

## **Effectiveness of Self for Online Entrepreneurship and Its Relationship with Academic Self-Esteem Among King Faisal University Students**

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### **KEYWORDS**

Entrepreneurship- Self-  
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### **ABSTRACT**

The rapid digital transformation globally has positioned online entrepreneurship as a vital modern economic domain. Self-efficacy plays a pivotal role in the success of individuals in this field, influencing their decision-making, innovation, and ability to overcome challenges. Similarly, academic self-esteem serves as a critical measure of students' confidence in their academic abilities, directly enhancing their performance in various activities. Against this backdrop, the present research aimed to examine: the level of self-efficacy in online entrepreneurship, the level of academic self-esteem, and the relationship between these two variables among students at King Faisal University. Adopting a descriptive approach, the study utilized the Self-Efficacy Scale for Online Entrepreneurship and the Academic Self-Esteem Scale. The sample consisted of 78 randomly selected students. Key findings revealed that the students exhibited an average level of self-efficacy in online entrepreneurship and a high level of academic self-esteem. Furthermore, a statistically significant correlation was identified between self-efficacy in online entrepreneurship and academic self-esteem. The study recommended enhancing students' knowledge of entrepreneurship through targeted training and showcasing successful entrepreneurial models to positively influence their perception of online entrepreneurship.

### **Introduction**

Many nations strive to prepare generations equipped with the knowledge and skills required to meet the demands of the 21st century, especially considering the tremendous advancements in information technologies. Since universities bear the primary responsibility for preparing these generations in scientific and professional fields aligned with labor market needs, it is imperative that they stay abreast of advancements in all disciplines. Entrepreneurship, in particular, is a crucial field through which capable generations can lead the economy by possessing diverse skills and competencies. Entrepreneurship has transcended traditional boundaries, integrating modern technologies that have transformed and diversified its concepts, largely by leveraging the immense potential of the internet.

The internet plays a significant role in contemporary business and individuals' lives (Zouria & Udanoh, 2020, 36). Its widespread adoption has fostered the growth of online entrepreneurship as opposed to traditional business models (Wang, Tseng, Wang & Chu, 2020, 653). Online entrepreneurship is closely tied to cutting-edge technologies, characterized by high demands for innovation and creativity (Wu, Chen & Pan, 2019, 22). The internet has played an effective role in helping entrepreneurs overcome financial dilemmas and in enhancing their social capital development (Dai, Yin, Wang, Tsai, Zhou & Lin, 2018, 79138). Additionally, it has stimulated entrepreneurial activities (Cumming & Johan, 2010, 857). Giones and Brem (2017, 49) assert that the digital revolution has transformed the meaning and scope of entrepreneurship worldwide. Digital entrepreneurship, a subcategory of entrepreneurship, encompasses roles related to information technology, particularly the internet (Rashidi, Yousefpour, Sani, and Rezaei, 2013, 1). Online entrepreneurship is referred to by several terms, including "internet ventures," "digital entrepreneurship," and "e-commerce entrepreneurship" (Tseng, Wang & Chu, 2020, 656-657).

Online entrepreneurship has emerged as a significant academic topic (Chang, Wang, Lee & Yu, 2018, 3083) and has intertwined with psychological concepts such as self-efficacy. Entrepreneurial self-efficacy refers to "an individual's beliefs about their ability to succeed and their capacity to manage challenging goals during the business startup phase" (Alex Maritz & Chris Brown, 2013). Self-esteem is another influential factor in entrepreneurship. Bhardwaj and Agrawal (2013, 190) highlight the vital role of self-esteem in the lives of individuals across all age groups, describing it as an individual's attitude toward specific aspects of their life (Brogan et al., 2020, 8). Self-esteem reflects a positive or negative self-perception and serves as a personal evaluation of one's worth (Tajuddin et al., 2009; Gómez-Lugo et al., 2016; Naher, Akter & Oli, 2019; Mao et al., 2020). It is shaped by a range of thoughts and life experiences (Mayordomo, Gutierrez & Sales, 2019, 183) and is closely linked to personal beliefs in success and performance based on past experiences (Ugwuanyi et al., 2020, 493). Self-esteem is also defined as a general sense of self-worth (Takhsha et al., 2020, 419) and reflects the degree to which individuals value themselves (Abdulghani et al., 2020; Woodman, MacGregor & Hardy, 2020).

The current study seeks to investigate entrepreneurial self-efficacy in online entrepreneurship and its relationship with academic self-esteem among King Faisal University students through an empirical study.

### **Research Problem**

Memon, Soomro, and Shah (2018, 685) emphasize that entrepreneurial self-efficacy is a vital predictor of entrepreneurial success, providing individuals with the support needed to persist through challenging conditions and setbacks during project initiation. Entrepreneurs with resilience and self-efficacy are better equipped to confront challenges in the global business environment. Developing online entrepreneurial skills among students is essential for thriving in today's competitive society. Liu et al. (2019, 2) describe entrepreneurial self-efficacy as an entrepreneur's confidence in their ability to start a business and their belief in possessing the necessary skills for its execution, indicating the entrepreneur's confidence in completing specific entrepreneurship-related tasks.

Many researchers have studied entrepreneurial self-efficacy. For instance, Setiawan (2014) examined the entrepreneurial self-efficacy levels among students in a university with entrepreneurship education integrated into its curriculum, finding a generally high level of entrepreneurial self-efficacy. Naktiyok et al. (2010) explored the relationship between entrepreneurial self-efficacy (ESE) and entrepreneurial intention in Turkish culture, concluding that students exhibited a strong intention to become entrepreneurs. Prihatsanti (2017) found a significant positive relationship between entrepreneurial self-efficacy, entrepreneurial curiosity, and innovative behavior among entrepreneurial students, with increased self-efficacy and curiosity enhancing innovative behavior. Qiao and Huang (2019) investigated the relationship between entrepreneurial self-efficacy, career adaptability, and entrepreneurial intention among university students, revealing that:

- (a) entrepreneurial self-efficacy significantly and positively influenced entrepreneurial intention.
- (b) entrepreneurial self-efficacy significantly and positively impacted career adaptability.

These findings highlight that entrepreneurial self-efficacy among university students can influence their adaptability to professional life. Therefore, the current study aims to examine the relationship between entrepreneurial self-efficacy in online entrepreneurship and academic self-esteem among King Faisal University students.

### **Research Questions**

The study seeks to answer the following questions:

1. What is the level of entrepreneurial self-efficacy in online entrepreneurship among King Faisal University students?
2. What is the level of academic self-esteem among King Faisal University students?
3. What is the relationship between entrepreneurial self-efficacy in online entrepreneurship and academic self-esteem among King Faisal University students?

### **Research**

The current study aimed to identify:

1. The level of entrepreneurial self-efficacy (ESE) for online entrepreneurship among King Faisal University students.
2. The level of academic self-esteem among King Faisal University students.
3. The relationship between entrepreneurial self-efficacy for online entrepreneurship and academic self-esteem among King Faisal University students.

### **Objectives**

### **Research**

The significance of this research is reflected in the following:

1. The study provides important findings related to entrepreneurial self-efficacy for online entrepreneurship and academic self-esteem, which can be utilized to develop university

curricula addressing entrepreneurship in alignment with the 21st-century labor market demands.

2. The research offers tools that can benefit researchers and specialists conducting similar studies.
3. The study may contribute to raising awareness about online entrepreneurship in light of the ongoing advancements in information technologies.

## Research Scope

- **Thematic Scope:** The study focused on the relationship between entrepreneurial self-efficacy for online entrepreneurship and academic self-esteem among King Faisal University students.
- **Geographical Scope:** The research instrument was administered to King Faisal University students enrolled in courses covering entrepreneurship topics.
- **Temporal Scope:** The instruments were applied during the second semester of the 1443/1444 AH academic year.

## Theoretical Framework

### 1. Entrepreneurial Self-Efficacy (ESE) for Online Entrepreneurship

**1.1. Concept of Entrepreneurial Self-Efficacy** Bandura (1997, p. 31) defines general self-efficacy as the belief in an individual's ability to perform a specific task or intentional behavior successfully. Similarly, self-efficacy is described as an individual's belief in their capability to produce a certain level of performance that influences the events affecting their lives (Atwater & Carmeli, 2009, p. 265). Entrepreneurial self-efficacy (ESE) is a specialized form of general self-efficacy (Nyamunda & Westhuizen, 2020, p. 6). Sedlan-Konig (2016, p. 313) defines ESE as an individual's confidence in their ability to mobilize cognitive, motivational, and behavioral resources to successfully perform entrepreneurial tasks.

ESE reflects an individual's belief in their capability to launch a business successfully (McGee, Peterson, Mueller & Sequeira, 2009; Schmutzler, Andonova & Diaz-Serrano, 2019). According to Hmieleski and Baron (2008, p. 57), ESE measures the degree to which an individual perceives themselves capable of performing various entrepreneurial roles and tasks.

Chen, Greene, and Crick (1998, p. 295) identify five components of ESE: marketing, innovation, management, risk-taking, and financial control. This belief in entrepreneurial capabilities significantly affects entrepreneurial intentions (Chien-Chi, Sun, Yang, Zheng & Li, 2020, p. 3).

**1.2. Characteristics of Entrepreneurial Self-Efficacy** ESE requires effort, persistence, and planning (Ekawarna & Kusmana, 2019, p. 2510). It depends on an individual's self-knowledge, skills, and ability to accomplish tasks (Zurriaga-Carda, Kageyama & Akai, 2016, p. 1425). Jeraj and Marič (2013, p. 270) note that ESE motivates individuals to invest time in achieving positive outcomes.

ESE is a multidimensional construct (Drnovsek, Wincent & Cardon, 2010; Sedlan-Konig, 2016; Kalitanyi, 2019). High ESE levels encourage individuals to set challenging goals, persist through obstacles, and adapt successfully to changing environments (Peng, Liu & Lin, 2015, p. 565).

**1.3. Characteristics of Students with High ESE Levels** Students with high ESE levels exhibit characteristics such as setting innovation-related goals, evaluating the business environment as opportunity-rich (Naktiyok et al., 2010, p. 224), and demonstrating skills necessary for entrepreneurial success (Bousmpou et al., 2019, p. 1246). They show greater perseverance, focus, and resilience (Forbes, 2005, p. 601).

## **2. Online Entrepreneurship**

The 21st century is often referred to as the "Age of Entrepreneurship" (Qiao & Huang, 2019, p. 305). Digital entrepreneurship is described as entrepreneurship where some or all of the entrepreneurial ventures are conducted digitally (Hair, Wetsch, Hull, Perotti & Hung, 2012, p. 3). It involves leveraging digital media and ICT tools to identify and exploit opportunities (Davidson & Vaast, 2010, p. 2). Ballı (2020, p. 1058) highlights the advantages of digital entrepreneurship, including cost-efficiency and ease of access for producers to market their goods and services. It also fosters operational creativity and offers diverse opportunities for entrepreneurs (Kraus, Palmer, Kailer, Kallinger & Spitzer, 2019, p. 353).

### **Dimensions of Online Entrepreneurship Self-Efficacy**

**Definition and Dimensions:** Wang, Tseng, Wang, and Chu (2020, pp. 657-658) define online entrepreneurship self-efficacy as an individual's belief or confidence in their ability to successfully launch an entrepreneurial venture online. It consists of five dimensions: **business operation, leadership, technology utilization, online customer service, and internet marketing.**

**Concept of Online Entrepreneurship:** According to Hasbolah et al. (2020, p. 2635), "online entrepreneurship" refers to any effort or venture those leverages, utilizes, and applies information technologies for entrepreneurial processes that ultimately yield benefits.

**Scale Development and Validation:** Wang, Tseng, Wang, and Chu (2020) developed a scale to measure online entrepreneurship self-efficacy, consisting of 16 items grouped under three factors: **leadership, technology utilization, and online marketing and e-commerce.** The scale demonstrated adequate convergent, discriminant, and criterion-related validity. Nominal validity was established through a positive correlation between the scale, online entrepreneurship knowledge, and entrepreneurial intentions.

**Dimensions Identified by Research:** Herath and Rosli (2014) identified six dimensions of entrepreneurship self-efficacy:

- 1. Developing new product and market opportunities**
- 2. Building an innovative environment**
- 3. Initiating investor relationships**
- 4. Defining core purpose**

5. **Coping with unexpected challenges**
6. **Developing critical human resources**

#### **Notable Studies on Entrepreneurship Self-Efficacy (ESE):**

- **Chang, Wang, Lee, and Yu (2018):** This study examined the impact of Cyber Entrepreneurship Self-Efficacy (CESE) and Goal Commitment (GC) on Cyber Entrepreneurial Intentions (CEIs) in the context of entrepreneurship education for undergraduate students. Results revealed that CESE positively influenced both GC and CEIs, and GC positively affected CEIs. The study suggested that educators and practitioners could better understand students' CESE levels to design improved curricula that enhance students' entrepreneurial skills.
- **Jeraj and Maric (2013):** This research explored the relationship between entrepreneurial curiosity and entrepreneurship self-efficacy. Structural equation modeling revealed that entrepreneurial curiosity positively influenced ESE in managing entrepreneurial tasks.
- **Ayodele (2013):** The study investigated the relationship between gender, socioeconomic status, age, locus of control, ESE, and entrepreneurial intentions among Nigerian adolescents. Results indicated significant relationships between locus of control, ESE, socioeconomic status, and entrepreneurial intentions, while age and gender were not significant factors.

**Findings on High Self-Efficacy:** Hmieleski and Baron (2008) found that while high entrepreneurial self-efficacy could lead to positive outcomes, under certain conditions, it could also result in negative effects. Encouraging entrepreneurs to enhance their self-awareness can help them align their behaviors with environmental demands, increasing the likelihood of success.

**Role of Education in ESE:** Neneh (2020) showed that ESE positively influences engagement in entrepreneurial careers. Similarly, Sedlan-Konig (2016) emphasized the role of university teaching in enhancing ESE. The study highlighted the importance of experiential learning and informal education in supplementing formal university curricula to foster entrepreneurial behavior and self-efficacy.

**Optimism and Environmental Contexts:** Hmieleski and Baron (2008) concluded that the effects of high entrepreneurial self-efficacy on performance were positive when coupled with moderate optimism but negative when combined with excessive optimism. In stable environments, self-efficacy effects were relatively weak and unaffected by optimism.

**ESE Measurement and Development:** ESE measures individuals' confidence in performing tasks related to managing new ventures (Forbes, 2005). It is enhanced through observation, guidance, prior experiences, training, and education (Jeffrey and Mark, 2019). Factors like indirect learning, mastery experiences, physiological states, and social persuasion contribute to ESE development (Nyamunda and Westhuizen, 2020).

**University Role in Promoting Online Entrepreneurship:** Universities should intensify efforts to develop students' online entrepreneurship skills through practical campus-based activities (Darmanto and Yuliari, 2018).

### **Academic Self-Esteem (ASE)**

Academic self-esteem (ASE) represents a specific dimension of general self-esteem (Osborne, 1997, p. 728). ASE refers to an individual's evaluation of their cognitive abilities and academic performance (Tani and Ray, 2018, p. 101). It is defined as an individual's perception of themselves as a capable, competent, and successful student (Ghaith, 2003, p. 456). Similarly, Lipnevich (2006, p. 4) describes ASE as an individual's attitude toward the learning process, sense of direction, and self-expectations regarding academic performance. ASE encompasses the beliefs individuals hold about their academic abilities (Brown, 2011, p. 4). It involves understanding one's academic capabilities and how others perceive this understanding, which enhances achievement in various domains (Ahmadi, 2020, p. 1). Moreover, ASE refers to the evaluation of one's performance in the academic domain (Regner and Loose, 2006, p. 783) and includes attitudes and perceptions related to academic performance (Valdez, 2016, p. 8). Therefore, ASE is considered an integral part of overall academic success (Martino, 2009, p. 7). An individual with high ASE perceives themselves as valuable, possesses high self-esteem, and demonstrates an ability to achieve academic success (Ertugut and Ertugut, 2010; Ahmadi, 2020). ASE positively influences academic performance (Koosha, Ketabi, Kassaian, 2011; Kalanzadeh, Mahnegar, Hassannejad, and Bakhtiarvand, 2013, p. 78).

Self-esteem, in general, is defined as "a personal judgment of worthiness expressed in the attitudes individuals hold toward themselves" (Marino, Santinello, Lenzi, Santoro, Bergamin, Gaboardi, ... Perkins, D. D., 2020, p. 2). It is a deeply rooted factor associated with positive adjustment and functioning during development. Additionally, self-esteem is characterized as "a personal judgment of worthiness, expressed in attitudes adopted by individuals toward themselves. It is a subjective experience conveyed to others through verbal reports and other overt expressive behaviors" (Kalanzadeh, Mahnegar, Hassannejad, and Bakhtiarvand, 2013, p. 78). Steiger, Allemand, Robins, and Fend (2014, p. 325) noted that high self-esteem enhances functional performance and academic achievement. Furthermore, Rosenberg, Schooler, Schoenbach, and Rosenberg (1995) emphasized that academic self-esteem serves as a better predictor of school performance.

### **Characteristics of Students with High Academic Self-Esteem**

Students with high ASE typically demonstrate strong academic performance, confidence, competence, and happiness (Naher, Akter, and Oli, 2019; Brogan, Bloomdahl, Rowlett, and Dunham, 2020; Filippello, Buzzai, Messina, Mafodda, and Sorrenti, 2020). Numerous studies have identified a statistically significant positive correlation between self-esteem and academic performance, indicating that students with high ASE are likely to achieve higher academic outcomes (Maduagwu, Carew, Fajonyomi, and Maduagwu, 2014; Steiger, Allemand, Robins, and Fend, 2014; Robins, Trzesniewski, Nofle, Roberts, and Widaman, 2014; Zheng, Atherton, Trzesniewski, and Robins, 2020).

Research has explored ASE from various perspectives. Findings by Afari, Ward, and Khine (2012) indicated that ASE is linked to academic achievement, consistent with previous studies investigating the relationship between self-esteem and academic success. Jagtap (2018) observed significant gender differences in self-esteem and self-efficacy, with male students exhibiting higher levels in both domains compared to female students. Similarly, Gera and Singh (2015) found notable differences in self-efficacy among prospective teachers based on academic achievement levels. High- and average-achieving prospective teachers demonstrated greater self-efficacy than their low-achieving peers.

Shaw (2008) identified significant relationships between self-esteem and academic achievement, self-efficacy, attitudes toward teachers, and attitudes toward school. von Soest, Wichstrøm, and Kvaalem (2016) reported that participants with high ASE attained higher education levels and incomes. Giofrè, Borella, and Mammarella (2017) emphasized ASE's role in predicting academic achievement after accounting for cognitive measures. Tani and Ray (2018) observed that male students exhibited higher ASE levels than females, and academic performance predicted ASE.

Pullmann and Allik (2008) highlighted ASE as a systematic predictor of school achievement. Erturgut and Erturgut (2010) analyzed ASE levels and its relationship with stress management among elementary school students, employing the Behavioral Academic Self-Esteem Scale. Results revealed that ASE levels varied with parental education, family economic status, and years of schooling. A negative relationship between ASE and stress levels was also observed.

Ahmadi (2020) explored the relationship between ASE elements and academic achievement through academic self-efficacy, finding direct correlations between most ASE elements and academic self-efficacy. Saadat, Ghasemzadeh, Karami, and Soleimani (2012) found that all components of self-esteem correlated positively with an internal locus of control. Rentzsch, Schröder-Abé, and Schütz (2015) noted that low ASE individuals might exhibit hostile tendencies due to envy, particularly in highly competitive settings. Lindsay, Dockrell, and Palikara (2010) observed that undergraduate students improved their ASE through education, training, and increased coursework.

Finally, Asakereh and Yousofi (2018) found positive correlations between general self-efficacy, self-esteem, and academic achievement among Iranian EFL students. However, reflective thinking did not significantly correlate with these variables. Ugwuanyi et al. (2020) emphasized the predictive power of emotional intelligence, self-esteem, and self-efficacy on mathematics achievement, underscoring their role as determinants of academic success.

## **4. Methods and Procedures in Research**

### **4.1 Research Methodology:**

The study employed the descriptive method, as it aligns with the nature of this research, which aimed to investigate the self-efficacy of online entrepreneurship and its relationship with academic self-esteem among students at King Faisal University.

#### **4.2 Research Population:**

The population consisted of students from the College of Business Administration at King Faisal University who are enrolled in courses related to entrepreneurship.

#### **4.3 Research Sample:**

The research sample included 78 students selected through random sampling from the College of Business Administration.

#### **Research Tools**

The research tools comprised two scales:

1. The Online Entrepreneurship Self-Efficacy Scale.
2. The Academic Self-Esteem Scale.

#### **First: Online Entrepreneurship Self-Efficacy Scale**

The scale was developed following these steps:

##### **1. Purpose of the Scale:**

The scale aimed to measure the level of online entrepreneurship self-efficacy among students at King Faisal University.

##### **2. Defining the Scale Content:**

To define the scale content, the researchers:

- Reviewed the theoretical framework and previous studies related to the research to draw insights.
- Conducted interviews with specialists in education, psychology, and business administration to gather their opinions and ideas on online entrepreneurship self-efficacy.

##### **3. Formulating the Scale Items:**

The items were designed to cover the dimensions of online entrepreneurship self-efficacy targeted by the research.

##### **4. Scale Dimensions:**

The questionnaire included several items with responses ranging from (Always - Often - Sometimes - Rarely - Never), scored as (5 - 4 - 3 - 2 - 1), respectively. The items were grouped into three dimensions:

- **Dimension 1:** Leadership and Technology Use (7 items).
- **Dimension 2:** Online Marketing (7 items).
- **Dimension 3:** E-commerce (6 items).

**5. Expert Validation of the Scale:**

The scale was reviewed by 13 faculty members to evaluate its content. Based on their feedback, necessary adjustments were made to the dimensions and items.

**6. Scale Reliability:**

To assess reliability, the scale was administered to 21 students. Cronbach’s alpha was calculated for the scale dimensions, yielding the following results:

**Table (1):** Cronbach's Alpha Coefficients for the Questionnaire Dimensions

Dimensions	Leadership and Technology Use	Online Marketing	E-commerce	Total
Cronbach's Alpha	0.722	0.937	0.938	0.941

7. The results indicate acceptable reliability levels, confirming that the questionnaire is reliable and applicable.

**8. Final Version of the Scale:**

After assessing validity and reliability, the final scale included three dimensions with the following items:

- **Dimension 1:** Leadership and Technology Use (7 items).
- **Dimension 2:** Online Marketing (7 items).
- **Dimension 3:** E-commerce (6 items).

**Second: Academic Self-Esteem Scale**

The scale was developed following these steps:

**1. Purpose of the Scale:**

The scale aimed to measure the level of academic self-esteem among students at King Faisal University.

**2. Defining the Scale Content:**

To define the scale content, the researchers:

- Reviewed the theoretical framework and previous studies related to the research to draw insights.
- Conducted interviews with specialists in education and psychology to gather their opinions and ideas on academic self-esteem.

**3. Formulating the Scale Items:**

The items were designed to cover the dimensions of academic self-esteem targeted by the research.

**4. Scale Dimensions:**

The questionnaire included several items with responses ranging from (Always - Often - Sometimes - Rarely - Never), scored as (5 - 4 - 3 - 2 - 1), respectively. The items were grouped into five dimensions:

- **Dimension 1:** Students' Initiative (7 items).
- **Dimension 2:** Social Awareness (7 items).
- **Dimension 3:** Success/Failure (6 items).
- **Dimension 4:** Social Attraction (5 items).
- **Dimension 5:** Self-Confidence (8 items).

**5. Expert Validation of the Scale:**

The scale was reviewed by 13 faculty members to evaluate its content. Based on their feedback, necessary adjustments were made to the dimensions and items.

**6. Scale Reliability:**

To assess reliability, Cronbach's alpha was calculated for the scale dimensions, yielding the following results:

**Table (2):** Cronbach's Alpha Coefficients for the Questionnaire Dimensions

Dimensions	Initiative	Social Awareness	Success/Failure	Social Attraction	Self-Confidence	Total
Cronbach's Alpha	0.808	0.741	0.681	0.832	0.897	0.924

7. The results indicate acceptable reliability levels, confirming that the questionnaire is reliable and applicable.

**8. Final Version of the Scale:**

After assessing validity and reliability, the final scale included five dimensions with the following items:

- **Dimension 1:** Students' Initiative (7 items).
- **Dimension 2:** Social Awareness (7 items).
- **Dimension 3:** Success/Failure (6 items).
- **Dimension 4:** Social Attraction (5 items).
- **Dimension 5:** Self-Confidence (8 items).

### **Field Study Procedures:**

The field study procedures were conducted in the following steps:

- **Defining the Purpose of the Field Study:**  
The field study aimed to examine the relationship between entrepreneurial self-efficacy in online ventures and academic self-esteem among students at King Faisal University.
- **Obtaining the Necessary Approvals to Apply the Study Tool:**  
The university was officially contacted to obtain an ethics committee approval letter for administering the tools to the study sample. Approval was granted for application at both the male and female student campuses.
- **Final Field Administration of the Study Tool:**  
The tools were designed using Google Forms to facilitate their administration among students. The tool's link was shared electronically to reach the largest possible number of participants. Responses were monitored to ensure proper participation, then downloaded from Google Forms as Excel files. These responses were organized and formatted appropriately for statistical analysis.
- **Statistical Analysis Methods:**  
To achieve the research objectives and analyze the collected data, several statistical methods were employed using the **Statistical Package for Social Sciences (SPSS)** software. The following statistical measures were utilized:
  - **Mean:** To determine the average responses of the study sample for each item in the dimensions.
  - **Standard Deviation:** To measure the variability of responses for each item and each primary dimension from the mean.
  - **Percentages of the Mean Responses:** To assess the distribution of the sample's responses.

### **Research Results, Analysis, and Interpretation:**

#### **First Question:**

"What is the level of entrepreneurial self-efficacy in online ventures among students at King Faisal University?"

To answer this question, means, standard deviations, and percentages were calculated for each statement in the questionnaire. The following scale was used for response weightings: Always = 5, Often = 4, Sometimes = 3, Rarely = 2, Never = 1

The following criterion was applied to interpret the responses:

**Table (3): Distribution of Response Ranges Used in the Study Tool**

Response	Mean Range	Percentage	Level
Strongly Agree	4.21 – 5.00	≥ 80%	High
Agree	3.41 – 4.20	60% – 80%	Moderate
Neutral	2.61 – 3.40	52% – 60%	Low
Disagree	1.81 – 2.60	36% – 52%	Very Low
Strongly Disagree	1.00 – 1.80	≤ 36%	None

The following table presents the results.

**Table (4): Means, Standard Deviations, and Percentages of the Study Sample's Responses on the Self-Efficacy Scale for Online Entrepreneurship Among Students at King Faisal University**

Items	Mean	Percentage	Standard Deviation
<b>Dimension One: Leadership and Technology Use</b>			
I have the ability to persuade my peers to start an online business.	3.19	%64	1.33
I can use modern technologies to gather information about online projects.	4.12	%82	0.91
I can access business-related information online at any time.	4.58	%92	0.58
I can utilize advanced technological tools to monitor my work.	4.50	%90	0.71
I have the ability to face and solve complex problems.	4.42	%88	0.76
I have the ability to influence others to achieve my desired goals.	4.19	%84	0.94
I can manage sudden crises using modern technological tools.	4.15	%83	0.67
Total	4.16	%83	0.84
<b>Dimension Two: Internet Marketing</b>			
I can create an online marketing campaign.	3.42	%68	1.27
I can use email and social media to market my products.	3.58	%72	1.36
I have the ability to design a user-friendly website for electronic marketing.	3.46	%69	1.33
I can develop plans and propose marketing strategies through social media networks and shopping platforms.	3.46	%69	1.42
I can conduct webinars on electronic marketing via internet platforms.	3.31	%66	1.72
I conduct virtual tours through internet networks to market products.	3.31	%66	1.44
I prioritize the visibility of my website on various search engine pages.	3.65	%73	1.44

Total	3.46	%69	1.43
<b>Dimension Three: E-commerce</b>			
I can launch a successful online business.	3.46	%69	1.36
I have the ability to establish an online store.	3.31	%66	1.38
I monitor marketing channels on my online store.	3.42	%68	1.27
I can calculate the cost of creating my online store.	3.54	%71	1.27
I can promote my online store on social media platforms.	3.65	%73	1.23
I can create a distinctive brand that sets my website apart.	3.88	%78	1.14
Total	3.54	%71	1.28

### **Analysis of Results:**

The results in the table indicate that the responses of King Faisal University students were moderate across all items of the scale, except for items under the first dimension, *Leadership and Technology Use*, where the percentage of responses exceeded 80% in most items. The only exception was the statement, *I can convince my peers to start an online business*.

This suggests that the level of self-efficacy for online entrepreneurship was moderate among students studying the entrepreneurship course at King Faisal University. This indicates a lack of sufficient awareness about online entrepreneurship among the students.

The above findings align with the results of studies such as Hmieleski and Baron (2008) and von Soest, Wichstrøm, & Kvaalem (2016). Interestingly, the findings are consistent with Hmieleski and Baron's (2008) assertion that high self-efficacy is not always beneficial for entrepreneurs and may lead to negative outcomes under certain conditions.

Conversely, Neneh's (2020) study, which examined the influence of entrepreneurial self-efficacy on career paths in entrepreneurship, demonstrated that self-efficacy had a positive impact on engagement in entrepreneurial careers.

Thus, efforts should focus on enhancing the self-efficacy of King Faisal University students in entrepreneurship through feedback, guidance, prior experiences, training, education, and techniques such as indirect learning, mastery experiences, and social persuasion.

### **Second: Answering the Second Question, Which States: "What is the Level of Self-Esteem Among Students at King Faisal University?"**

To answer the above question, the means, standard deviations, and percentages of the responses for each item of the scale were calculated. The results were as follows.

**Table (5):** Mean, Standard Deviation, and Percentages of the Mean Responses of the Sample on the Self-Esteem Scale for Students at King Faisal University

Item	Mean	Percentage	Standard Deviation
<b>Dimension One: Student Initiative</b>			
I think creatively to compete with others.	4.42	88%	0.80
I make academic decisions innovatively.	3.92	78%	1.04
I introduce unconventional ideas in lectures.	3.08	62%	1.34
I participate in voluntary work with others.	3.88	78%	1.16
I am willing to make sacrifices for others.	3.65	73%	1.21
I can take responsibility both individually and collectively.	4.15	83%	1.14
I ask questions when there are unclear parts during learning.	3.73	75%	1.10
<b>Total</b>	3.84	77%	1.11
<b>Dimension Two: Social Attention</b>			
I can avoid distractions during lectures.	4.15	83%	0.99
I complete my academic tasks without delay.	4.27	85%	0.91
I can collaborate with others to accomplish a task.	4.15	83%	0.82
I listen attentively when others speak.	4.69	94%	0.61
I speak politely with others.	4.96	99%	0.19
I can cooperate with others to achieve a specific goal.	4.62	92%	0.63
I pay attention to what my professors present at the beginning, during, and at the end of the lecture.	4.62	92%	0.56
<b>Total</b>	4.49	90%	0.67
<b>Dimension Three: Success/Failure</b>			
I set academic goals to achieve.	4.77	95%	0.64
I can admit when I make mistakes.	4.46	89%	0.85
I can accept criticism from others and respect their opinions.	4.42	88%	0.69
I benefit from constructive and positive feedback from others.	4.62	92%	0.93
My academic shortcomings are due to a lack of self-confidence and belief in my ability to succeed.	3.65	73%	1.42
My failure is due to insufficient preparation before the exam.	4.15	83%	1.14

<b>Total</b>	4.35	87%	0.95
<b>Dimension Four: Social Attraction</b>			
I perform excellently in my tasks.	4.65	93%	0.48
My peers seek to be my friends.	4.12	82%	1.13
I can lead a group and provide them with instructions.	3.65	73%	1.18
I believe I use my exceptional abilities to understand lessons.	4.04	81%	1.06
I am proud of myself at university.	4.23	85%	1.23
<b>Total</b>	4.14	83%	1.02
<b>Dimension Five: Self-Confidence</b>			
I express my opinions without hesitation.	4.46	89%	0.85
I speak fluently in front of my peers.	4.42	88%	0.75
I can easily solve problems that I face.	4.35	87%	1.00
I accomplish multiple academic tasks in a short time.	4.08	82%	1.00
I can achieve my goals according to my future vision.	4.42	88%	0.69
I have the ability to understand more complex subjects.	3.73	75%	1.20
I have independence in decision-making.	4.23	85%	0.98
I have confidence in my scientific and practical abilities.	4.42	88%	0.85
<b>Total</b>	4.26	85%	0.92

The results in the previous table indicate that the level of the first dimension, *Student Initiative*, in the self-esteem scale was moderate at (78%). However, the second dimension, *Social Attention*, had a high level among the students at (90%). The third dimension, *Success/Failure*, also showed a high level at (87%). The fourth dimension, *Social Attraction*, scored (83%), while the fifth dimension, *Self-Confidence*, was at (85%).

Overall, the self-esteem scale scored (84.4%), indicating a high level of self-esteem among the students.

These results align with studies by Erturgut & Erturgut (2010), von Soest, Wichstrøm, Kvaalem (2016), Gera, M., Singh, R. (2015), and Afari, Ward, Khine (2012), which indicated that levels of self-esteem among university students may vary, as academic self-esteem is closely tied to academic achievement. Since there is variation in students' academic performance, this leads to differences in their self-esteem levels. Students with high academic self-esteem tend to have high academic performance and feel confident, competent, and happy.

**Third: Answering the Third Question, Which States: "What is the Relationship Between Online Entrepreneurial Self-Efficacy and Academic Self-Esteem Among Students at King Faisal University?"**

To explore the relationship between online entrepreneurial self-efficacy and academic self-esteem among students at King Faisal University, the correlation coefficient between the two variables was calculated to determine whether it is statistically significant or not. In the case of significance, it was examined whether the correlation is positive or negative. The results are presented in the following tables:

**Table (6):** Correlation Coefficients Between the First Dimension of the Entrepreneurial Self-Efficacy Scale and the Dimensions of the Self-Esteem Scale and the Overall Self-Esteem Scale

Dimension	Student Initiative	Social Attention	Success/Failure	Social Attraction	Self-Confidence	Overall Self-Esteem
First Dimension: Leadership and Technology Use	0.436**	0.385**	0.184	0.493**	0.692**	0.590**

The results in the previous table indicate that there are statistically significant correlations between the first dimension: leadership and technology use from the entrepreneurial self-efficacy scale and the dimensions of the self-esteem scale: the first dimension *Student Initiative*, the second dimension *Social Attention*, the fourth dimension *Social Attraction*, and the fifth dimension *Self-Confidence* at the 0.01 level. These correlations are positive.

The results also indicate that there is no correlation between the first dimension of the entrepreneurial self-efficacy scale and the third dimension: *Success/Failure* from the self-esteem scale. Regarding the correlation between the first dimension of the entrepreneurial self-efficacy scale, a statistically significant positive correlation was found at the 0.01 level.

These results suggest that the presence of leadership and technology use as part of entrepreneurial self-efficacy among students at King Faisal University, even at a moderate level, contributes to an increase in their self-esteem in the first dimension *Student Initiative*, the second dimension *Social Attention*, the fourth dimension *Social Attraction*, the fifth dimension *Self-Confidence*, and overall self-esteem. Additionally, leadership and technology use as part of entrepreneurial self-efficacy among students, even at a moderate level, does not affect the success or failure of students in the field of business.

**Table (8):** Showing Correlation Coefficients Between the Second Dimension of the Entrepreneurial Self-Efficacy Scale and the Dimensions of the Self-Esteem Scale and the Overall Scale

Dimension	Student Initiative	Social Awareness	Success/Failure	Social Attraction	Self-Confidence	Total Self-Esteem
Dimension Two: Online Marketing	0.557**	0.231*	-0.029	0.378**	0.464**	0.455**

The results in the previous table indicate statistically significant correlations between the second dimension: Online Marketing from the Entrepreneurial Self-Efficacy Scale and the dimensions of the Self-Esteem Scale: the first dimension (Student Initiative), the second dimension (Social

Awareness), the fourth dimension (Social Attraction), and the fifth dimension (Self-Confidence) at the 0.01 and 0.05 levels, with a positive correlation.

Additionally, the results show no correlation between the second dimension of the Entrepreneurial Self-Efficacy Scale and the third dimension (Success/Failure) of the Self-Esteem Scale. Regarding the correlation between the second dimension of the Entrepreneurial Self-Efficacy Scale, there was a statistically significant positive correlation at the 0.01 level.

These findings suggest that possessing the ability for online marketing as part of the entrepreneurial self-efficacy among King Faisal University students, even at a moderate level, contributes to enhancing their self-esteem in the first dimension (Student Initiative), the fourth dimension (Social Attraction), the fifth dimension (Self-Confidence), and overall self-esteem. However, the ability for online marketing does not significantly affect their social awareness or their perception of success or failure in the business domain.

**Table (7): Showing Correlation Coefficients Between the Third Dimension of the Entrepreneurial Self-Efficacy Scale and the Dimensions of the Self-Esteem Scale and the Overall Scale**

Dimension	Student Initiative	Social Awareness	Success/Failure	Social Attraction	Self-Confidence	Total Self-Esteem
Dimension Three: E-Commerce	0.331**	0.208	0.043	0.338**	0.373**	0.355**

The results in the previous table indicate statistically significant correlations between the third dimension: E-Commerce from the Entrepreneurial Self-Efficacy Scale and the dimensions of the Self-Esteem Scale: the first dimension (Student Initiative), the fourth dimension (Social Attraction), and the fifth dimension (Self-Confidence) at the 0.01 and 0.05 levels, with a positive correlation.

Additionally, the results show no correlation between the third dimension of the Entrepreneurial Self-Efficacy Scale and the second dimension (Social Awareness) or the third dimension (Success/Failure) of the Self-Esteem Scale. Regarding the correlation between the third dimension of the Entrepreneurial Self-Efficacy Scale, there was a statistically significant positive correlation at the 0.01 level.

These findings suggest that possessing the ability for e-commerce as part of the entrepreneurial self-efficacy among King Faisal University students, even at a moderate level, contributes to enhancing their self-esteem in the first dimension (Student Initiative), the fourth dimension (Social Attraction), the fifth dimension (Self-Confidence), and overall self-esteem. However, the ability for e-commerce does not significantly affect their social awareness or their perception of success or failure in the business domain.

**Table (9): Showing Correlation Coefficients Between the Entrepreneurial Self-Efficacy Scale and the Dimensions of the Self-Esteem Scale and the Overall Scale**

Dimension	Student Initiative	Social Awareness	Success/Failure	Social Attraction	Self-Confidence	Total Self-Esteem
Total Self-Efficacy	0.513**	0.287*	0.044	0.439**	0.540**	0.506**

The results in the previous table indicate statistically significant correlations between the Entrepreneurial Self-Efficacy Scale and the dimensions of the Self-Esteem Scale: the first dimension (Student Initiative), the second dimension (Social Awareness), the fourth dimension (Social Attraction), and the fifth dimension (Self-Confidence) at the 0.01 and 0.05 levels, with a positive correlation.

Additionally, the results show no correlation between the Entrepreneurial Self-Efficacy Scale and the third dimension (Success/Failure) of the Self-Esteem Scale. Regarding the correlation between the Entrepreneurial Self-Efficacy Scale and the Self-Esteem Scale, there was a statistically significant positive correlation at the 0.01 level.

These findings suggest that the presence of entrepreneurial self-efficacy among King Faisal University students, even at a moderate level, contributes to enhancing their self-esteem. Moreover, the entrepreneurial self-efficacy of these students does not significantly affect their success or failure in the business domain.

These results align with the findings of studies by Hmieleski, K. M., Baron, R. A. (2008), Chang, Wang, Lee, and Yu (2018), and Neneh (2020).

The previous results may indicate that entrepreneurial self-efficacy plays a crucial role in an individual's decision to pursue a career in entrepreneurship. When this decision is well-founded, it can elevate their self-esteem. Furthermore, an individual's perceived self-efficacy regarding their abilities to identify and develop new products and market opportunities, build relationships—especially with potential investors and individuals linked to capital sources—manage effectively, particularly in economic and financial contexts, and work productively under stress, pressure, conflict, and change, enhances their capacity for initiative, social awareness, and social attraction, along with self-confidence, which represents dimensions of self-esteem.

## **Recommendations**

In light of the study's findings, the researchers recommend the following:

- **Promote Entrepreneurship:** Provide appropriate information to students through an entrepreneurship and innovation curriculum to enhance their entrepreneurial self-efficacy.
- **Focus on Successful Models:** Highlight successful examples that can change students' perceptions of online entrepreneurship.
- **Train Students:** Offer specific, clear courses on online entrepreneurship that cover topics suitable for the students' level.
- **Support Academic Achievement:** Since self-esteem is influenced by students' academic performance, it is essential to pay attention to their academic levels and provide support in this area.

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