

## The Role of Emotional, Spiritual, and Social Intelligence on Entrepreneurship Intention of Informatics and Computer Students: Self-Leadership as a Mediating Variable



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**ABSTRACT:** Background: Entrepreneurship plays a strategic role in increasing a country's economic growth and can also provide new jobs so that it can reduce the number of unemployed. Objective: To reveal the effect of emotional intelligence, spiritual intelligence, and social intelligence on entrepreneurial intention through self-leadership as a mediating variable. Method: The study used a quantitative approach with survey methods, the sample consisted of 107 final year students majoring in informatics and computer at STMIK Bina Patria consisting of 48 males and 59 females. Data were collected by using a questionnaire and analyzed by using Partial Least Square (PLS). Results: Emotional intelligence influenced self-leadership. Spiritual intelligence influenced significantly on self-leadership. Social intelligence influenced self-leadership. Emotional intelligence influenced entrepreneurship intention. Self-leadership influenced directly on entrepreneurship intention. Social intelligence influenced directly entrepreneurship intention. Meanwhile, self-leadership can successfully mediate the influence of emotional intelligence, spiritual intelligence, and social intelligence on entrepreneurship intention. Conclusions: The results showed that emotional intelligence, spiritual intelligence, and spiritual intelligence influenced the entrepreneurship intention mediated by self-leadership. This is an empirical confirmation of the strategic role of emotional intelligence, spiritual intelligence, and social intelligence in developing self-leadership to influence the entrepreneurial intention of the students.

**KEYWORDS:** Spiritual intelligence, emotional intelligence, social intelligence, self-leadership, entrepreneurship intention

### I. INTRODUCTION

The resilience of the economy and business activities of a country is largely determined by the advanced development and growth of national entrepreneurship. Entrepreneurship plays a strategic and important role in accelerating a country's economic growth and can also provide new jobs so that it can reduce the number of unemployed. In addition, entrepreneurship can increase economic resilience to economic fluctuations and world economic crises that can occur at any time. Zimmerer (2008) explained Universities have an important role in encouraging the growth of entrepreneurship in a country. Universities can provide entrepreneurship education and training to students so that they have the ability and skills in the field of entrepreneurship so that after graduation they have an interest in entrepreneurship.

To understand more about the role of spiritual intelligence and emotional intelligence on the entrepreneurial intentions of higher students, Rodrigues et al. (2019) conducted research and found that emotional intelligence influences on students' entrepreneurial intentions, while spiritual intelligence has no effect on creativity and entrepreneurial intentions. Meyer et al. (2016) confirmed that social intelligence is the capability to manage and regulate people to behave wisely in building their relationship to others. Meanwhile, the characteristics of people who possess social intelligence are people who are able to cooperate with others and create good relationships well in their environment.

Self-leadership is the ability possessed by a person in himself to build motivation and manage himself to behave in various ways as desired by others (Konradt et al., 2009). Another similar statement is the process of influencing his potential to direct himself and encourage himself needed to behave effectively and efficiently, the process of influencing himself to manage his thoughts and actions to achieve the expected goals (Ho & Nesbit, 2009). Likewise, in the context of entrepreneurship, self-leadership has an important role in encouraging someone to engage in entrepreneurship.

The creation of new jobs will be created if new entrepreneurs emerge as well. Students as agents of change for the nation must be at the forefront of building the nation. The mindset of students must be changed from the mindset of job

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seekers to the mindset of opening jobs. Of course, this is not an easy matter, because it requires contributions from various parties, namely the government and the educational institutions themselves (Muhani et al., 2019).

The problems that hinder students' intention to become entrepreneurs after completing their studies are fear of taking risks, not having a business spirit, not having business talent, capital difficulties, and confusion in determining the type of business. If someone wants to build a successful entrepreneur, he must prepare mental and strong character both related to emotional intelligence, spiritual intelligence, social intelligence, and self-leadership. The objective of the study is to reveal the effect of emotional intelligence, spiritual intelligence, and social intelligence on entrepreneurial intention through self-leadership as a mediating variable.

## II. LITERATURE REVIEW

Entrepreneurship can function to open employment opportunities, provide consumer needs for both goods and services, and increase the welfare and level of competitiveness of a country. Entrepreneurship plays an important role and receives serious attention in the globalization era because of global economic competition in terms of creativity and innovation (Zimerrer & Scarborough, 2007). Cooper (1998) explains in more depth the meaning of emotional intelligence which is considered by many to determine success. Scientifically emotional intelligence has an important role in building success in all fields. The heart empowers the deepest values, converting ideas into action. The heart is the source of courage and passion, integrity and commitment. Likewise, entrepreneurial intentions that manifest from an idea into an entrepreneurial activity can be realized and developed well if supported by emotional intelligence values.

The students who have high emotional intelligence can carry out entrepreneurial activities better. They have better emotional control skills and are more creative and innovative (Chien-Chi et al., 2021). Meanwhile, Nursia et al. (2020) found that emotional intelligence and spiritual intelligence gave an influence on the entrepreneurial intention directly, meanwhile emotional intelligence influenced entrepreneurial intention through attitude. Feldman (1999) and Sterrett (2000) developed emotional intelligence dimensions including self-awareness, self-management, social-awareness, and relationship management.

Bowell (2014) defined spiritual intelligence is intelligence capable of directing life becomes more valuable. People who possess spiritual intelligence will be able to face life more calmly under any circumstances. Singh (2008) defines spiritual intelligence as "an innate or natural thinking ability and the ability to figure out spiritual facts and to guide daily behavior spiritually belief". In addition, Emmons (2000) confirms that spiritual intelligence as "modifying spiritual usage information to facilitate problem solving and goal attainment. Spiritual intelligence is intelligence related to meaning, namely intelligence to place behavior and life in a wider and more meaningful scope, intelligence to evaluate that one's behavior and way of life has more meaning than others (Zohar & Marshal, 2005).

Goleman (2007) uses the term social intelligence to describe a set of skills that enable us to be effective in managing our social interactions. The component of social intelligence consists of two things, namely the first is social awareness where we try to understand the feelings and thoughts of other people, which are covered in aspects of basic empathy, alignment, empathic accuracy and social understanding. While the second component is social facilities, how do we interact seamlessly and effectively with other people with our social awareness, and the aspects included in it such as synchrony, self-presentation, influence, and caring.

Social intelligence is the ability to understand other people and interact with others, understands the rules, values, habits, and culture in society. The term social intelligence explains about possible set of skills which enable us to be effective in managing our social interactions. Wei et al. (2019) stated that based on social cognitive theory, individual character influences entrepreneurial development. Social intelligence is a competency possessed by a person to communicate, build relationships and cooperation, respect the differences and rights of others, and the ability to provide values and benefit to many people. In the context of entrepreneurship, social intelligence plays an important role in developing and improving working relationships and business networks. So, the students who are interested in the world of entrepreneurship need to improve their social intelligence.

Self-leadership is an effort to influence oneself to be able to exert oneself so that one can work better. Self-leadership is defined by Manz and Sims (2011) as a philosophy and a set systematic action and mental strategy to direct someone to performance higher and more effective is also a business influence yourself to be able to exert yourself to be able to work with better. Self-leadership is characterized by three strategies, namely behavioral, cognitive, and natural reward strategies. Self-leadership has been considered to have the ability to influence individual psychological empowerment (Houghton & Yoho, 2005).

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The main goal of self-leadership, namely increasing self-efficacy, closely correlates with the perception of competence. Competence is known as a component in psychological empowerment (Wilson, 2014). Self-leadership will encourage individuals to respond to changes that occur around them. Therefore, it must be well aware of organizations as well as individuals that psychological empowerment and adaptive performance both constitute positive outcomes that can be enhanced by the existence of self-leadership and leadership transformational (Otaviani et al., 2022)

Besides having emotional intelligence, spiritual intelligence, and social intelligence, students who are going to enter the world of entrepreneurship should also understand the other competencies needed in entrepreneurship. There are several factors related to entrepreneurial competence including knowledge, skills, and attitudes (Windy et al., 2022). Knowledge can make entrepreneurs able to manage their business effectively, efficiently and innovatively. Skills enable an entrepreneur to be able to analyze information, build business networks, communicate with various stakeholders, be able to manage change. Meanwhile, attitude plays an important role for an entrepreneur to face various problems calmly, be disciplined, and be honest. Entrepreneurial intention is intentional perceived behavior among students to build new businesses after finishing their studies (Adewale et al., 2018). Chen and Linan (2006) stated that the dimensions of entrepreneurship intention include professional attraction, social valuation, entrepreneurial capacity, and entrepreneurial intention.

### **III. METHOD**

The study used a quantitative approach with survey methods, the sample consisted of 107 final year students majoring in informatics engineering, information systems and informatics management at STMIK Bina Patria consisting of 48 males and 59 females. Data was collected by using a questionnaire. The emotional intelligence questionnaire was adopted and modified from Feldman (1999) and Sterrett (2000). Meanwhile, the spiritual intelligence questionnaire was measured by (Hardt et al., 2012). The social intelligence questionnaire was developed and modified from (Miroslav & Zuzana, 2014). The self-leadership questionnaire was measured and modified using (Hoghton et al., 2012). Entrepreneurship intention questionnaire was developed and modified from (Chen & Linan, 2006). This research consists of three independent variables, namely emotional intelligence, spiritual intelligence, and social intelligence. Self-leadership is a mediating variable and entrepreneurship intention is as the dependent variable. Data analysis used Partial Least Square (PLS). Validity was measured using Confirmation Factor Analysis (CFA). The indicator was measured with a factor loading  $> 0.50$  and the Average Variance Extracted (AVE) must be  $\geq 0.50$ . Meanwhile, reliability was evaluated by Cronbach's alpha and Composite Reliability (CR) must be greater than  $> 0.70$  (Hair et al., 2014). It was conducted from September to December 2022.

### **IV. RESULTS**

#### **Construct Validity Measurement**

Research variables are measured through two stages. In the first stage (first order), the constructs used to measure proved valid, this was indicated by the factor loading of each construct having  $p < 0.05$ . Valid results were also obtained in the second stage of measurement (second order), all the manifests used were proven to be valid having a factor loading with  $p < 0.05$ , indicating valid.

#### **Construct Reliability Measurement**

Instruments in the first and second stages of measurement have acceptable reliability, internal reliability with a Cronbach's Alpha coefficient  $> 0.7$ ; Construct coefficient reliability  $> 0.7$ , indicating that it is one dimensional; good convergence with AVE coefficient  $> 0.5$ . Meanwhile, Ghazali (2011) and Hair et. al (2010) recommended composite reliability and Cronbach's alpha values were more than 0.7.

#### **Measurement of Structural Model**

The result of analysis can be described as figure 1 below.

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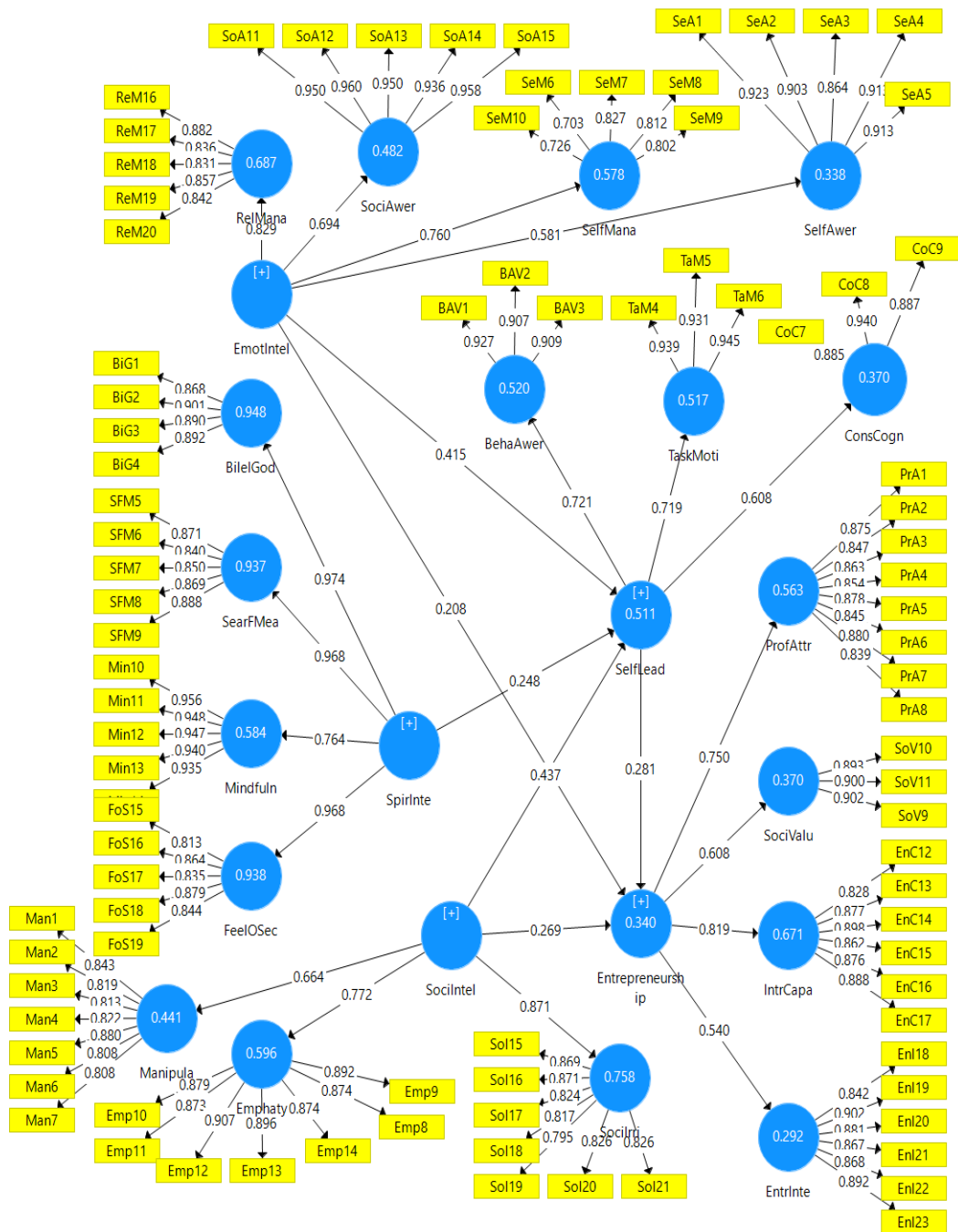


Figure 1. Measurement of Structural Model

## Hypothesis Testing

Table 1. Structural Test Results

No	Dependent	Independent	Coefficient	t <sub>val</sub>	P
Direct Effect	Self-Leadership (SelfLead)	EmotIntel	0.415	6.509	<0.0001
		SpirIntel	0.248	3.476	0.001
		SocIntel	0.437	5.575	<0.0001
	Entrepreneurship Intention (Entrepreneurship)	EmotIntel	0.208	2.369	0.018
		SelfLead	0.281	2.522	0.012
SocIntel		0.269	2.864	0.005	
Indirect Effect	Entrepreneurship Intention (Entrepreneurship)	EmotIntel	0.117	2.319	0.021
		SpirIntel	0.07	2.059	0.040
		SocIntel	0.123	2.245	0.025

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Based on the structural test results, it can be explained that emotional intelligence, spiritual intelligence, and social intelligence directly affect self-leadership and entrepreneurship intention. Similarly, emotional intelligence, spiritual intelligence, and social intelligence indirectly affect entrepreneurship intention through self-leadership as a mediating variable. Thus, self-leadership can mediate the relationship between emotional intelligence, spiritual intelligence, and social intelligence towards entrepreneurship intention. The findings confirm that entrepreneurship intention can be realized if students not only have emotional intelligence, spiritual intelligence, and social intelligence but must also be supported by increasing their self-leadership capacity.

### **V. DISCUSSION**

#### **The Influence of Emotional intelligence on Self-Leadership**

Emotional intelligence influences on self-leadership with a coefficient of 0.415 and  $p < 0.05$ . Based on these findings it can be explained that emotional intelligence plays an important role in developing self-leadership. Someone who has self-leadership skills can empower his capacity to manage entrepreneurship productively. The results of this study are in line with the research conducted by Samul (2020) which found that emotion has a positive relationship with self-leadership. Houghton et al. (2012) stated that self-leadership refers to an individual's tendency to engage in strategies to monitor and direct his own work, and to motivate himself towards achievement. Emotional intelligence has a very strong positive relationship with leadership. Emotional intelligence has a very significant role in the capacity of individuals to work together (teamwork) effectively, manage stress, and lead others effectively.

Setiadi (2020) found that emotional intelligence has an effect on a person's leadership, because effective leadership is having four elements of emotional intelligence namely: self-awareness; self-management; social awareness and relationship management. A leader with intelligence and high emotional also has an attitude that is open, transparent, accommodative, consistent, one words with deeds, keeping promises, honest, fair, and authoritative. His authority was upheld wisely, not with power. This leader prioritizes general welfare (many people) rather than his own welfare, sacrifice for the sake of public interest and selfless (not selfish); and care about the suffering of others.

#### **The influence of Spiritual intelligence on Self-Leadership**

Spiritual intelligence influences on self-leadership with a coefficient of 0.248 and  $p < 0.05$ . The results of this study explain that self-leadership can develop well if a person has spiritual intelligence. The results of this study are similar to the research done by Samul (2020) who states that spiritual intelligence has a positive relationship with self-leadership. Spirituality can develop and enhance both the intrapersonal and interpersonal competences which are important for enhancing self-leadership capacity. Vaughan (2002) states that people who have high spiritual intelligence have more tolerant, honest and emphatic attitudes and behaviors in their lives. It is important for students to develop self-leadership by increasing spiritual intelligence for their future lives, when they become leaders and entrepreneurs. Hoghton et al. (2012) explained that the dimensions of spiritual intelligence consist of belief in God, search for meaning, mindfulness, and feeling of security. Meanwhile, Fry & Cohen (2009) revealed that spirituality is essential for all levels of work: organization, team, and individual.

#### **The Influence of Social Intelligence on Self-leadership**

Social intelligence has an effect on self-leadership with a coefficient of 0.437 and  $p < 0.05$ . The results of this study explain that someone who has high social intelligence will develop a stronger self-leadership capacity. Self-leadership that is supported by social intelligence means that a person will become a figure who can adapt and communicate with different social and cultural environments which is very important in the world of entrepreneurship. Social awareness explains the ability to observe and feel the emotions and thoughts of others.

On the other hand, social facilities determine a person's ability to figure out the emotions, thoughts and intentions of other people and these skills can be used to manage social relations (Heggstad, 2008). This statement is closely related to the values of social intelligence that must be developed for students who want to increase their self-leadership capacity as a tool for entrepreneurship.

Wei et al. (2019) stated that based on social cognitive theory, individual character influences entrepreneurial development. Sumardi (2007) states social intelligence is a competency possessed by a person to communicate, build relationships and cooperation, respect the differences and rights of others, and the ability to provide value and benefit to many people. In the context of entrepreneurship, social intelligence plays an important role in developing and building working relationships and business networks. So, students who are interested in the world of entrepreneurship need to improve their social intelligence.

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## **The Influence of Emotional intelligence Directly on Entrepreneurship Intention**

Emotional intelligence affects directly on entrepreneurship intention with a coefficient of 0.208 and  $p < 0.05$ . This finding interprets that emotional intelligence affects significantly on entrepreneurial motivation. It means that emotional intelligence makes an effective contribution to entrepreneurial motivation (Irawati & Fauziah, 2018). Archana and Kumari (2018) revealed that emotional intelligence gave an effect on the students' entrepreneurial intention. Moreover, Zampetakis and Moustakis (2006) found the students who have a better emotional competence are more likely to possess entrepreneurial intentions.

Chien-Chi, et al. (2021) confirmed that emotional intelligence has a very crucial role in entrepreneurial intentions. The students with high emotional intelligence are ready to face the problems patiently. This grows their intention to start a business. Previous research done by Wen et al. (2020) revealed that emotional intelligence of vocational students will be able to grow entrepreneurial self-efficacy. It means that emotional intelligence plays an important role in encouraging students to get involved in entrepreneurship. Zampetakis et al. (2009) revealed that emotional intelligence and entrepreneurial attitudes influenced entrepreneurial intentions.

Radiman et al. (2021) revealed that student entrepreneurship intentions are influenced by spiritual intelligence. Empirically, Gelard and Emamisaleh (2014) confirmed that students who have higher emotional intelligence usually have entrepreneurial intentions and desires. However, Mortan et al. (2014) found contradictory results that emotional intelligence does not have an effect on entrepreneurial intention. Karimi and Ataei (2022) confirmed that the success of building entrepreneurship requires people with high emotional intelligence because they can overcome various problems encountered related to the environment and business activities.

## **The Influence of Self-leadership Directly on entrepreneurship intention**

Self-leadership influences directly on entrepreneurship intention with a coefficient of 0.281 and  $p < 0.05$ . The findings of the research interpret that self-leadership whose dimensions include behavior awareness and violation, task motivation, and constructive cognition (Houghton et al., 2012) can encourage a person to increase entrepreneurship intention. Therefore, it is important for students who want to involve themselves in entrepreneurship to increase their self-leadership capacity. This is an interesting finding that can be used to increase student awareness so that they are interested in building entrepreneurship which is very important for driving a country's economic growth and reducing the number of unemployment.

With regard to entrepreneurial intentions, self-leadership has an important role because Self-leadership is a skill possessed by someone who can be used to influence, guide, supervise, and increase self-motivation to achieve the expected goals. Self-leadership is a combination of cognitive aspects including the processes performed for influencing and motivating himself and aspects of behavior that is done to direct and manage behavior to achieve the desired goals (Rachmawati et al., 2018). By having strong self-leadership, students can encourage entrepreneurial desires and build a spirit of independence in the future.

## **The Influence of Social intelligence Directly on Entrepreneurship Intention**

Social intelligence influences directly on entrepreneurship intention with a coefficient of 0.269 and  $p < 0.05$ . The findings explain that someone who has high social intelligence has the desire to build entrepreneurship and are able to manage entrepreneurship well. Meanwhile, Miroslav and Zuzana (2014) explain the dimensions of social intelligence consist of manipulation, empathy, and social irritability. In the context of entrepreneurship, social intelligence is the competence of an entrepreneur to figure out other people and communicate with others to understand the rules, values, habits, and culture in society and the business environment.

Karimi and Ataei (2022) found that social intelligence influenced the students' entrepreneurial skill. In addition, Jin (2020) also revealed that social intelligence has a relationship with entrepreneurship skills. Tabatabaei et al. (2015) explained that the dimensions of social intelligence has a positive and significant relationship with entrepreneurship skills of the students. Meanwhile, Suryana (2003) states that Suryana (2003) states that great entrepreneurs are usually people who have ability, namely someone who has the knowledge, skills, and individual qualities which include attitude motivation, social values, and behaviors needed in entrepreneurial activities.

## **The Influence of Emotional Intelligence Indirectly on Entrepreneurship Intention through Self-leadership as a Mediating Variable**

Emotional intelligence influences an indirectly on entrepreneurship intention through self-leadership as mediating variable with a coefficient of 0.117 and  $p < 0.05$ . These findings explain that besides developing emotional intelligence, students who wish to enter the world of entrepreneurship must also increase their self-leadership capacity to foster entrepreneurial intention. Mortana et al. (2014) revealed that the influence of emotional intelligence and entrepreneurial intentions can be mediated by entrepreneurial self-efficacy.



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These results confirm that to encourage and increase entrepreneurial intentions, someone in this case students should improve entrepreneurial self-efficacy. The results of the research are in line with (Chien-Chi et al., 2020) finding the role of entrepreneurial self-efficacy in mediating the influence of emotional intelligence and entrepreneurial intention. Furthermore, people who possess entrepreneurial motivation and attitude are optimistic, confident, and full of commitment, responsive, initiative, have achievement motives, and dare to take risks (Suryana, 2003).

### **The Influence of Spiritual intelligence Indirectly on Entrepreneurship Intention through Self-leadership as a Mediating Variable**

Spiritual intelligence influences indirectly on entrepreneurship intention through self-leadership as mediating variable with a coefficient of 0.07 and  $p < 0.05$ . These results explain that self-leadership is needed to strengthen spiritual intelligence in fostering student entrepreneurship intention. This result does not mean that students do not need to develop spiritual intelligence in increasing entrepreneurship intention. Radiman et al. (2021) found that student entrepreneurship intentions are influenced by spiritual intelligence.

On the contrary, Muhani et al. (2019) found that spiritual intelligence has no effect significantly to the interest in entrepreneurship Bogor Agricultural University undergraduate student. However, it does not mean intelligence Spirituality has no effect at all on interest in entrepreneurship. Furthermore, spiritual intelligence is one of the factors that influences entrepreneurial interest undergraduate students of IPB. Likewise, Roddrigues et al. (2019) conducted research and found that spiritual intelligence has no effect on creativity and entrepreneurial intentions. Nursiah et. al. (2020) revealed that spiritual intelligence does not influence significantly entrepreneurship intention. On the contrary, Alamsyah and Yulhendri (2019) revealed that the interest of students' entrepreneurship was influenced by spiritual intelligence.

### **The Influence of Social intelligence Indirectly on Entrepreneurship Intention through Self-leadership as a Mediating Variable**

Social intelligence has an indirect effect on entrepreneurship intention through self-leadership as mediating variable with a coefficient of 0.123 and  $p < 0.05$ . This is an interesting finding that in order to foster entrepreneurship intention, students must improve their self-leadership competence to support social intelligence to increase the students' entrepreneurship intention. This does not mean that social intelligence does not influence students' entrepreneurial intentions. Social intelligence will have value in building an entrepreneurial spirit but must be strengthened by self-leadership. Meanwhile, Karimi and Ataei (2022) revealed that social intelligence influenced positively on students' entrepreneurial skills. It can be explained that higher social intelligence and the improvement of self-leadership can support the entrepreneurship intention of the students. Alamsyah and Yulhendri (2019) revealed that social intelligence influenced a significant and positive on the students' entrepreneurship intention in Islamic boarding schools. Likewise, Individual characteristics and psychological characteristics influence on entrepreneurial competence, and external factors influence on business performance as well (Windy et al., 2022).

Based on the results of this study confirm that spiritual intelligence, emotional intelligence, and social intelligence play an important role in the development of entrepreneurial character which can encourage someone, including final year students, to engage in the world of entrepreneurship after they have completed their studies. However, students must also improve and increase their self-leadership competencies. It is very important to drive the students to become entrepreneurs to move Indonesia forward and reducing unemployment and creating new job opportunities.

## **VI. CONCLUSION**

This research was done to reveal the influence of emotional, spiritual, and social intelligence on entrepreneurial intention mediated by self-leadership. The results of the research can be explained that emotional intelligence has a significant effect on self-leadership. Spiritual intelligence has a significant effect on self-leadership. Social intelligence has an effect on self-leadership. Emotional intelligence influences directly on entrepreneurship intention. Self-leadership influences directly on entrepreneurship intention. Likewise, social intelligence has a direct influence on entrepreneurship intention. Meanwhile, self-leadership can successfully mediate the relationship of emotional intelligence, spiritual intelligence, and social intelligence on entrepreneurship intention. This is an empirical confirmation of the strategic role of emotional, spiritual, and social intelligence in developing self-leadership to influence the entrepreneurial intention of the students.

The results of the study imply that a student who wants to increase his entrepreneurial intentions and build entrepreneurship needs to develop emotional intelligence, spiritual intelligence, and social intelligence to increase his self-leadership capacity which can encourage his entrepreneurial intention. The theoretical implication of this research is the need to construct a theory that emphasizes self-leadership as a model or as a determinant variable to create relation of entrepreneurial intention and emotional, spiritual, and social intelligence. Therefore, this research is able to contribute to the design of a theory

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related to self-leadership. Meanwhile, the research results have practical implications, namely students need to improve self-leadership to encourage entrepreneurial desires by developing emotional intelligence, spiritual intelligence, and social intelligence. However, this study has limitations, namely the limited research object and small population. Therefore, further research can expand the objects of research with a wider population with different variable constructs.

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