Micro-entrepreneurs' Subjective Wellbeing: Does loan enhance happiness?

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1. Introduction

Policymakers worldwide and particularly in developing and emerging markets are turning increasingly to microfinance as a national strategy for poverty alleviation, economic growth and development and prosperity. Multilateral lending agencies, bilateral donor agencies, and non-governmental organisations (NGOs) appear to support of the strategy and are allocating millions of dollars to finance the expansion of the industry. The industry is also receiving substantial financial and other support from banking and other financial institutions.

An easy access to finance brought by microfinance program might help to overcome capital deficiency faced by micro-entrepreneurs in developing economies who tend rely on external sources of finance for their business (Parker, 2009). The financial capital offered by the microfinance institutions is essential not only for start-up finance, but also for exploiting business opportunities and speeding up business growth in the subsequent stages of business. Moreover, the group-lending scheme commonly applied for microcredit might facilitate the formation of social networks that might create social capital for the entrepreneurs, although in some cases the peer preasure from the lending group can also cause terrible consequences for them (Bruton, Khavul, & Chavez, 2011).

Expectedly, the foregoing has invigorated the interest of researchers in investigating the influence of microfinance on various aspects of micro-entrepreneurs, including business formation and expansion, empowerment, as well as on poverty alleviation and other macro-economic aspects. On balance, the results have been mixed, at best.

Despite the plethora of research in the field, one area that seems to have received very little, if any, attention in the literature, is the influence of microfinance on the subjective wellbeing of micro entrepreneurs. This is particulary because, as a form of indebtednes, microcredit offered by microfinance institutions and the social networks created through lending groups might have impacts on the entrepreneurs subjective wellbeing. The issue of subjective wellbeing is otherwise a very well researched area in economics and social sciences—for example Dolan and Metcalfe (2012); Karlan and Zinman (2011); Audretsch and Belitski (2015). It should be noted that as in some previous studies, the terms 'subjective wellbeing', 'happiness' and 'life satisfaction' are used interchangeably in this study as well—see, for example, Easterlin (2005); Ferrer-i-Carbonell (2005); MacKerron (2012); Rehdanz and Maddison (2005).

Accordingly, our study endeavours to fill that gap in the literature, using Indonesia as an example. Indonesia is a developing, populous, G20 economy, the largest member of ASEAN, with a long history of microfinance. Microfinance has played important role in providing access to finance for micro-entrepreneurs in the country, since the relatively small size of the country's financial sector and inefficient, narrow, and homogenized banking oligopoly have contributed to the shallow outreach of the country's formal financial sector (Beck & Al-Hussainy, 2010; Hamada (2010); World Bank, 2010).

To do this, we conducted a field survey in 2014 of 556 women and men micro entrepreneurs in the city of Surabaya, Indonesia's second largest city, covering five microcredit providers. Among the respondents, 405 borrowed microloan via group-lending and 151 via individual scheme. Of the 556 interviews, 481 completed responses were found to be valid for the purposes of the analysis. The multiple regression analysis employed to examine the data. All estimations, tests, and model evaluations are conducted within the OLS framework.

The findings are interesting and intriguing. Results show that the microloan has a negative and significant association with subjective wellbeing (SWB), suggesting that borrowing money through microfinance program might not necessarily improve subjective wellbeing of micro-entrepreneurs in Indonesia. It is also found that lending group, one of microfinance credit scheme—another key feature of microfinance—has played a positif role in the entrepreneurs' SWB. Some control variables, such as the entrepreneurs' personalities, level of education, family relationships, microenterprises' business performance and business competition, linked to SWB.

To obtain a deeper understanding of how microcredit links to SWB, the model was extended by including the interaction between microcredit and its lending scheme . The result shows that the group-lending scheme intensified the negatif effect of the loan on SWB.

The rest of this paper is outlined as follows. Section 2 briefly provides literature review and hypotheses linked to the research questions. Section 3 explains research method, followed by data analysis and empirical results in Section 4. Discussion and policy implications are presented in Section 5, while Section 6 concludes.

2. Literature review and hypothesis development

2.1. The concept of subjective wellbeing

The literature documents preference satisfaction as one of the five main approaches of wellbeing—the others four are objective lists, flourishing, hedonic (or affective), and evaluative (or cognitive). The preference satisfaction approach states that the lives of individuals are better if the individuals get more of what they want (Dolan, Peasgood, & White, 2006; Harsanyi, 1996). This is based on the idea that wellbeing consists of the freedom and resources that meet the desires of individuals; hence, all that matters is whether the desire is fulfilled or not.

For several decades, neo-classical economists have explained preference satisfaction approach by using utility theory to infer the utility from the decisions individuals make in their spending behaviour. The idea is based on the premise that individual utility or wellbeing is the extent to which the individual's preferences are satisfied, assuming that individuals are rational, fully informed and seek to maximise utility. Further, as MacKerron (2012) notes, since the approach avoids the use of subjective data and rules out interpersonal comparisons, it is left with a limited number of interesting things to say directly regarding happiness or utility. Thus, utility is viewed as a subjective index. Individuals will behave as if they are maximizing the expected utility constrained by their own budget, assuming that their preferences follow the axioms of completeness, transitivity, reflexivity, and continuity, and that they always choose the most preferred options. As a consequence, the larger the incomes that individuals have, the more the highly preferred options can be chosen to satisfy more of their own desires (Dolan et al., 2006).

Economists, as well as psychologists, have become increasingly concerned that the preference satisfaction approach is often not a very good guide of wellbeing, which is often associated with the consequences of choices. The deficiency of the preference satisfaction (PS) approach has encouraged the rediscovery within economics of the concept of subjective wellbeing (SWB)[1] approach, though these two principal approaches actually share certain core principles. In particular, they both generally reject external criteria or judgements, privileging individuals as the only ones qualified to assess their own wellbeing (MacKerron,

[1] The economics of happiness concerns itself predominantly with evaluative approach, and to some extent with hedonic approach generally combining these two together under the banner of 'subjective wellbeing' (MacKerron, 2012), an umbrella term for how individuals think and feel about their lives (Diener, Suh, Lucas, & Smith, 1999).

2012). However, contradictory judgements of the meaningfulness and interpersonal comparability of subjective self-reported wellbeing are becoming the main distinction between preference satisfaction and subjective wellbeing approaches. Unlike preference satisfaction, subjective wellbeing assumes that there is a quantity of happiness that individuals experience, about how they think and feel about their lives, that can be measured and modelled directly (MacKerron, 2012). As a consequence, subjective wellbeing research puts any and every potential influence on happiness together into a function. In short, some researchers have noted that SWB measures are sometimes described as measures of 'experienced' utility, while preference satisfaction focuses more on the 'expected' or 'decision' utility (Kahneman & Sugden, 2005; Kahneman, Wakker, & Sarin, 1997). As SBW has a broader concept than decision utility, measures of SBW can thus serve as proxies for utility (Frey & Stutzer, 2002).

SWB is often used to describe the subjective experience, as opposed to the objective conditions of life (Okun & Stock, 1987). In this regard, how people perceive life matters more than the actual circumstances of their lives. It takes the wellbeing of individuals to be their overall assessment of their lives (Sumner, 1996). Considering its superiority in explaining and measuring wellbeing, the SWB definition is adopted in this study. This is particularly due to the SWB ability to quantitatively measure and model the feelings and thoughts individuals experience from their involvement in microcredit programmes.

2.2. Loan and micro-entrepreneurs' subjective wellbeing

At the earliest stage of an enterprise' life cycle, financial capital is the essential resource for purchasing fixed assets, for working capital, and for financing initial operations and the living expenses of the owners. The amount of initial capital invested has a positive linkage with venture survival and growth (Cooper, Gimeno-Gascon, & Woo, 1994) because it enables entrepreneurs to invest in productive activities, to have financial cushion to protect against slow start-ups, market downturns, or managerial mistakes, as well as to exploit business opportunities and speed up business growth in the subsequent stages (Bates, 1995; Cooper, Woo, & Dunkelberg, 1988; Demirguc-Kunt, Beck, & Honohan, 2008).

Financial capital may come from various sources. In developed countries, start-up finance is mostly supplied by the entrepreneurs themselves in the form of personal equity. Meanwhile, financial capital is mostly acquired from external sources—predominantly as debt—in developing economies (Parker, 2009). This is because the entrepreneurs' valuable possessions often exceed the required funds. However, those with lower credit scoring and/or lack of collateral might be excluded from obtaining loans, preventing them to become entrepreneurs (Evans & Jovanovic, 1989).

Unlike conventional banks and other mainstream credit institutions, microcredits are offered by microfinance institutions (MFIs) with minimal credit screening and without, or in some cases with more flexible, physical collateral. Although the cost of borrowing is relatively high, the MFIs' credit scheme gives wider access to finance to the unbanked to cope with household vulnerability and/or for micro entrepreneurship (Copestake, Bhalotra, & Johnson, 2001; Garikipati, 2008).

As a form of short-term indebtedness, microcredit might link to micro-entrepreneurs (the borrowers) level of subjective wellbeing. Literature suggests that higher perceived stress and depression—commonly used as a proxy of subjective wellbeing (Oswald, 1997)—are closely associated with reporting a high financial debt (Sweet, Nandi, Adam, and McDade (2013); hence, people reporting financial stress or debt problems are more likely to report a greater incidence of depression (Bridges & Disney, 2010; Selenko & Batinic, 2011). More specifically, borrowing money from friends and financial institutions mostly represents a debt trap that lead to lower levels of life satisfaction (Tsai, Dwyer, & Tsay, 2016), and significantly contributes to the chances of being unhappy and to the likelihood of having thoughts of self-harm (Borooah, 2005).

Although the presence of financial debt has been found in most studies to adversely affect SWB, the relationship between debt and SBW remains unclear. For example, credits from microfinance institutions may help borrowers to become self-employment through the establishment of microenterprises—a field experiment suggets that those who are self-employed report higher levels of job and life satisfaction than who work for others (Blanchflower & Oswald, 1998). Moreover, larger debts may indicate a better credit rating, and are potentially investments, rather than being a deficit between income and consumption—see MacKerron (2012). Different forms of debt may also have different effects on subjective wellbeing—Brown, Taylor, and Wheatley Price (2005) suggested that unsecured debt, which includes group-lending microcredit, due to the absence of physical collateral, has a negative influence on psychological wellbeing[2], while secured debt does not.

[2] From an economic perspective, psychological wellbeing (or, less precisely, happiness) measures provide directly observable proxies for individuals' wellbeing or utility. Many economic studies have used such measures (Frey & Stutzer, 2002; Oswald, 1997)

In the microfinance context, there are also mixed arguments regading the effect of microcredit on subjective wellbeing. The proponents argue that having an additional choice of credit makes borrowers feel more capable, optimistic, and happy. Microcredit programmes also have a negative relationship with the incidence of domestic violence in the rural areas (Schuler, Hashemi, Riley, & Akhter, 1996). This finding, however, was challenged by Rahman (1999), who found that microfinance, in fact, increased tentions among family members and the incidence of domestic violence. This is because to ensure the timely loan repayment, microfinance officers and borrowing peers impose an intense pressure on borrowers who are having difficulty in repaying the loans. As a result, many of the borrowers maintain their regular repayment schedules through a loan recycling process that considerably increases the debt-liability on individual households, and then increases the tension and frustration among household members, which might end up with more violence within the households, all of which eventually increases their likelihood unhappiness. Moreover, Karlan and Zinman (2011) also suggest that the expanded microcredit access results in a small decrease in subjective wellbeing. This general overview of subjective wellbeing is now brought into focus for Indonesia.

Hypothesis 1: in view of the foregoing, we expect that microcredit negatively affects micro-entrepreneurs' subjective wellbeing in Indonesia.

2.3. Lending schemes and micro-entrepreneurs' subjective wellbeing

In Indonesia's microfinance industry, individual and joint-liability/group lending schemes are the most common types available to borrowers. Under the former, which is more common among banking-MFIs and Islamic-MFIs, the size of the loan is determined primarily on the basis of the pledged collateral, which might be repossessed in the event of default. Thus, while on a much lower scale, a few parallels can be drawn between this and loans obtained from more formal financial institutions such as commercial banks.

Under the latter, which is more common among less formal and government-sponsored microcredit providers, microcredit is offered via a lending groups only. The participating lending group, assisted by an officer appointed by the microfinance provider, decides the amount to be approved and subsequently becomes liable for repayment in the event of default. Many microfinance providers in developing economies rely on this lending scheme for their business operations as a means to induce peer monitoring and to reduce moral hazard—ex ante (Armendariz & Morduch, 2010; Banerjee, Besley, & Guinnane, 1994; Stiglitz, 1990) or ex post (Besley & Coate, 1995; Bhole & Ogden, 2010)— particularly in the absence of collateral and the providers' credit screening. However, if trust between members in a lending group is low, along with little enforcement of contracts, this may also become a liability for the microfinance providers.

Participation in a lending group might have mixed effects on micro-entrepreneurs' subjective wellbeing. On one hand, the group lending scheme might encourage risk taking behaviour by individuals (Fischer, 2013; Giné, Jakiela, Karlan, & Morduch, 2010), although the strict peer monitoring practices might serve to discourage such behaviour (Fischer, 2013). Thus, to ensure timely repayment of the loans, the scheme involves frequent repayment meetings and peer pressure. Although peer pressure may reduce this risk for the creditors, personal or environmental shocks that impact the ability to conduct business can have terrible consequences for individual members (Bruton et al., 2011). For some micro-entrepreneurs, the preasure might be burdensome, especially if the group is formed from communities with a high degree of social ties (Armendariz & Morduch, 2010). This might create psychological stresses to the entrepreneurs, which might then reduce their SWB level.

On other hand, literature suggest that membership in organisations—lending group, for instance—might enhance the SWB level (Helliwell, 2003; Pichler, 2006). Economic theory also suggests that repeated interactions among individuals in a group can help build and maintain social capital—see Kreps, Milgrom, Roberts, and Wilson (1982). Coleman (1988) illustrates the concept of social capital as how the social structure of a group can function as a resource for the individuals of that group. It is embedded in the structure of relations or ties, which can be of many different types, between actors and among actors. This highlights the importance of concrete personal relationships and networks of relationships that might provide access to resources (Granovetter, 1985).

Evidence shows that more frequent lending group meetings could in practice lead to greater social interactions (Feigenberg, Field, & Pande, 2010). These interactions might provide members with alternative sources of information not otherwise available to individuals, which might help discover or create new opportunities in the market (Shepherd, McMullen, & Jennings, 2007). As one of the manifestations of weak ties, a lending group can create social capital through increased communication, information diffusion, and social support (Paxton, 1999). The group might both develop new or deepen already existing social relationships within the group (Anthony, 2005). Social capital created from this social networks benefits entrepreneurs not only in terms of advice and information channels for opportunities that may lead to arbitrage of business ideas (Anthony, 2005; Hoang & Antoncic, 2003); marketing advice; distribution channels (Hansen, 1995); labour, and offers psychological aids (Abell, Crouchley, & Mills, 2001); but also influence gaining power or controls and solidarity, which may then be transformed into social supports from others (Adler & Kwon, 2002).

The social supports include both in the structures of an individual's social life (e.g. group membership and/or family relationship) and the functions that these structures may serve—in terms of emotional support and instrumental assistance or advice. It can be received through work domain (Allen, 2001) and family domain (King, Mattimore, King, and Adams (1995). In entrepreneurial context, the domains may be highly interrelated (Aldrich & Cliff, 2003) because entrepreneurs, which are the leaders of their own businesses, can more easily transfer or share resources between the domains compared to organisational employees. With these social supports, entrepreneurs' SWB level might improve—see Helliwell and Putnam (2004).

Hypothesis 2: in view of the foregoing, we expect that participation in a lending group positively affects micro-entrepreneurs' subjective wellbeing in Indonesia.

This study also considers that lending scheme might become a moderation variable in the microcredit – SWB relationship. It is expected that lending group might strengthens the effect of microloan on subjective wellbeing. This is because, unlike individual lending scheme, group-lending scheme does not require physical collaterals; however, all members within group lending must take responsibility for any credit default. This means that all members within a lending group have to take over the loan repayments from the default borrowers, and bear all possible group-sanctions from the creditor. Fear of being responsible for credit default might increase the group's peer preasure to the potentially default members. The degree of peer preasure from a lending group might become more intense as the loan size is getting larger, and is in line with the degree of social ties within the group (Armendariz & Morduch, 2010). This kind of social preasure might have a greater negative impact on micro-entrepreneurs SWB in developing countries than that of losing physical collaterals.

Hypothesis 3 : group-lending scheme strengthens the effect of loan on the micro-entrepreneurs subjective wellbeing.

3. Research Method

3.1. The variables

Dependent variable. MacKerron (2012) suggested that subjective wellbeing (SWB) is not a monolithic concept because it becomes a common term for a number of distinct ways of conceiving of a person's wellbeing. SWB might be measured using numerous indicators or survey questions (e.g. happiness; satisfaction with one's life situation, with life as a whole, or with quality of life; enjoyment of life[3]), which might differ in some respects, such as the scope and timescale of experience encompassed, and in the phrasing of the concept or question..

SWB is commonly measured by subjective self-reported wellbeing using either single- or multiple-item scales. Research within economics has tended to focus on single-item measures because analysing a unitary quantity of something 'utility-like' is familiar, and makes monetary valuation straightforward (MacKerron, 2012). On a practical level, single-item measures have good data availability, although in some cases they suffer from reliability issues (Huppert et al., 2009).

This study considers SWB as a single-item scale measurement, since individuals concerned are best placed to aggregate all the different aspects of their own wellbeing (MacKerron, 2012). It is measured by subjective self-reported life satisfaction of the individual, since individuals are considered to be the best judge of the overall quality of their lives (Frey & Stutzer, 2002). Moreover, asking respondents questions about life satisfaction has been widely used to measure SWB to understand individual preferences in economics (Ferrer-i-Carbonell, 2013).

SWB is therefore measured by a single question taken from the World Value Survey (WVS) Questionnaire with few modifications: "All things considered, how satisfied are you with your life as a whole these days?"[4] The response (1–7 semantic differential scale, Dissatisfied (1) to Satisfied (7)) is based on an assumption that individuals' responses are

[3] Studies examining those different questions have generally produced fairly consistent results with each other (MacKerron, 2012).

[4] The same question has also been included in the German Socio Economic Panel (SOEP) Questionnaires, the Eurobarometer Survey and are used in some empirical studies, such as Borooah (2005), Peiró (2006) and Karlan and Zinman (2011).

mutually comparable; thus, individuals reporting a 6 on the 1–7 scale feel more satisfied with their lives than those reporting a 3[5].

Independent variables. Microcredit (*loan*) is operationally defined as a natural logarithm of the amount of microcredit received by the individual respondent during a one-year time period (January 2013 – January 2014). In addition, two most common types of microcredit lending mechanism—joint liability or group lending and individual lending—are included as the second independent variable in the model. The microcredit lending scheme (*g*) is a dummy variable—1 for group lending, 0 otherwise.

Control variables. The control variables include education, age, gender (female), marital status, religion, personality variables, family relationship, health and business performance. Education (*edu)* is a dummy variable—1 for none and elementary education, 0 otherwise. Age *(a)* is the age of the respondent measured in years. Since age mostly has a U-shaped relationship with subjective wellbeing, with the young and old being happiest (Blanchflower & Oswald, 2004, 2008; Clark, 2003; Ferrer-i-Carbonell & Gowdy, 2007; Peiró, 2006), the squared of age (*a2*) is also included in the model analyses. Gender (*g1*) is 1 for female, 0 otherwise. Marital status (*md*) is the marital status of respondents, defined as a dummy variable of 1 for single, widowed, and divorced, and 0 for married couple.

Religious belief (*s1*) is measured by the extent to which the respondents agree that they worship or pray to GOD in their daily life. Personality variable includes the respondent's character/emotion (*s2*) that is the extent to which the respondents agree that they see their own selves as depressed. Family relationship (*s4*) is proxy by the extent to which the respondents agree that their relationship with spouses or/and family is very good. Health problem (*s5*) is defined as a dummy variable—1 if a respondent is suffering from severe or chronic illness, 0 otherwise.

Three business controls are included in the model, which are business competition, firm size, and microentreprise business performance. Business competition (*com*) measures the respondent's awareness of any competing firms operating in the surrounding area. Firm size is measured by a respondent's subjective self-report of monthly-averaged total sales. The figures are then tranformed into natural logaritm.

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5 A set of studies examining whether individuals feel about the same when reporting their SWB shows that individuals have a very similar understanding of concepts such as satisfaction and happiness (Ferrer-i-Carbonell, 2013).

The final control variable is microenterprises' business performance (*bp*). A high level of subjective wellbeing is determined by the ability of individuals to make progress toward their personal goals. The wellbeing literature suggests that such people are more likely to be happier (Diener & Biswas-Diener, 2005). As individuals have different values and goals, the types of success that make them happy depend on the aims of the individuals. In applying this idea to the entrepreneurship context, it might be argued that entrepreneurs are happier if they are making progress toward their business goals.

Better business performance also benefits entrepreneurs with higher incomes and wealth. Income and SWB have a close relationship, although the relationship is not always uniform—see Easterlin (2001), Easterlin and Sawangfa (2009), Frey and Stutzer (2000), Frijters, Haisken-DeNew, and Shields (2004), Gerdtham and Johannesson (2001), Stevenson and Wolfers (2008), and Winkelmann and Winkelmann (1998).

In this study business performance is measured by a respondent's subjective self-reporting of changes in profit across two consecutive years (January 2013 – January 2014). Profits, representing the achievement of sales relative to costs, are a key indicator of success for entrepreneurs that are used as a basis for comparison to competitor performance (Bracker & Pearson, 1986). The subjective self-reported performance, while not ideal, has been used in other studies with reasonable reliability (Anna, Chandler, Jansen, & Mero, 2000; Cruz, Justo, & De Castro, 2012; Wiklund & Shepherd, 2003).

Table 1 briefly explains how some questions were framed to gather the relevant data.

Table 1. Questions relating to the some of the study variables

Variable	Question	Possible response
Subjective wellbeing (swb)	All things considered, how satisfied are you with your life as a whole these days?	Dissatisfied to Satisfied (1-7 semantic differential scale)
Microcredit (*loan*)	How much additional loan amount did you receive from your MFI during this year (January 2013 – January 2014) only?	in millions of Indonesian Rupiah
Level of education (*edu*)	What is the highest grade/level of school you have attained?	Elementary level and below = 1 Above elementary level = 0
Respondent's age (*a*)	What is your age?	in years
Marital status (*md*)	What is your present marital status?	Single, widow and divorce = 1 Married = 0
Religious beliefs (*s1*)	I always worship or pray to GOD every day.	strongly disagree to
Personality (blue) (s2)	I see myself as someone who is depressed, blue.	strongly agree (1-7 Likert scale)
Family relationship (*s4*)	My relationship with my spouse or/and family	

	is very good.	
Health problem (s5)	Are you suffering from any kind of severe or chronic illness burdening your life?	Yes (1) No (0)
Business competition (com)	Do you know any competitors who sell the same product/service are in your surrounding area?	Yes (1) No (0)

3.2. The survey

The data was obtained from a survey conducted in Surabaya, the second largest city in Indonesia, and its surroundings in 2014. Of the fourteen MFIs, five, including two cooperatives, two Islamic-style microfinance institutions registered as cooperatives and a government-sponsored microfinance, agreed to participate. The sample includes small (205 membership) to large (12,470 membership) providers, which are relatively new (2010) to relatively well–established (1978), cover different types—Islamic, cooperatives and others—and with different combinations of lending group versus individual credit schemes and different make up in terms of men and women memberships. This sample provides a reasonable mix of microcredit providers.

At the time of the survey, the five lenders had a total membership of 17,553, of which 5,531 (about 26% were with individual lending schemes and the rest had borrowed via group lending schemes) satisfied the key survey criterion of “owns a microenterprise”—in Indonesia, both business owners and non-business owners may apply for credit from microcredit providers.

Of the eligible respondents, those with the group lending scheme belonged to around 178 lending groups (i.e. Assakinah = 41, SBW = 108, BKM Merisi = 29). From each of these groups, two to three members were randomly selected as prospective respondents—a total of 530. For respondents using the individual lending scheme, around 270 were randomly selected as prospective respondents. Thus, a total of 800 prospective respondents were identified and initially contacted by the providers, on behalf of the researchers, for their voluntary participation. Of these, 556 (405 group lending and 151 individual scheme) agreed to be interviewed.

A full-day training session was provided to the interviewers—senior undergraduate economics students of a local university—prior to the survey, and closely supervised during the data collecting process to minimise any potential interviewer bias. The interviews were conducted mostly at the respondent’s residence or business place to observe their real-life conditions. Of the 556 interviews, 481 completed responses (92 men and 391 women) were found to be valid for the purposes of the analysis—incomplete responses and some outliers were excluded.

4. Data analysis and empirical results

4.1. Data analysis

The pairwise correlation analysis conducted to examine correlations among the variables, shows relatively little correlation among them (Table 2). This indicates that the collinearity between any two variables are unlikely to have significant problems on estimation results.

The multiple regression analysis is applied to examine and test the overall model fit of the subjective wellbeing model. Five models are estimated. Model 1 is the baseline control model. In Model 2, *swb* is regressed on *microcredit* and all control variables, while in Model 3, *swb* is estimated by *lending group* and all control variables. Model 4 encompasses all controls and main covariates used in this study. This model addresses H_1 and H_2. Finally, the interaction variable of *microcredit and lending group* is added to the latter model to form Model 5 to answer H_3.

The presence of heteroskedaticity—based on Breusch-Pagan/Cook-Weisberg test are detected in the models' error terms. To deal with such problem, the heteroskedasticity-robust standard errors is applied as an alternative to OLS's default standard errors.

Testing for omitted variable bias, based on the Ramsey regression equation specification error test using powers of the fitted values of SWB, fails to reject the null hypothesis that the model do not have omitted-variables bias. Multicollinearity problems are not present in the models, as all variance inflation factors are less than 10.

Table 2. Statistic summary and pairwise correlation

No	Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	Subjective wellbeing (swb)	1.00													
2	Respondent's age (a)	-0.02	1.00												
3	Female (g1)	-0.10	0.07	1.00											
4	Level of education (edu)	0.06	0.14	-0.16	1.00										
5	Marital status (md)	0.00	0.13	0.07	0.02	1.00									
6	Religion (s1)	0.06	0.06	-0.11	-0.09	0.04	1.00								
7	Personality (blue) (s2)	-0.14	-0.03	-0.01	0.13	0.09	-0.19	1.00							
8	Family relationship (s4)	0.28	0.00	-0.03	-0.03	0.05	0.17	-0.10	1.00						
9	Health problem (s5)	-0.11	0.14	0.02	0.04	-0.04	-0.02	-0.03	-0.12	1.00					
10	Firm size [ln(sales)]	0.21	0.00	0.01	-0.06	0.05	0.08	-0.05	0.17	-0.06	1.00				
11	Business performance (bp)	0.31	0.03	-0.08	0.00	0.03	0.04	-0.05	0.12	-0.01	0.17	1.00			
12	Business competition (com)	-0.20	-0.12	0.05	0.04	-0.01	-0.10	0.09	-0.06	-0.03	-0.05	-0.24	1.00		
13	Lending group (g)	0.07	0.31	0.20	-0.15	-0.01	-0.07	-0.07	-0.04	0.13	0.06	-0.05	0.02	1.00	
14	Microcredit (loan)*	-0.13	0.10	0.44	-0.15	0.02	-0.09	-0.01	-0.03	-0.02	0.07	-0.04	0.09	0.01	1.00
	Mean	5.63	45.44	0.81	0.12	2.15	6.37	2.21	5.95	0.06	15.46	2.52	0.69	0.75	15.66
	Std. Dev	1.07	7.76	0.39	0.33	0.53	0.54	1.44	0.73	0.24	0.90	0.74	0.46	0.44	0.85
	Min	1.00	23.00	0.00	0.00	2.00	5.00	1.00	2.00	0.00	12.90	1.00	0.00	0.00	13.12
	Max	7.00	66.00	1.00	1.00	5.00	7.00	7.00	7.00	1.00	17.03	3.00	1.00	1.00	17.50

Note : * The values are in natural logarithm

Tabel 3. Estimation results

VARIABLES	Model 1	Model 2	Model 3	Model 4	Model 5
Individual controls					
Respondent's age (a)	-0.005	-0.004	-0.012*	-0.010	-0.010
	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
Female (g1)	-0.136	-0.019	-0.192	-0.096	-0.050
	(0.134)	(0.148)	(0.123)	(0.139)	(0.148)
Level of education (edu)	0.296**	0.262**	0.383***	0.349***	0.360***
	(0.132)	(0.132)	(0.126)	(0.128)	(0.126)
Marital status (md)	-0.022	-0.026	-0.008	-0.012	-0.012
	(0.058)	(0.059)	(0.055)	(0.055)	(0.054)
Religion (s1)	-0.045	-0.056	-0.018	-0.029	-0.041
	(0.093)	(0.092)	(0.091)	(0.090)	(0.089)
Personality (blue) (s2)	-0.081***	-0.082***	-0.075**	-0.076**	-0.077**
	(0.031)	(0.031)	(0.030)	(0.031)	(0.030)
Family relationship (s4)	0.305***	0.302***	0.310***	0.307***	0.315***
	(0.080)	(0.079)	(0.078)	(0.078)	(0.079)
Health problem (s5)	-0.364	-0.380*	-0.422*	-0.430*	-0.434*
	(0.231)	(0.229)	(0.235)	(0.232)	(0.232)
Business controls					
Firm size [ln(sales)]	0.156***	0.166***	0.142***	0.150***	0.138***
	(0.052)	(0.052)	(0.051)	(0.051)	(0.052)
Business performance (bp)	0.324***	0.324***	0.334***	0.333***	0.321***
	(0.080)	(0.079)	(0.080)	(0.078)	(0.077)
Business competition (com)	-0.302***	-0.282***	-0.317***	-0.300***	-0.306***
	(0.087)	(0.087)	(0.086)	(0.086)	(0.086)
Main covariate					
Microcredit (loan)*		-0.133**		-0.104*	0.111
		(0.059)		(0.061)	(0.116)
Lending group (g)			0.373***	0.341***	4.628**
			(0.113)	(0.115)	(2.159)
Interaction					
Microcredit x lending_group					-0.274**
					(0.135)
Constant	1.640	3.506***	1.669*	3.125***	-0.023
	(1.010)	(1.161)	(0.998)	(1.172)	(1.939)
Number of observations	481	481	481	481	481
Adjusted R-squared	0.195	0.202	0.212	0.216	0.221

Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

4.2. Empirical results

Table 3 presents the multiple linear regression estimations with the heteroskedasticity-robust standard errors. At the 5% significance level, Models 2 and 4 consistently show negative and significant regression coefficients of *loan – swb* relationship, indicating that microcredit has had adverse implications for subjective wellbeing. This finding confirms H_1, that microcredit negatively affects micro-entrepreneurs' subjective wellbeing in Indonesia.

Meanwhile, Model 3 and Model 4 consistently show positive impact of *lending group* on *swb*, and confirm H_2 that participation in a lending group positively affects micro-entrepreneurs' subjective wellbeing in Indonesia. Model 4 shows that micro-entrepreneurs with a group lending scheme, on average, have a higher level of SWB (β = 0.341, SE = 0.115) compared to those with an individual lending scheme.

When the interaction variable is included in Model 5, it is found that the variable has a significant but negative effect (β = –0.27, SE = 0.135) on *swb*, confirming H3 that group-lending scheme strengthens the effect of loan on the micro-entrepreneurs subjective wellbeing. This means that group-lending scheme apparently intensifies the adverse impact of the loan on *swb*, while individual scheme does not.

Some individual and business controls are also shown to have significant links to *swb*. With regard to personality, individuals who see themselves as depressed are more likely to be dissatisfied with their own lives. In addition, having a health problem negatively affect SWB, while a better family relationship increases SWB level. The table also shows that microentreprise firm size and business performance have positive and significant impacts on *swb*, while business competition tends to lower the level of SWB.

5. Discussion and policy implication

The impact of indebtedness on subjective wellbeing has been empirically studied for decades. Studies have mostly suggested that indebtedness is adversely associated with the level of subjective wellbeing (Borooah, 2005; Brown et al., 2005; Cummins et al., 2004; Sweet et al., 2013), but the conclusion remains unresolved.

As a kind of indebtedness, microcredit has been claimed to have a significant contribution towards reducing poverty across developing countries. However, very few studies have specifically focused on the relationship between microcredit and subjective wellbeing, so the impacts of microcredit on subjective wellbeing remain little known. Using the survey from Indonesia, this study finds that the loan is negatively related to the level of subjective wellbeing.

The negative relationship between microcredit and SWB indicates that a larger loan size received by micro-entrepreneurs is more likely to reduce their SWB level. Although microcredit programmes benefit micro-entrepreneurs with easy access to finance, a larger amount of the loan with relatively higher interest rates and short payment periods—mostly up to 24 months—might increase the psychological distress level of entrepreneurs as they have to maintain timely repayments. Such distress causes a decline in their SWB level. Moreover, if micro-entrepreneurs are unable to effectively manage the loan for making significant progress toward their business, fear of not making timely repayment might intensify the distress, increasing the chance of unhappiness.

The lending scheme also appears to matter for SWB, as the study finds that micro-entrepreneurs in group-lending scheme, on average, have a higher level of SWB than those in individual lending scheme. Several possible reasons are explained. Firstly, the group lending scheme allows the borrowers to mutually insure each other against adverse business outcomes (Attanasio, Augsburg, De Haas, Fitzsimons, & Harmgart, 2013). This may reduce investment uncertainty, increase loan take up, and eventually lead to larger long-run effects such as better business performance, incomes and subjective wellbeing.

Secondly, participation in a lending group may be viewed as an involvement in community. Previous studies suggested that socialising and being a member of organisations positively links to happiness or subjective wellbeing (Bruni & Stanca, 2008; Helliwell, 2003; Helliwell & Putnam, 2004; Pichler, 2006). In this study's context, a microfinance lending group is commonly expected to enhance harmony among its membership and help members broaden social networks. The social networks might provide support members cope with issues outside the microcredit repayments. The survey data show that majority of the total lending group's respondents voted from 'slightly agree' to 'strongly agree' that "members of my lending group help one another outside microcredit and business matters" (73%) , and that "members of my lending group help one another with business" (76%). Help provided from group members for business are mostly in term of new ideas for business and new ways to better operate business.

Literature suggest that as a manifestation of weak ties, a lending group could provide alternative sources of information that might not be directly available to a particular individual. Access to this additional information can be combined with current knowledge to discover or create non-obvious opportunities in the market (Shepherd et al., 2007). Consequently, activities in the group meetings should not be limited by loan repayment discussion only, but should be extended to facilitate members to engage in business-related conversations and to develop new or deepen existing social relationships within the group. The ability of loan officers, as the representatives of microfinance institutions, and group leaders to facilitate such conversations appears important.

Findings relating to the interaction variable suggests that borrowing through group lending scheme intensifies the adverse impact of the loan on *swb*. The beneficial effects of lending group on subjective wellbeing level might also change adversely when loan size is taken into consideration. The mutually-beneficial relationships within a lending group might make micro-entrepreneurs feel more depressed as their loan gets larger. One possible reason is that they worry if they might let down their fellow group members and harm such relationships, in case they cannot repay the loan. A greater peer preasure from the group might also occur as an anticipation of credit default, causing a lower level of subjective wellbeing

Other factors also affect subjective wellbeing. While the presence of local business competitors apparently treathen the entrepreneurs causing lower level of life satisfaction, firm size and business performance had positive and significant contributions to SWB level. This suggests that making progress toward business goals might improve micro-entrepreneurs' incomes and wealth, as well as benefit them with psychological and sociological matters (e.g. pride, self-confidence, acceptence by society) that are more likely to increase the level of subjective wellbeing. Thus, if micro-entrepreneurs can effectively make use their resources, including the loan, to make significant progress toward their business goals (i.e. business success), this might eventually increase their subjective wellbeing. An increase in the level of subjective wellbeing due to business success might outstrip the negative effect of microcredit on subjective wellbeing, as the standardized coefficients of regression of Model 2, 4, and 5 suggest that business performance has larger impact than loan on SWB level. It is thus reasonable to note that delivering microcredit to micro-entrepreneurs should be complemented by upgrading the business and management skills of the entrepreneurs to achieve their business goals. Trainings, mentorships, and advisory services in business and entrepreneurship should ideally be provided, either by the loan providers or by other institutions (e.g. government and NGOs).

Level of education, family relationship and health are other important factors for micro-entrepreneurs' subjective wellbeing. Respondents with elementary school or lower education are, on average, less happier than those with higher education level. This might be due to the fact that most higher educated respondents have a better life condition than those with lower education.

Regarding family relationship, the study finds that having a good family relationship positively affects subjective wellbeing. Family is an ideal environment for creating social capital (Coleman, 1988) through the formation of a higher density network of relational lines (Granovetter, 1983), known as strong ties. As a reward for strong ties, support provided by family might range from spousal emotional support to involving or employing members of the family. Evidence suggests that family support is a key factor in entrepreneurial success (Bosma, van Praag, Thurik, & de Wit, 2004; Bruderl & Preisendorfer, 1998; Powell & Eddleston, 2013), especially for women entrepreneurs (the majority respondents of this study), who often express their desire for synergy between work and family commitment (Bird & Brush, 2002; Brush, 1992; Ellis et al., 2010). Family support as a result of good family relationship apparently helps micro-entrepreneurs who often experience resources deficiency to cope with business challenges, such as providing financial cushion and employment—see Williamson (2000) and Cruz et al. (2012). This might then improve their life satisfaction.

Having a health problem lowers SWB level. Thus, it is suggested for micro-entrepreneurs to adopt healthy life styles, for example, by having more reasonable workhours and creating a safe workplace to prevent themselves from overexertion, illness, and work-related accidents. The survey data show that about 40% of the total respondents worked beyond the normal workhour of 8 hours/day and that the majority of respondents worked in relatively unsafe work condition. Encouraging micro-entrepreneurs to have healthy lifestyles and supporting them to create safer workplaces appear to be relevant for the improvement of their subjective wellbeing level.

6. Conclusion

Microfinance has been shown to have made considerable progress in making financial resources available to the bottom segments of society, offering them an opportunity to improve their living standards. Despite its long history in Indonesia, the impacts of loan provided via microfinance programe on the subjective wellbeing level of Indonesian micro-entrepreneurs remains little known. This study fills this huge gap in the literature. Specifically, it provides the first in-depth understanding of the role of microfinance in the subjective wellbeing of Indonesian micro-entrepreneurs.

To address the research questions, a survey was conducted by using a multipart questionnaire to gather relevant information from micro-entrepreneurs who were members of five participating microcredit providers in Surabaya and its surroundings. Considering the characteristics of the data and the models built for addressing the research questions, the multiple regression analysis is applied for analysing the data.

This study finds that microcredit was adversely associated with subjective wellbeing. Larger loans with relatively higher interest rates and short repayment periods and fear of not making timely repayment might have brought undesirable consequences on the level of subjective wellbeing.

The analysis also revealed that micro-entrepreneurs with a group lending scheme, on average, had a higher level of subjective wellbeing compared to those with an individual lending scheme, assuming other factors remain unchanged. The support given by fellow group members to help a member cope with issues outside the loan repayments might be one possible reason.

This study also finds that the interaction variable (loan and lending scheme) intensifies the negative relationship between loan and subjective wellbeing level of micro-entrepreneurs. Fear of losing group relationships and peer preasure due to inability to make loan repayment might deteriorate their happiness.

Strong ties is also important for Indonesian micro-entrepreneurs' subjective wellbeing. This study finds that that having a good family relationship increased the likelihood of having a higher level of subjective wellbeing. Support from family members might benefit micro-entrepreneurs: not only business-related supports, but also emotional supports.

Regarding the roles of business performance in subjective wellbeing, this study finds a positive link. This suggests that business success might become a pathway for micro-entrepreneurs to enhance their level of subjective wellbeing. Thus, any efforts to make business performance better would be beneficial for the entrepreneurs' subjective wellbeing level.

7. Study limitations and future research

Some limitations noted in this study might offer motivation for future research. The data for this study was collected from only one region of Indonesia (i.e. Surabaya and its surroundings), with more female respondents—a large number of potential male respondents, who were mostly individual scheme borrowers, declined to participate. As a consequence, the heterogeneity of the samples might not be adequate to precisely represent the entire population. Hence, future studies involving a larger and more heterogeneous sample gathered from other regions, with more gender balance might be useful.

Banking-microfinance institutions (i.e. commercial banks and BPR) could not participate in the survey. Banking regulations (e.g. the customer privacy regulations) prohibit these institutions from sharing customer-related information. Therefore, it might be useful to find a way to include banking-MFIs' borrowers in future studies because they often have relatively better management skills than the unbankable ones. Future studies might also include more explanatory variables to provide deeper explanations of the relationships noted in this study: e.g., why some successful micro-entrepreneurs keep borrowing high cost microcredit for long periods, and whether any other important factors contribute to micro-entrepreneurs' subjective wellbeing.

Despite above limitations, the findings of this primary-survey based research provides a solid basis for policymakers and other relevant stakeholders, including donor agencies, to initiate a reform or policy development agenda relating to the substantially expanding microfinance industry, not only in Indonesia but elsewhere in other developing economies as well. These might include providing micro-entrepreneurs with management and business skills to improve the effectiveness of loans utilisation, and mitigating the adverse impact of the loans on the entrepreneurs' subjective wellbeing.

This study then makes significant contribution to the existing body of knowledge on micro-entrepreneurs' subjective wellbeing.

BIBLIOGRAPHY

Abell, P., Crouchley, R., & Mills, C. (2001). Social Capital and Entrepreneurship in Great Britain. *Enterprise & Innovation Management Studies, 2*(2), 119-144.

Adler, P. S., & Kwon, S.-W. (2002). Social capital: Prospects for a New Concept. *The Academy of Management Review, 27*(1), 17-40.

Aldrich, H. E., & Cliff, J. E. (2003). The pervasive effects of family on entrepreneurship: toward a family embeddedness perspective. *Journal of Business Venturing, 18*(5), 573-596.

Allen, T. D. (2001). Family-Supportive Work Environments: The Role of Organizational Perceptions. *Journal of Vocational Behavior, 58*(3), 414-435.

Anna, A. L., Chandler, G. N., Jansen, E., & Mero, N. P. (2000). Women Business Owners in Traditional and non-Traditional Industries. *Journal of Business Venturing, 15*(3), 279-303.

Anthony, D. (2005). Cooperation in Microcredit Borrowing Groups: Identity, Sanctions, and Reciprocity in the Production of Collective Goods. *American Sociological Review, 70*(3), 496-515.

Armendariz, B., & Morduch, J. (2010). *The Economics of Microfinance* (2nd ed.). Cambridge, MA: The MIT Press.

Attanasio, O., Augsburg, B., De Haas, R., Fitzsimons, E., & Harmgart, H. (2013). *Group Lending or Individual Lending? Evidence from a Randomized Field Experiment in Rural Mongolia*. Discussion Paper. Tilburg University.

Audretsch, D. B., & Belitski, M. (2015). *Is Happiness Conducive to Entrepreneurship? Eksploring Subjective Wellbeing - Entrepreneurship Relationship across Major European Cities*. Henley Discussion Paper Series. Discussion Paper. Henley Centre for Entrepreneurship. United Kingdom.

Banerjee, A. V., Besley, T., & Guinnane, T. W. (1994). The Neighbor's Keeper: The Design of a Credit Cooperative with Theory and a Test. *The Quarterly Journal of Economics, 109*(2), 491-515.

Bates, T. (1995). Self-employment Entry Across Industry Groups. *Journal of Business Venturing, 10*(2), 143-156.

Beck, T., & Al-Hussainy, E. (2010). *Financial Structure Dataset*. Washington D.C: World Bank.

Besley, T., & Coate, S. (1995). Group Lending, Repayment Incentives and Social Collateral. *Journal of Development Economics, 46*(1), 1-18.

Bhole, B., & Ogden, S. (2010). Group Lending and Individual Lending with Strategic Default. *Journal of Development Economics, 91*(2), 348-363.

Bird, B., & Brush, C. G. (2002). A Gendered Perspective on Organizational Creation. *Entrepreneurship Theory and Practice, 26*(3), 41-65.

Blanchflower, D. G., & Oswald, A. J. (1998). What Makes an Entrepreneur? *Journal of Labor Economics, 16*(1), 26-60. doi: 10.1086/209881

Blanchflower, D. G., & Oswald, A. J. (2004). Well-being Over Time in Britain and the USA. *Journal of Public Economics, 88*(7–8), 1359-1386.

Blanchflower, D. G., & Oswald, A. J. (2008). Is Well-being U-shaped Over the Life Cycle? *Social Science & Medicine, 66*(8), 1733-1749.

Borooah, V. K. (2005). How to Assess Happiness? A Tale of Three Measures. *Applied Economics Letters, 12*(3), 191-194.

Bosma, N., van Praag, M., Thurik, R., & de Wit, G. (2004). The Value of Human and Social Capital Investments for the Business Performance of Startups. *Small Business Economics, 23*(3), 227-236.

Bracker, J., & Pearson, J. N. (1986). Planning and Financial Performance of Small, Mature Firms. *Strategic Management Journal, 7*(6), 503-522.

Bridges, S., & Disney, R. (2010). Debt and Ddepression. *Journal of Health Economics, 29*(3), 388-403.

Brown, S., Taylor, K., & Wheatley Price, S. (2005). Debt and Distress: Evaluating the Psychological Cost of Credit. *Journal of Economic Psychology, 26*(5), 642-663.

Bruderl, J., & Preisendorfer, P. (1998). Network Support and the Success of Newly Founded Businesses. *Small Business Economics, 10*(3), 213-225.

Bruni, L., & Stanca, L. (2008). Watching Alone: Relational Goods, Television and Happiness. *Journal of Economic Behavior & Organization, 65*(3–4), 506-528.

Brush, C. G. (1992). Research on Women Business Owners: Past Trends, a New Perspective and Future Directions. *Entrepreneurship: Theory & Practice, 16*(4), 5-30.

Bruton, G. D., Khavul, S., & Chavez, H. (2011). Microlending in Emerging Economies: Building a New Line of Inquiry from the Ground Up. *Journal of International Business Studies, 42*(5), 718-739.

Clark, A. E. (2003). Unemployment as a Social Norm: Psychological Evidence from Panel Data. *Journal of Labor Economics, 21*(2), 323-351.

Coleman, J. S. (1988). Social Capital in the Creation of Human Capital. *American Journal of Sociology, 94*, S95-S120. doi: 10.2307/2780243

Cooper, A. C., Gimeno-Gascon, F. J., & Woo, C. Y. (1994). Initial Human and Financial Capital as Predictors of New Venture Performance. *Journal of Business Venturing, 9*(5), 371-395.

Cooper, A. C., Woo, C. Y., & Dunkelberg, W. C. (1988). Entrepreneurs' Perceived Chances for Success. *Journal of Business Venturing, 3*(2), 97-108.

Copestake, J., Bhalotra, S., & Johnson, S. (2001). Assessing the Impact of Microcredit: A Zambian Case Study. *Journal of Development Studies, 37*(4), 81-100.

Cruz, C., Justo, R., & De Castro, J. O. (2012). Does Family Employment Enhance MSEs Performance? Integrating Socioemotional Wealth and Family Embeddedness Perspectives. *Journal of Business Venturing, 27*(1), 62-76.

Cummins, R. A., Eckersley, R., Kai, L. S., Okerstrom, E., Davern, M., & Woener, J. (2004). The Well-being of Australians – Personal Financial Debt *Australian Unity Well-being Index Survey 11*. Melbourne: Australian Centre on Quality of Life Deakin University.

Demirguc-Kunt, A., Beck, T., & Honohan, P. (2008). *Finance for All? Policies and Pitfalls in Expanding Access*. New York: World Bank Publications.

Diener, E., & Biswas-Diener, R. (2005). Psychological Empowerment and Subjective Well-being. In D. Narayan (Ed.), *Measuring empowerment: Cross-disciplinary perspectives* (Vol. 125). Washington DC: The World Bank.

Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective Well-being: Three Decades of Progress. *Psychological Bulletin, 125*(2), 276-302.

Dolan, P., & Metcalfe, R. (2012). The Relationship between Innovation and Subjective Wellbeing. *Research Policy, 41*(8), 1489-1498.
Dolan, P., Peasgood, T., & White, M. (2006). Review of Research on the Influences on Personal Well-being and Application to Policy Making *Report for Defra*. London.
Easterlin, R. A. (2001). Income and Happiness: Towards a Unified Theory. *The Economic Journal, 111*(473), 465-484.
Easterlin, R. A. (2005). Building a Better Theory of Wellbeing. In L. Bruni & P. L. Porta (Eds.), *Economics and Happiness: Framing the Analysis* (pp. 29-64). Oxford: Oxford University Press.
Easterlin, R. A., & Sawangfa, O. (2009). *Happiness and Economic Growth: Does the Cross Section Predict Time Trends? Evidence from Developing Countries*. IZA Discussion Paper No. 4000. Institute for the Study of Labor (IZA).
Ellis, A. N., Orlando, M. B., Muñoz Boudet, A. M., Piras, C., Reimao, M., Cutura, J., . . . de Castro, O. (2010). Women's Economic Opportunities in the Formal Private Sector in Latin America and the Caribbean: A Focus on Entrepreneurship: Inter-American Development Bank.
Evans, D. S., & Jovanovic, B. (1989). An Estimated Model of Entrepreneurial Choice under Liquidity Constraints. *Journal of Political Economy, 97*(4), 808-827.
Feigenberg, B., Field, E. M., & Pande, R. (2010). Building Social Capital through Microfinance *NBER Working Paper Series*: National Bureau of Economic Research.
Ferrer-i-Carbonell, A. (2005). Income and Well-being: an Empirical Analysis of the Comparison Income Effect. *Journal of Public Economics, 89*(5–6), 997-1019.
Ferrer-i-Carbonell, A. (2013). Happiness Economics. *SERIEs, 4*(1), 35-60.
Ferrer-i-Carbonell, A., & Gowdy, J. M. (2007). Environmental Degradation and Happiness. *Ecological Economics, 60*(3), 509-516.
Fischer, G. (2013). Contract Structure, Risk-Sharing, and Investment Choice. *Econometrica, 81*(3), 883-939.
Frey, B. S., & Stutzer, A. (2000). Happiness, Economy and Institutions. *The Economic Journal, 110*(466), 918-938.
Frey, B. S., & Stutzer, A. (2002). What Can Economists Learn from Happiness Research? *Journal of Economic Literature, 40*(2), 402-435.
Frijters, P., Haisken-DeNew, J. P., & Shields, M. A. (2004). Investigating the Patterns and Determinants of Life Satisfaction in Germany Following Reunification. *Journal of Human Resources, 39*(3), 649-674.
Garikipati, S. (2008). The Impact of Lending to Women on Household Vulnerability and Women’s Empowerment: Evidence from India. *World Development, 36*(12), 2620-2642.
Gerdtham, U.-G., & Johannesson, M. (2001). The Relationship between Happiness, Health, and Socio-economic Factors: Results based on Swedish Microdata. *The Journal of Socio-Economics, 30*(6), 553-557.
Giné, X., Jakiela, P., Karlan, D., & Morduch, J. (2010). Microfinance Games. *American Economic Journal: Applied Economics, 2*(3), 60-95.
Granovetter, M. (1983). The Strength of Weak Ties: a Network Theory Revisited. *Sociological Theory, 1*(1), 201-233.
Granovetter, M. (1985). Economic Action and Social Structure: The Problem of Embeddedness. *American Journal of Sociology, 91*(3), 481-510.
Hamada, M. (2010). Commercialization of Microfinance in Indonesia: the Shortage Funds and the Linkage Program. *The Developing Economies, 48*(1), 156-176.

Hansen, E. L. (1995). Entrepreneurial Networks and New Organization Growth. *Entrepreneurship: Theory & Practice, 19*(4), 7-19.
Harsanyi, J. C. (1996). Utilities, Preferences, and Substantive Goods. *Social Choice and Welfare, 14*(1), 129-145.
Helliwell, J. F. (2003). How's Life? Combining Individual and National Variables to Explain Subjective Well-being. *Economic Modelling, 20*(2), 331-360.
Helliwell, J. F., & Putnam, R. D. (2004). The Social Context of Well–being. *Philosophical Transactions of the Royal Society of London. Series B: Biological Sciences, 359*(1449), 1435-1446.
Hoang, H., & Antoncic, B. (2003). Network-based Research in Entrepreneurship: A Critical Review. *Journal of Business Venturing, 18*(2), 165-187.
Kahneman, D., & Sugden, R. (2005). Experienced Utility as a Standard of Policy Evaluation. *Environmental and Resource Economics, 32*(1), 161-181.
Kahneman, D., Wakker, P. P., & Sarin, R. (1997). Back to Bentham? Explorations of Experienced Utility. *The Quarterly Journal of Economics, 112*(2), 375-405.
Karlan, D., & Zinman, J. (2011). Microcredit in Theory and Practice: Using Randomized Credit Scoring for Impact Evaluation. *Science, 332*(6035), 1278-1284.
King, L. A., Mattimore, L. K., King, D. W., & Adams, G. A. (1995). Family Support Inventory for Workers: A New Measure of Perceived Social Support from Family Member. *Journal of Organizational Behaviour, 16*, 235-258.
Kreps, D. M., Milgrom, P., Roberts, J., & Wilson, R. (1982). Rational Cooperation in the Finitely Repeated Prisoners' Dilemma. *Journal of Economic Theory, 27*(2), 245-252.
MacKerron, G. (2012). Happiness Economics from 35 000 Feet. *Journal of Economic Surveys, 26*(4), 705-735.
Okun, M. A., & Stock, W. A. (1987). Correlates and Components of Subjective Well-Being Among the Elderly. *Journal of Applied Gerontology, 6*(1), 95-112.
Oswald, A. J. (1997). Happiness and Economic Performance. *The Economic Journal, 107*(445), 1815-1831.
Parker, S. C. (2009). *The Economics of Entrepreneurship*. New York: Cambridge University Press.
Paxton, P. (1999). Is Social Capital Declining in the United States? A Multiple Indicator Assessment. *American Journal of Sociology, 105*(1), 88-127.
Peiró, A. (2006). Happiness, Satisfaction and Socio-economic Conditions: Some International Evidence. *The Journal of Socio-Economics, 35*(2), 348-365.
Pichler, F. (2006). Subjective Quality of Life of Young Europeans. Feeling Happy but Who Knows Why? *Social Indicators Research, 75*(3), 419-444.
Powell, G. N., & Eddleston, K. A. (2013). Linking Family-to-Business Enrichment and Support to Entrepreneurial Success: Do Female and Male Entrepreneurs Experience Different Outcomes? *Journal of Business Venturing, 28*(2), 261-280.
Rahman, A. (1999). Micro-credit Initiatives for Equitable and Sustainable Development: Who Pays? *World Development, 27*(1), 67-82.
Rehdanz, K., & Maddison, D. (2005). Climate and Happiness. *Ecological Economics, 52*(1), 111-125.
Schuler, S. R., Hashemi, S. M., Riley, A. P., & Akhter, S. (1996). Credit Programs, Patriarchy and Men's Violence against Women in Rural Bangladesh. *Social Science & Medicine, 43*(12), 1729-1742.

Selenko, E., & Batinic, B. (2011). Beyond Debt. A Moderator Analysis of the Relationship between Perceived Financial Strain and Mental Health. *Social Science & Medicine, 73*(12), 1725-1732.

Shepherd, D. A., McMullen, J. S., & Jennings, P. D. (2007). The Formation of Opportunity Beliefs: Overcoming Ignorance and Reducing Doubt. *Strategic Entrepreneurship Journal, 1*(1-2), 75-95.

Stevenson, B., & Wolfers, J. (2008). *Economic Growth and Subjective Well-Being: Reassessing the Easterlin Paradox*. Brookings Papers on Economic Activity, Economic Studies Program, The Brookings Institution, vol 39 (1)(Spring), pages 1-102.

Stiglitz, J. E. (1990). Peer Monitoring and Credit Markets. *The World Bank Economic Review, 4*(3), 351-366.

Sumner, L. W. (1996). *Welfare, Happiness and Ethics*. Oxford: Clarendon Press.

Sweet, E., Nandi, A., Adam, E. K., & McDade, T. W. (2013). The High Price of Debt: Household Financial Debt and Its Impact on Mental and Physical Health. *Social Science & Medicine, 91*, 94-100.

Tsai, M.-C., Dwyer, R. E., & Tsay, R.-M. (2016). Does Financial Assistance Really Assist? The Impact of Debt on Wellbeing, Health Behavior and Self-Concept in Taiwan. *Social Indicators Research, 125*(1), 127-147.

Wiklund, J., & Shepherd, D. (2003). Aspiring for, and Achieving Growth: The Moderating Role of Resources and Opportunities. *Journal of Management Studies, 40*(8), 1919-1941.

Williamson, I. O. (2000). Employer Legitimacy and Recruitment Success in Small Businesses. *Entrepreneurship: Theory & Practice, 25*(1), 27.

Winkelmann, L., & Winkelmann, R. (1998). Why Are the Unemployed So Unhappy? Evidence from Panel Data. *Economica, 65*(257), 1-15.

World Bank. (2010). Improving access to financial services in Indonesia. Washinton D.C: The World Bank.

Micro-entrepreneurs' Subjective Wellbeing: Does loan enhance happiness?

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