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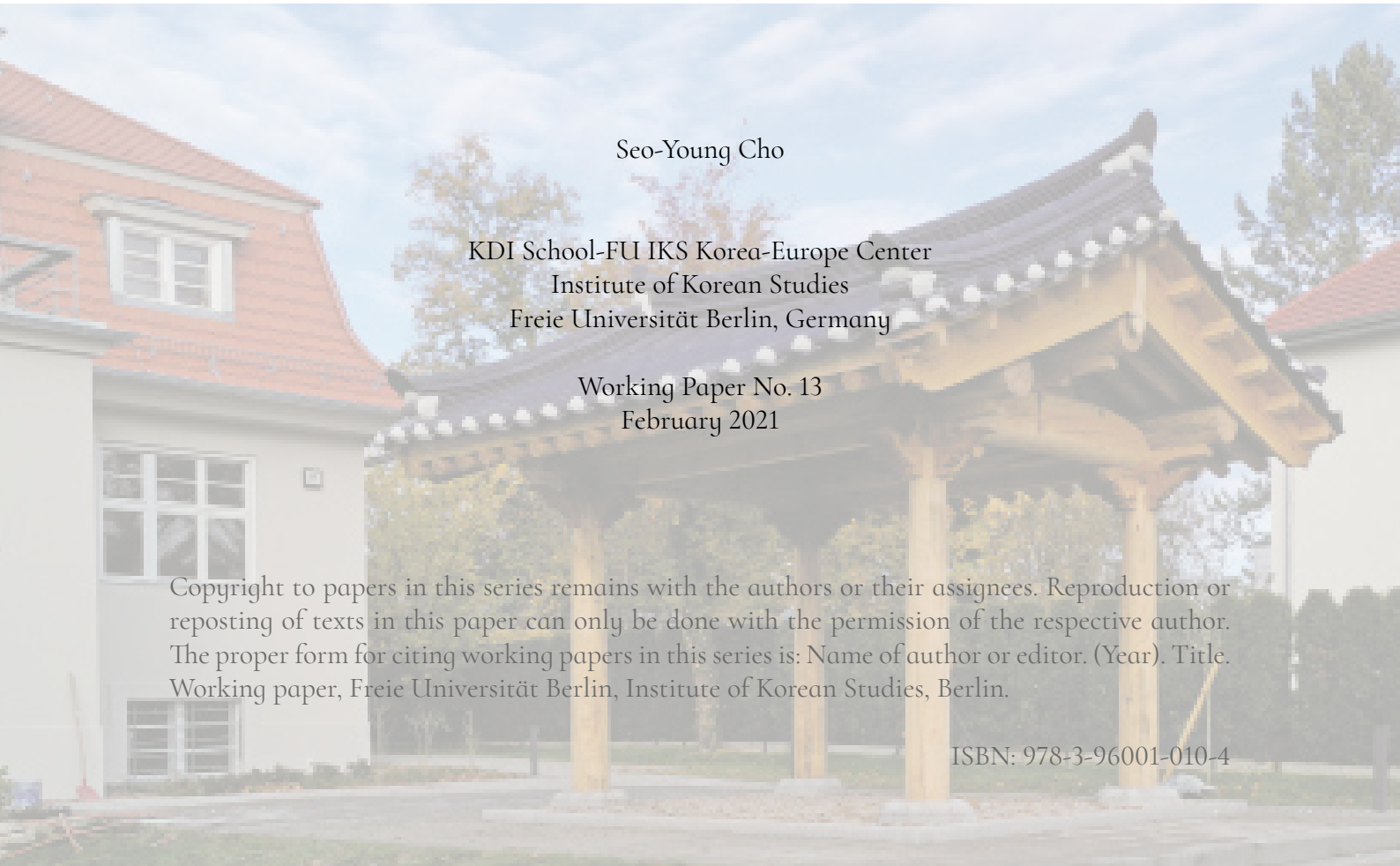
On Inclusive Growth – Millennials and Entrepreneurs in South Korea



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On Inclusive Growth – Millennials and Entrepreneurs in South Korea

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Abstract:
This paper investigates potentials of youth entrepreneurship in South Korea. My analysis shows that young entrepreneurs are more opportunity-driven and entrepreneurial than older ones. Millennial entrepreneurs have higher levels of human capital and entrepreneurial attitudes for innovation, creativity, diversity, and competition. Nonetheless, the results also reveal young entrepreneurs' difficulties in securing financial gains, implying disparity between their entrepreneurial aspirations and actual outcomes. This gap underscores the necessity of institutional supports to improve entrepreneurial ecosystems for young people of creative minds in South Korea.

Keywords:
Entrepreneurship, Millennials, Innovation, Creativity, Competition, Diversity, Inclusive Growth, South Korea

JEL-codes:
J24, O30, O53

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1. Introduction

South Korea's traditional export-led growth model that concentrated on large manufacturing firms may not provide an engine of the country's inclusive growth today because large firms do not offer sufficient jobs anymore. In 2019, 64 largest conglomerates in South Korea that formed 84.3 percent of the gross domestic product (GDP) employed 11.4 percent of workers only, while small-medium-sized enterprises (SMEs) hired almost 90% of the total employees (Korean Statistical Information Service, KOSIS 2019). Given this share, SMEs should play a key role in promoting inclusive growth in South Korea that ensures benefits and opportunities for all. However, SMEs have not fulfilled this expectation because their labor conditions are significantly worse than large firms'. The wage level at SMEs is only 60–70 percent of large and public companies in South Korea and such poor conditions can largely be attributed to their low productivity. For instance, small firms have only a third of conglomerates' productivity level and for medium-sized ones, it is not more than 60 percent (Jones and Lee 2016). This problem results in dividing the labor markets into well-paid, regular employment at large corporations and low-paid, non-regular one at SMEs.

To overcome such labor market dualism and increase decent jobs, SMEs should improve their productivity through innovation. A viable way to do so is encouraging young people to undertake entrepreneurial activities as youth entrepreneurship is often regarded as sources of innovation. Especially, young venture firms can play an important role in driving growth by disseminating entrepreneurial attitudes and competition for innovation throughout the economy. However, the youth entrepreneurial activity rate is currently low in South Korea – 3 and 14 percent of individuals in their 20s and 30s, respectively, who are in the labor markets (KOSIS 2019). These rates are lower than the national average of 21 percent of all working age groups. This is different from the other OECD countries where youth entrepreneurial participation level tends to be higher than older generations' (Jones and Lee 2018).

Considering the current gap in youth entrepreneurship in South Korea, this paper examines potentials of young entrepreneurs (i.e., Millennials born in the 1980s and 90s) as key stakeholders of innovation of the country. The central focus of the analysis is whether young entrepreneurs are more opportunity-maximizing and entrepreneurial than older generations in terms of their qualifications, motivations, and attitudes. Using the most recent wave of the World Values Survey for South Korea (2020), the findings of my analysis show that young people choose to become entrepreneurs in order to maximize their career opportunities by running own businesses. Such opportunity-driven entrepreneurial motivation is evident in high levels of human capital and entrepreneurial attitudes for innovation, creativity, diversity, and competition, which Millennial entrepreneurs demonstrate. This is different from older entrepreneurs whose motivation is more necessity-driven as they have often no other choice in the labor markets than opening own businesses. Nonetheless, the results also reveal young entrepreneurs' difficulties in securing financial gains, implying disparity between their entrepreneurial aspirations and actual outcomes.

The findings of my study emphasize the importance of institutional supports, through which young entrepreneurs can realize their goals and overcome challenges in undertaking entrepreneurial endeavors. Fair rules of competition, proper rewards for innovation, and safety nets for failed entrepreneurs are crucial institutional conditions that can create favorable entrepreneurial ecosystems for young people of creative minds. With such efforts, youth entrepreneurship can be promoted and utilized to achieve both innovation-based sustainable growth and inclusive growth for diverse segments of society.

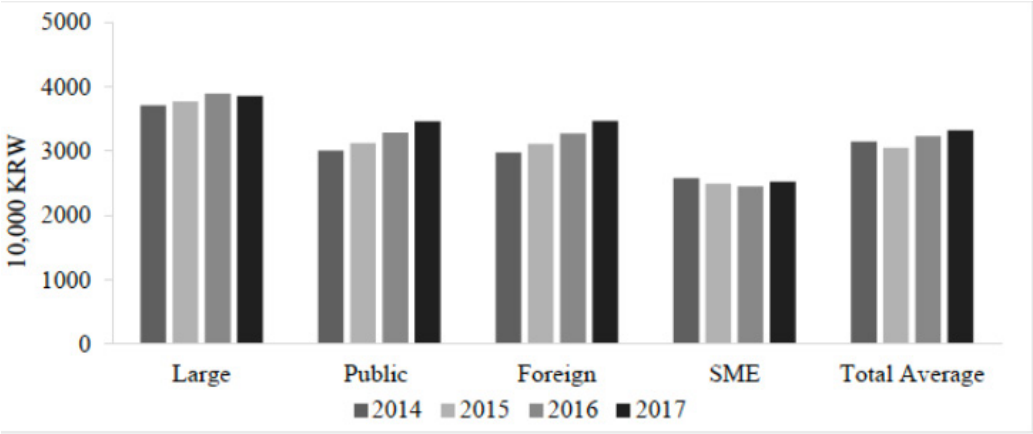
2. Youth Employment and Entrepreneurship in South Korea

2.1. Youth Employment: Dual Labor Markets and Job Mismatches

The youth employment rate (age group of 15–29) in South Korea is currently 42 percent only, the 6th lowest among the OECD countries of which rate is 53 percent on average (OECD 2017). In parallel, the youth unemployment level is high in South Korea: 10.97 percent for the age group of 15–24 and 8.9 percent for 20–29, compared to 4.8 percent of the national unemployment rate for all working age groups (World Bank 2019). Since the Asian Financial Crisis in 1997, youth unemployment has shown an upward trending in the country: up from 5.85 percent in 1996 to 15.46 percent in 1998 and maintaining between 9 and 11 percent during the last decade (World Bank 2019). This low level of youth labor force participation in South Korea can be attributed to the following three structural problems.

The first structural problem is dual labor markets, in which labor markets are structurally divided between large firms (the so-called *chaebols* in Korean, i.e., conglomerates) and small-medium-sized enterprises (SMEs) in terms of labor conditions and wage levels. While workers at large firms are generally well-paid, employees at SMEs who account for more than 80 percent of total employees in South Korea face low wages and poor working conditions. As illustrated in Figure 1, the average wage of entry-level employees in SMEs is only 65 percent of large firms' and 70 percent of public firms'. Furthermore, the earning gaps increase over time as SMEs do not provide stable employment given volatile business environments and their low survival rates (Jones and Lee 2016). Consequently, young people are reluctant to start their careers with SMEs. The recent statistics provided by the Korean Statistics Information Service (KOSIS 2019) show that only 5 percent of young people under 30 favor working with SMEs, while the share of people who want to work with the government, public companies, and large firms are 22.8, 21.7, and 17.4 percent, respectively. As a result, youths tend to delay entering the labor markets in South Korea and stay as economically inactive instead of working with SMEs (Jones and Lee 2018).

Figure 1
The Average Wages of Entry-Level Workers in South Korea, by Firm Types



Note: Wages of entre-level positions for four-year college graduates.
Unit: 10,000 South Korean Won

Data source: www.jobkorea.co.kr

In addition to the division of the labor markets between SMEs and large firms, the high share of non-regular employees – fixed-term, part-time, and dispatched workers – is responsible for exacerbating the labor market dualism. Non-regular workers account for a third of wage employment in South Korea. Particularly, the share of temporary workers without long-term stability is 22 percent of the total wage employment, which is more than double the OECD average (Jones and Fukawa 2016). Firms hire non-regular workers to reduce labor costs and avoid the cost of laying off regular workers and hence, non-regular workers face structural problems of low wages and job instability. For instance, non-regular workers' hourly wage is 36 percent lower than regular workers' in South Korea, and more than half of non-regular workers express their preferences for regular employment, showing the involuntary choice of non-regular job status (Jones and Fukawa 2016).

The second structural problem is job mismatches between demand in the labor markets and job seekers' skills. The university enrolment rate (the share of high school graduates advancing to tertiary education) in South Korea is 67.8 percent in 2019, which has significantly increased from 33 percent in 1990 and maintained the level of around 70 percent during the past decade (KOSIS 2019). This places South Korea on top of all other OECD countries in terms of higher education. On the contrary, the employment rate of four-year college graduates remains as low as 64.2 percent – low than most other OECD countries.

Such a disparity between higher education and youth employment rates implies that knowledge and skills acquired through education are not anymore matched with changing industrial needs caused by South Korea's transformation from manufacturing- to knowledge-based economy today. As an example, 37 percent of youths in the age group of 16–29 are mismatched for their jobs in terms of study fields and skills – the second highest level among the OECD countries in which the average mismatch rate is around 25 percent (OECD 2014). This job mismatch can partly be attributed to an overemphasis on university education and a decline in the share of students in vocational training in the country (Kim 2015).

The third structural factor of the low youth labor participation is the high level of 'not in education, employment, or training' (the so-called NEETs), caused by job mismatches presented above. This problem is especially significant for those with higher education. As a large number of university graduates are unable to find jobs that match their education levels, they postpone entering the labor markets and extending the time of job searches. According to the OECD (2015), South Korea is one of few countries where the NEETs rate for university graduates (25 percent) is higher than the overall NEETs rate of the age group of 15–29 (18 percent). Also, this level is considerably higher than the OECD average of 14 percent for those with tertiary education. University graduates tend to expect regular jobs in large or public firms and therefore prefer waiting for desirable employment opportunities instead of being employed as non-regular workers or in SMEs where job security and wage levels are low (Jones and Fukawa 2016). As a result, human capital gained by educated youths is not properly utilized in the labor markets, while SMEs face labor shortages.

2.2. Youth Entrepreneurship in South Korea

One way of integrating young people into the labor markets is to increase youth entrepreneurship. Becoming an entrepreneur can be beneficial for the young person by advancing his/her human capital (such as managerial skills and professional networks) and increasing wealth (Green 2013). Moreover, entrepreneurs can create jobs and promote innovation and competition, which contribute to the entire economy. Especially, innovative startups by young entrepreneurs can break the vicious circle of the low productivity and wages at SMEs and the low youth employment rate in South Korea because innovation and job creation are more often realized by young ventures than established firms (Global Entrepreneurship Development Institute 2019).

Despite its potentials to stimulate growth and labor participation of young people, youth entrepreneurship does not prosper in South Korea. According to the Ministry of SMEs and Startups of South Korea (MSS 2020), the most active cohorts of entrepreneurs are the age groups of the 50s and 40s in South Korea who comprise 32 and 29 percent of the total number of entrepreneurs. In contrast, the shares of the age groups of the 20s and 30s are only 3 and 14 percent, respectively. The youth entrepreneurial participation rate in South Korea is the 2nd lowest among the OECD countries where the cohort of 25–34 forms the most active group of entrepreneurs (MSS 2020). The high share of older entrepreneurs in South Korea may undermine innovation by SMEs as older ones – particularly over 55 – tend to be necessity-driven entrepreneurs who do not find other employment opportunities after retirement, given the early average retirement age of 53 among employees there (Global Entrepreneurship Development Institute 2020).[1]

South Korean youths are unwilling to open own startups because of unfavorable business environments and high risks. This reluctance can especially be attributed to the lack of opportunities and fear of failure because it is extremely difficult for young people to obtain financial resources to start their businesses and second chances to recover in case of failures (MSS 2020). Moreover, public perceptions of entrepreneurs have been negative in South Korea for a long time and therefore parents and teachers tend not to recommend entrepreneurship as a desirable career option for young people (Park 2017).

1 In addition, Yun (2011) argues that the unbalanced development of South Korea during the fast growth period resulted in necessity-driven self-employment of rural migrants with low levels of human capital because they had no choice but to open small businesses.

However, recent evidence presented by the Global Entrepreneurship Monitor (Global Entrepreneurship Development Institute 2020) suggests positive changes in youth entrepreneurship in South Korea. For instance, the total early-stage entrepreneurial activity rate (TEA), which represents young entrepreneurs' participation to a large degree, has increased in recent years significantly: from 6.7 percent in 2016 to 14.9 percent in 2019. The current level of TEA in South Korea is higher than Western European countries, for example, Germany (7.5 percent), Sweden (8 percent), and the United Kingdom (9.5 percent). Moreover, new entrepreneurs in South Korea are more opportunity-driven, as the proportion of opportunity-maximizing TEA accounts for 67.1 percent of the total TEA while the share of necessity-driven TEA is 21 percent only (Global Entrepreneurship Development Institute 2019). Also, the societal recognition for entrepreneurs has gradually improved. The share of people who view entrepreneurship as a promising career increases from 38 percent in 2015 to 54.3 percent in 2019 (Global Entrepreneurship Development Institute 2020). These positive changes observed in the past few years hint at growing potentials of youth entrepreneurship in South Korea.

3. Empirical Analysis

3.1. Are Youth Entrepreneurs More Opportunity-driven?

In this section, potentials of youth entrepreneurship as an engine of innovation are investigated. Accordingly, individuals' entrepreneurial motivations are identified, and the results are compared between older and younger groups of people. The intergenerational comparison can determine whether younger generations are more opportunity-maximizing entrepreneurs than older ones. To empirically investigate this question, the following econometric model is estimated by using the data of the World Values Survey of South Korea (2020).

$$\begin{aligned} \text{self-employ}_i = {} & ß_1\text{gender}_i + ß_2\text{age}_i + ß_3\text{age2}_i + ß_4\text{education}_i + ß_5\text{class}_i + ß_6\text{income}_i \\ & + ß_7\text{satisfaction}_i + X_i'\Pi + u_i \end{aligned} \quad (1)$$

The dependent variable indicates whether or not one is self-employed. This is a dichotomous choice variable, taking 1 if s/he is self-employed and 0, otherwise. Admittedly, this is not a perfect indicator of innovative entrepreneurship because self-employment includes all types of business ownership. Nevertheless, this variable captures broadly defined entrepreneurship – i.e., running own enterprises, and thus can be used as the outcome variable for estimating effects of entrepreneurial inputs, which is the primary purpose of the analysis of this paper. Accordingly, the effects identified through this model should be understood as conservative estimations of the relationships between entrepreneurship and entrepreneurial motivations and attitudes. Given the binary structure of the dependent variable, the model is estimated by a probit method, and marginal effects are computed as predicted probabilities with the assumption of the standard normal distribution.

The explanatory variables of main interest measure one's motivation for choosing self-employment. Entrepreneurial motivation is distinguished between opportunity-driven (seeking to maximize one's potentials by running an own business) and necessity-based (a coping strategy to deal with hardship in finding a regular job) ones (Davidsson 2003, Green 2013, Kirzner 1974). Thereby, two variables that determine one's opportunities and needs are incorporated as motivation variables in Equation 1. First, *education* represents human capital, in which a higher level of education is assumed to offer greater opportunities for entrepreneurs (Mengistae 2006). In this model, one's education level is evaluated at an eight-point scale – from no education (0) to having completed a doctoral degree (8).[2] Second, *class* refers to one's self-defined social status that influences availabilities of human, economic, and social resources. This variable is used as an indicator of opportunities as family backgrounds often provide social networks for business contacts (Nguyen and Nordman. 2015). This variable is classified as upper, upper-middle, lower-middle, working, and lower classes on a five-point scale. Accordingly, a higher level of class corresponds to more business opportunities available for the person (i).

Also, the model comprises two additional variables that assess one's current financial status: financial satisfaction (*satisfaction*) and income level (*income*). *Satisfaction* shows how much one is content with his/her current financial situation, measured on a scale from 1 (completely dissatisfied) to 10 (completely satisfied). The current income level is also measured on a ten-point scale from 1 (lowest) to 10 (highest). While self-defined class above tends to reflect one's rooted socioeconomic backgrounds, financial satisfaction and income level mirror current conditions, hinting at the degree of one's occupational successes in monetary terms.

The other control variables include a set of demographic characteristics that influence one's employment status – i.e., gender, age, and family status. *Gender* measures a gender difference in entrepreneurship. This variable takes a value of 1 for being a female and 0 for a male. *Age* takes a quadratic form because an age effect is likely non-linear on self-employment – i.e., the effect is increasing in age until a certain point in life but decreasing afterwards. The family status (denoted as Vector X in Equation 1) consists of one's marital status (single, divorced, and widowed. Note that *married* is omitted as the reference category in the model) and the number of children.

The model formulated in Equation 1 is estimated first for all age groups together and then for different age groups separately in order to examine generational asymmetry in the effect of entrepreneurial motivation. To do so, the sample is decomposed into individuals over 40[3] and others under 40 (18–39, Millennials). In addition, youths between 18 and 29 (the so-called Z generation) are further sub-grouped so that any differences between younger and older Millennials can be discovered. By subgrouping the sample, one can identify whether young entrepreneurs are more opportunity-driven than older ones.

Table 1 presents the results. The aggregate results of all age groups show a negative gender effect on self-employment, in that women are 70 percent less likely to open own businesses than men (Column 1). This effect is driven by older people (over 40, see Column 2) and the negative gender effect disappears for the younger generation (Columns 3 and 4). This finding implies

2 No education (0), primary education (1), lower-secondary education (2), upper-secondary education (3), post-secondary non-tertiary education (4), short-cycle tertiary education (5), bachelor (6), master (7), and doctorate (8).

3 Indeed, the older group of individuals is composed of different generations: baby boomers born after the Korean War (1953), the 86-generation born in the 1960s who were the lead group of the democratization movements in the 1980s, and the X generation born in the 1970s who grew up during the period of fast economic growth and entered their adulthoods after democratization. Despite their generational differences, individuals over 40 are categorized as one group here as they share the demographic characteristics of established careers and family standings that are relevant to the analysis of entrepreneurship.

that a gender gap in entrepreneurship is a generational issue in South Korea and young women are as active as young men in striving own business activities. In addition, age effect is significant in choosing an entrepreneurial occupation. Self-employment increases until the age of 49 and declines afterwards (Column 1). Family status (marital status and the number of children), in contrast, plays a minimal role in determining self-employment.

Coming to the question of main interest, the results support generational differences in entrepreneurial motivation. For the older group over 40, the occupational choice of self-employment is suggested as necessity-driven, as seen in the negative effect of education (Column 2). This indicates that the less educated who are more likely to confront hardship in securing a regular job in older ages take self-employment as an alternative option. In contrast, for young people – especially the Z generation (age 18–29), education has a positive effect on self-employment. Putting it more precisely, university graduates of the Z generation are 50 percent more likely to be self-employed than high school graduates of the same age group (Column 4). Given that highly educated youths are likely to have greater opportunities in the labor markets, their decision to become entrepreneurs can be interpreted as an opportunity-maximizing choice by utilizing their skills and potentials in own ways.[4]

The opportunity-driven entrepreneurship of the younger generation is further evidenced by the positive effect of self-defined class. Individuals of the Z generation who define their socioeconomic class more highly are more likely to be self-employed. For instance, those in the upper-middle class are 10 percent more likely to become entrepreneurs than others in the lower-middle class (Column 4). This indicates that resourcefulness leads to entrepreneurship for young people, corroborating their opportunity-driven entrepreneurial motivation. However, young entrepreneurs are neither satisfied with their current financial conditions (for all Millennials together, Column 3) nor evaluate their current income level highly (for the Z generation, Column 4). This finding reveals young entrepreneurs' struggles in turning their business to a monetary success, despite their opportunity-maximizing motivation.

On the other hand, for the older generations over 40, social class, income, and financial satisfaction have no effect on self-employment. No effect of social class implies that resourcefulness is not a determinant of entrepreneurship for older people – contrary to younger ones. However, older entrepreneurs are not more financially constrained than non-self-employed persons in their age group, despite their necessity-driven entrepreneurial motivation discussed above. This finding is exactly opposite to that of young entrepreneurs who face greater financial constraints notwithstanding their opportunity-driven motivation. Such a contrast hints at less favorable entrepreneurial environments for Millennial entrepreneurs.

3.2. Are Youth Entrepreneurs More Entrepreneurial?

The results above highlight that young entrepreneurs are more opportunity-driven than older ones who tend to choose self-employment out of necessity. In this section, young entrepreneurs' motivation is further investigated by evaluating their attitudes. To do so, the analytical model incorporates variables that proxy entrepreneurial attitudes, and whether entrepreneurial spirits are driving forces of youth entrepreneurship is accordingly identified.

4 On the other hand, the positive effect of education on youth self-employment can also refer to a higher level of difficulties for educated young people in finding a job that fulfills their expectations.

In the literature, three personal characteristics are suggested as key entrepreneurial attitudes (van Praag 2003, Schumpeter 1934): willingness to compete, acceptance for differences (diversity), and creative and innovative minds. Such traits enable individuals to take risks, try for innovation, and develop niche markets of unconventional values, all of which are important indicators of entrepreneurial outcomes and achievements.

For the empirical analysis, these key entrepreneurial attitudes are measured by using related questions in the World Values Survey that capture the respective dimensions of competition, diversity, and creativity/innovation. One's willingness to compete is evaluated by two questions on economic values: (i) how would you place your views on competition? – evaluated on a scale from 1 (competition is harmful) to 10 (competition is desirable), and (ii) how much do you support incentives for individual efforts? – evaluated on a scale from 1 (full supports for equality in income) to 10 (full supports for greater incentives for individual efforts).

One's acceptance for diversity is evaluated by two questions on social values that represent tolerance for two important social minorities – women and migrants. The first question asks how much one agrees with the statement, *if a woman earns more money than her husband, it is almost certain to cause problems*, with the answer choices of *strongly agree* (1), *agree* (2), *neutral* (3), *disagree* (4), and *disagree strongly* (5). This question reflects whether women's economic success can be recognized independently of traditional gender norms. Such an attitude can promote market opportunities for and cooperation with female talent. The second question asks whether one supports the view that migrants strengthen cultural diversity, and respondents choose their answers among *disagree* (0), *neutral* (1), and *agree* (2). This question provides a relevant barometer of societal tolerance given the growing importance of migrants in South Korean society today.

One's attitudes for creativity is assessed by two questions – one about individual lifestyle and the other about innovation. The first question inquires how much freedom of choice one feels to have in life. Respondents evaluate the level of their freedom on a scale from 1 (*no choice*) to 10 (*a great deal of choice*). This question refers to an important condition of creativity because individual freedom of choice is prerequisite for free thinking and courageous experiments. The second question captures one's supports for innovation by asking how much one agrees with the statement, *science and technology create more opportunities for the next generation*. Respondents rate their supporting level on a scale from 1 (*completely disagree*) to 10 (*completely agree*). This question is selected to measure individual attitudes for innovation because many innovative startups operate in the science and technology fields, in which South Korea has comparative advantages and potential gains are large.

Incorporating the six variables of the entrepreneurial attitudes in the three dimensions, the model is extended as below (Equation 2).

$$\text{self-employ}_i = ß_1\text{gender}_i + ß_2\text{age}_i + ß_3\text{age}^2_i + ß_4\text{education}_i + ß_5\text{class}_i + ß_6\text{income}_i + ß_7\text{satisfaction}_i + \text{Attitude}_i{}'\Omega + X_i{}'\Pi + u_i \quad (2)$$

In this model, vector *Attitude* includes the six variables of the entrepreneurial attitudes which enter the equation one by one. The other variables are identical to the ones in Equation 1, which are explained in Section 3.1. In order to compare the effects of the entrepreneurial attitudes between the generations, the sample is again sub-grouped into the older generations (over 40), Millennials (18–39), and the Z generation (18–29).

Tables 2–4 present the results of each dimension of the entrepreneurial attitudes. First, the results of attitudes for competition are shown in Table 2. After including the variables of competition, the effects of the individual traits remain widely consistent with the findings presented in Table 1. What is different is the effect of education on Millennials. Without controlling for attitudes for competition in Table 1, the effect of education was positive on younger Millennials (Z generation) only. However, by addressing competition, the effect of education becomes positive on all Millennials (Columns 3–6, Table 2), which enhances the evidence of opportunity-driven youth entrepreneurship.

The opportunity-driven youth entrepreneurship is further supported as attitudes for competition have a positive effect on Millennials' self-employment. Increasing supports for competition by 10 percent increases the probability of one being self-employed by almost 10 percent for all Millennials and 20 percent for the Z generation. However, for the older generations over 40, supports for competition have no effect on their entrepreneurial participation. When the competition variable is replaced with one's supports for individual incentives for efforts, the positive effect is even greater for young entrepreneurs. By increasing one's supports for individual incentives by 10 percent, Millennials are 18–19 percent more likely to be self-employed. In contrast, this attitude has no effect on the older generations.

Second, examining acceptance for diversity and tolerance, the results further endorse the greater importance of entrepreneurial attitudes on younger entrepreneurs than older ones. As seen in Table 3, the effects of supports for gender equality and cultural diversity are particularly positive on the Z generation. By increasing supports for women's higher earnings by 10 percent, the younger group of Millennials (age 18–29) is 13 percent more likely to be self-employed (Column 5). Also, increasing supports for cultural diversity (migrants) by the same margin increases their probability of being self-employed by 11 percent (Column 6).

For all Millennials together (age 18–39), the effect of supporting cultural diversity remains positive and significant. An increase in supports for this social value by 10 percent increases the probability of one being self-employed by 7.5 percent (Column 4). However, the effect of endorsing women's higher income is insignificant (Column 3), showing that gender equality is associated with entrepreneurial minds of individuals in their 20s but not with others in their 30s. This reflects growing gender awareness among youths in the Z generation observed in South Korea today, probably as an outcome of prioritizing gender equality as a policy objective and the following reforms of family and labor laws in the 1990s when the Z generation was born and spent their early childhoods.

In contrast to the positive role of accepting diversity and tolerance in youth entrepreneurship, the effect is not positive on the older generations over 40. Supports for gender equality have no effect on their self-employment, and accepting cultural diversity even has a negative effect. Increasing one's supports for cultural diversity by 10 percent results in decreasing the probability of one running his/her own business by 5.6 percent. This limited role of diversity and tolerance hints at older entrepreneurs' reluctance to undertake new endeavors and varieties of opportunities for their businesses – a contradiction to the objective of entrepreneurship.

Third, the results of attitudes for creativity and innovation underscore Millennials' opportunity-driven entrepreneurial motivation, as evident in the positive effect of supports for innovation on their self-employment (Table 4). Increasing one's supportive attitudes for innovation by 10 percent increases the probability of one becoming an entrepreneur

by 25.6 percent (Column 4). For younger Millennials (Z generation), the effect is even greater with 28.5 percent (Column 6). In contrast to the positive effect of innovation on Millennials as such, the role of creativity – proxied by one's free choice in life – is more constrained. Raising one's supports for creativity by 10 percent increases the probability of the Z generation choosing an entrepreneurial career option by 27.4 percent (Column 5), but it has no effect on older Millennials (Column 3). This difference in the effect between creativity and innovation may mirror the technology-oriented direction of startups in South Korea. Yet, it also indicates a new development toward creativity-based entrepreneurship that is more actively adapted by younger Millennials. On the other hand, neither supports for innovation nor creativity have any effect on the self-employment of the older generations over 40 (Columns 1 and 2).

3.3. Causality between Entrepreneurial Attitudes and Choices

The results presented in Tables 2–4 propose supportive attitudes for competition, diversity, and innovation/creativity as driving-forces of Millennials' entrepreneurial choice. However, their relationship might be spurious, if such attitudes are correlated to unobserved individual heterogeneity omitted in the model. Hence, an instrumental variable analysis is conducted in order to corroborate causality between entrepreneurial attitudes and entrepreneurial choice. To do so, external variables that are exogeneous to individuals' unobserved characteristics but correlated to their entrepreneurial attitudes are taken as instruments. The choice of instruments is the group average value of each type of the entrepreneurial attitudes among individuals who share the same age cohort and gender. Here the same age cohort is defined as having three or less years of age differences: $age_i+3 \leq age\ group_i \geq age_i-3$. The group average values are chosen as instruments because individual attitudes can be influenced by the peer groups of the same generation and gender who share similar life experiences and zeitgeists. As the instruments represent the group average values of the attitudes, they are not directly correlated to an individual's unobserved traits, thus satisfying the requirement of exogeneity.

Table 5.1 shows the results of the first stage regression that exhibit a high level of explanatory power of the group average values on an individual's attitudes. In this first stage model, the sample is sub-grouped into two: older generations over 40 and Millennials (18–39). The average values of the attitudes have positive effects on individual attitudes in all of the six dimensions for both older and younger generations, and the effects are statistically significant at 1–5 percent levels with substantial sizes. In addition, the F-statistics display a high level of joint significance of the first stage model ($F > 10$), which supports the relevance of the instruments in explaining individual attitudes. Furthermore, the results of the Hansen-test presented in Tables 5.2–5.4 support the exogeneity of the instrumental variables by showing that the instruments are correctly excluded in the structural model.

As the exclusion criteria of the instruments are fulfilled, the second stage regressions are conducted to estimate the effects of the attitudes on one's entrepreneurial choice by excluding influences from omitted variables (see Tables 5.2–5.4). First, Table 5.2 summarizes the results of competition and incentives for efforts. After accounting for the endogeneity of the model, one's supports for competition and individual incentives maintain the positive effects on Millennials' entrepreneurial career choice (Columns 3–6). The sizes of the effects become smaller than those of the baseline estimations in Table 2: a reduction by 10–20 percent for competition and by 5–17 percent for individual incentives. This downsizing is probably because the instruments are

less precise measurements than the individual values of the attitudes and thus do not reveal the effects fully. For the older generations (over 40), both attitudes for competition and incentives remain as having no effect – identical to the baseline findings.

In addition to competition and incentives, Table 5.3 reiterates the positive effects of one's entrepreneurial attitudes in the domain of diversity and tolerance. Alike the baseline results in Table 3, one's supports for gender equality have a positive effect on the Z generation and supports for cultural diversity on all Millennials – but no effect on older individuals over 40. Also, Table 5.4 shows that one's attitudes for creativity and innovation keep the positive effects on Millennials, consistent with the previous results. Overall, accounting for the endogeneity of the model does not alter the main finding of the positive role of one's attitudes in youth entrepreneurship (and no effect on the older generations).

4. Discussion and Conclusion

The empirical results of this paper highlight the potentials of young entrepreneurs in South Korea. With higher levels of human capital and entrepreneurial attitudes, South Korean Millennial entrepreneurs exhibit opportunity-driven motivation, different from the older generations. These findings offer a positive signal for potential innovation through youth entrepreneurship. Nonetheless, the findings also reveal financial challenges and hardship for young entrepreneurs in realizing economic gains, as seen in the negative relationship between youth entrepreneurship and their financial satisfaction and income level. This contrast between motivation and realities necessitates institutional efforts to improve business environments for young people to maximize their entrepreneurial potentials. Accordingly, several key implications are suggested and discussed in this section.

First, to make youth entrepreneurship sustainable and profitable, institutional supports are needed to transform youth human capital to economic capital. Young entrepreneurs' potentials – such as entrepreneurial attitudes and opportunity-driven motivation with higher education – would be wasted if their business activities cannot substantiate financial gains. In order to maximize and materialize their contributions, favorable entrepreneurial ecosystems should be promoted. Foremost, fair rules of competition for youth and entry-level entrepreneurs and supports for failures are important conditions to stimulate venture projects, so that early career entrepreneurs can undertake innovative tries without fearing risks of their ideas stolen or bankruptcy (Lee and Choi 2017). In fact, resource constraints of young entrepreneurs and market domination by large firms create structural unfairness in competition, which results in forgone entrepreneurial efforts by young innovators. For instance, young venturers in South Korea tend to sell their innovative technology or business ideas to large firms instead of launching own enterprises because of unfair competition with conglomerates (The Economist 2020). Taking these situations critically, proper resource allocation, intellectual property rights protection, and incentive schemes to reward innovation should be addressed as priorities of the entrepreneurial ecosystems (Kim 2014).

Second, up-to-date entrepreneurship education should be made more available for young people in order to reduce job-skill mismatches and market failures. Entrepreneurial failures are partly caused by such mismatches and information asymmetry, in that young entrepreneurs have difficulties in identifying niche-markets and they have not acquired required skills and experience for niche-market development. Practical training and consultations can be examples of entrepreneurship education, through which youths can improve their skills and gain experience in the fields of interests. Also, schools and universities should modernize their curricula to meet with changing industrial needs and trends in a future-oriented manner.

Third, the main finding of this paper emphasizes Millennial entrepreneurs as being well-possessed with entrepreneurial spirits of competition, innovation, creativity, and diversity. These attitudinal attributes are well-matched with the industrial characteristics of creative economy where freedom of ideas and individualist values are essential. Hence, South Korea's currently burgeoning cultural industries (the so-called Korean Wave including K-Pop and K-movies) can be a place where Millennial nascent entrepreneurs can realize their business potentials and aspirations. With this in mind, institutional efforts should be invested to promote youth talent in the creative economy – for instance, providing apprenticeship and seed funding opportunities for young people to gain professional experience and enhance human and social capital in this field so that they can endeavor innovative projects and creative enterprises.

Forth, young women can play a key role as entrepreneurs. Millennial women in South Korea are as active as their male counterparts in entrepreneurial activities as seen in the finding of no gender difference in youth entrepreneurship, different from the older generations. Indeed, female youth entrepreneurship can be instrumental to achieve both inclusive growth for women and youths and diversification of economic players that can increase creativity and innovation (Korea Women Entrepreneurs Association. 2015).

Potential contributions of Millennial entrepreneurs to the economy are large. Young entrepreneurs who can strive innovative startups can improve employment opportunities for youths and women who typically work at SMEs (Yoon et al. 2019). Such an inclusive approach is crucial for South Korea's future development. The past practice of fast growth based on concentration that divided winners and losers and did not permit failures cannot facilitate innovation and sustain growth for everyone anymore. Instead, creative entrepreneurial initiatives by youths can offer a viable way to establish the new economic order of inclusive growth.

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Table 1.
Opportunity- and Necessity-driven Entrepreneurship:
Human Capital and Outcomes Intergenerational Analysis, South Korea, 2020

DV: Self-Employment	Method: Probit (Marginal Effects)			
Age Group	All Ages (over 18)	Older Group (over 40)	Millennials (18–39)	Z Generation (18–29)
	(1)	(2)	(3)	(4)
Gender (female)	-0.70***	-0.77***	-0.22	0.37
	(0.13)	(0.14)	(0.32)	(0.54)
Age	0.12***	0.088	0.48	
	(0.04)	(0.09)	(0.32)	
Age^2	-0.0025**	-0.0019	-0.008	
	(0.001)	(0.002)	(0.005)	
Single	-0.57*	-0.82	-0.56	
	(0.29)	(0.51)	(0.37)	
Divorced	0.17	0.15		
	(0.48)	(0.48)		
Widowed	0.18	0.21		
	(0.35)	(0.35)		
Number of Children	-0.05	-0.05	-0.25	
	(0.07)	(0.08)	(0.18)	
Education	-0.09*	-0.09*	0.07	0.51***
	(0.05)	(0.05)	(0.04)	(0.18)
Self-defined Class	0.03	0.004	0.08	0.10***
	(0.09)	(0.09)	(0.15)	(0.03)
Income Level	-0.05	-0.05	-0.05	-0.61***
	(0.05)	(0.05)	(0.06)	(0.23)
Financial Satisfaction	0.01	0.04	-0.16**	-0.39
	(0.04)	(0.04)	(0.07)	(0.25)
Observations	1,245	791	454	223
(pseudo)R^2	0.13	0.11	0.14	0.30

Note: Robust standard errors are applied. * p< .10, ** p< .05, *** p< .001.

Table 2.
Entrepreneurship and Attitudes for Competition and Incentives
Intergenerational Analysis, South Korea, 2020

DV: Self-Employment	Method: Probit (Marginal Effects)					
Age Group	Older Group (over 40)		Millennials (18–39)		Z Generation (18–29)	
	(1)	(2)	(3)	(4)	(5)	(6)
Gender (female)	-0.76***	-0.76***	-0.19	-0.19	0.34	0.39
	(0.14)	(0.14)	(0.29)	(0.29)	(0.60)	(0.52)
Age	0.08	0.09	0.45	0.50		
	(0.08)	(0.08)	(0.33)	(0.38)		
Age^2	-0.002	-0.002	-0.009	-0.01		
	(0.002)	(0.002)	(0.005)	(0.01)		
Single	-0.86*	-0.86*	-0.58	-0.59		
	(0.49)	(0.51)	(0.40)	(0.40)		
Divorced	0.15	0.14				
	(0.50)	(0.47)				
Widowed	0.20	0.17				
	(0.40)	(0.49)				
Number of Children	-0.05	-0.05	-0.28	-0.28		
	(0.08)	(0.08)	(0.18)	(0.19)		
Education	-0.09*	-0.09	0.08**	0.08**	0.52***	0.53**
	(0.05)	(0.06)	(0.04)	(0.04)	(0.20)	(0.25)
Self-defined Class	0.003	0.004	0.06	0.09	0.12***	0.14**
	(0.09)	(0.08)	(0.15)	(0.13)	(0.04)	(0.06)
Income Level	-0.05	-0.05	-0.05	-0.05	-0.58**	-0.55**
	(0.05)	(0.05)	(0.04)	(0.05)	(0.27)	(0.25)
Financial Satisfaction	0.04	0.05	-0.15**	-0.16**	-0.41	-0.41
	(0.04)	(0.05)	(0.07)	(0.08)	(0.30)	(0.27)
Competition	-0.03		0.10**		0.20**	
	(0.04)		(0.05)		(0.10)	
Individual Incentives		0.07		0.18**		0.19*
		(0.05)		(0.07)		(0.10)
Observations	791	791	454	454	223	223
(pseudo)R^2	0.15	0.15	0.18	0.19	0.37	0.37

Note: Robust standard errors are in parenthesis. * $p<.10$, ** $p<.05$, *** $p<.001$.

Table 3.
Entrepreneurship and Attitudes for Diversity and Tolerance
Intergenerational Analysis, South Korea, 2020

DV: Self-Employment	Method: Probit (Marginal Effects)					
Age Group	Older Group (over 40)		Millennials (18–39)		Z Generation (18–29)	
	(1)	(2)	(3)	(4)	(5)	(6)
Gender (female)	-0.73***	-0.73***	-0.18	-0.18	0.43	0.42
	(0.17)	(0.16)	(0.24)	(0.24)	(0.59)	(0.55)
Age	0.07	0.06	0.50	0.49		
	(0.07)	(0.06)	(0.35)	(0.36)		
Age^2	-0.002	-0.002	-0.001	-0.001		
	(0.002)	(0.002)	(0.007)	(0.007)		
Single	-0.80	-0.80	-0.58	-0.58		
	(0.51)	(0.50)	(0.40)	(0.43)		
Divorced	0.16	0.15				
	(0.50)	(0.46)				
Widowed	0.20	0.19				
	(0.43)	(0.45)				
Number of Children	-0.05	-0.05	-0.20	-0.20		
	(0.06)	(0.06)	(0.15)	(0.15)		
Education	-0.07*	-0.08*	0.10**	0.10**	0.48**	0.49***
	(0.04)	(0.05)	(0.05)	(0.05)	(0.24)	(0.24)
Self-defined Class	0.004	0.005	0.07	0.07	0.11**	0.11**
	(0.09)	(0.07)	(0.14)	(0.13)	(0.05)	(0.05)
Income Level	-0.05	-0.05	-0.07*	-0.07*	-0.53**	-0.56*
	(0.05)	(0.05)	(0.04)	(0.04)	(0.30)	(0.31)
Financial Satisfaction	0.04	0.04	-0.15**	-0.15**	-0.40	-0.40*
	(0.08)	(0.05)	(0.07)	(0.07)	(0.25)	(0.22)
Gender Equality	0.01		0.13		0.26***	
	(0.07)		(0.15)		(0.09)	
Cultural Diversity (Migration)		-0.17**		0.22**		0.34**
		(0.07)		(0.10)		(0.17)
Observations	791	791	454	454	223	223
(pseudo)R^2	0.16	0.15	0.19	0.21	0.40	0.39

Note: Robust standard errors are in parenthesis. * $p < .10$, ** $p < .05$, *** $p < .001$.

Table 4.
Entrepreneurship and Attitudes for Creativity and Innovation
Intergenerational Analysis, South Korea, 2020

DV: Self-Employment	Method: Probit (Marginal Effects)					
Age Group	Older Group (over 40)		Millennials (18–39)		Z Generation (18–29)	
	(1)	(2)	(3)	(4)	(5)	(6)
Gender (female)	-0.74***	-0.75***	-0.19	-0.19	0.42	0.42
	(0.18)	(0.18)	(0.20)	(0.19)	(0.55)	(0.52)
Age	0.07	0.06	0.49	0.48		
	(0.07)	(0.06)	(0.36)	(0.39)		
Age^2	-0.002	-0.002	-0.002	-0.002		
	(0.002)	(0.002)	(0.005)	(0.008)		
Single	-0.78	-0.79	-0.59	-0.56		
	(0.51)	(0.50)	(0.50)	(0.40)		
Divorced	0.15	0.16				
	(0.49)	(0.40)				
Widowed	0.21	0.19				
	(0.44)	(0.39)				
Number of Children	-0.05	-0.06	-0.20	-0.18		
	(0.08)	(0.06)	(0.15)	(0.15)		
Education	-0.08*	-0.08**	0.10**	0.11**	0.50**	0.48**
	(0.05)	(0.04)	(0.05)	(0.05)	(0.25)	(0.23)
Self-defined Class	0.004	0.005	0.07	0.07	0.12**	0.12**
	(0.08)	(0.06)	(0.15)	(0.13)	(0.05)	(0.05)
Income Level	-0.06	-0.05	-0.07*	-0.07*	-0.54**	-0.54**
	(0.05)	(0.05)	(0.04)	(0.04)	(0.27)	(0.28)
Financial Satisfaction	0.04	0.05	-0.15*	-0.16**	-0.40*	-0.43*
	(0.05)	(0.04)	(0.08)	(0.08)	(0.24)	(0.24)
Creativity (Free Choice)	-0.003		-0.06		0.27*	
	(0.05)		(0.07)		(0.16)	
Innovation		-0.004		0.26***		0.28***
		(0.042)		(0.09)		(0.05)
Observations	791	791	454	454	223	222
(pseudo)R^2	0.17	0.17	0.18	0.20	0.38	0.40

Note: Robust standard errors are in parenthesis. * p< .10, ** p< .05, *** p< .001.

Table 5.
Entrepreneurship and Attitudes
Instrumental Variable Approach

Table 5.1. First Stage

Age Group	First Stage Regression (OLS)					
Over 40	(1)	(2)	(3)	(4)	(5)	(6)
DV	Competition	Individual Incentives	Gender Equality	Cultural Diversity	Creativity	Innovation
Average Value (Instrument)	0.35** (0.17)	0.28** (0.13)	0.69** (0.33)	0.55** (0.20)	0.41*** (0.12)	0.35*** (0.13)
F-Statistics	25.20***	19.13***	22.12***	18.04***	30.12***	43.10***
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Observations	791	791	791	791	791	791
Age Group	First Stage Regression (OLS)					
18–39	(1)	(2)	(3)	(4)	(5)	(6)
DV	Competition	Individual Incentives	Gender Equality	Cultural Diversity	Creativity	Innovation
Average Value (Instrument)	0.21** (0.10)	0.13*** (0.04)	0.91*** (0.35)	0.48** (0.24)	0.71*** (0.27)	0.23** (0.10)
F-Statistics	27.35***	18.30***	21.89***	19.39***	25.23***	20.32***
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Observations	454	454	454	454	454	454

Note: Robust standard errors are in parenthesis. * $p < .10$, ** $p < .05$, *** $p < .001$.

Table 5.2. Second Stage: Competition and Incentives

DV: Self-Employment	Second Stage Regression (Probit, Marginal Effects)					
Age Group	Older Group (over 40)		Millennials (18–39)		Z Generation (18–29)	
	(1)	(2)	(3)	(4)	(5)	(6)
Gender (female)	-0.66***	-0.69***	-0.25	-0.31	0.29	0.35
	(0.20)	(0.25)	(0.30)	(0.33)	(0.73)	(0.43)
Age	0.07	0.10	0.37	0.48		
	(0.12)	(0.10)	(0.39)	(0.50)		
Age^2	-0.002	-0.002	-0.01	-0.01		
	(0.003)	(0.003)	(0.06)	(0.01)		
Single	-0.59	-0.76	-0.59	-0.51		
	(0.81)	(0.69)	(0.44)	(0.49)		
Divorced	0.16	0.12				
	(0.59)	(0.52)				
Widowed	0.18	0.15				
	(0.51)	(0.64)				
Number of Children	-0.06	-0.06	-0.35	-0.24		
	(0.08)	(0.08)	(0.38)	(0.30)		
Education	-0.08**	-0.09*	0.09*	0.09*	0.57**	0.58**
	(0.04)	(0.05)	(0.05)	(0.05)	(0.28)	(0.25)
Self-defined Class	0.004	0.004	0.07	0.10	0.15*	0.15*
	(0.09)	(0.09)	(0.18)	(0.15)	(0.09)	(0.08)
Income Level	-0.03	-0.04	-0.03	-0.04	-0.58**	-0.55**
	(0.07)	(0.07)	(0.05)	(0.06)	(0.29)	(0.26)
Financial Satisfaction	0.03	0.05	-0.14*	-0.16**	-0.42	-0.45*
	(0.04)	(0.05)	(0.08)	(0.09)	(0.33)	(0.27)
Competition	-0.02		0.08*		0.18**	
	(0.04)		(0.05)		(0.09)	
Individual Incentives		0.05		0.15**		0.18*
		(0.08)		(0.07)		(0.11)
Observations	791	791	454	454	223	223
Hansen Test *(p-value)*	0.53	0.64	0.56	0.47	0.57	0.59

Note: Robust standard errors are in parenthesis. * $p < .10$, ** $p < .05$, *** $p < .001$.

Table 5.3. Second Stage: Diversity and Tolerance

DV: Self-Employment	Second Stage Regression (Probit, Marginal Effects)					
Age Group	Older Group (over 40)		Millennials (18–39)		Z Generation (18–29)	
	(1)	(2)	(3)	(4)	(5)	(6)
Gender (female)	-0.68***	-0.71***	-0.19	-0.19	0.41	0.47
	(0.19)	(0.17)	(0.23)	(0.25)	(0.59)	(0.51)
Age	0.07	0.06	0.50	0.47		
	(0.05)	(0.08)	(0.40)	(0.36)		
Age^2	-0.002	-0.002	-0.001	-0.001		
	(0.002)	(0.002)	(0.007)	(0.007)		
Single	-0.78	-0.82	-0.55	-0.54		
	(0.53)	(0.51)	(0.43)	(0.45)		
Divorced	0.18	0.17				
	(0.55)	(0.47)				
Widowed	0.22	0.17				
	(0.45)	(0.43)				
Number of Children	-0.05	-0.05	-0.19	-0.22		
	(0.07)	(0.07)	(0.17)	(0.18)		
Education	-0.07	-0.08*	0.09*	0.14**	0.49**	0.46**
	(0.05)	(0.05)	(0.05)	(0.06)	(0.25)	(0.24)
Self-defined Class	0.004	0.005	0.07	0.06	0.11*	0.12**
	(0.07)	(0.06)	(0.15)	(0.11)	(0.06)	(0.06)
Income Level	-0.05	-0.05	-0.07*	-0.05*	-0.55*	-0.55
	(0.05)	(0.05)	(0.04)	(0.03)	(0.30)	(0.34)
Financial Satisfaction	0.04	0.03	-0.13**	-0.14*	-0.35	-0.41*
	(0.05)	(0.04)	(0.06)	(0.08)	(0.26)	(0.23)
Gender Equality	0.02		0.12		0.20***	
	(0.07)		(0.14)		(0.08)	
Cultural Diversity (Migration)		-0.15*		0.21**		0.31**
		(0.08)		(0.10)		(0.15)
Observations	791	791	454	454	223	223
Hansen Test *(p-value)*	0.53	0.53	0.55	0.49	0.43	0.53

Note: Robust standard errors are in parenthesis. * $p < .10$, ** $p < .05$, *** $p < .001$.

Table 5.4. Second Stage: Creativity and Innovation

DV: Self-Employment	Second Stage Regression (Probit, Marginal Effects)					
Age Group	Older Group (over 40)		Millennials (18–39)		Z Generation (18–29)	
	(1)	(2)	(3)	(4)	(5)	(6)
Gender (female)	-0.75***	-0.72***	-0.18	-0.18	0.40	0.43
	(0.20)	(0.21)	(0.22)	(0.23)	(0.58)	(0.53)
Age	0.07	0.05	0.50	0.47		
	(0.08)	(0.05)	(0.38)	(0.42)		
Age^2	-0.001	-0.002	-0.002	-0.002		
	(0.001)	(0.002)	(0.005)	(0.006)		
Single	-0.75	-0.76	-0.58	-0.55		
	(0.52)	(0.51)	(0.52)	(0.42)		
Divorced	0.14	0.17				
	(0.51)	(0.37)				
Widowed	0.20	0.18				
	(0.43)	(0.38)				
Number of Children	-0.03	-0.05	-0.22	-0.17		
	(0.08)	(0.06)	(0.17)	(0.16)		
Education	-0.09*	-0.08*	0.10*	0.11**	0.47**	0.48**
	(0.05)	(0.05)	(0.06)	(0.06)	(0.24)	(0.25)
Self-defined Class	0.003	0.004	0.07	0.07	0.11**	0.11**
	(0.08)	(0.07)	(0.16)	(0.12)	(0.05)	(0.05)
Income Level	-0.06	-0.04	-0.07*	-0.07*	-0.52**	-0.52*
	(0.04)	(0.04)	(0.04)	(0.04)	(0.27)	(0.28)
Financial Satisfaction	0.04	0.05	-0.14	-0.14*	-0.39*	-0.42*
	(0.05)	(0.05)	(0.09)	(0.08)	(0.24)	(0.24)
Creativity (Free Choice)	-0.002		-0.05		0.26**	
	(0.06)		(0.08)		(0.13)	
Innovation		-0.004		0.24***		0.27***
		(0.04)		(0.09)		(0.06)
Observations	791	791	454	454	223	222
Hansen Test *(p-value)*	0.25	0.45	0.33	0.43	0.48	0.42

Note: Robust standard errors are in parenthesis. * $p< .10$, ** $p< .05$, *** $p< .001$.