JPS
Journal of Policy Studies

Lee, J., Lee, S.-Y., & Chung, J. I. (2022). The Motivational Dynamics of Social Entrepreneurial Intention: The Interactive Effects Between Monetary Rewards and Social Recognition. *Journal of Policy Studies*, *4*(37), 17–37.
https://doi.org/10.52372/jps37402

Articles

The Motivational Dynamics of Social Entrepreneurial Intention: The Interactive Effects Between Monetary Rewards and Social Recognition

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Keywords: Social entrepreneurial intention, Monetary rewards, Social rewards, Social Recognition, Social Enterprise
https://doi.org/10.52372/jps37402

Vol. 4, Issue 37, 2022

Despite increasing economic prosperity and growth, we continue to face problems like social inequality and poverty. Social enterprises are considered as resourceful policy tools in creating social impact due to their innovative nature in addressing social problems. Building on Ajzen's theory of planned behavior, this study examines the role of social recognition in the motivational dynamics of social entrepreneurial intention. We analyze the relationship between perceived monetary rewards and non-monetary rewards, such as social recognition and their interactive effects on social entrepreneurial intention. Using the Korean Youth Panel ranging from 2008 to 2019, we find that negative effects of monetary rewards on social entrepreneurial intention are offset as the level of social recognition increases. Our findings suggest that policymakers and government managers should expand their activities that involve beyond monetary incentives and focus more on nurturing young talent in realizing one's own inner motives such as altruism and self-efficacy.

1. INTRODUCTION

Social enterprises are an ideal form of hybrid organizations with for-profit models and social objectives (Battilana & Lee, 2014; Powell et al., 2019). Social enterprises aim to create social impact and profit through their activities by using its core "double bottom line" framework (Dart, 2004; Hudon et al., 2020). Prosocial and for-profit motives are not incompatible but are rather complementary motivators in deriving sustainable social enterprise and favorable outcomes (Cornelius et al., 2008). Social enterprises are described as policy tools to help to deliver public services, and mitigate social inequality by helping the marginalized and thereby create social and public value (Austin et al., 2006; Chandra & Paras, 2021; Choi et al., 2021; Di Domenico et al., 2010; Kruse, 2020). The characteristics of social enterprises are multifaceted and complex, and they are often described as "not-for-profit, for-profit" and "hybrid" to "cross-sector" organizations (Marshall, 2011).

Social entrepreneurs who start their social enterprises are individuals, deeply driven by social vision, sustainability and bad innovation who seek for financial and social return (Martin & Osberg, 2007). Social entrepreneurs set policy agenda and build frameworks by prioritizing the important issues at hand, and thereby contribute in addressing social ills to raise awareness and form networks among various stakeholders as a collective action in breaking down unsurmountable social problems as into manageable benchmarks (Waddock & Post, 1991). Thus, social enterprises embrace both individual and social beliefs, values, and vision. In this study, we define social entrepreneurial intention (hereafter "SEI") as a desire to establish a social enterprise to solve social issues (Mair & Noboa, 2003; Tran & Von Korflesch, 2016).

Many scholars in the field of entrepreneurship have long studied entrepreneurial intention and its various determinants, but these studies were mainly sought in the corporate field. We have seen a rise in interest in both the academic scholarship and in practice in identifying the antecedents of SEI in the last decade and many empirical studies have explored various determinants that influence the formation of SEI (e.g., Bacq & Alt, 2018; Douglas & Prentice, 2019; Forster & Grichnik, 2013; Hockerts, 2017; Ip et al., 2021; Kruse, 2020; Kruse et al., 2021; Zaremohzzabieh et al., 2019). Despite the number of studies that examine the antecedents of SEI, given the complex and mul-

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tifaceted nature of social entrepreneurship – compared to those in the corporate sector which puts profit at the forefront of its firm priorities – we find it necessary to study thoroughly of the motivational dynamics of antecedents in SEI, that may be unique to its sector.

Moreover, although the emergence of social enterprises is a global phenomenon, the Korean government played a key role in heavily supporting social enterprises with a sizable financial funding with a legal framework established, intending to use social enterprises as policy tools, thus making these enterprises to have a more pronounced effect in the public sector (Park & Wilding, 2013). As social enterprises have the potential to function as public service delivery systems that create and disseminate social values, as intended by the government, they function as new policy tools and avenues in generating social value as our society faces growing complexities and wicked social problems (Agapitova et al., 2017). Given the unique Korean-context of how social enterprises are formed, domestic scholarship has focused mainly on the number of job creations, their effectiveness and performance. However, prior to assessing the effectiveness of social enterprises on a policy level, we need to gain a clearer understanding of the antecedents (motivations and attitudes) that encourage individuals to form social entrepreneurial intentions, thereby cultivating human resources to foster a socially inclusive and cohesive environment.

Social entrepreneurs are motivated to create social impact but nevertheless are bound to pursue money for the sustainability and survival of their enterprise. Profit is the objective and measurable form of monetary reward that is provided to individuals in return for their acts of service and work. Therefore, how an individual perceives one's profit, as a form of monetary reward is critical in job choice. The role of perceived monetary rewards, defined as how much importance a social entrepreneur places on monetary rewards, as a motivational factor in intention formation has received relatively little attention. The conscious and unconscious perception of monetary reward is deeply related to an individual's decision-making response, such as job choice (Bijleveld et al., 2015). In prosocial motivation studies, monetary rewards are also recognized as important external motivation that is known to crowd-in or crowd-out internal motivation (e.g., Corduneanu et al., 2020). Social entrepreneurs are individuals who also actively interact with other members of the society to find ways to solve societal problems and thereby collectively create social values. Therefore, depending on how they perceive non-monetary rewards (such as social rewards and social recognition), in addition to monetary rewards, their level of SEI may change. Moreover, we need to examine not only the interrelationship between monetary and non-monetary rewards in the intention forming process but also in terms of the social entrepreneur's perception of these external rewards.

Social recognition motives are just as important as financial motives in explaining the formation of SEI (Fischer et al., 1993). In addition, there is a great need for diverse regional and country-specific research as entrepreneurs' perception on social recognition is highly reflective of the cultural characteristics in which the reference group belongs to (e.g., Au et al., 2021). However, approaches regarding entrepreneurs' behavior that conforms to the reference group norm in SEI studies insofar have concentrated on factors like obligation and emotional support. Fragoso et al. (2020) also argued that factors such as social recognition or prestige do not play a decisive role in motivating social entrepreneurs in establishing their own enterprises. Social recognition thus far has only been conceptually discussed in social entrepreneurship literature (e.g., Santos et al., 2016) and very little research have empirically studied the relationship between social recognition and SEI (e.g., Fragoso et al., 2020). In this study, we study the relationship between perceived monetary rewards (measured in profit) and non-monetary rewards (as a form of social rewards measured as social recognition) and their interactive effects on SEI, respectively in job choice. This work is organized as follows. In the next section, we review the literature and develop hypotheses. We then explain our methodology and results. Given our findings, we conclude with discussion and policy implications.

2. RELATED LITERATURE AND THEORETICAL BACKGROUND

2.1. Social Enterprises in the Korean context

Social enterprises have grown rapidly under the government's strong leadership to help solve unemployment rates, create jobs, and improve welfare services in South Korea since the 2000s. Under the socio-economic and demographic changes along with the evolving Korean labor market structure and increasing international pressure (i.e., OECD membership, IMF crisis), social exclusion for the vulnerable segments of the society – such as women and elderly – were at high risk. This prompted the developmental state to enforce state-led policy intervention to reorganize social services and increase social and public expenditure (Bidet & Eum, 2011; Jeong, 2015; Woo-Cumings, 1999).

A significant milestone was passing of the Social Enterprise Promotion Act (SEPA) in 2006 and enactment of SEPA in 2007 which assigned the Ministry of Employment and Labor (MEA) with the mandate to enforce SEPA. The act aimed to encourage the growth of social enterprises and thereby, the speed at which social enterprises were created in Korea was exponential. According to Article 2 of the Korean Social Enterprise Promotion Agency (KSEPA), it defines social enterprises as businesses that are an intermediate form between for-profit and non-profit businesses that prioritize social value creation by producing, selling goods, delivering services, and creating jobs for vulnerable groups in the society. Moreover, it indicates that social enterprises shall improve the quality of life for local residents by contributing to the local community. The definition used in Korea is narrow and limited in that they are mostly centered around providing social services or jobs to the marginalized community when compared to the universally and globally accepted idea of social enterprises (Defourny & Kim, 2011). Although the official enactment of Social Enterprise Act be-

gan in 2006 with the term being used in 2002, a form of governmental initiatives appeared and took place from the early 1990s given the labor market evolution along with unemployment and rising demand for social services in relation to care for the elderly, childcare, local development, and citizen participation (Bidet & Eum, 2011; Hwang et al., 2017; Jeong, 2015).

There are 3,064 certified social enterprises actively operating in Korea as of 2021 (KSEPA, 2022). This represents an exponential growth as there were only 55 in 2007 (Jeong, 2015). Once the SEPA was enacted, job creation projects with the government's financial support, such as social job creation projects, self-support projects, and senior job programs, were reorganized around social enterprises. There are largely five types of social enterprise distribution: job creation type, local community contribution type, mixed type, social service provision type and other (innovative, creative) types. As of 2021, job creation type consists of 65.9% out of all the types, which suggests the prioritization of new job creation as mandated by the SEPA which often faces criticisms by policymakers and scholars (Yang & Cho, 2020).

Furthermore, although it would be helpful to find a "meta-model" consensus in holding a unified definition of social enterprises, it is also important to note that Korea context is unique in its own nature in that the government has implemented legal frameworks to embody a certification system of social enterprises which approves the use of the title "social enterprise" which is granted by KSEPA (Bidet et al., 2018; Bidet & Eum, 2011). As influenced by the UK model and US policy tools (Hwang et al., 2017; Jeong, 2015), the emergence of social enterprises in Korea is distinctive and unique in that it has two approaches. Both bottom-up approach from civil societies and top-down approach from public authorities that contribute to diverse motives, values and tensions between all stakeholders which explain its complex governance system that governs social enterprises (Bidet et al., 2018).

2.2. Theoretical models

Under the study of entrepreneurship, many studies have applied Shapero & Sokol's Entrepreneurial Event Model (1982) and Ajzen's theory of Planned Behavior (1991) which are commonly used in entrepreneurial intention studies (Kautonen et al., 2015). Entrepreneurial event model is composed of two constructs which are *perceptions of desirability and feasibility* that are used to better understand entrepreneurial behavior (Forster & Grichnik, 2013). *Perceived desirability* is defined as the extent to which one finds starting a business to be attractive, reflecting one's affect toward entrepreneurship whereas *perceived feasibility* explains the extent to which one believes one to be capable of starting a business (Krueger, 1993). This model provides a theoretical background to Mair and Noboa (2003) who first presented the framework of antecedents of social entrepreneurial intention. Mair and Noboa (2003) deduced perceived desirability as "emotional and cognitive attitudes" and perceived feasibility to be an "enabler" in its theoretical application to the field of social entrepreneurship. Perceived desirability is composed of empathy and moral judgment and perceived feasibility consists of social support and self-efficacy.

Ajzen's Theory of Planned behavior claims that intention is the best predictor of planned behavior, especially when the behavior is rare and difficult to observe. Given that starting a new enterprise involves tremendous effort and meticulous planning, it seems apparent that entrepreneurship is a planned and calculated intentional behavior (Ajzen, 1991). This theory also assumes that human beings are rational beings capable of making decisions with the use of the available information at hand. This is a validated theory from social psychology (Zaremohzzabieh et al., 2019) and has been recognized to be most influential in explaining intention-behavior relationship. As this theory provides an integrated and holistic framework as it takes into consideration of both social and personal factors (Entrialgo & Iglesias, 2016), we have selected to use Ajzen's theory for the purpose of this study. The first determinant of the theory is *attitude* towards which refers to how an individual finds a type of behavior to be favorable or unfavorable and whether the consequence of engaging in such behavior will have desirable consequences (Ajzen & Fishbein, 1980). The second determinant, *subjective norm* is defined as the "perceived social pressure in engaging in the behavior" (de Groot & Steg, 2007). The final determinant is *perceived behavioral control* which is defined as "people's perceptions of the existence of behavioral constraints and facilitators" (Sparks et al., 1997).

2.3. Attitude towards career choice: Altruism

Prosocial behavior includes a wide range of actions such as assisting, sharing, and cooperating with the intention to help others rather than oneself (Batson & Powell, 2003). Brief and Motowidlo (1986) define prosocial behavior as the intention to benefit the welfare of other people, groups, or organizations. Walster and Piliavin (1972) provide a narrower definition that the prosocial behavior is a charitable act without looking for personal gain (Perry & Hondeghem, 2008). The founding of social enterprises is deeply rooted in prosocial and community-spirited motives, which can be set as an example of prosocial behavior.

Prosocial motivation has been previously identified in several works as a predictor for prosocial behavior (e.g., Piatak & Holt, 2020a, 2020b; Ritz et al., 2020). Batson and Moran (1999) argue that prosocial motives have two distinctive components which arise from moral motivation and empathy-induced altruism. On the other hand, Worth et al. (2020) asserts that moral motive is embedded in altruistic behavior in that people act out of a sense of obligation, duty, and empathy. In sum, Batson (1991) concludes that altruism can be defined as a motivational state with the end means to promote others' welfare, but in SEI research, moral judgment is generally understood as a separate concept from empathy as it is dependent on the external context (see Mair & Noboa, 2003); therefore, for the purpose of this study, we will consider altruism to be a concept derived from empathy.

Altruism is one of the main antecedents of SEI (Bull & Ridley-Duff, 2019). Existing studies have found direct or indirect positive relationship between empathy and SEI (e.g., Forster & Grichnik, 2013; Kruse, 2020; Rambe & Ndofirepi, 2021; Tiwari et al., 2017), and Kruse et al. (2021) demonstrate a positive relationship between altruism and SEI. Social entrepreneurs are individuals motivated by altruistic motives (Tan et al., 2005) therefore, individuals who value altruism in job choice will be more likely to have higher SEI. Based on the discussion above, we set hypothesis 1-1 as the following.

> *Hypothesis 1-1: Individuals who value altruism in job choice will be more likely to have higher SEI*

2.4. Monetary rewards

While corporate entrepreneurs establish their firms for the purpose of profit-making (Baumol, 1996), social entrepreneurs "walk the line between profit creation and value creation for society" (Wach et al., 2021). Social entrepreneurs inevitably face the tension between profit motive and social impact as economic opportunities and maximizing social impact may not align. At times, social entrepreneurs may find themselves in need of favoring economic interests over societal goals for the sake of economic or financial sustainability (de Mon et al., 2022). Individuals who favor monetary gain are described as self-interested individuals who prioritize oneself before the rest of the society (Bull & Ridley-Duff, 2019; Mickiewicz et al., 2016). Estrin and his colleagues (2016) explain how financial incentives can play a key role in shaping attitude towards entrepreneurship regardless of the sector the enterprise (Kruse et al., 2019). Entrepreneurial intention studies find that the more profit-oriented the individual is, the more likely he or she will choose to start a business than choosing alternative career options.

However, self-interested motives or favoring profit does not necessitate that social entrepreneur who start their own business value economic rewards over creating social impact. In many cases, individuals with altruistic motives establish social enterprises with the aim to show commitment to th regard monetary incentives less meaningful than commercial entrepreneurs (Bacq et al., 2016; Shaw & Carter, 2007). Social entrepreneurs mainly aim to accumulate social wealth by creating social impact before meeting commercial needs with the help of government funding and assistance (Estrin et al., 2016; Sastre-Castillo et al., 2015). Social wealth is measured by the amount obtained by removing economic wealth from the total wealth, where some social entrepreneurs sometimes choose to overlook accumulating one's own economic wealth and instead focus solely on creation of social wealth as long as the firm has the minimum means to survive (Zahra et al., 2009).

Moreover, using a fuzzy-set qualitative comparative analysis, Douglas and Prentice (2019) find the relationship between economic rewards and SEI to be "unimportant" on average, thus economic remuneration may not be major motivating factor (Sastre-Castillo et al., 2015). Although it is inevitable for social entrepreneurs to acquire profit for sustainability and survival of the firm, they do not perceive financial incentives the same way as corporate entrepreneurs in maximizing one's own self-interest and financial capacity (Au et al., 2021, p. 18). Therefore, even if the individual prioritizes financial incentives for one's self-interest in job choice, SEI may not increase. Previous findings provide ample evidence that the direction of SEI can go both in both directions for individuals who prioritize monetary rewards in making a job choice, but we provide the following hypothesis to reflect on the nature of social entrepreneurs with a conservative perspective.

> *Hypothesis 1-2: Individuals who value monetary rewards in job choice will be more likely to have lower SEI.*

2.5. Self-efficacy

According to Social learning theory, perceived behavior control is a theoretical concept that suggests one's subjective belief in his or her own capability in completing a given task (Bandura, 1977; Boyd & Vozikis, 1994). According to Ajzen (2002), perceived behavioral control can be divided into two sub-concepts as self-efficacy and controllability (Ajzen, 2002, p. 665) and many scholars have used self-efficacy to measure the level of perceived behavior control as Ajzen regards the two concepts as a "unitary variable" (Ajzen, 2002, p. 665). Self-efficacy refers to the individual's capabilities in executing certain actions (Kruse, 2020, p. 645). Some argue that the distinction between self-efficacy and controllability exists, and the two concepts should be independent of one another; However, Hockerts (2017) reason that even if we limit the definition of self-efficacy to "an individual's appreciation of his or her ability", he or she is likely to have better control of his action if he fully understands one's scope of ability. We also find a strong tendency in measuring perceived behavioral control with a single dimension of self-efficacy in previous SEI studies (e.g., Krueger et al., 2000; Liñán & Chen, 2009; McLarty et al., 2021; Miralles et al., 2016; Moriano et al., 2012; Roy et al., 2017). Therefore, since self-efficacy precedes controllability, self-efficacy captures the essential element and is considered to be a closer concept to the nature of perceived behavioral control. Previous relevant literature that studies corporate and social entrepreneurial intention find perceived behavioral control (measured by self-efficacy) to have consistent and positive effect on intention (e.g., Kruse, 2020; Kruse et al., 2019; Liñán & Chen, 2009; Miralles et al., 2016). In particular, some studies have confirmed self-efficacy to be the strongest predictor among the three factors of the theory (e.g., Liñán & Chen, 2009). Based on the discussion above, we provide the following hypothesis.

> *Hypothesis 1-3: Individuals who have more self-efficacy (the ability to find efficient ways to solve any given task) in job choice will be more likely to have higher SEI.*

2.6. Subjective norm: Social recognition as moderator[1]

Many scholars agree that attitude toward behavior is a strong predictor of intention formation whereas subjective norm is a "conflicting element" which is a weak predictor with inconsistent findings which makes it difficult to draw a coherent conclusion (Santos et al., 2016; Tiwari et al., 2017) as the concept of subjective norm is regarded to cover wide range of related variables.

Subjective norm refers to the extent to which an individual is affected by the opinions of the reference group (Ajzen, 1988/2005; Ehrhart & Naumann, 2004; Heuer & Liñán, 2013, p. 7). It can be operationalized into at least two variables as moral judgment and social support. First, moral judgment refers to the pressure to meet the expectations of the reference group, and social support refers to the assistance social entrepreneurs experience provided from the reference group. In line of this thought, we have operationalized subjective norm as social recognition, referred to the approval by family members, friends, acquaintances and other members of society (e.g., N. M. Carter et al., 2003; Santos et al., 2016). In general, any individual who perceives adherence to social norms as important, the more he or she will evaluate benefits associated with social recognition and societal respect (Stavrova et al., 2013, p. 92). In addition, social entrepreneurs are more motivated to boost their self-esteem by proactively receiving evaluation, feedback, or compliments from its reference group instead of passively conforming to what is expected or appreciative of them. All individuals desire to be respected by others as a way to fulfill one's basic need but entrepreneurs in particular have a greater desire to be socially recognized (Block & Landgraf, 2016; Maslow, 1987). As social entrepreneurs noticeably value social achievements and are active and ambitious individuals who are willing to solve social problems, they put great importance on social recognition (Bacq et al., 2016; Wach et al., 2016).

Social recognition is regarded as a non-monetary, social reward provided to the members of society in return for performing socially respectable actions. Gauri and his colleagues (2021) argue that social rewards require relatively little cost compared to financial rewards such as profit when motivating individuals with external rewards. However, regardless of the form of the reward – whether it is monetary or non-monetary – rewards associated with specific values are highly regarded by the reference groups. The degree to which an individual prioritizes social recognition can act as an extrinsic motivating factor that influences the dynamics of career- choice decision making mechanisms (e.g., Caringal-Go & Hechanova, 2018; Fayolle et al., 2014; Fragoso et al., 2020).

First, social recognition is a type of social reward provided to individuals for making self- sacrifices and performing tasks driven by altruistic motives for the betterment of the society (Arceneaux & Butler, 2016). These emotional rewards act as an emotional lubricant in encouraging people to form altruistic intentions and reciprocate acts of prosocial behavior for the good of others (Arceneaux & Butler, 2016; Trivers, 1971). Mair and Noboa (2003) argue that there is a minimum threshold of empathy that is necessary for individuals to form SEI and these individuals are also better at not only responding to emotional sufferings of others but are driven by their willingness to help and solve tasks at hand. Therefore, in return for their service, individuals who appreciate and place more value on social rewards, measured as social recognition in this study, are driven by greater willingness to empathize with others' feelings and experiences. In addition, individuals who prioritize social recognition in job choice are mindful and attentive in gaining others' trust and respect instead of heeding to their own private interest. As social recognition can be used as a tool in encouraging individuals to form more empathy and compassion for others, it can strengthen the positive relationship between altruism and social entrepreneurial intention.

> *Hypothesis 2-1. As individuals place greater importance on social recognition in job choice, the positive relationship between altruism and SEI becomes stronger.*

Secondly, members of society provide social rewards such as social recognition and respect for those who work (e.g., sales of locally produced products) that help the local community in which they are living in. Social entrepreneurs are self-employed individuals who voluntarily engage in new activities to create their own meaningful work. People work to make money but also to carry out a meaningful purpose as it reflects their values and mission in life (Cassar & Meier, 2018). As social entrepreneurs are individuals who are oriented to create and spread social impact (Bublitz et al., 2021; Dees et al., 2004; Jiao, 2011), they serve the role of change-makers, capable of identifying problems and providing socially innovative solutions on behalf of other members in the community (Hansen et al., 2022). Individuals who value social recognition are also open to new ideas, seeking for socially innovative methods to make ends meet (Bandura, 1977; Meyer-Waarden & Cloarec, 2022). In parallel to this argument, social rewards such as social recognition may compensate for economic rewards for those who are motivated to become social entrepreneurs (cf. S. Carter, 2011). In our earlier hypothesis 1-2, we predicted that as an individual values monetary rewards in job choice, the lower the SEI. Therefore, the negative relationship between

1 Many previous literatures have extended and adjusted theory of planned behavior in the field of psychology and education (e.g. La Barbera & Ajzen, 2020) . In the same line, we have adjusted for the social recognition measure. In following this logic, individuals who value social recognition from others generally would evaluate what others deem as socially desirable (i.e. as they are sensitive to what others think or "recognize") as good and hold a belief system that conforms to what the society would evaluate as desirable and good. Therefore, the belief that values social recognition of others becomes the subjective norm.

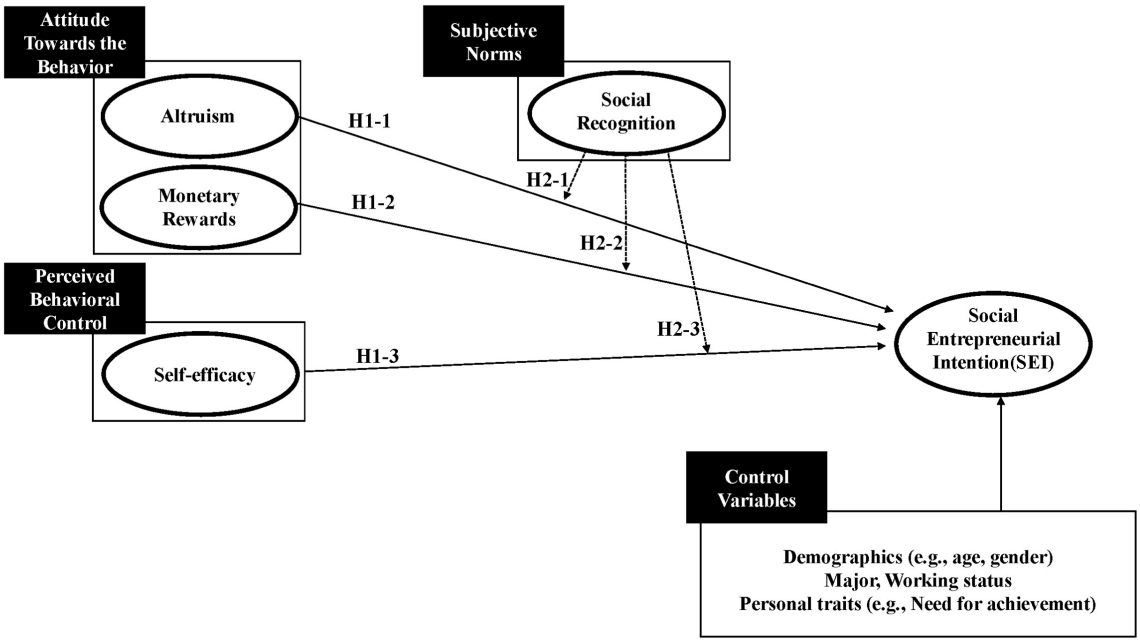

Figure 1. Research Model

monetary rewards and SEI will be neutralized as they place greater importance on social recognition.

> *Hypothesis 2-2. As individuals place greater importance of social recognition in job choice, the negative relationship between monetary rewards and SEI offsets.*

Lastly, social recognition can increase one's ability to feel more competent and confident in performing a given task (Cassar & Meier, 2018). Individuals who perceive social recognition to be important will feel more empowered to overcome future failures or setbacks as it also aids in boosting confidence and self-determination when setting goals. Therefore, we predict that social recognition acts to strengthen the positive effects of self-efficacy on SEI. Based on the theoretical background and the results of previous empirical models, the following hypothesis is presented. Figure 1 presents the research framework and hypotheses.

> *Hypothesis 2-3. As individuals place greater importance on social recognition in job choice, the positive relationship between self-efficacy and SEI becomes stronger.*

3. DATA AND MEASUREMENT

3.1. Sample and data source

Korea Employment Information Services, a quasi-governmental organization under the Ministry of Employment and Labor, created Youth Panel longitudinal survey (hereafter, YP survey) 1st wave (covering years 2001-2006) and 2nd wave (2007-present) through stratified sampling of Korean youths. In this study, we use the second wave dataset as it is officially made available to the public. YP survey is designated as the official national statistics (approval number: 32705) and follow-up surveys are conducted annually. At the time of the initial survey in 2007, the survey was composed of 10,206 Korean youths aged 15-29 but 3516 youths aged 15-42 was included in 2015 to the panel to reduce sample attrition. As the sub-sample in the students' group and working (currently employed) group show a systematic difference in SEI, this study limits the unit analysis to the student group only. Therefore, the unit of analysis for this paper is Korean Youths.

The time span of the study is a total of 12 years from 2008 to 2019, as the data available to us at the time of writing is up to 2019. Moreover, there exists a difference in the number of categories in the main variable (e.g., ya249) between the first year of survey in 2007 and the rest of the years from 2008-2019. Therefore, it would be valid to take out 2007 in the total dataset. The category for this variable was divided into five categories but has been expanded to six categories since 2008. We have revised the category to maintain year-consistency and we analyzed the data by including this variable for 2007. Yet, we found no difference from the analysis results obtained. Therefore, we have confirmed the robustness of our result.

3.2. Measurement of variables

3.2.1. Dependent Variable: SEI

Previous studies have used "direct measure of intent to establish SE" to measure entrepreneurial intention. For example, Krueger and his colleagues (2000) used "the probability you'll start your own business in the next 5 years?" and Liñán and Chen (2009) measured the level of agreement on a seven-point scale on six similar questionnaires related to individual's volition, including "I am ready to do anything to be an entrepreneur" or "I am determined to

create a firm in the future". Such questionnaires are generally applied in studying SEI in job choice research. Tran and Von Korflesch (2016) argued that SEI should measure an individual's belief, desire, and determination before starting one's social enterprise while Tiwari et al. (2017) have directly applied measurement used by Kreuger et al. (2000). However, since the decision to start a social enterprise is caused by giving up on other job opportunities, the best way to capture the individuals' most preferred career path is to maintain a relative perspective of comparison with other career options.

The specific variable operationalization process is as follows. First, using the survey questionnaire of what kind of type of organization one wishes to work in, we code establishment of a venture as 1 and thereby creating a dummy variable, while coding 0 for the rest of the choices which include 'major corporate company, public organizations, foreign companies, small and medium-sized enterprises (SMEs), specialized SMEs. This dummy variable allows us to measure the overall entrepreneurial intention. This intention is divided into social and corporate sector as we posit that industry allows us to distinguish the sectors. Specifically, corporate enterprises operate with profit-seeking motives, operating mostly in the private sector such as wholesale/retail, finance, insurance and away from entering into areas of social welfare or public health. On the other hand, social enterprises prioritize prosociality and operate in areas of social welfare and public health care in the social (public) sector.

3.2.2. Variables of Interest

The main variables of interest in this study are altruism, monetary reward, self-efficacy, and social recognition. The first three variables were measured on a 5-point Likert scale – from 1 (not at all important) to 5 (very important) – depending on how important each item is in the career selection process. We measured how important altruism, monetary rewards, social recognition are with survey questions like "I can serve others"', "financial compensation is sufficient" and "I can be recognized by others", respectively. Since self-efficacy is a cognitive factor that measures an individual's ability to perform a task, regardless of what factors are important in the job choice process, we used the following questionnaire of "once given a task, I can find effective ways to solve the task" on a six-point Likert scale from 1 (not at all) to 6 (very much so).

3.2.3 Control Variables[2]

Previous works have also included demographic factors such as gender, age, education level, household income as control variables (e.g., Bacq & Alt, 2018; Baierl et al., 2014; Forster & Grichnik, 2013; Kruse, 2020). In addition, we also controlled for working status (e.g., Ghatak et al., 2020) and academic majors (e.g., Roy et al., 2017). We performed log transformation to make the household income close to normal distribution (however, for values that are 0, we did not generate missing values by adding 1). In the case of working status, dummy variables were created by classifying part-time time and internship as 1; otherwise, 0 and for academic major dummy variable, we gave 1 for those in science technology and engineering and 0 for otherwise. Moreover, we added personal traits such as "need for achievement", "risk-taking propensity", "locus of control" that have been found to influence career-choice decisions (e.g., Boyd & Vozikis, 1994). Lastly, we used the panel dataset that has the advantage of containing time-series information, and we added year dummies to control for year-specific characteristics. Table 1 reports a bivariate Pearson correlation matrix including descriptive statistics. Middle school students, high school students, undergraduates, and graduate students account for 2,65%, 23.51%, 68.76% and 5.08% of the total sample, respectively.

3.3. Model Specifications

As the dependent variable of this study is SEI, which is a dichotomous variable with only values of 0 and 1, the assumption that the error term follows normal distribution cannot be satisfied. Accordingly, we considered using binary logit or probit regression model, which is representative of the generalized linear model, in which the maximum likelihood estimator obtained through this method is asymptotically efficient (Horowitz & Savin, 2001). Meanwhile, as the data source of this study is panel data of Korean youths from 2008-2019, we can use variations of repeated observations within individuals for our analysis. Logit and probit regression analysis can be combined with panel data (Cameron & Trivedi, 2010) and we selected probit regression analysis for the method of this (ref., the pattern of coefficients in logit regression remains unchanged).

The standard rule of thumb of determining the appropriateness of the model when selecting between fixed effect and random effect model, it is most common to look at the result of the Hausman test, the degree of time variation within observations. Additionally, using the fixed effect model requires a sufficient level of variation in the dependent variable and the null hypothesis in the Hausman test must be rejected. However, we find the within variation only to be 5.32% of the total group in our dataset, and it is difficult to conclude that the null of Hausman test is rejected at a high significance level (e.g., chi2=22.36; p=0.0714 in Model 1). Therefore, we chose the random effect model over the fixed effect model.

2 Variable operationalization included in this research model are presented in detail in <Appendix>.

Table 1. Correlation table and summary statistics.

Variables	Observations	Mean	S.D.	Min	Max	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
(1) SEI	11065	0.014	0.118	0	1	1													
(2) Age	11065	20.982	3.406	15	40	0.044	1												
(3) Gender	11065	0.517	0.5	0	1	-0.002	0.142	1											
(4) Household Income	11065	13.1	7.807	0	19.807	-0.006	0.027	0.004	1										
(5) Education Level	11065	2.755	0.584	1	4	0.010	0.779	0.018	0.020	1									
(6) Major	11065	0.284	0.451	0	1	-0.043	0.323	0.227	0.018	0.365	1								
(7) Working status	11065	0.04	0.195	0	1	0.023	0.117	-0.050	-0.046	0.091	0.030	1							
(8) Need for achievement	11064	4.11	0.62	1	5	0.033	0.019	0.015	0.028	0.015	0.002	0.018	1						
(9) Risk-taking propensity	11062	1.992	0.749	1	5	-0.003	0.003	0.006	-0.097	-0.004	-0.007	-0.013	-0.226	1					
(10) Locus of control	11058	3.401	0.912	1	5	0.020	0.023	-0.003	0.106	0.037	0.010	-0.068	0.135	-0.116	1				
(11) Altruism	11062	3.735	0.769	1	5	0.050	-0.029	-0.035	0.035	-0.009	-0.079	-0.006	0.316	-0.178	0.214	1			
(12) Monetary rewards	11065	4.066	0.647	1	5	0.003	0.031	0.004	0.079	0.020	0.018	0.000	0.270	-0.339	0.131	0.087	1		
(13) Self-efficacy	11065	3.989	1.138	1	6	0.024	0.161	0.012	-0.024	0.116	0.077	0.094	0.122	-0.066	-0.026	0.072	0.053	1	
(14) Social recognition	11065	4.004	0.659	1	5	0.011	0.032	-0.004	0.042	0.033	-0.009	0.016	0.303	-0.281	0.104	0.233	0.400	0.081	1

4. EMPIRICAL FINDINGS

4.1. Unconditional effects of the variables of interest

Results of the baseline models are presented in Table 2.[3] All models in Table 2 are regressed with year fixed effects and individual random effects. Model 1 includes basic control variables such as demographic factors, major, and working status. Model 2 adds additional controls for personal traits such as need for achievement, risk-taking propensity, and locus of control. From model 3 to model 6, we introduce our variables of interest sequentially for basic hypothesis testing. All explanatory variables without interaction terms are included in model 7. We can evaluate the model's goodness of fit by using AIC (Akaike's information criterion) in maximum likelihood estimation. According to the criterion, model 7 is the best optimal model, which shows the lowest value. Wald test is a statistical method which examines the overall fit of the models. We can verify that every model satisfies the validity of overall fitness based on the statistical significance of Wald's chi-square ($p<0.01$).

The coefficient for altruism is positive and highly statistically significant in both model 4($b=0.273$; $p<0.01$) and model 7($b=0.264$; $p<0.01$). This result implies that as the individual values altruism more in job choice (cf. or in the case when the individual considers altruism more importantly over others), he or she is more likely to have higher SEI. Therefore, hypothesis 1-1 is strongly supported. Contrary to our prediction, we do not find a positive and statistically significant relationship between monetary rewards and SEI in model 4 ($b=-0.0834$; $p>0.1$). This tendency is consistent with the result of model 7 ($b=-0.0651$; $p>0.1$). Therefore, hypothesis 1-2 is not supported. With regard to self-efficacy, the positive effects are reported at different significance levels in model 5 ($b=0.119$; $p<0.05$) and model 7 ($b=0.109$; $p<0.1$). So, hypothesis 1-3 is weakly supported. Lastly, there is no direct relationship between social recognition and SEI based on the result of both model 6 ($b=-0.0217$; $p<0.1$) and model 7 ($b=-0.0359$; $p<0.1$).

4.2. Interactive effects of the variables of interest

All models in Table 3 are constructed to examine the conditional effects of altruism, monetary rewards, and self-efficacy on SEI, contingent on social recognition. To capture the moderating effect of social recognition on the relationship between altruism, monetary reward, and self-efficacy, respectively on SEI each moderator is introduced and then the interaction term is introduced accordingly. We can examine the statistical significance of the single interaction term from model 8 to model 10. All of the interaction terms are all included in model 11, which dominates any other regression model on the basis of AIC criterion. For that matter, we graph the following figures based on model 11. According to Wald Statistics, this model in table 3 indicates that we have achieved good overall fitness.

We tested the moderating effect of social recognition with altruism, monetary rewards, and self-efficacy on SEI, respectively. First, the altruism variable loses statistical significance both in model 8($b=-0.0625$; $p<0.1$) and model 11($b=0.0215$; $p<0.1$) as we included the interaction. The interaction term ($b=0.0858$; $p<0.1$) in model 8 and model 11($b=0.0595$; $p<0.1$) is not statistically significant, therefore, hypothesis 2-1 is not supported. It is presumable that social recognition affects the relationship between altruism and SEI. Second, the results of model 9($b=0.182$; $p<0.05$) and model 11($b=0.153$; $p<0.05$) present the interaction term between monetary rewards and social recognition which are found to be positive and statistically significant at the 95% confidence interval. We also find that the coefficients of monetary rewards ($b=-0.784$; $p<0.01$ in model 9 and ($b=-0.658$; $p<0.05$ in model 11) obtain statistical significance.

These results propose that social recognition moderates the relationship between monetary rewards and SEI. We provide Figure 2 for clarification in that it shows the negative impact in lower social recognition regions (i.e., below 3) is offset, whereas the positive impact in higher social recognition regions (i.e., above 4) is strengthened. However, considering the upper and lower 95% confidence interval (marked as dashed line), it is hard to say that the moderating effect is pronounced in higher regions. Therefore, the marginal effects of monetary rewards on SEI are not different from zero in higher regions. Therefore, hypothesis 2-2 is supported by this finding. Altruism has a positive significant relationship with SEI, but the strong statistical significance is hampered by the interactive effect of altruism and social recognition. Monetary rewards alone do not have a significant relationship with SEI, but we find the evidence of the interactive effect between monetary rewards and social recognition on SEI. Therefore, our results suggest that social recognition deserves a closer attention in examining the motivational dynamics of SEI.

Finally, in examining the self-efficacy, the coefficient of the interaction term is not statistically significant in model 10($b=0.0678$; $p>0.1$) and model 11($b=0.0607$; $p>0.1$) of Table 3. This is consistent with the fact that the marginal effects are not contingent on the degree of altruism. Therefore hypothesis 2-3 is not supported. Even though self-efficacy shows a positive and significant relationship with SEI in our basic standard model (i.e., model 7), the confidence level does not fall within the standard. Furthermore, social recognition does not moderate the effects of self-efficacy on SEI. Although self-efficacy is a significant predictor of

3 Probit coefficients are presented in Table 2 and Table 3. We concentrate on the positive or negative sign of the coefficients for our hypothesis testing. Since the coefficients are not easily interpreted in generalized linear models, we plot the marginal effects for better understanding the interaction terms (see. Figure 2). Marginal effects(i.e., values on the y-axis) refer to the conditional mean changes in response variable as one unit of exploratory variable changes.

Table 2. Empirical results.

VARIABLES	Model1	Model2	Model3	Model4	Model5	Model6	Model7
Age	-0.373**	-0.375**	-0.344**	-0.372**	-0.380**	-0.375**	-0.346**
	(0.159)	(0.159)	(0.155)	(0.158)	(0.158)	(0.159)	(0.154)
Age squared	0.00913***	0.00913***	0.00857***	0.00908***	0.00915***	0.00912***	0.00855***
	(0.00310)	(0.00309)	(0.00303)	(0.00308)	(0.00307)	(0.00309)	(0.00300)
Gender	0.0416	0.0254	0.0304	0.0223	0.0250	0.0248	0.0263
	(0.125)	(0.126)	(0.125)	(0.126)	(0.124)	(0.125)	(0.124)
Household income	-0.00549	-0.00681	-0.00683	-0.00668	-0.00650	-0.00684	-0.00646
	(0.00652)	(0.00662)	(0.00667)	(0.00664)	(0.00656)	(0.00663)	(0.00665)
Major	-0.756***	-0.730***	-0.700***	-0.730***	-0.725***	-0.731***	-0.698***
	(0.165)	(0.168)	(0.168)	(0.168)	(0.167)	(0.168)	(0.168)
Working status	0.469**	0.470**	0.476**	0.466**	0.445**	0.470**	0.448**
	(0.224)	(0.224)	(0.225)	(0.225)	(0.222)	(0.224)	(0.224)
Need for achievement		0.273***	0.186*	0.291***	0.245**	0.278***	0.186*
		(0.0975)	(0.0995)	(0.101)	(0.0980)	(0.101)	(0.105)
Risk-taking propensity		0.0105	0.0446	-0.0110	0.0125	0.00568	0.0203
		(0.0775)	(0.0768)	(0.0776)	(0.0765)	(0.0763)	(0.0764)
Locus of control		0.0868	0.0556	0.0945*	0.0856	0.0883	0.0650
		(0.0546)	(0.0554)	(0.0546)	(0.0544)	(0.0546)	(0.0556)
Altruism			0.273***				0.264***
			(0.0820)				(0.0815)
Monetary rewards				-0.0834			-0.0651
				(0.0889)			(0.0883)
Self-efficacy					0.119**		0.109*
					(0.0566)		(0.0570)
Social recognition						-0.0217	-0.0359
						(0.0831)	(0.0803)
Constant	0.0708	-1.576	-2.544	-1.337	-1.878	-1.513	-2.491
	(1.761)	(1.820)	(1.797)	(1.860)	(1.792)	(1.828)	(1.812)
Observations	11,065	11,055	11,052	11,055	11,055	11,055	11,052
Individuals	5,513	5,507	5,506	5,507	5,507	5,507	5,506

Log likelihood	-716.24322	-705.16106	-699.0061	-704.70408	-703.15025	-705.12818	-696.95344
Wald chi2	77.17***	83.36***	86.56***	82.73***	89.20***	83.27***	92.18***
AIC	1474.486	1458.322	1448.012	1459.408	1456.3	1460.256	1449.907
YEAR FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
INDIVIDUAL	Random	Random	Random	Random	Random	Random	Random

Robust standard errors in parentheses;
*** p<0.01, ** p<0.05, * p<0.1; The education level and year dummies are not reported.

Table 3. Empirical results.

VARIABLES	Model8	Model9	Model10	Model11
Age	-0.341**	-0.353**	-0.379**	-0.330**
	(0.155)	(0.158)	(0.159)	(0.156)
Age squared	0.00851***	0.00870***	0.00913***	0.00823***
	(0.00302)	(0.00309)	(0.00309)	(0.00304)
Gender	0.0303	0.0119	0.0271	0.0194
	(0.125)	(0.125)	(0.124)	(0.124)
Household income	-0.00663	-0.00654	-0.00637	-0.00604
	(0.00669)	(0.00661)	(0.00658)	(0.00665)
Major	-0.708***	-0.728***	-0.730***	-0.706***
	(0.168)	(0.168)	(0.167)	(0.168)
Working status	0.478**	0.480**	0.449**	0.469**
	(0.227)	(0.223)	(0.222)	(0.225)
Need for achievement	0.202**	0.270***	0.254**	0.178*
	(0.102)	(0.100)	(0.102)	(0.104)
Risk-taking propensity	0.0347	-0.0132	0.00559	0.0159
	(0.0764)	(0.0767)	(0.0760)	(0.0767)
Locus of control	0.0555	0.0952*	0.0874	0.0633
	(0.0557)	(0.0541)	(0.0549)	(0.0559)
Altruism	-0.0625			0.0215
	(0.368)			(0.309)
Monetary rewards		-0.784***		-0.658**
		(0.296)		(0.289)
Self-efficacy			-0.153	-0.140
			(0.271)	(0.239)
Social recognition	-0.395	-0.702**	-0.317	-1.126***
	(0.368)	(0.290)	(0.292)	(0.432)
Altruism * Social recognition	0.0858			0.0595
	(0.0919)			(0.0777)
Monetary rewards * Social recognition		0.182**		0.153**
		(0.0727)		(0.0711)
Self-efficacy * Social recognition			0.0678	0.0607
			(0.0658)	(0.0578)
Constant	-1.084	1.184	-0.657	1.600
	(2.363)	(2.121)	(2.070)	(2.501)
Observations	11,052	11,055	11,055	11,052
Individuals	5,506	5,507	5,507	5,506
Log likelihood	-698.38546	-701.80391	-702.54886	-693.8752
Wald chi2	86.66***	87.77***	90.75***	99.06***
AIC	1450.771	1457.608	1459.098	1449.75
YEAR FE	Yes	Yes	Yes	Yes
INDIVIDUAL	Random	Random	Random	Random

Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1
The education level and year dummies are not reported.

SEI on its own, it is not considerable to explain SEI given the interactive relationship with social recognition.

4.3. Effects of control variables

We briefly review the effects of remaining covariates. Our control variables show robust and significant results across the models. Age and age squared term are strongly significant. We obtain the result of 20 years old by roughly

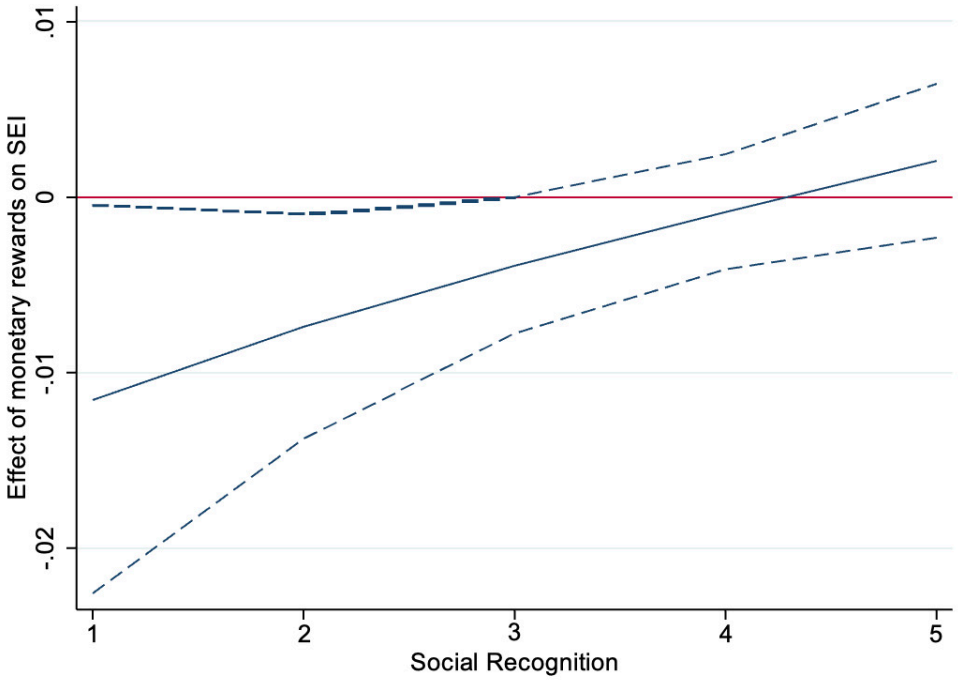

Figure 2. Graph of moderating effect

calculating the turning point based on model 11. It implies that effect of age on SEI reduces at low values (below 20 years of age) and rises at high values of age (above 21 years of age). Both gender and household income are not statistically significant, which are consistent with findings from previous entrepreneurial literature. We find that the dummy variable for majoring in science and technology is negative and statistically significant. The working status, another dummy variable in our model, is positively associated with higher SEI. That is, SEI increases for those who have part-time jobs or internships at the time of the response. Need for achievement is the only significant factor among personal traits when we exclude the result of locus of control in model 4.

5. DISCUSSION

Social enterprises are representative type of hybrid organization that pursues both economic and social values. Recently, we have seen a rise in interest in the potential use of social enterprises as policy tools in the public sector. In order to use social enterprises as governmental policy tools, we need to better understand how one's motivational factors lead to the establishment of the organization. Positive social change and impact, which is derived from social entrepreneurs' enthusiasm, can create a socially innovative atmosphere throughout society and can innovate the public value creation process by substituting or complementing the traditional public service delivery system. Social entrepreneurs are not only altruistic, but they also are able to "innovatively make profits for a segment of society" (Tan et al., 2005). In particular, social entrepreneurs act as agents in solving technically difficult problems but also people who have the willingness to play the role of "active citizen" to solve problems in regional or communal area (i.e., issues closely linked to residential well-being) that are outside of local governments or local professionals' main interest (Kleinhans, 2017).

This work can theoretically and practically contribute to SEI studies in three ways. First, we are able to increase the predictive and explanatory power of entrepreneurial behavior by analyzing career-choice intentions in students who are yet to be employed. Entrepreneurship is mostly found at turning points in life (Shapero & Sokol, 1982) which therefore makes students – a group of members that makes initial job choice as well as subsequent job choices on a frequent basis – as the sample for the analysis quite desirable (e.g., Meoli et al., 2020; Tiwari et al., 2017). Therefore, we see numerous studies that study EI from student's career-choice perspective (e.g., Boyd & Vozikis, 1994; Gorgievski et al., 2018; Ilouga et al., 2014; Meoli et al., 2020; Moriano et al., 2012; Naktiyok et al., 2010) but such empirical studies are appeared only recently in the field of SEI (e.g., Ip et al., 2021; Tiwari et al., 2017; Tran & Von Korflesch, 2016). In other words, there still lacks empirical research that explains the antecedents to SEI and more specifically, factors like altruism that lead to higher probability in choosing a career in the social sector. The gaps in these studies are in stark contrast to the rich accumulation of research on Public Service Motivation in relation to career choice in the public sector. The multifaceted factors of PSM contributed tremendously not only to the human resource studies of the public sector, but also to subsequent concepts such as organizational satisfaction and organizational commitment of public officials. As such, we hope that findings not only identify the antecedents of SEI but also act as a bridge between turnover intention and actual turnover behavior in future studies in the third and public sectors.

Second, we emphasize the importance of the role of subjective norm measured in social recognition. To our best knowledge, the idea of social recognition was not introduced in examining the antecedents of SEI in existing literature. However, in this study, we operated subjective norm as social recognition to provide the following finding that even if an individual place greater importance on monetary rewards or social rewards, SEI does not statistically increase. However, in regions where social rewards are not considered to be important, social rewards can offset the negative effect between monetary rewards and SEI. This study adds significance to the field of SEI as it finds an interactive relationship between monetary rewards and social rewards.

Lastly, the findings of this research provide practical implications in that governments should focus on social recognition to think of ways to increase SEI in order to use social enterprises as effective policy instruments. Traditionally, policy instruments were regarded as direct and indirect procedures for implementing government policy thus, making government's controllability and top-down approach more important than responsibilities of any other third parties (Peters, 2000). However, social enterprises are emerging policy tools that have the potential to effectively respond to multi-layered public demands, which are different from state-owned enterprises that are strongly influenced by government's control and are not a passive outcome of administrative operations that can be simply created and demolished by government's decisions. Governments can still offer directions in emphasizing some of the characteristics of social enterprises by prioritizing social outcomes over economic benefits in the process of public value creation (Choi et al., 2020). For example, the Korean government has long implemented state-led interventions in regard to fostering and nurturing social entrepreneurs in Korea in the last few decades. By expanding on Act 10 article 2 on the Social Enterprise Promotion Act, it would be worthwhile for the government to encourage young people to become social entrepreneurs by essentially showing them what kind of impact they could have in creating public value.

For example, the government can create policies by delegating the duties to local communities or municipalities to form a variety of education forums or hold hackathon where youths – who are interested making social impact within the community – are invited to join these spaces with the aim of creating a tool in measuring social impact that is socially and recognized as exemplary. As there is still no universal way of measuring impact, this task may seem daunting to the youth. Throughout this process, not only will these individuals engage with real social, environmental and industry examples but they will feel socially recognized and rewarded by the community. Moreover, the government can create merit-based reward for independent, high-performing social leaders rather than solely focusing on the idea of subsidies, which may create a sentiment to the youths that social enterprises are mere organizations that seem to be always in need of assistance and help. As noted in earlier research, strategic leadership in combination with mobilization of community asset have shown to increase organizational performance of social enterprises in Korea (Han et al., 2015).

As of 2022, more than 3 billion USD in policy funds have been provided under the leadership of the Ministry of SMES and Startups to bolster corporate startup creation and foster corporate entrepreneurs. As of 2021, it is estimated that there are approximately 600 venture capitals and accelerator ecosystems are firmly built-in place so that corporate entrepreneurs can have access to these services resources (Statistics Korea, 2022). However, as the MOEL is in charge of policies related to social enterprises or social entrepreneurs, the main direction of the policy is to create jobs for the disadvantaged, but it is difficult to find separate policy projects that are solely aimed for social enterprises. Although the Korea Social Enterprise Promotion Agency exists to foster social entrepreneurs, it is small in size and is linked to only about 30 sub- agencies such as venture capitals and accelerators as of 2022 (KSEPA, 2022). There is a need to shift away from the current goal of maintaining policies that simply creates more jobs for the vulnerable people but build on this very policy to highlight attention to foster young social leaders by providing resources like capital venture firms and accelerators that are inclined to invest in firms that make social impact.

This research provides implications to policymakers that even if a particular individual perceives monetary and social rewards to be important in job choice, his/her SEI does not increase. However, social rewards can neutralize the negative effect of monetary rewards on SEI. In order to create an environment for sustainable and feasible social enterprises, the policies need to be implemented in ways to increase the level of SEI. Therefore, the government needs to create a social atmosphere and put institutional mechanism in place so as to encourage young talents to explore and find one's altruistic motives to perform activities in improving self-efficacy instead of focusing excessively on providing monetary or social rewards.

This research is not without limitations. First, there is limited external validity in that the results were derived by using a sample of students who were yet to be employed. Therefore, our results are limited in generalizing to young people who are in different stages of employment or other middle-aged workers with multiple employment statuses. We also cannot rule out the possibility that our results reflect the specificity and unique culture of Korean society that values social recognition. It would be interesting to conduct future studies by using dataset from other countries to see whether similar findings can be obtained.

Second, it is in regard to the measurement of the variables used in this study. In one of recent and highly cited studies on SEI's determinants, Tiwari et al (2017, p. 129) point out that "in the literature of entrepreneurial intentions, there are various scales that measure intentions." In other words, different types of scales can be utilized to measure SEI depending on the purpose of the study. We carefully constructed a combination of questions that measured whether or not an individual intends to choose to be a social entrepreneur for one's own career among all op-

tions available instead of using direct question (to the extent one would agree to "I am willing to make every effort to become a social entrepreneur"). Although there is no reference point for the direct question given that only one option for social entrepreneur is considered, the individual's perception of SEI is much clearer in the question we used as the remaining career choice options act as reference points for the SEI option. In regard to the questions that measure SEI's determinants, we did our best to extract the appropriate questions that we believe are most consistent with the theory in the perspective of career choice. Moreover, previous SEI studies that use TPB theory have often included "reference people" such as close family members, friends or colleagues in the phrasing of the questionnaire when measuring the subjective norm (e.g., Entrialgo & Iglesias, 2016; Liñán & Chen, 2009; McLarty et al., 2021). However, we face data limitations in that we used publicly disclosed panel data and therefore, our measurement of social recognition is limited to an unspecified number of members of society. In future studies, it would be worthwhile to use data that is more appropriate for theory of planned behavior.

6. CONCLUSION

This study identified antecedents of SEI using the panel probit regression model with the Korean youth panel data (2008-2019). We found both altruism and self-efficacy to have significant positive linear relationship with SEI whereas, the relationship between monetary rewards and SEI did not find significant results. However, it was confirmed that the effects of monetary rewards on SEI was moderated, depending on the degree of social rewards, as measured by social recognition. The most notable contribution of this study is that we have identified the role of rewards and its interactive effects in motivational dynamics of SEI. The interactive term between monetary rewards and social recognition is statistically significant on average, and specifically the negative effects of monetary rewards on SEI are offset by social recognition in the lower values of social recognition. Given these results, government actors, as well as policy makers can gain a better understanding of the motivational dynamics of the antecedents of SEI. With these findings, educators and policy makers can strategically plan with a long-term vision in nurturing young talent entrepreneurs into the social sector.

Acknowledgements or funding

Not applicable

Submitted: March 04, 2022 KST, Accepted: September 28, 2022 KST

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Appendix. Operational definitions of all variables

Variable	YP Code	Scale/ Unit	YP questions
Entrepreneurial Intention (EI)	y#a249	dummy	Which type of organization do you want to work for? 1. Large corporation= 0 2. Public Institutions (Public enterprises; Government Administrative agencies included)= 0 3. Foreign companies= 0 4. Small and medium-sized enterprises = 0 5. Professional SMEs= 0 6. Start-ups= 1
Social Entrepreneurial Intention (SEI)	y#a249* y#a247	dummy	Social Entrepreneurial intention= 1; Otherwise=0 (ref. y#a247(i.e., which industry sector do you want to work for? Social sector =1)
Age	n/a	15-40	Birth date at the time of the survey
Gender	gender	dummy	Male=1, Female= 0
Household income	y#a702 y#a704 y#a706 y#a708	(in log)	What is the total earned income, financial income, real estate income, and other types of income of the respondent's household over the past year? (ref. Log transformation is performed after generating a single variable by total sum of the four types of income stated above. When income is 0, it is converted to 1 to prevent omission of the missing values.)
Education level	wtype	1-4	Middle School Students= 1 High School Students= 2 Undergraduates= 3 Graduates= 4
Major	y#a034	dummy	What is your major in college and graduate school? science technology and engineering= 1; otherwise= 0 (ref. Observations coded as 0 include middle and high school students)
Working status	y#b005	dummy	Which of the following are you currently doing? part time or internship= 1; otherwise= 0
Need for achievement	y#a252	1-5	How important is achievement (the ability to set your own goals and to achieve) to you when choosing a job?
Risk-taking propensity	y#a258	1-5	How important is job security (stable employment till retirement age) to you when choosing a job? (ref. It is coded reversely to make higher values represent higher degrees of the variable)
Locus of control	y#a254	1-5	How important is individual orientation (ability to work alone rather than working with others) is to you when choosing a job?
Altruism	y#a253	1-5	How important is altruism (being able to serve others) to you when choosing a job?
Monetary rewards	y#a255	1-5	How important is monetary rewards (sufficient financial compensation) to you when choosing a job?
Self-efficacy	y#f307	1-6	I can find efficient ways to solve issues with any given task.
Social recognition	y#a256	1-5	How important is being recognized by others (receiving approval) to you when choosing a job?

Note1: The second column shows the code names of the variables in the Youth Panel (YP).
Note2: The industry sector of Questionnaire y#a247 is classified as follows. Private sector: (1) Agriculture, Forestry and Fisheries, (2) Mining and Manufacturing, (3) Construction, (4) Wholesale, Retail and accommodation/restaurant, (5) Electricity, Gas and Water (including Transportation, Telecommunications), (6) Finance and Insurance, (8) Business Services, R&D, specialized legal and engineering services), (9) Entertainment, Culture and Sports. Social sector:(7) Education Services (10) Health and social welfare. Ref. (11) others and (12) not relevant were operationalized to missing values.