscore			6.597	5.683	-0.130			18.389	17.905	0.134
			(9.270)	(9.143)	(0.149)			(18.351)	(18.158)	(0.198)
Stocking-up Subscore			4.991	1.723	0.023			12.310	4.699	0.141
			(5.357)	(5.229)	(0.105)			(8.450)	(8.508)	(0.130)
Record-keeping Subscore			-4.345	-9.007	-0.431**			4.716	-9.552	-0.536**
			(8.130)	(8.540)	(0.181)			(14.623)	(14.750)	(0.225)
Financial Planning Subscore			13.556	11.337	0.184			-2.265	-8.032	-0.065
			(10.629)	(10.610)	(0.186)			(15.099)	(14.769)	(0.224)
R-squared	0.477	0.469	0.463	0.485	0.094	0.447	0.461	0.444	0.466	0.085
Sample Size	1297	1297	1297	1297	1301	1297	1297	1297	1297	1301

This table presents results from regressions of aspirations and aspirations gaps for the number of customers on firm- and individual-level characteristics, as well as managerial practices. Columns (1) to (4) present results for short-term aspirations and column (5) for aspirations gaps (i.e. in the next 12 months). Columns (6) to (10) present the same analysis for long-term aspirations and aspirations gaps (i.e. open-ended). An aspirations gap is defined as the difference between aspirations and current level, normalized by current level. All regressions include district fixed effects. Robust standard errors are reported in parentheses. Statistically significant p-values are highlighted by: * (10% significance level), ** (5% significance level), and *** (1% significance level).

Table 6: Determinants of Aspirations for Sales

	(1)	(2)	(3)	(4)	(5)
	Short-term Aspirations				Short-term Aspirations Gap
Business Size (Square Meters)	16.919***			16.266***	-0.007*
	(3.871)			(3.600)	(0.004)
Total Number of Employees	29.777*			31.661**	0.016
	(15.968)			(15.973)	(0.035)
Total Daily Customers	4.326***			3.597***	-0.004***
	(0.885)			(0.840)	(0.001)
Total Profits Last Month (IHS)	3.567	5.335*	6.561**	3.173	-0.017***
	(2.800)	(3.085)	(3.192)	(2.777)	(0.006)
Business Has Tax ID	125.659**			107.422*	-0.047
	(63.202)			(64.265)	(0.133)
Business Separate From Residence	104.457**			98.416**	-0.055
	(47.391)			(47.654)	(0.100)
Total Loans Outstanding (IHS)	12.278***			7.317	0.023*
	(4.737)			(4.817)	(0.012)
Business Age (Years)	-3.236**			0.342	-0.011***
	(1.325)			(1.504)	(0.004)
Gender (Male=1)		338.370***		200.855***	0.173*
		(47.394)		(40.319)	(0.095)
Age (Years)		-12.960***		-11.181***	-0.005
		(1.570)		(1.704)	(0.004)
Formal Education (Years)		-8.678*		-16.562***	-0.003
		(4.523)		(4.548)	(0.012)
Time Preference (0-10 Scale)		2.512		3.416	-0.005
		(8.570)		(7.607)	(0.018)
Risk Preference (0-10 Scale)		7.869		10.967	-0.028
		(8.274)		(7.943)	(0.020)
Digit Span (0-8 Scale)		30.070		18.028	0.133**
		(24.703)		(20.847)	(0.052)
Systematic Thinking Style (0-1 Scale)		615.997***		365.698*	0.665
		(209.365)		(189.799)	(0.459)
Perceived Agency (0-1 Scale)		72.464		-83.901	-0.241
		(180.496)		(164.082)	(0.349)
Marketing Subscore			83.816	14.775	0.366
			(101.457)	(86.470)	(0.229)
Stocking-up Subscore			136.349*	17.926	0.089
			(75.709)	(63.670)	(0.156)
Record-keeping Subscore			294.738**	23.977	-0.781***
			(132.632)	(108.880)	(0.272)
Financial Planning Subscore			179.192	54.434	0.192
			(156.892)	(139.201)	(0.287)
R-squared	0.261	0.158	0.082	0.307	0.098
Sample Size	1280	1280	1280	1280	1277

This table presents results from regressions of aspirations and aspirations gaps for daily sales (in USD PPP) on firm- and individual-level characteristics, as well as managerial practices. Columns (1) to (4) present results for short-term aspirations and column (5) for aspirations gaps (i.e. in the next 12 months). Columns (6) to (10) present the same analysis for long-term aspirations and aspirations gaps (i.e. open-ended). An aspirations gap is defined as the difference between aspirations and current level, normalized by current level. All regressions include district fixed effects. Robust standard errors are reported in parentheses. Statistically significant p-values are highlighted by: * (10% significance level), ** (5% significance level), and *** (1% significance level).

Table 7: Determinants of Imagination and Planning Failure

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Imagination Failure				Planning Failure			
Business Size (Square Meters)	0.001			0.001	0.003**			0.003**
	(0.001)			(0.001)	(0.001)			(0.001)
Total Number of Employees	-0.045***			-0.038***	-0.031***			-0.018**
	(0.007)			(0.007)	(0.009)			(0.009)
Total Daily Customers	-0.001***			-0.000	-0.000			0.000
	(0.000)			(0.000)	(0.000)			(0.000)
Total Profits Last Month (IHS)	-0.003**			-0.003**	-0.001			-0.001
	(0.002)			(0.001)	(0.002)			(0.002)
Business Has Tax ID	-0.041			-0.009	-0.102***			-0.058*
	(0.031)			(0.030)	(0.036)			(0.035)
Business Separate From Residence	-0.014			-0.003	-0.069***			-0.054**
	(0.023)			(0.023)	(0.026)			(0.025)
Total Loans Outstanding (IHS)	-0.008***			-0.005**	-0.011***			-0.008***
	(0.002)			(0.002)	(0.003)			(0.003)
Business Age (Years)	0.005***			0.004***	0.005***			0.001
	(0.001)			(0.001)	(0.001)			(0.001)
Gender (Male=1)		-0.031		-0.017		0.008		0.023
		(0.021)		(0.022)		(0.025)		(0.026)
Age (Years)		0.003***		0.000		0.008***		0.005***
		(0.001)		(0.001)		(0.001)		(0.001)
Formal Education (Years)		-0.005*		-0.004		-0.005		-0.003
		(0.003)		(0.003)		(0.003)		(0.003)
Time Preference (0-10 Scale)		0.003		0.000		0.001		-0.001
		(0.005)		(0.004)		(0.005)		(0.005)
Risk Preference (0-10 Scale)		-0.001		0.001		0.003		0.004
		(0.005)		(0.005)		(0.006)		(0.005)
Digit Span (0-8 Scale)		0.012		0.014		0.010		0.010
		(0.012)		(0.012)		(0.014)		(0.014)
Systematic Thinking Style (0-1 Scale)		0.004		0.039		0.044		0.064
		(0.122)		(0.119)		(0.137)		(0.135)
Perceived Agency (0-1 Scale)		-0.275***		-0.188**		-0.454***		-0.336***
		(0.084)		(0.083)		(0.097)		(0.097)
Marketing Subscore			-0.133***	-0.094*			-0.259***	-0.207***
			(0.050)	(0.050)			(0.058)	(0.058)
Stocking-up Subscore			-0.141***	-0.107***			-0.121***	-0.070*
			(0.038)	(0.037)			(0.043)	(0.042)
Record-keeping Subscore			-0.133*	-0.066			-0.150*	-0.042
			(0.070)	(0.070)			(0.079)	(0.079)
Financial Planning Subscore			-0.215***	-0.098			-0.374***	-0.236***
			(0.071)	(0.069)			(0.078)	(0.077)
R-squared	0.112	0.125	0.099	0.188	0.178	0.236	0.204	0.285
Sample Size	1301	1301	1301	1301	1301	1301	1301	1301

This table presents results from regressions of imagination and planning failure on firm- and individual-level characteristics, as well as managerial practices. Imagination failure represents entrepreneurs who have not previously imagined their ideal business. Planning failure describes the absence of a time horizon for the achievement of an ideal business. Columns (1) to (4) present results for imagination failure, and columns (5) to (8) planning failure. All regressions include district fixed effects. Robust standard errors are reported in parentheses. Statistically significant p -values are highlighted by: * (10% significance level), ** (5% significance level), and *** (1% significance level).

Table 8: Determinants of Aspirations Horizon

	(1)	(2)	(3)	(4)
	Aspirations Horizon			
Business Size (Square Meters)	-0.000			-0.003
	(0.009)			(0.008)
Total Number of Employees	-0.100			-0.067
	(0.070)			(0.071)
Total Daily Customers	0.002			0.001
	(0.003)			(0.003)
Total Profits Last Month (IHS)	0.033***			0.034***
	(0.012)			(0.012)
Business Has Tax ID	0.499			0.335
	(0.362)			(0.367)
Business Separate From Residence	-0.113			-0.080
	(0.209)			(0.206)
Total Loans Outstanding (IHS)	0.026			0.027
	(0.033)			(0.032)
Business Age (Years)	0.003			0.003
	(0.007)			(0.007)
Gender (Male=1)		0.915***		0.883***
		(0.238)		(0.225)
Age (Years)		-0.014*		-0.021**
		(0.008)		(0.009)
Formal Education (Years)		0.046		0.050
		(0.029)		(0.032)
Time Preference (0-10 Scale)		-0.011		-0.004
		(0.038)		(0.038)
Risk Preference (0-10 Scale)		0.032		0.038
		(0.058)		(0.060)
Digit Span (0-8 Scale)		-0.015		-0.027
		(0.107)		(0.111)
Systematic Thinking Style (0-1 Scale)		0.457		0.457
		(1.353)		(1.383)
Perceived Agency (0-1 Scale)		-1.085		-0.931
		(0.757)		(0.757)
Marketing Subscore			0.749	0.603
			(0.582)	(0.578)
Stocking-up Subscore			-0.268	-0.540
			(0.433)	(0.456)
Record-keeping Subscore			-0.695	-1.175
			(0.722)	(0.765)
Financial Planning Subscore			-0.547	-0.743
			(0.686)	(0.689)
R-squared	0.063	0.080	0.053	0.101
Sample Size	941	941	941	941

This table presents results from regressions of aspirations horizon on firm- and individual-level characteristics, as well as managerial practices. Aspirations horizon is defined as the entrepreneur's perception of the number of years it will take to achieve an ideal business. All regressions include district-level fixed effects. Robust standard errors are reported in parentheses. Statistically significant p-values are highlighted by: * (10% significance level), ** (5% significance level), and *** (1% significance level).

Table 9: Predicting Business Savings and Expansion with Aspirations-related Measures

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Has Daily Business Savings			Plas to Apply for Business Loan in Next 12 Months			Plans to Expand Business in Next 12 Months		
Imagination Failure	-0.069*			-0.106***			-0.074**		
	(0.041)			(0.027)			(0.036)		
Planning Failure		-0.095***			-0.049*			-0.023	
		(0.035)			(0.028)			(0.033)	
Aspirations Horizon			-0.000			-0.004			-0.004
			(0.006)			(0.005)			(0.005)
R-squared	0.168	0.171	0.172	0.130	0.126	0.126	0.151	0.149	0.149
Sample Size	1293	1293	1293	1301	1301	1301	1301	1301	1301

This table presents results from regressions of saving and future credit behavior on aspirations -related measures. Columns (1) to (3) present results for saving daily, a dummy variable equal to 1 if the entrepreneur puts away money from the business each day towards savings. Columns (4) to (6) present results for future loans, a dummy vari able equal to one if the entrepreneur plans to take out a loan in the next 12 months. Columns (7) to (9) present results for business expansion, a dummy variable equal to 1 if the entrepreneur plans to expand th e business in the next 12 months. All regressions control for individual- and firm-level characteristics, as well as business practices. The regressions also include district fixed effects. Robust standard errors a re reported in parentheses. Statistically significant p -values are highlighted by: * (10% significance level), ** (5% significance level), and *** (1% significance level).

Table 10: Predicting Product and Process Innovation with Aspirations-related Measures

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Introduced At Least One New Product in Last 12 Months			Plans to Start/Improve Record Keeing in Next 12 Months			Plans to Develop Business Plan in Next 12 Months		
Imagination Failure	-0.105***			-0.146***			-0.211***		
	(0.037)			(0.038)			(0.040)		
Planning Failure		-0.016			-0.086***			-0.110***	
		(0.033)			(0.033)			(0.035)	
Aspirations Horizon			0.015***			-0.004			-0.002
			(0.005)			(0.005)			(0.004)
R-squared	0.231	0.226	0.231	0.248	0.244	0.244	0.219	0.206	0.206
Sample Size	1301	1301	1301	1301	1301	1301	1301	1301	1301

This table presents results from regressions of product and process innovations on aspirations-related measures. Columns (1) to (3) present results for product innovation, a dummy variable equal to 1 if the entrepreneur has introduced at least one new product in the last 12 months. Columns (4) to (6) present results for improving record keeping, a dummy variable equal to 1 if the entrepreneur is planning to start or improve record-keeing in the next 12 months. Columns (7) to (9) present results for developing a business plan, a dummy variable equal to 1 if the entrepreneur is planning to develop a business plan in the next 12 months. All regressions control for individual- and firm-level characteristics, as well as business practices. The regressions also include district fixed effects. Robust standard errors are reported in parentheses. Statistically significant p-values are highlighted by: * (10% significance level), ** (5% significance level), and *** (1% signi ficance level).