



Happiness of Indonesian Female Entrepreneurs Owning Micro, Small, and Medium Enterprises

MSc Strategy Economics
Regita Yuniar Ayuningtyas – 526010

Supervisor: Dr. Martijn Burger
Co-Reader: Dr. Spyridon Stavropoulos

January 2021

Preface

This research is inspired by the existing environment in Indonesia that is still highly favouring men compared to women. Not only within the entrepreneurial world, but also on a daily basis. Females are still viewed as the 'second sex' and that male domination is widely common. Based on this phenomenon, the author is compelled to conduct a more in-depth study in regards to the socio-cultural aspects affecting the happiness of female entrepreneurs. Despite being underestimated most of the time, Indonesian female entrepreneurs have a significant impact in a broader society, thus, their happiness matters.

Acknowledgement

During the period of my Master's program, I am highly fortunate that I could learn from numerous remarkable professors from the Erasmus School of Economics. I am sincerely thankful for the knowledge they have taught me. Especially to my thesis supervisor Dr. Martijn Burger, I cannot thank him enough for his guidance during my thesis writing process. I highly appreciate the time and effort he had dedicated for me, especially during this pandemic that may cause distressed to everybody.

I am also highly grateful for the people I am surrounded with, whom I can call friends. The one who is living with me in marco, those in chris and jaffa, you know who you are. Thank you for being the good friends I didn't know I need, podcasts we will never posts, the philosophical evening talks, impromptu basketball games, and many more than I could think of. Thank you for making my life in the Netherlands more bearable. Also to my family; Mom, Dad, Sis, and my niece, thank you for all of your endless supports and prayers for this kid. Last but not least, my partner, Yud. Thank you for always believing in me when I mostly don't. I will be forever grateful for your existence.

Abstract

Happiness of female entrepreneurs in Indonesia is one essential yet underrated factor that influence their productivity in the workforce. With the massive role of MSMEs – that mainly owned by women – towards the nation’s growth, it is essential to encourage these female entrepreneurs to be productive. Especially when they are faced with various challenges that may act as hindrance to their wellbeing. This study observes Indonesian female entrepreneurs happiness in comparison to their male counterparts, and factors influencing their happiness level. Considering Indonesia’s rather strong belief in socio-cultural backgrounds. This study is using the data from Indonesia Family Life Survey (IFLS) wave 5 in 2014, and applying ordered probit methodology. The result shows that in Indonesia, female entrepreneurs are less likely to feel happy compared to the males, and that being married is one factor that influences their unhappiness. However, there are no evidence suggesting that other factors such as religion, religiousness, education, and area of living are affecting female entrepreneurs’ happiness, despite their significance in the general sample of entrepreneurs.

Keywords: Happiness, Female Entrepreneurs, MSMEs, IFLS.

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1. INTRODUCTION

There has been a growing interest in economic researches on happiness. Among a diverse determinants of an individual's happiness, employment status is becoming one of the highlighted factors. There are evidence indicating that unemployed individuals are much less happy than the others despite the level of income (Clark & Oswald, 1994; Winkelmann & Winkelmann, 1998). In other words, people value employment more than the income it may generate (Benz & Frey, 2008). To be employed, particularly those who are self-employed, provides a distinct advantage called the 'procedural utility'. It is where individuals value the process of achieving the outcome, and not merely valuing the outcome they later obtain (Benz & Frey, 2008). Self-employed individuals may derive procedural utility through the advantages of having more decision autonomy, flexibility, and skills development (Verheul, Wennekers, Audretsch, & Thurik, 2002; Prottas & Thompson, 2006; Meager, 2015). Allowing them to control their own actions, thus satisfying a basic human psychological need (Lind & Tyler, 1988; Ryan & Deci, 2000). It is in line with a wide range of research, suggesting that being self-employed (i.e. entrepreneurs) is positively correlated with an individual's happiness level partly due to the aforementioned advantages they have (Blanchflower & Oswald, 1992; Binder & Coad, 2013; Kara & Petrescu, 2018).

While the existing researches are mainly discussing happiness of entrepreneurs in developed countries, studies in developing countries are considered limited. Differences in the socio-economic and cultural environment may have a significant role in the relationship between self-employment and happiness in developing countries, so that the general positive relationship may not necessarily hold (Aguilar, Muñoz, & Moro-Egido, 2013; Welsh, Kaciak, Trimi, & Mainardes, 2018). Motivation behind the business creation may also affect the relationship between entrepreneurship and happiness. Individuals in developed countries are more likely to become entrepreneurs because of the available opportunity, hence they have more room for skill development. Whereas in most developing countries, more individuals are forced into self-employment due to the necessity to escape poverty (Tambunan, 1994, 2008; Orlando & Pollack, 2000; Oyelana & Adu, 2015; Thapa, 2016; Lateh, Mohammad, & Ab, 2017; Rambe & Mosweunyane, 2017). Hence, a more in-depth research is needed in understanding the country-specific factors that may act as hindrance for entrepreneurs to obtain a higher level of happiness.

In the case of Indonesia, research related to happiness of entrepreneurs is rather inadequate. It may considerably peculiar, since the domestic economic activities is greatly dominated by small businesses – especially the micro, small, and medium-sized enterprises (MSMEs) – which are widely dispersed across the country (Badan Pusat Statistik, 2016; Tambunan, 2019). The majority of these MSMEs are owned by women (approximately 60% of total MSMEs), representing a quarter of active labor force (Asia Foundation, 2013; Melissa, Hamidati, Saraswati, & Flor, 2015). Despite the important role of female entrepreneurs in the Indonesian economy, there is a little to no research concerning their well-being (i.e. happiness). Considering that Indonesian women have to face a certain degree of additional challenges when engaging in entrepreneurial activity. Such as a high expectation in fulfilling their dual role as a mother and a business owner, lower financial accessibility and educational attainment compared to men, strong patriarchal and religious values, to name a few.

Therefore, the first and main objective of this study is to assess the happiness level of Indonesian female entrepreneurs, as an additional approach to enhance MSMEs' productivity. Several studies have suggested that happier individuals tend to be more productive at work as they become friendlier and more cooperative with their co-workers, having less absenteeism, and being more pragmatic (Judge & Watanabe, 1993; Judge, Thoreson, Bono, & Patton, 2001; Keyes & Magyar-Moe, 2003; Russell, 2008). Other evidence also suggests that happier individuals engaged more in works and have a better relationship with their colleagues and clients (George & Brief, 1992; Pavot & Diener, 1993; Spector, 1997; Wright & Cropanzano, 2000). In light of the advantages of happiness could bring to a workplace, research on determinants of happiness are becoming more prominent, especially within MSMEs, considering their significant role in enhancing a country's economic growth.

Another objective is to see whether the positive relationship between entrepreneurs and happiness applies for female entrepreneurs, in comparison to male entrepreneurs in Indonesia. Moreover, religious and social values' degree of influence and other aforementioned challenges are relatively different when the individuals are living in urban areas compared to living in rural areas. Hence, we also assess whether the differences in the area of living affect female entrepreneurs' happiness.

To answer our research objectives, this study uses an extensive dataset from the 5th wave Indonesia Family Life Survey (IFLS5) year 2014, with a final sample consisting 7,247 entrepreneur respondents owning MSMEs.

The remainder of the paper is structured as follows. The next chapter discusses the concept of happiness, MSMEs, female entrepreneurs, and the related literatures concerning these subjects in developing countries and Indonesia, followed by the hypotheses' development. Chapter 3 elaborates the data description, data summaries, and variables correlation, and further explaining the methodology used to address the objective of this research. Chapter 4 continues with the result. Lastly, Chapter 5 provides the discussion, limitations of the research, and suggested measures.

2. LITERATURE REVIEW

In this chapter, the relationship between happiness and female entrepreneurship in MSMEs will be examined. We begin with a conceptualization and the relationship between each of the subject. Subsequently, we discuss the current situations faced by Indonesian female entrepreneurs and the challenges that may associated with their level of happiness. Lastly, hypotheses will be developed accordingly, following the suggested theories and existing literatures.

2.1. Concepts

2.1.1. Happiness

Individuals refer themselves as being happy when they are perceived to feel so, as it is linked with their current emotional conditions (Diener, 1984). Such conceptualization of happiness underlines the subjective nature of happiness, considering an individual as their own judge of their experience of being happy (Myers & Diener, 1995). Therefore, happiness scholars have been using the term ‘subjective well-being’ as it captures the scope of subjectivity of happiness (Diener, Tov, & Kesebir, 2009), and it will also be used interchangeably alongside the term happiness in this study.

According to Diener and Larsen (1993), a reportedly high level of subjective well-being is experienced by people who are striving for and make progress towards their own personal goals, fulfilling their meaning, purpose, and the main drivers of their own well-being. It is important to underline that one’s self-reported well-being does not reflect any empty-headed cheerfulness or raw hedonism. Researchers who have been working on the topic of subjective well-being are focusing to understand people’s self-reported evaluation of their lives, believing its scientific credibility and meaningfulness (Diener, Tov, & Kesebir, 2009).

Subjective well-being comprises of two components, affective (i.e. emotional) and cognitive (Diener, 1984; Lucas, Diener, & Suh, 1996; Schimmack, 2008; Buseri & Sadava, 2011). Affective well-being is the frequency and intensity of emotions and mood (e.g. joy and contentment), according to one’s subjective evaluation of their activities and events. While cognitive well-being is a subjective evaluation of one’s global life circumstances, such as life and marriage satisfaction (Luhmann, Hawkley, Eid, & Cacioppo, 2012).

This study will be focusing on the affective component of subjective well-being. We define happiness as a person’s self-reported feeling of being happy, considering everything that happens in an individual’s daily life over the past period. Given that happiness is not merely a

temporary feeling or, as mentioned earlier, raw hedonism (Diener & Oishi, 2003; Diener, Tov, & Kesebir, 2009; Luhmann, Hawkley, Eid, & Cacioppo, 2012). Therefore, to measure happiness, this study will be using the single-item scale from the Indonesian Family Life Survey (IFLS). The question asked in the survey is “Taken all together, how would you say things are these days – would you say that you are very happy, pretty happy, unhappy, or very unhappy?”. The similar survey question to measure happiness is in line with the United States General Social Survey all the way back in 1972 (GSS; Easterlin, 2003).

2.1.2. Female Entrepreneurs owning MSMEs

Parker (2009) suggested, also mentioned in a thesis by Mitsou (2017), entrepreneurship is defined as a multilevel and multidisciplinary occupation with varying perspectives. The focus shifted from merely entrepreneurial activities to also consider entrepreneurs’ dynamic interactions of attitude and aspirations (Ács & Szerb, 2010).

In the entrepreneurial world, female entrepreneurs are representing the fastest-growing category of entrepreneurship (Cardella, Hernández-Sánchez, & Sánchez-García, 2020). Among 63 economies surveyed in the Global Entrepreneurship Monitor (GEM) Report 2015 and 2018, women’s Total Entrepreneurial Activity (TEA) have increased by 10% (Global Entrepreneurship Monitor, 2019). Most notably, the percentage of women-owned businesses worldwide has increased from 24% to 42% within two decades (Susanto, Gunawan, Gunawan, & van Dijk, 2017). In East Asia alone, the total number of female entrepreneurs is growing at a rate of 3.6% faster than the male entrepreneurs (The World Bank, 2016).

Over the past decades, society has witness gradual changes in the role of women. There is a greater awareness of women’s inclusivity in business activities, and for these women to consider entrepreneurship as a career opportunity (Sudha, 2011). Given that in some countries, particularly the majority of developing countries, women are expected to perform household tasks and responsibilities. According to Rajesham & Raghava (2004), half of the world’s population are female, and two-third of the world’s income is generated by women. Kelley, Brush, Green, & Litovsky (2013) suggested that if women were not actively involved as entrepreneurs, job opportunities for almost half of the global population would be lost.

Women inclusiveness as entrepreneurs have received greater government attention due to their significance in increasing employment rate and their contribution to economic growth (Van Dijk, Van der Meer, & Van der Borg, 2013). In addition to their contribution to economic growth, women-owned businesses have proven to be more resilient during period of financial

crisis in 2007 (Womenable, 2014). These women-owned businesses can be more resilient in a period of crisis, since the majority of them are small-sized businesses that provide goods and services close to the consumers' daily needs. Thus, there is not much impact on the consumer demand. In addition, they also utilized more domestic resources, so that they are not depending on imported resources (Meryana, 2012).

Specifically, businesses run by the women mainly fall into the category of MSMEs. Globally, MSMEs represent approximately 90% of businesses, and more than 50% of employment. According to The World Bank estimations, approximately 600 million jobs will be needed by the year of 2030 following the increasing global workforce. Hence, MSMEs' development becomes a high priority for governments around the world (The World Bank, n.d.). In emerging economies, SMEs contribute to approximately 45% of total employment and 33% of GDP (Liberto, 2020).

The characterization of MSMEs varies in every country according to the number of employees in the business. For instance, the European Union (EU) characterizes MSMEs according to the number of employees. Micro-sized enterprises (MIE) are companies with fewer than 10 employees, small-sized (SE) enterprises as companies employing less than 50 employees, and medium-sized (ME) enterprises as companies employing less than 250 employees (Liberto, 2020). Whereas in Indonesia, *Badan Pusat Statistik* (Central Bureau of Statistics) suggests that MIE employs 0-4 people, SE employs 5-9 people, and ME employs 20-99 people. We can see that in comparison with the EU, Indonesia's characterization of MSMEs has a much fewer number of employees (Tambunan, 2019).

2.2. Happiness and Female Entrepreneurship

2.2.1. Happiness and Entrepreneurship: Does the happiness premium applies to all entrepreneurs?

A large body of research have associated self-employment with an increasing level of happiness in comparison to the wage workers (Blanchflower & Oswald, 1992; Binder & Coad, 2013; Kara & Petrescu, 2018). This positive relationship is the result of particular happiness advantages that entrepreneurs enjoy because of the nature of the job. As mentioned in a study by Sevä, Vinberg, Nordenmark, & Strandh (2016), self-employment offers entrepreneurs more flexibility, hence, they tend to find their job more satisfying (Loscocco & Roschelle, 1991). They also have less necessity to coordinate with different layer of co-workers and able to refrain themselves from doing monotonous work. Therefore, factors such as the high autonomy

and the absence of hierarchy also play an important role in enhanced individual's happiness (Hackman & Oldham, 1975; Hundley, 2001; Benz & Frey, 2004).

At the same time, there is a certain degree of heterogeneity within a group of entrepreneurs, which take place in both individual- and firm-level. Gender, personality (i.e. characteristics) and motivations (opportunity vs. necessity) may moderate the relationship between entrepreneurship and happiness. For instance, an entrepreneur's personality may vary in terms of their perspective towards independence. Entrepreneurs whom valuing independence higher than the others (i.e. independence type), tend to experience a larger increase in their job satisfaction by becoming self-employed. While those with a more hierarchical values could experience otherwise (Fuchs-Schundeln, 2009). Moreover, working conditions such as whether or not these entrepreneurs have businesses with employees, and varying legal forms of enterprises may matter (Aldrich & Renzulli, 1981; Fuchs-Schundeln, 2009; Sevä, Vinberg, Nordenmark, & Strandh, 2016). Thus, it remains a question whether only a certain type of entrepreneur can benefit from being self-employed.

Despite the general positive relationship between entrepreneurship and happiness, there may also be factors that may deteriorate an entrepreneur's level of happiness. Being self-employed may lead individuals to face a greater risk and uncertainty when the market is unstable (Mandel, 1996). They also have to work longer hours, given higher responsibility of their own workload and income, thus having fewer free time. Compared to wage workers with designated working hours and job responsibility. Therefore, entrepreneurs may experience a significantly lower level of work-life balance compared to wage workers (Nordenmark, Vinberg, & Strandh, 2012; Johansson Sevä & Oun, 2015). This may affect female entrepreneurs the most; regardless their long working hours, they still have to fulfil the expectation to be responsible of completing household chores and taking care of children (Parasuraman & Simmers, 2001).

In sum, the degree in which entrepreneurship affecting an individual's level of happiness differ according to one's background and the environment surrounding them. The previous research mainly find a positive relationship between entrepreneurship and happiness, as they tend to treat entrepreneurs as a homogenous group (Sevä, Vinberg, Nordenmark, & Strandh, 2016). When considering the diversity of self-employed individuals, we can observe that the effect varies – between male and female, perspectives of independence, with employees and no employees, to name a few. Since each entrepreneurs may perceive a certain benefit of being an entrepreneur differently, their happiness level comprises of different trade-offs between one aspect to another.

2.2.2. Happiness and Female Entrepreneurship in Developing Countries

Many scholars have proven the differences of happiness level between male and female. There is some evidence that in general, women are happier than men (Easterlin, 2003; Marcelli & Easterlin, 2005; Stevenson & Wolfers, 2009; Herbst, 2010; Lalive & Stutzer, 2010; Vieira-Lima, 2011; Graham & Chattopadhyay, 2012). However, such effect may vary across countries and may depend on the countries' development level. Graham & Chattopadhyay's (2012) further suggested that gap between both genders' happiness are greater in countries with higher levels of development. In other words, women are the happiest compared to men in higher-income countries. This trend is also found in the Urban-rural happiness differences between Sub-Sahara Africa (SSA) and NWEAS¹ in the World Happiness Report 2020. The gap of happiness level between men and women in NWEAS is the largest, particularly those who are living in rural areas (Helliwell, Layard, Sachs, & De Neve, 2020).²

When it involves the subject specifically to self-employed women, several studies argue that female entrepreneurs are faced with distinct challenges that affect their business performance and well-being (Mandipaka, 2014; Kabote, 2018). Such as limited access to capital, inadequacy of business skills, low educational attainment, male dominance, and limited mobility (Bajpai, 2014; Gichuki, Mulu-Mutuku, & Kinuthia, 2014; Kapinga & Montero, 2017; Singh & Sebastian, 2018). Kabote (2017; 2018) further suggests that micro-level determinants of female entrepreneurs may affect their business performance and hence, determine their well-being. These determinants are grouped into: (1) Socio-economic characteristics such as wealth, marital status, education, employment status, etc. (Sen, 1992; White, 2007; Minkov, 2009; Sarracino, 2010; Degutis & Urbonavicius, 2013); (2) Demographic characteristic comprises of age, gender, presence of children, and health (Sen, 1992; Degutis & Urbonavicius, 2013); and (3) Cultural characteristics that involved total ways of life (Diener, 2000).³

Despite the existing challenges, a study of women in rural Tanzania shows a positive relationship between entrepreneurship and well-being (Kabote, 2018). This effect may occur due to, predominantly, women in Africa – particularly SSA – have reported a very low score of well-being. Seen on the Ranking of Happiness 2017-2019, Tanzania ranked 148th out of 153 countries, and many other SSA countries remain in the bottom 10 (Helliwell, Layard, Sachs, & De Neve, 2020). Moreover, considering the region is categorized as lower-income

¹ Northern and Western Europe, Northern America, Australia and New Zealand

² Figure 4.6 and 4.8. World Happiness Report 2020. pp. 97, 100.

³ See more: Kabote (2017) pp. 31

country, a slight increase in income would increase their marginal benefit even more, hence improving their well-being. Given that the satisfaction of primary needs has not yet been fully fulfilled (Kenny, 1999).

Challenges for female entrepreneurs are also explained in a study of women-owned family businesses in Brazil (Welsh et al., 2018). In Brazil, the majority (approximately 70%) of women-owned businesses fall into category of SMEs and operating without any employees. From a cultural perspective, Brazil is also considered as a country with high ‘masculinity’ (i.e. patriarchal belief) (Hofstede, 2001), which is a common phenomenon in many developing countries (Cruz, Justo, & De Castro, 2012). The traditional gender roles are still considerably strong, and the shift in culture to be in favor of women is rather slow. Although it is already becoming more common for women to keep their carrier after marriage, they are still considered as the last choice to run a family business.

2.3. Case Study: Indonesia

In this study, we are focusing on the happiness of female entrepreneurs in Indonesia. Due to the limited research specific to happiness of female entrepreneurs in Indonesia, we will present evidence related to the existing challenges faced by Indonesian women that may affect their happiness level when they are engaged in entrepreneurial activity.

To begin with, Indonesia is ranked 95th out of 136 countries in Global Gender Gap Index 2014. Specifically, the country ranked 114 in economic participation and opportunity indicator – the lowest compared to other ASEAN member countries.⁴ The low rank suggests the high difficulty most women have to participate in the economic activity. Such difficulty reflects to the size of enterprises owned by women when they try to start a business. Tambunan (2019) shows based on the data of Central Bureau of Statistics, that the larger the size of the business, the more likely that the business is owned by men. In other words, the majority of women owns MIEs, while SEs and MEs are mainly owned by men. This data illustrates the trend where men are still dominating the larger and more modern businesses in Indonesia, while women are more active in informal businesses.

The differences in the size of business also indicating the motivation behind the business creation; whether due to a high entrepreneurial spirit or sign of poverty (i.e. opportunity vs. necessity). With the majority of Indonesian female entrepreneurs owning MIEs, this serves as an indication of high poverty among female entrepreneurs. Since MIE is the last option of an

⁴ Association of South East Asian Nation

individual to keep generating income and mostly run by the poor (Tambunan, 1994, 2008; Orlando & Pollack, 2000; Oyelana & Adu, 2015; Thapa, 2016; Lateh, Mohammad, & Ab, 2017; Rambe & Mosweunyane, 2017). Moreover, there is a high concentration of MIEs; 99% of the total number of existing MSMEs in Indonesia lies in the MIE category. Therefore, one may conclude that MSMEs in Indonesia are done by lower-level income individuals, particularly women, who are doing businesses out of necessity.

Challenges faced by Indonesian female entrepreneurs

In performing entrepreneurial activities, Indonesian women encountered distinct challenges in the society, which may affect their well-being to a certain degree. Due to the limited availability of literatures discussing happiness – particularly of female entrepreneurs – in Indonesia, we will discuss these possible factors that may affect their happiness and derive hypothesis in the latter section based on them.

One of many issues that arise is the low accessibility to higher education. In most rural areas, there are still common traditional beliefs that higher education is meant for men (Suharyo, 2005), considering women's future role is mainly to perform household chores and doing child care once they started a family, thus early marriage is still common (UN, 2003). They are left with heavy household chores and generally will have more children due to the conservative belief of “*banyak anak banyak rejeki*” which means more children, more blessings.

There are also other legal, traditions, customs, cultural, and religion aspects that may affect their involvement in economic activity. For instance, as Indonesia's dominant religion is Islam, the religion influence is rather strong, especially in rural areas compared to urban and a more modern areas such as Jakarta. According to Islamic belief, women must comply with the male head of the household who are either their father or husband, and it is more difficult for them to conduct activities outside their household responsibilities. The effect of religion on individuals may differ according to their degree of religiosity. Despite the boundaries a religion may set for its believers, individuals may perceive higher well-being when they comply to these set of values (Campante & Yanagizawa-Drott, 2013). In addition, one of many cultural aspects to be underlined is the strong patriarchal values that largely applied in the society (Purnamawati, Utama, Suartana, & Marhaeni, 2020), hence, only men are seen as the breadwinner of the family.

Compared to women in rural areas, women residing in urban areas have higher accessibility to higher education. They are supported with the environment's openness to the global

environment along with auxiliary infrastructures provided – the essential necessities to become an entrepreneur are more fulfilled. However, they are faced with additional challenges related to financial, organization, cooperation, and marketing issues. Yani, Ayu, Lestari, & Aamer (2019) conducted a survey to women entrepreneurs in Greater Jakarta area. The result shows that a majority of the total respondents reporting issues such as lack of consultation support in marketing, market research, advertising, legal, and financial issues (69.2%); cooperation in expense allocation (66.4%); instability of foreign exchange (66.0%); and more.⁵ Such diverse challenges may surface due to the difference in scale of businesses women entrepreneurs have in urban areas, compared to those in rural areas.

Regardless of the aforementioned challenges, women entrepreneurs in urban areas are also facing the same issue with the ones in rural areas related to socio-cultural norms – the demanding household responsibility which predominantly falls to women (Trade and Private Sector Assistance Project, 2018). In other words, when they are married and decided to be an entrepreneur, they perceived a dual role – a business woman and a mother, which in turn, doubled the pressure of having a work-life balance (Rahmi, 2017).

This dual role could further leave them more in isolation than what men generally experience (Moore & Buttner, 1997). Taken as an example where these entrepreneurs needed to engage in business networks, as highlighted by Hanson & Blake (2009) that it is essential to create and maintain business networks to ease their mobility of resources. However, the issue arises when networking would be harder for women since mostly both formal and informal networking may not be as open to women compared to men.

2.4. Hypotheses

The primary focus of this study is to assess the happiness level of female entrepreneurs owning MSMEs in Indonesia, taking into account moderating factors of the relationship between female entrepreneurship and happiness. We suggest several hypotheses to proceed with the analysis; whether female entrepreneurs are actually happier than male entrepreneurs, and whether challenges that these female entrepreneurs are facing in Indonesia affect their happiness level.

Despite the previous studies indicating that in general women are happier than men, the socio-cultural challenges women have to face in Indonesia may affect their happiness. Therefore, it is possible that they are not actually as happy. The evidence explained an

⁵ See: Yani, Ayu, Lestari, and Aamer (2019) p.3732-3734

environment where it seems to be more privileged to be a man compared to a woman, especially within the entrepreneurial world. Also considering the aforementioned finding that most women owned micro-sized enterprise (MIE), indicating that they are living in poverty, leaves them with an even higher pressure. In addition, Montgomery (2016) also questions whether women are really happier than men, as they may perceived the scale of self-reported happiness differently. The result is as expected; they are not. Therefore, the first hypothesis for this study is derived:

H₁: *Female entrepreneurs will have a lower likelihood to feel happy compared to male entrepreneurs*

Indonesia is a country with the largest Muslim population in the world. Taking into account the Islamic principle of behavior which may considerably contrasts with the notion of women engaged in entrepreneurial activity, this may negatively affect the women entrepreneurs' level of happiness. Nevertheless, there is evidence indicating that spending time with people from the same religious community is positively affecting happiness level (Sarracino, Subjective well-being in low income countries: positional, relational, and social capital components, 2007). Also, although conducting religious practices (i.e. fasting) may result in a lower productivity and income, religiousness still increases individuals' happiness level (Campante & Yanagizawa-Drott, 2013). Notwithstanding the puzzling phenomenon, I suggest the following hypothesis related to the impact of religion and religiousness in Indonesia:

H₂: *The association between female entrepreneurship and happiness is expected to be stronger for those with Islamic belief compared to non-Islam belief*

H_{2a}: *The association between female entrepreneurship and happiness is expected to be weaker for those with stronger religiousness*

Another important aspect that needs to be addressed is the level of educational attainment. Education plays a fundamental role in shaping nation's mentality, culture, and perception, which in turn affect how an individual perceived happiness (Castriota, 2006). Many scholars have mentioned the importance of education in moderating an individual's happiness (Cheung & Chan, 2009; Michalos, 2017; Striessnig, 2015). While studies in Indonesia also suggest that in general, educational attainment is positively affecting an individual's happiness level (Aryogi & Wulansari, 2016; Rahayu, 2016; Nandini & Afiatno, 2020; Ndayambaje, Pierewan, Nizeyumukiza, Nkundimana, & Ayriza, 2020; Firdautama, n.d.). With the considered low level

of educational attainment among Indonesian female entrepreneurs (The World Bank, 2016), this may act as one of the hindrances to reach a higher level of happiness. Hence, the following hypothesis is derived:

H₃: *Educational attainment will be positively correlated with the happiness level of female entrepreneurs*

In general, marriage is positively affecting an individual's happiness in the developing countries (Graham & Chattopadhyay, 2012). However, this trend may not occur for the women entrepreneurs. The aforementioned studies have suggested the strong patriarchal beliefs in most developing countries – including Indonesia – that put a high expectation on women to fulfil their role as a mother (Purnamawati, Utama, Suartana, & Marhaeni, 2020). Solely taking care of the children and doing household chores after they are married. Women are having a dual-role when they chose to become an entrepreneur after they got married, which in turn, adds another pressure to these women. Since they need to have a work-life balance (Rahmi, 2017). Hence, the following hypothesis is derived:

H₄: *Marriage will be negatively correlated with the happiness level of female entrepreneurs*

Last but not least, the challenges faced by women are different when they are living in rural or urban areas. The degree to which each aspect or challenge they faced influence their happiness may also differ. Therefore, the following hypothesis is derived:

H₅: *The association between female entrepreneurship and happiness is expected to be stronger in rural areas compared to in urban areas*

3. DATA & METHODOLOGY

In this section, we will discuss the dataset and variables we are using to address the hypotheses. Descriptive statistics and a correlation matrix will be provided, followed by a discussion of the econometric strategy for this thesis.

3.1. Data

This research is using a data from the Indonesia Family Life Survey 5th wave (IFLS5) 2014 – the latest version of IFLS – an on-going longitudinal survey that covers a wide scope of individual and household survey in Indonesia. It contains a total sample of over 30,000 individuals living in 13 out of 27 provinces across the country (Strauss, Witoelar, & Sikoki, 2016).⁶ The dataset from IFLS is used as it includes not only the subject of individual's subjective well-being i.e. happiness and other individual characteristics, but also household-specific factors that would mainly be unavailable in other sources. The dataset is broadly available for researches to enrich the academic literatures assessing Indonesian development, that may include individual and household concerns.

For the purpose of this research, the sample has been narrowed down to 7,247 individuals working as entrepreneurs. In this study, we specify entrepreneurs as self-employed individuals who employed permanent workers and also include those who employed unpaid or family workers in their business. The final sample is restricted to only include those who own a business with less than 100 employees, to meet the definition of MSMEs by Central Bureau of Statistics. It is formed by merging individual adult dataset and household dataset, to capture both individual and household characteristics. The sample is also restricted to only respondents aged 18 – 70, as it is considered a productive age range in Indonesia. Descriptive statistics of this sample will be provided in Table 1, along with the variable's correlation matrix presented in Table 2 in the latter section.

⁶ Provinces included in the data are: North Sumatra, West Sumatra, South Sumatra, Lampung, Bangka Belitung, South Kalimantan, West Sulawesi, South Sulawesi, Banten, DKI Jakarta, West Java, Central Java, DI–Yogyakarta, East Java, Bali, West Nusa Tenggara. IFLS stated 13 instead of 16 provinces because they include DKI Jakarta and Banten as West Java and DI–Yogyakarta as Central Java.

3.2. Variables

3.2.1. Description

Happiness

As mentioned in the first part of the literature review, this study is using self-reported single-item scale to measure the variable of *happiness*. It is measured based on the question of “Taking all things together how would you say things are these days – would you say you were very happy, happy, unhappy, or very unhappy?”. The respondents’ answer is ranging from the scale of 1 to 4, indicating their happiness level; (1) very unhappy, (2) unhappy, (3) happy, and (4) very happy.

Gender

To assess the different level of happiness among female entrepreneurs compared to the male counterparts (i.e. hypotheses 1), we need to underline the importance of variable *gender*. Although in many studies it is only considered as a controlled variable, the variable of gender is specifically being studied in this research. It is a binary variable that takes a value of 1 for female respondents and 0 for male respondents.

Religion

Variable *religion* is included to address hypotheses 2, on whether the magnitude of the effect between female entrepreneurs and happiness is different between those with Islamic and non-Islamic beliefs. Here, the variable of *religion* is a dummy variable that covers that takes a value of 1 for respondents with Islamic belief and 0 for other beliefs that includes Catholic, Protestant, Hindu, Buddha, and Confucian/*KongHuCu*.

Religiosity

To capture the effect of individual’s religiosity and therefore addressing hypotheses 2a, we include the categorical variable *religious*. It is measured based on the question “How religious are you?”. The respondents are given a range of answer to choose; from refusing to believe (1) to very religious (4).

Educational attainment

To address the third hypotheses, we include the variable of *education*. We generate the variable as a categorical variable consisting of five level of educational attainment: (1) No education; (2) Primary School; (3) Junior High School; (4) Senior High School; and (5) University Level. Initially, the existing dataset consists of 16 different categories of educational attainment. This

includes *Madrasah* (i.e. Islamic schools), Adult Educations, and more.⁷ Therefore, to simplify the varying types of education, we include them within the same level of formal education category. For instance, *Madrasah Ibtidaiyah* (MI) has the same level with primary school. Therefore, we include MI in category 2.

Marital status

To assess the fourth hypothesis, individual's marital status is captured in the categorical variable of *marstat*. Respondents are being asked about the status of their marriage during the survey period. It consists of five categories of marital status: (1) Not yet married; (2) Married; (3) Separated; (4) Divorced; and (5) Widowed. We take into account the individual's marital status, considering there are evidence from previous studies that marriage is positively affecting happiness in developing countries (Graham & Chattopadhyay, 2012).

Area of living

To see the differences in magnitude of happiness in different area of living therefore addressing the last hypotheses, variable *Urban* is created. It takes a value of 1 for respondents residing in urban areas and 0 for respondents residing in rural areas. According to the Indonesia Constitution Law no. 26 year 2007 related to Spatial Planning, an area is defined as an urban area where the main activity is non-agricultural. Its structural function is as an urban settlement, centralization and distribution of government services social services, and economic activities.

3.2.2. Control Variables

Furthermore, we classify the controlled variables into three parts; variables of individual-specific characteristics, household-related variables, and work-related variables.

Individual-specific characteristics

Age

The variable of *age* is included. It is obtained by asking the age of respondents when the survey was conducted. There are a large body of existing literatures observing the relationship between age and happiness. The studies found that there is a U-shape relationship between age and happiness. Where the negative effect lasts only until an individual reaches a certain age, and

⁷ There are three types of Islamic School: *Madrasah Ibtidaiyah* (MI), *Madrasah Tsanawiyah* (MTs), and *Madrasah Aliyah* (MA), which have the same level with Primary School, Junior High School, and Senior High School, respectively.

Adult Educations are educational attainment intended for individuals whose age are already exceeding the schooling age and did not or have not obtain formal schooling. If they still want to obtain a degree with the same level of formal schooling, they need to be enrolled in the Adult Education A, B, or C, for Primary School, Junior High School, or Senior High School, respectively.

the effect will be positive afterwards (Blanchflower & Oswald, 2007; Kinght & Gunatikala, 2014; Beja Jr., 2017; Rauch, 2018; Shams & Kadow, 2019). Therefore, both variables *age* and *age2* (age squared) are included.

Household-related characteristics

Having child under 15 years old

Specifically to individual's household, we include the dummy variable of *childunder15*. The variable captures whether or not the individual have children aged under 15 years old living in the household. It takes a value of 1 for those having a child aged under 15 years old in the household, and 0 otherwise. Whether an individual is having a child with minor age is considerably affecting an individual's role in the household, particularly for the women. Especially when they are working as an entrepreneur, having a child with minor age may result a stronger dual-role between motherhood and entrepreneurship and thus the pressure of having a work-life balance (Rahmi, 2017).

Family economy level

Despite numerous existing literatures had used the level of income as a measurement of individual's wealth, we use subjective self-reported economy level instead. Since people may perceive the same level of income differently – some feel wealthier than the other despite their similar income level. Therefore, the variable *fam_econlevel* is generated to capture the family's economy level. The respondents are provided with a six-step ladder question. They need to imagine six different levels of a ladder, from 1 (the first-and-lowest step) to 6 (the sixth-and-highest step). The six different levels of ladder represent six different levels of economy, from the first-and-lowest step representing the poorest to the sixth-and-highest step representing the richest.

Standard of living

In addition to family economy level, we generate a categorical variable of *stdliving* that captures the individual's self-reported standard of living. The respondents are provided with a question on how they perceived their current living standard. They are also provided with three levels of adequacy to be chosen from: (1) Less than adequate; (2) Just adequate; or (3) More than adequate for their needs.

Work-related characteristics

Work stress

Stress level from the respondents' job as entrepreneurs is also considered. I generate a categorical variable of *workstress* that is obtained from the self-reported stress level at work. The respondents are provided with a statement of "my job involves a lot of stress", and they are asked to choose from four different levels of stress: (1) Not at all; (2) Somewhat stressful; (3) Stressful; and (4) Very stressful.

Firm size

The variable of *firmsize* is a continuous variable ranging from 1 to 70,⁸ indicating the number of employees an individual is employing in their business. The variable is rather important, since according to the aforementioned literature by the World Bank (2016), micro-sized enterprises (0-4 employees) are mainly owned by people living in poverty. In other words, being an entrepreneur may be their last source of income.

Work hour

We include the variable of *workhour* that is indicating an individual's total working hour in the previous week before the survey. Considering a more flexible work hour an entrepreneur has, their working hour in the first (or last) days of the month could be significantly differ with their working hour in the usual days. Hence, their work hour in the previous week would be more representative, to minimize the possibility of over- (or under-) estimated reported working hours.

Additional Job

A dummy variable of *additionaljob* is included. It captures whether an individual is having another job besides being self-employed (i.e. entrepreneur). It takes a value of 1 when they have an additional job and 0 otherwise. This may affect an individual's happiness, particularly women, as it may add even more role they have to do that may result in a higher pressure and affect their well-being.

3.2.3. Descriptive Statistics

In this section, the number of observations, mean, and standard deviation is presented. It also presents the detailed number of observation and the percentage for each category in the

⁸ Recall the definition of MSMEs by Central Bureau of Statistics; MSMEs are businesses with 0-99 employees. However, after narrowing down the final dataset, there are no respondents having employees more than 70 and less 100. Leaving the dataset with the maximum number of 70 employees in the business.

categorical variables. First and foremost, the sample used in this research contains a total number of 7,247 observations, with all of the respondents are self-employed individuals. For the variable of *happiness*, 86 (1.19%) of the respondents are feeling very unhappy, 597 (8.24%) are feeling unhappy, a majority of 5,680 (78.38%) respondents are feeling happy, and 884 (12.20%) of them are very happy.

Concerning the main independent variables, it can be seen from the variable of *gender*, more than half of the total number of observation comprises of men, with 4,251 (58.66%) compared to 2,996 (41.34%) women. Indonesia is a country with the largest Muslim population, it is shown in the dataset that 6,442 (88.62%) respondents have Islamic belief, and only 825 respondents have other beliefs. In terms of the respondents' religiosity, a majority of the sample are religious, which comprises of 4,448 (61.38%) respondents. Followed by 1,352 (18.66%) very religious respondents, 1,271 (17.54%) somewhat religious respondents, 167 (2.30%) not religious respondents, and only 9 (0.12%) of them are refusing religion. Based on the variable of *education*; 354 (4.88%) respondents did not obtain any educational attainment, the largest fraction of the sample are individuals with Primary School as their latest educational attainment, comprises of 2,875 (39.67%) out of total sample, 1,424 (19.65%) individuals have finished Junior High School, 1,958 (27.02%) have finished High School, and 636 (8.78%) of respondents finished University Level. Respondents' area of living are almost equally divided, with 3,668 (50.61%) are living in rural areas and 3,579 (49.39%) of them are living in urban areas.

Moreover, the respondents are on average, aged 42.767 years old. The majority of respondents in the sample are married individuals – 6,218 (85.80%) of the respondents are married. More than half of the respondents (4,321 respondents, i.e. 59.62%) are having at least one child aged below 15 years old in their household. They have an average living standard of 1.982, and majority of them reported a somewhat poor economy level (i.e. level 3), with 3,416 (47.14%) out of the total number of respondents. Also, 5,062 (69.85%) respondents reported that their job is not causing any stress, with an average work hour in the past week is 35.044 hours. The average number of employees in the sample is 2.487, and the majority of respondents (5,014 respondents, i.e. 69.19%) do not have any additional job.

Table 1 – Descriptive Statistics

Variables	Obs.	Percentage	Mean	Std. Dev.
Variable of interest				
Happiness	7,247		3.015	0.501
(1)Very unhappy	86	1.19%		
(2)Unhappy	597	8.24%		
(3)Happy	5,680	78.38%		
(4)Very Happy	884	12.20%		
Individual characteristics				
Age	7,247		42.767	12.127
Gender	7,247		0.413	0.492
Male (0)	4,251	58.66%		
Female (1)	2,996	41.34%		
Education	7,247		2.951	1.100
(1)No education	354	4.88%		
(2)Primary school	2,875	39.67%		
(3)Junior high school	1,424	19.65%		
(4)High school	1,958	27.02%		
(5)University level	636	8.78%		
Marital Status	7,247		2.186	0.818
(1)Not yet married	370	5.11%		
(2)Married	6,218	85.80%		
(3)Separated	37	0.51%		
(4)Divorced	180	2.48%		
(5)Widowed	442	6.10%		
Religion	7,247		1.275	0.806
(0)Other	825	11.38		
(1)Islam	6,422	88.62%		
Religiosity	7,247		3.961	0.681
(1)Refused	9	0.12%		
(2)Not religious	167	2.30%		
(3)Somewhat religious	1,271	17.54%		
(4)Religious	4,448	61.38%		
(5)Very religious	1,352	18.66%		
Household-related characteristics				
Having child under 15 years old	7,247		0.596	0.490
No (0)	2,926	40.38%		
Yes (1)	4,321	59.62%		
Area of Living	7,247		0.493	0.4999
Rural (0)	3,668	50.61%		
Urban (1)	3,579	49.39%		
Standard of Living	7,247		1.982	0.642
(1)Less than adequate	1,559	21.51%		
(2)It is just adequate	4,255	58.71%		
(3)More than adequate	1,433	19.77%		
Family economy level	7,247		2.951	0.944
(1)Poorest	484	6.68%		
(2)Poor	1,537	21.21%		
(3)Somewhat Poor	3,416	47.14%		
(4)Somewhat Rich	1,550	21.39%		
(5)Rich	177	2.44%		

(6)Richest	83	1.15%		
Work-related characteristics	Obs.	Percentage	Mean	Std. Dev.
Work stress	7,247		1.398	0.694
(1)No stress	5,062	69.85%		
(2)Slightly stressful	1,661	22.92%		
(3)Stress	346	4.77%		
(4)Very stressful	178	2.46%		
Work hour	7,247		35.044	22.337
Firm size	7,247		2.487	3.784
Additional Job	7,247		2.383	0.923
No (0)	5,014	69.19%		
Yes (1)	2,233	30.81%		

Note: Number of observations and the percentage of the sample is included for each category of the categorical and dummy variables

Table 2 – Correlation Matrix

Variables	Happiness	Gender	Religion	Religious	Urban	Age	Marital Status	Education	Family economy level	Std. of Living	Child under 15	Work stress	Work hour	Firm size	Additional job
Happiness	1.000														
Gender	-0.0020	1.000													
Religion	0.0460**	-0.0158	1.000												
Religious	0.0604**	0.0670**	-0.1205**	1.000											
Urban	0.0584**	0.1190**	0.0560**	-0.0550**	1.000										
Age	-0.1524**	-0.0146	-0.0265	0.1568**	-0.0216	1.000									
Marital status	-0.1000**	0.2399**	0.0005	0.0647**	-0.0038	0.3293**	1.000								
Education	0.1279**	-0.0362**	-0.0506**	-0.1273**	0.2567**	-0.3701**	-0.1770**	1.000							
Family economy level	0.2193**	0.1073**	0.0547**	0.0490**	0.0926**	-0.0455**	-0.0386**	0.1641**	1.000						
Std. of Living	0.3251**	0.0738**	0.0647**	0.0224	0.1165**	-0.1603**	-0.0718**	0.2143**	0.3442**	1.000					
Child under 15	0.1057**	-0.0442**	-0.0442**	-0.0653*	0.0011	-0.4856**	-0.1518**	0.2092**	0.0169	0.0399**	1.000				
Work stress	-0.0447**	-0.0289*	0.0289	-0.0824*	0.0847**	-0.1497**	-0.0386**	0.1575**	-0.0302*	-0.0358**	0.0760**	1.000			
Work hour	0.0460**	-0.0800**	-0.0800**	-0.0160	0.0548**	-0.0496**	-0.0415**	0.0392**	0.0164	0.0247	0.0794**	0.0535**	1.000		
Firm size	0.0330**	-0.1002**	-0.1002**	0.0065	-0.0428**	0.0075	-0.0394**	0.0452**	0.0419**	-0.0280*	-0.0166	0.0202	0.0196	1.000	
Additional Job	0.0098	-0.2052**	0.2052**	-0.0128	-0.1368**	0.0101	-0.0577**	0.0047	0.0109	0.0178	-0.0564**	-0.0092	0.0694**	-0.0280*	1.000

Note: *, ** are significance level of 5% and 1% respectively

3.3. Econometric Strategy

To test our suggested hypotheses in this study, we have to firstly understand the underlying assumptions behind the possible methods. Numerous scholars have been using the ordered logit/probit methodology in happiness studies, mainly because it takes into account the ordinal nature of the dependent variable happiness. If seen in a broader aspect, there are more to be considered besides the ordinal nature of dependent variable. Ferrer-i-Carbonell and Frijters (2004) suggested three main assumptions used in interpreting satisfaction questions: (1)

General satisfaction (GS) is a positive monotonic transformation of welfare; (2) GS is interpersonally ordinally comparable; and (3) GS is interpersonally cardinally comparable.

In brief, the first assumption suggests a strong correlation between GS and general expressions (e.g. smiling, frowning, etc.), hence, GS can be used as a proxy of welfare. The second assumption suggests that individuals perceive similar definition of what happiness is. Hence, different respondents are found to translate verbal answers into similar numerical values (Van Praag, 1991). Following the ordinal comparability assumption, Ordered Logit/Probit model can be applied. The third and last assumption implies that the difference between two different answers, for instance, between 4 and 5, is the same with the difference between 6 and 7 (Ng, 1996;1997). When the differences between choices of answers are even – the most common cardinalisation – respondents will try to maximise the information they provide to the questionnaire (Van Praag, 1991; Parducci, 1995). When GS is presumed to be a cardinal measure, Ordinary Least Square (OLS) methodology can be applied to the analysis.

Given the aforementioned assumptions, we will apply OLS methodology in addition to Ordered Probit model, to account for cardinal and ordinal assumptions of general satisfaction questions. The OLS model – under the cardinal assumption – is expressed as:

$$Y_i = \beta x_i + \varepsilon_i \quad (1)$$

Where Y_i is the general satisfaction, or in this study is the observed *happiness*, for individual i . β is the vector of coefficients and x_i is the observed non-random characteristics for individual i . In addition, as stated in Ferrer-i-Carbonell and Frijters (2004), ε_i has the expectation of 0 and is orthogonal to x_i .

Moreover, in assuming the ordinal comparability, the Ordered Probit model is expressed as:

$$Y_i^* = \beta x_i + \varepsilon_i \quad (2)$$

Where Y_i^* is the latent variable and Y_i is the observed happiness. The relationship between the two can be expressed as:

$$Y_i = k \Leftrightarrow \lambda_k \leq Y_i^* < \lambda_{k+1}$$

Hence, as also stated in the thesis by Mitsou (2017), the relationship will be:

$$\begin{aligned} y = 1 & \text{ if } -\infty < y^* < \lambda_1 && \text{very unhappy} \\ y = 2 & \text{ if } \lambda_1 < y^* < \lambda_2 && \text{unhappy} \end{aligned}$$

$$y = 3 \text{ if } \lambda_2 < y^* < \lambda_3 \quad \text{happy}$$

$$y = 4 \text{ if } \lambda_3 < y^* < \infty \quad \text{very happy}$$

Nevertheless, Ordered Probit model comes with specifications that are more preferable than the OLS model. When Y^* is ordinal, ordered probit takes into account ceiling and floor restrictions on the probabilities while linear model does not. Such advantage is the strongest when Y^* is highly skewed (Winship & Mare, 1984).

To proceed with the assessment of the suggested hypotheses in the previous chapter, we will include interaction terms. Firstly, to test hypotheses 2 and 2a, the interaction terms between variable *gender* and *religion* (gender x religion), and *gender* and *religiosity* (gender x religiosity) will be added. To test hypothesis 3, the interaction term between variable *gender* and *education* (gender x education) is added. To test hypothesis 4, an interaction term between *gender* and *marital status* (gender x marstat) is added, and interaction term between *gender* and *urban* (gender x urban) is also added to test the last hypothesis. Moreover, we will also include conditional marginal effect in addition to the Ordered Probit regression to support the result and analyse the predicted probability of having the highest happiness level for female compared to male entrepreneurs. To end, we will conduct a sensitivity analyses using OLS regression.

4. RESULTS

In this chapter, we will present our main findings which address the differences of the effect of varying social factors on the female entrepreneurs' happiness level. We begin with our main findings based on the Ordered Probit estimates presented in section 4.1, followed by sensitivity analyses presented in section 4.2.

4.1. Main Findings

Table 3 below presents our estimation using Ordered Probit model. With regards to our control variables, in general, living in urban area increases the probability of being happy, compared to living in rural area. Significant at 5%, *ceteris paribus*. In line with the existing literatures, age has a u-shaped relationship with happiness level – an individual's happiness decreases until a certain age, and will start to increase afterwards. The coefficient of variable age and age-squared are significant at 1% significance level. Being married also increases the probability of being happy, compared to those who are not yet married. This effect is significant at 1% significance level. Being a widow is also increasing the probability of having higher level of happiness, compared to those who are not yet married. This effect is significant at 5% significance level, *ceteris paribus*. Whereas the effects of being separated and divorced, compared to those who are not yet married, are insignificant. The effect of educational attainment at any level on happiness is insignificant. Being a Muslim significantly increases the level of happiness at 5% significance level, *ceteris paribus*. Whereas the effect of religiousness at any level – compared to being not obtaining any education – on happiness is insignificant.

In terms of household characteristics, both family economy level and their standard of living are positively affecting happiness, significant at 1% significance level, *ceteris paribus*. While the effect of whether or not the household have at least one child aged 15 years old, on the individual's happiness level is insignificant. In terms of work-related characteristics, work stress negatively affecting an individual's happiness level, significant at 1% significance level. Whereas increasing working hour increases an individual's happiness level, significant at 5%, *ceteris paribus*. Lastly, the effect of both firm size and whether or not an individual's have any additional job, on individual's happiness is insignificant.

Moreover, estimation results are presented in Table 3 column H1 to H5. Firstly, Hypothesis 1 states that, “*Female entrepreneurs will have a lower likelihood to feel happy compared to male entrepreneurs*”. It is shown in column H1, the coefficient of variable gender is negative

and statistically significant at 5% significance level. In other words, for entrepreneurs, being a female decreases the probability of having the highest level of happiness compared to their male counterparts, *ceteris paribus*. Hence, we confirm Hypothesis 1. We can observe the size of the effect through a marginal effect estimation presented in Table 4. The table presents the predicted probability of being in the highest level of happiness (i.e. very happy). According to the average marginal effect estimation, being a female decreases the probability of being very happy by 0.0153 points, *ceteris paribus*. The effect is significant at 5% significance level.

Hypothesis 2 states that “*The association between female entrepreneurship and happiness is expected to be stronger for those with Islamic belief compared to non-Islam belief*”. The hypothesis is tested by introducing an interaction term being a female and Islamic belief (*religion=1*). Hence, we can assess the moderating effect of religion on the association between female entrepreneurship and happiness. Based on the estimation result from testing Hypothesis 2 presented in column H2, we find that the interaction effect between female entrepreneurship and religion on happiness is insignificant. We cannot find evidence supporting our hypothesis; hence, we cannot confirm Hypothesis 2.

Hypothesis 2a states that “*The association between female entrepreneurship and happiness is expected to be weaker for those with stronger religiousness*”. This hypothesis is tested by introducing interaction term being a female and highest level of religiousness (i.e. very religious), assessing the moderating effect of religiousness on the association between female entrepreneurship and happiness. Based on the estimation result shown in Column H2a, we find that the interaction effect of being a female and ‘very religious’ level of religiousness on happiness is insignificant. Hence, we cannot confirm Hypothesis 2a.

Hypothesis 3 states that “*Educational attainment will be positively correlated with the happiness level of female entrepreneurs*”. To test this hypothesis, we include an interaction term being a female and highest level of education (i.e. University level). Hence, we assess the moderating effect of educational attainment on the association between female entrepreneurship and happiness. Based on the estimation result shown in column H3, we find that the interaction effect of being female and highest level of education on happiness is insignificant. Therefore, we cannot confirm Hypothesis 3.

Hypothesis 4 states that “*Marriage will be negatively correlated with the happiness level of female entrepreneurs*”. To test this hypothesis, we include an interaction term being a female and being married. Here we assess the moderating effect of marital status on the association

between female entrepreneurship and happiness. Based on the estimation result shown in column H4, we find that the interaction effect of being a female and being married is statistically significant at 10% significant level, *ceteris paribus*. In other words, for female entrepreneurs, being married decreases their probability of having the highest level of happiness, compared to those who are not yet married. Hence, we confirm Hypothesis 4. We can observe the size of the effect through the marginal effect presented in Table 4. For a married individual, being a female decreases the probability of being very happy by 0.0161 points, *ceteris paribus*. This effect is significant at 5% significance level.

Lastly, Hypothesis 5 states that “*The association between female entrepreneurship and happiness is expected to be stronger in rural areas compared to in urban areas*”. To test this hypothesis, we include an interaction term being a female and urban. Here, we assess the moderating effect of living in urban area on the association between female entrepreneurship and happiness. Based on the estimation result shown in column H5, we find that the interaction effect of being a female and urban is insignificant. Hence, we cannot confirm Hypothesis 5.

Table 3 – Ordered Probit Estimates

Variables	H1	H2	H2a	H3	H4	H5
Gender (Female)	-0.0855** (0.0339)	-0.0999 (0.0913)	0.936 (0.959)	-0.00907 (0.138)	0.177 (0.155)	-0.0594 (0.0470)
Female x Islam		0.0164 (0.0963)				
Female x Very Religious			-1.035 (0.961)			
Female x Highest Education (University)				-0.117 (0.173)		
Female x Married					-0.305* (0.159)	
Female x Urban						-0.0503 (0.0628)
Urban	0.0765** (0.0328)	0.0764** (0.0328)	0.0768** (0.0328)	0.0777** (0.0328)	0.0779** (0.0329)	0.0972** (0.0418)
Age	-0.0444*** (0.00925)	-0.0444*** (0.00925)	-0.0440*** (0.00926)	-0.0455*** (0.00928)	-0.0450*** (0.00926)	-0.0445*** (0.00925)
Age2	0.000354*** (0.000106)	0.000354*** (0.000106)	0.000348*** (0.000106)	0.000366*** (0.000106)	0.000355*** (0.000106)	0.000355*** (0.000106)
Marital Status						
Married	0.505*** (0.0830)	0.505*** (0.0830)	0.504*** (0.0830)	0.509*** (0.0831)	0.605*** (0.0953)	0.507*** (0.0830)
Separated	-0.170	-0.170	-0.178	-0.177	-0.314	-0.173

	(0.215)	(0.215)	(0.215)	(0.215)	(0.352)	(0.215)
Divorced	0.00875	0.00868	0.00678	0.0116	-0.167	0.0106
	(0.122)	(0.122)	(0.122)	(0.122)	(0.172)	(0.122)
Widowed	0.271**	0.271**	0.271**	0.261**	0.140	0.271**
	(0.105)	(0.105)	(0.106)	(0.106)	(0.173)	(0.105)
Educational Attainment						
Primary School	-0.00503	-0.00492	-0.00399	0.0151	-0.00179	-0.00407
	(0.0734)	(0.0734)	(0.0734)	(0.106)	(0.0735)	(0.0734)
Junior High School	0.0417	0.0418	0.0431	0.0927	0.0471	0.0432
	(0.0799)	(0.0799)	(0.0800)	(0.112)	(0.0800)	(0.0800)
Senior High School	0.0553	0.0554	0.0558	0.112	0.0592	0.0567
	(0.0794)	(0.0794)	(0.0795)	(0.110)	(0.0795)	(0.0795)
University Level	0.0954	0.0953	0.0941	0.151	0.0930	0.0964
	(0.0923)	(0.0923)	(0.0923)	(0.125)	(0.0925)	(0.0923)
Religion (Islam)	0.124**	0.117*	0.123**	0.123**	0.121**	0.124**
	(0.0489)	(0.0644)	(0.0489)	(0.0490)	(0.0490)	(0.0489)
Religiosity						
Not religious	-0.467	-0.467	-0.226	-0.464	-0.462	-0.467
	(0.432)	(0.432)	(0.503)	(0.432)	(0.433)	(0.432)
Somewhat religious	-0.328	-0.327	-0.0939	-0.323	-0.325	-0.327
	(0.423)	(0.423)	(0.492)	(0.423)	(0.423)	(0.423)
Religious	-0.268	-0.268	0.00936	-0.263	-0.265	-0.267
	(0.422)	(0.422)	(0.491)	(0.421)	(0.422)	(0.422)
Very religious	-0.00727	-0.00698	0.265	-0.00345	-0.00640	-0.00631
	(0.423)	(0.423)	(0.493)	(0.423)	(0.424)	(0.423)
Household Characteristics						
Family economy level	0.163***	0.163***	0.163***	0.163***	0.163***	0.163***
	(0.0174)	(0.0174)	(0.0174)	(0.0175)	(0.0175)	(0.0174)
Standard of living	0.555***	0.555***	0.555***	0.555***	0.556***	0.555***
	(0.0270)	(0.0270)	(0.0270)	(0.0270)	(0.0270)	(0.0270)
Having child under 15 years old	0.0363	0.0364	0.0330	0.0391	0.0271	0.0367
	(0.0427)	(0.0427)	(0.0428)	(0.0428)	(0.0429)	(0.0427)
Work-related Characteristics						
Work stress	-0.0900***	-0.0900***	-0.0893***	-0.0909***	-0.0895***	-0.0900***
	(0.0225)	(0.0225)	(0.0225)	(0.0225)	(0.0225)	(0.0225)
Working hour	0.00169**	0.00169**	0.00168**	0.00168**	0.00165**	0.00168**
	(0.000699)	(0.000699)	(0.000699)	(0.000699)	(0.000699)	(0.000699)
Firm size	0.00591	0.00590	0.00579	0.00592	0.00577	0.00595
	(0.00408)	(0.00408)	(0.00408)	(0.00408)	(0.00408)	(0.00408)
Additional Job	0.0162	0.0162	0.0157	0.0164	0.0176	0.0160
	(0.0173)	(0.0173)	(0.0173)	(0.0173)	(0.0173)	(0.0173)
/cut1	-1.870***	-1.876***	-1.601***	-1.845***	-1.816***	-1.859***
	(0.478)	(0.480)	(0.539)	(0.484)	(0.479)	(0.479)
/cut2	-0.767	-0.773	-0.498	-0.742	-0.711	-0.756
	(0.477)	(0.479)	(0.538)	(0.482)	(0.478)	(0.478)
/cut3	2.066***	2.060***	2.336***	2.092***	2.126***	2.077***
	(0.478)	(0.479)	(0.539)	(0.483)	(0.479)	(0.478)

Observations	7,247	7,247	7,247	7,247	7,247	7,247
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Standard errors in parentheses

Note: *, **, and *** are significance level of 10%, 5%, and 1% respectively.

Table 4 – Marginal Effect Estimates (Happiness=4)

	dy/dx	
	H1	H4 (at <i>marstat</i> =2)
Gender (Female)	-0.0153** (0.0060)	-0.01605** (0.0063)

Delta-method standard errors in parentheses

Note: *, **, and *** are significance level of 10%, 5%, and 1% respectively.

4.2. Sensitivity Analyses

In this section, we will conduct a sensitivity analysis using an OLS regression. Essentially, we will re-estimate our current model using OLS to further observe whether or not our result still hold. Before we proceed to the regression analysis, we firstly perform a VIF test to observe the robustness of our chosen model. The objective of undergoing the Variance Inflation Factor (VIF) test is to detect whether or not multicollinearity exists. Multicollinearity occurs when there are two or more predictors that are correlated thus providing a redundant information. Small values of VIF is indicating low correlation among variables, with the ideal condition of $VIF < 5$ (Ringle, Wende, & Becker, 2015). Nevertheless, $VIF < 10$ is still considered acceptable (Hair, Anderson, Tatham, & Black, 1995).

Table 5 – VIF Test Result

Variables	VIF	1/VIF
Age	1.65	0.604580
Educational attainment	1.34	0.745138
Having child under 15 years old	1.33	0.752598
Marital status	1.21	0.825551
Standard of living	1.20	0.832426
Gender	1.18	0.848086
Family economy level	1.17	0.854856
Urban	1.14	0.880979
Additional job	1.07	0.932863
Religious	1.06	0.939636
Work stress	1.06	0.947315
Religion	1.04	0.961591

Working hour	1.03	0.973725
Firm size	1.02	0.981581
Mean VIF	1.18	

Source: Author's calculation using STATA15.

Table 5 above presents the VIF value for each variable, arranged from the highest to the lowest. We can observe that age has the highest value of VIF (1.65), as it could be slightly correlated with other variables such as education, marital status, and more. While firm size has the lowest VIF value of 1.02. In general, there is a low correlation between our chosen variables. It is concluded based on the VIF value that are less than 5 for all of the variables, with the mean VIF of 1.18 – it is still within the range of ideal condition (Ringle, Wende, & Becker, 2015). Furthermore, the re-estimation of our model using OLS regression is presented on Table 6 below.

Table 6 – OLS estimates

Variables	H1	H2	H2a	H3	H4	H5
Gender (Female)	-0.0288** (0.0120)	-0.0432 (0.0351)	0.352 (0.508)	0.000645 (0.0555)	0.0774* (0.0463)	-0.0218 (0.0165)
Female x Islam		0.0163 (0.0366)				
Female x Very Religious			-0.385 (0.508)			
Female x Highest Education (University)				-0.0500 (0.0662)		
Female x Married					-0.123** (0.0480)	
Female x Urban						-0.0136 (0.0223)
Urban	0.0248** (0.0117)	0.0248** (0.0117)	0.0249** (0.0117)	0.0252** (0.0117)	0.0252** (0.0117)	0.0304** (0.0151)
Age	-0.0148*** (0.00336)	-0.0149*** (0.00336)	-0.0147*** (0.00336)	-0.0153*** (0.00337)	-0.0151*** (0.00336)	-0.0149*** (0.00336)
Age2	0.000118*** (3.79e-05)	0.000118*** (3.79e-05)	0.000116*** (3.79e-05)	0.000122*** (3.80e-05)	0.000118*** (3.79e-05)	0.000118*** (3.80e-05)
Marital Status						
Married	0.173*** (0.0303)	0.173*** (0.0303)	0.173*** (0.0302)	0.175*** (0.0303)	0.214*** (0.0361)	0.174*** (0.0303)
Separated	-0.108 (0.104)	-0.108 (0.104)	-0.112 (0.104)	-0.110 (0.104)	-0.200 (0.190)	-0.109 (0.104)
Divorced	-0.0213 (0.0542)	-0.0212 (0.0542)	-0.0219 (0.0542)	-0.0206 (0.0542)	-0.101 (0.0803)	-0.0207 (0.0543)
Widowed	0.0867**	0.0868**	0.0873**	0.0833**	0.0417	0.0870**

	(0.0403)	(0.0403)	(0.0403)	(0.0404)	(0.0747)	(0.0404)
Educational attainment						
Primary School	-0.00577 (0.0293)	-0.00573 (0.0293)	-0.00526 (0.0293)	0.00208 (0.0439)	-0.00457 (0.0293)	-0.00550 (0.0293)
Junior High School	0.0136 (0.0307)	0.0137 (0.0307)	0.0144 (0.0308)	0.0321 (0.0452)	0.0156 (0.0307)	0.0141 (0.0308)
Senior High School	0.0191 (0.0306)	0.0191 (0.0306)	0.0196 (0.0306)	0.0412 (0.0448)	0.0203 (0.0305)	0.0195 (0.0306)
University Level	0.0304 (0.0347)	0.0302 (0.0347)	0.0302 (0.0347)	0.0537 (0.0484)	0.0292 (0.0348)	0.0306 (0.0347)
Religion (Islam)	0.0426** (0.0183)	0.0356 (0.0236)	0.0422** (0.0183)	0.0426** (0.0183)	0.0414** (0.0183)	0.0428** (0.0183)
Religiosity						
Not religious	-0.179 (0.171)	-0.178 (0.171)	-0.108 (0.156)	-0.178 (0.174)	-0.176 (0.169)	-0.179 (0.172)
Somewhat religious	-0.102 (0.165)	-0.102 (0.165)	-0.0297 (0.146)	-0.100 (0.167)	-0.101 (0.162)	-0.102 (0.165)
Religious	-0.0824 (0.165)	-0.0820 (0.165)	0.00663 (0.145)	-0.0798 (0.167)	-0.0806 (0.162)	-0.0820 (0.165)
Very religious	0.00159 (0.165)	0.00199 (0.165)	0.0880 (0.146)	0.00354 (0.167)	0.00255 (0.162)	0.00189 (0.165)
Household Characteristics						
Family economy level	0.0608*** (0.00698)	0.0607*** (0.00698)	0.0607*** (0.00698)	0.0607*** (0.00698)	0.0608*** (0.00697)	0.0608*** (0.00698)
Standard of living	0.198*** (0.0106)	0.198*** (0.0106)	0.198*** (0.0106)	0.198*** (0.0106)	0.198*** (0.0106)	0.198*** (0.0106)
Having child under 15 years old	0.0144 (0.0156)	0.0145 (0.0156)	0.0133 (0.0156)	0.0155 (0.0156)	0.0108 (0.0156)	0.0146 (0.0156)
Work-related Characteristics						
Work stress	-0.0331*** (0.00843)	-0.0331*** (0.00844)	-0.0329*** (0.00842)	-0.0334*** (0.00843)	-0.0328*** (0.00844)	-0.0331*** (0.00843)
Working hour	0.000594** (0.000244)	0.000596** (0.000244)	0.000590** (0.000244)	0.000590** (0.000244)	0.000576** (0.000244)	0.000591** (0.000244)
Firm size	0.00234 (0.00145)	0.00233 (0.00145)	0.00230 (0.00145)	0.00235 (0.00145)	0.00227 (0.00144)	0.00235 (0.00145)
Additional job	0.00463 (0.00612)	0.00462 (0.00612)	0.00450 (0.00612)	0.00468 (0.00612)	0.00529 (0.00611)	0.00458 (0.00612)
Constant	2.720*** (0.185)	2.726*** (0.185)	2.634*** (0.168)	2.710*** (0.189)	2.695*** (0.183)	2.717*** (0.185)
Observations	7,247	7,247	7,247	7,247	7,247	7,247
R-squared	0.153	0.153	0.154	0.154	0.155	0.154

Robust standard errors in parentheses

*Note: *, **, and *** are significance level of 10%, 5%, and 1% respectively.*

Based on our re-estimation using OLS method presented in Table 6 above, we can observe that there are similar findings with our estimations using Ordered Probit model presented in Table 3. In testing Hypothesis 1 (column H1), we find that among Indonesian entrepreneurs, being a female decreases their average happiness by 0.0322 points (1 to 4 scale), compared to

their male counterparts. This effect is significant at 5%, holding everything else constant. Hence we can also confirm Hypothesis 1 by using OLS regression method.

Whereas in testing Hypothesis 2, 2a, 3, and 5 (presented in column H2, H2a, H3, and H5 respectively), we also find insignificant estimations, which is similar with our findings using Ordered Probit method in Table 3. Hence, we also cannot confirm Hypothesis 2, 2a, 3, and 5 when using OLS regression method.

A slight difference in the estimation result is found as we introduce the interaction term being a female and being married to test Hypothesis 4, presented in column H4 of Table 6 above. Here we can observe that for female entrepreneurs, being married decreases their average happiness by 0.123 points, compared to those who are not yet married, *ceteris paribus*. This effect is significant at 5% significance level. This effect of a married female and happiness has a higher significance level compared to our previous estimation result using Ordered Probit method presented in Table 3, indicating a stronger effect is found using OLS method.

In addition, there is a positive effect of being a female as we introduce the interaction term being a female and being married. We can observe from column H4 in Table 6 above that in general, among Indonesian entrepreneurs, being a female is actually increasing their average happiness by 0.0774 points, *ceteris paribus*. This effect is significant at 10% significance level. The estimation indeed shows a contradicting effect of being a female towards an individual's average happiness, compared to our initial finding. However, a low significance level is indicating that the effect is not as strong and introducing a stronger evidence would be best to determine whether or not this result is biased.

Concerning the other estimations related to our control variables, we can observe through our finding of the general model (i.e. without introducing interaction terms) presented in column H1. We find that living in urban area increases individual's average happiness by 0.0248 points, compared to living in rural areas. The effect is significant at 5%, *ceteris paribus*. As an individual gets older, it decreases their average happiness by 0.00488, significant at 1%, *ceteris paribus*. Here, the effect of age on happiness also shows a U-shape relationship, as the negative effect only reaches a certain point of age, until it eventually become positive.

Being married increases one's average happiness by 0.173 points, and being a widow also increases their average happiness by 0.0867, compared to those who are not yet married. The effects are significant at 1% and 5% respectively, holding everything else constant. Educational attainment at any level is insignificant in determining one's average happiness. Having an

Islamic belief increases an individual's average happiness by 0.0383 points compared to those with other beliefs (e.g. Christian, Buddha, etc.), significant at 5% significance level. While religiousness at any level does not significantly affecting one's average happiness.

In terms of household-related characteristics, a higher family economy level increases an individual's average happiness by 0.0608 points, and a better standard of living also increases an individual's average happiness by 0.198 points. The effects are both significant at 1% significance level, *ceteris paribus*. Whereas the effect of whether or not an individual have a child aged below 15 in their household on one's happiness is insignificant.

While for work-related characteristics, an increasing stress at work decreases one's average happiness by 0.0336 points, significant at 1%, *ceteris paribus*. Whereas longer working hours increasing one's average happiness by 0.000541 points, significant at 5%, *ceteris paribus*. The effect of whether or not an individual have an additional job on their happiness level is insignificant.

According to the estimation result in column H1 of Table 6, we can further observe the economic significance of each variable and determine which variable is the most sensitive in affecting happiness by observing their significance and standard deviation.⁹ A large value of standard deviation is indicating a higher chance of large effect a variable has, when there is a slight change in the coefficient.

First and foremost, marital status – particularly being widowed and married – is highly sensitive in determining an individual's happiness level. The effect of being widowed has the largest standard error of 0.0403 and the effect of being married has the second largest standard error of 0.0303. The third most sensitive in determining one's happiness is religion. The effect of religion on happiness has a standard error of 0.0183. Which means that in a situation when person is having an Islamic belief, they will be more likely to feel a higher level of happiness, compared to those with other beliefs. While the fourth most sensitive factor in determining one's happiness is gender. The effect has a standard error of 0.0120.

In comparison with the rest of the independent variables, the aforementioned most sensitive variables (i.e. marital status, religion, and gender) are the ones that are highly affecting an individual's average happiness level. Since again, the slight changes in the coefficient of the effect of these variables will result in a higher impact on happiness.

⁹ We may observe through the standard error of the mean in the regression

5. DISCUSSION & CONCLUSION

In analysing the happiness of Indonesian female entrepreneurs, we find that female entrepreneurs are less likely to feel happy compared to their male counterparts, and one of the factors affecting their unhappiness is marital status – being married. This study is one of the first studies assessing the happiness of Indonesian women, specifically to female entrepreneurs, and focuses on the underlying socio- economic and cultural factors that influence their happiness.

The concept of happiness is rather challenging to discuss as it is considered a broad and complex subject, which could be discussed in various perspectives and determined by countless factors. Many of the existing literatures are focusing on comparison between countries on a single timeframe. Primarily those who are discussing the happiness of entrepreneurs are mainly taking into account the motivational perspective and job-specific characteristics – rarely placing social factors as their main subject of interest. Indonesia is a country that highly values sociocultural norms. One may assume that such social factors play a significant role in determining the society's wellbeing in Indonesia. As a country with a rather strong patriarchal and religious belief, Indonesian women may face pressures that affect their wellbeing, especially, those who chose to be an entrepreneur might face challenges from their family or the society. Hence, this research is aimed to assess happiness level of female entrepreneurs. We try to discover whether the aforementioned challenges affect their happiness.

According to results presented in the previous section, we find that female entrepreneurs are less likely to feel happy compared to their male counterparts. It contrasts the worldwide findings where in general, women have reported higher level of happiness compared to men despite the negative feelings they have been experiencing every day. This positive global trend mainly occur due to the difference of reference point women have compared to men when answering the same life satisfaction question (Montgomery, 2016). The negative effect of being a female entrepreneur and happiness in Indonesia could be associated with our concerns related to the challenges women have to face. These challenges further create an environment where men could perceive a greater advantages, whilst women are worse off in many ways. We then further analyse the differences in effect of the socio- economic and cultural determinants on female entrepreneurs' happiness; namely religion, religiousness, education, marital status, and area of living. Among these socio- economic and cultural factors, only marital status, primarily being married, that is significantly affecting happiness of Indonesian female entrepreneurs.

Female entrepreneurs are less likely to be happy when they are married, compared to the other female entrepreneurs who are not yet married. Whereas based on our general sample of entrepreneurs, without distinguishing between men and women, being married is significantly increasing the probability of an individual feeling very happy. Our finding confirms the impact of the dual-role women have to fulfil when they are married and choosing to be an entrepreneur. They are still expected to perform household responsibilities on one hand, and financially support the family on the other. Therefore, adding the pressure of having a work-life balance (Parasuraman & Simmers, 2001; Rahmi, 2017). Nevertheless, women's religion of being Islam, their level of religiousness, educational attainment, and their area of living are not significant factors in determining their happiness. Hence, irrespective to their religion, religiousness, education, and area of living, women are in general less likely to feel happy compared to men – being married is one factor that contributes to their unhappiness.

Our finding resonates the existing research in the Western literatures. In the USA, 35 years (1970 – 2005) of advances in women emancipation does not lead to an increase in subjective wellbeing of American women – underlining the Stevenson and Wolfers' "paradox of declining female happiness". Evidence upholds the idea that the changes in women's role at work is not followed by their changes in role at home, creating the burden of dual-role. For instance, for British women, long commutes are making them more miserable than British men, since they are faced with pressures both from home and work. When the women's dual-role is carefully considered, the results shows influence of expectation towards how one perceived their happiness level. Performing household chores contributes to the increasing level of depression for women, as it is expected as women's primary job, making them feel exploited. While performing house chores seem to encourage men, as they are seen to be kindly reducing their wives' burden (Stevenson & Wolfers, 2009). The lessening happiness level may also be related to the differences in cognitive comparisons and expectations. Following the increasing supports of women's rights and the enhanced available opportunities for them, it is reasonable that women are starting to have more complex and optimistic expectations, and judge their reality according to these expectations (Petherick, 2016).

There are several limitations of this study. First is related to the cross-sectional nature of the data. Although it is done within a specified time-frame and within a specific population or geographical areas, problems related to the length of the research period may arise. There are changes over a period of time (e.g. environmental factors, literacy, social norms, etc.) that could influence the outcome and lead to various bias. It is also difficult to test for causal relationships due to the one-time measurement period. As cross-sectional study only account for a single

period, it may not be fully able to analyse respondents' behaviour over a different range of period of time or creating a long-term trends.

Moreover, there are unobserved individual characteristics that may affect the respondents' answers in determining how happy they are. For instance, different individuals may have similar level of stressors, but they would not be able to cope similarly. Recall a finding by Montgomery (2016), where men and women perceive their satisfaction levels differently.

There are rooms for improvement in the future research to analyse Indonesian female entrepreneurs' happiness in a long-term manner. One may see the differences in their happiness and what contributes to such changes. It would be best for the future research to be conducted using the latest version of IFLS when it is available. Especially when it is taking into account the current pandemic that will significantly affect an individual's happiness. The existing coronavirus pandemic results in distress around the globe, and would be an interesting topic to be further analysed in terms of how it affect the nation's happiness. Hence, further research is still needed to observe more determinants of happiness in the socio- economic and cultural aspects as it is a broad subject to study.

From our findings, we aim to analyse factors determining Indonesian female entrepreneurs' happiness. All of the suggested measures should be aimed to stimulate happiness among female entrepreneurs, because women have a massive contribution to the society and the nation's economy, yet their basic need of being happy is undervalued. The policy makers should start to focus on the enhancement of women empowerment programs and educate the society about the importance of happiness in their daily life. Accessibility to psychological treatments and its importance should be increased and widely informed. It is essential for these female entrepreneurs to recognize the supports they have and that feeling happy could not only boost their productivity at work, but also their children and family's well-being.

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