



## RESEARCH ARTICLE

Section: *Literature, Linguistics & Criticism***Blended learning as a pedagogical framework for developing e-marketing literacy and applied skills among secondary school English language students**Shoeb Saleh<sup>1\*</sup>, Eid Awad Abd Elsayed Hassan<sup>2</sup>, Adam Basheer Adam Kegour<sup>3</sup>, Anees Abdulatif Masha<sup>4</sup>, Nisar Ahmad Koka<sup>5</sup> & Mohammad Ahmad shehadeh Alomari<sup>6</sup><sup>1</sup>The National Research Center for Giftedness and Creativity, King Faisal University, Saudi Arabia<sup>2</sup>Applied College, King Faisal University, Saudi Arabia<sup>3</sup>College of Education, Department of Education and Psychology, King Faisal University, Saudi Arabia<sup>4</sup>Department of Arabic Language, Faculty of Arts, Imam Abdulrahman Bin Faisal University, Saudi Arabia<sup>5</sup>Department of English, College of Languages and Translation, King Khalid University, Kingdom of Saudi Arabia<sup>6</sup>Special Education Department, Faculty of Educational Sciences, Ajloun National University (ANU), Jordan\*Correspondence: [sgsaleh@kfu.edu.sa](mailto:sgsaleh@kfu.edu.sa)**ABSTRACT**

The study aimed to investigate the effectiveness of the blended learning strategy in developing the concepts and skills of e-marketing among female students in the first grade of commercial secondary school. The intervention of study was administrated to a sample of (40) female students at Tema E- Educational Commercial Secondary School, using a test of cognitive achievement to measure the conceptual aspect, and a card to evaluate the outcome to measure performance skills. A comprehensive list was developed that included (30) concepts and (4) main skills subdivided into (24) sub-skills, all of which were implemented within the framework of a blended learning environment designed according to design models Educational. The results showed the effectiveness of strategy in improving cognitive achievement and developing practical skills, in addition to enhancing interaction and motivation towards learning, which reflects the feasibility of employing blended learning environments in technical and commercial education, and it is consistent with the results of previous studies that confirmed its positive effect on improving achievement and skills development.

**KEYWORDS:** blended learning strategy, digital marketing concepts, digital marketing skills, knowledge acquisition

**Research Journal in Advanced Humanities**

Volume 7, Issue 2, 2026

ISSN: 2708-5945 (Print)

ISSN: 2708-5953 (Online)

**ARTICLE HISTORY**

Submitted: 12 February 2026

Accepted: 20 March 2026

Published: 14 April 2026

**HOW TO CITE**

Saleh, S., Elsayed Hassan, E. A. A., Kegour, A. B. A., Masha, A. A., Koka, N. A., & Alomari, M. A. S. (2026). Blended learning as a pedagogical framework for developing e-marketing literacy and applied skills among secondary school English language students. *Research Journal in Advanced Humanities*, 7(2). <https://doi.org/10.58256/3g2any90>



Published in Nairobi, Kenya by Royallite Global, an imprint of Royallite Publishers Limited

© 2026 The Author(s). This is an open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

## Introduction

Education in recent decades has undergone radical transformations due to the digital revolution, as it has become necessary to integrate technology into the educational process to keep pace with the demands of the modern labor market. One of the new strategies that has received increasing attention is the Blended Learning strategy, which is based on the integration of traditional face-to-face education with e-learning through digital platforms. This method is one of the methods that has proven its effectiveness in improving academic achievement, developing thinking skills, and increasing motivation to learn (Singh, Steele, & Singh, 2022).

Studies have shown that blended learning contributes to raising the level of achievement and skills development of general education students. In Saudi Arabia, a study (Alshammari, 2024) showed that the use of the “Madrasati” platform in the framework of blended learning helped develop critical thinking skills and improve positive attitudes towards learning among first-grade secondary students. A systematic review of 42 studies from 15 countries also showed that blended learning leads to moderate to significant improvements in academic achievement, especially in the fields of science and Technology, Engineering and Mathematics (STEM), provided that there is a good design for the digital curriculum and appropriate institutional support (Jayalakshmi & Prasad, 2024).

In applied disciplines such as chemistry and science, other studies have proven the effectiveness of blended learning in enhancing analytical and decision-making abilities, as well as improving students’ attitudes towards learning (Rahmawati & Ahmad, 2023; Almasaeid, 2019), and these results indicate that blended learning is not just an alternative to traditional education, but an integrated pedagogical model that achieves cognitive, skillful, and behavioral goals.

In the field of e-marketing, which is a modern business discipline, the integration of traditional education and e-learning represents an opportunity to provide students with theoretical knowledge, as well as practical skills that are directly related to the digital labor market. Students need to acquire online marketing skills such as advertising campaign design, digital content management, and consumer interaction analysis, which are difficult to develop in a traditional classroom environment without the help of interactive e-learning tools.

The present study aims to determine the effectiveness of blended learning strategy in developing e-marketing concepts and skills among female students in the first grade of commercial secondary school. The experiment was conducted on a sample of 40 female students at Tama Commercial Secondary Mixed School, using a cognitive achievement test to measure the theoretical aspect and a final product evaluation card to measure skill performance.

The importance of the study in bridging a knowledge gap in previous Arab studies is clear, as most of the studies focused on science or higher thinking skills, while they rarely addressed the topic of e-marketing in commercial secondary education, which makes the study a qualitative addition that links blended learning and commercial education in a way that enhances the quality of education outcomes and qualifies female students for the digital labor market (Singh, Steele, & Singh, 2022; Alshammari, 2024).

The blended learning strategy also requires a well-structured instructional design that ensures the achievement of the desired learning objectives, including the development of plans for educational materials, activities, information resources, and evaluation, according to structured steps to produce, implement, and evaluate education to increase its effectiveness and efficiency (Nabil Azmi, 2016).

The study problem was identified through the observations of researchers in the field of commercial sciences, where it was observed that the poor performance of the first-grade students of the commercial secondary school in the concepts and skills of e-marketing, because of the lack of effective strategies for modern technology in teaching and sufficiency with traditional methods.

The analysis of the content of the marketing course for the first grade in commercial high schools for the regular system and the competency system showed that the content of the e-marketing course is limited, as the curricula were limited to some theoretical concepts, while neglecting important elements such as: e-marketing tools, analysis of the five forces, elements of the modern e-marketing mix, and modern e-marketing strategies.

Accordingly, the study problem could be stated in the poor performance of commercial secondary education students in e-marketing concepts and skills, and the need to implement modern educational strategies such as blended learning to address them, hence the study seeks to answer the following two questions:

1. What is the effectiveness of the blended learning environment in developing the concepts of e-marketing

- among female students?
2. What is the effectiveness of the blended learning environment in developing the e-marketing skills of female students?

### **Objectives of the Study**

This research aims to study the effectiveness of the blended learning environment in developing both e-marketing concepts and practical skills among first-grade commercial secondary students, in a way that contributes to enhancing their knowledge and skills, and supports the ability to apply theoretical concepts in practical contexts related to the digital labor market, and reflects the impact of using modern educational strategies on the quality of business education and preparing students for the requirements of the digital age.

### **Significance of Study**

The importance of the current study is reflected in the fact that it contributes to enriching scientific and educational knowledge in the field of commercial education, by providing scientific results on the effectiveness of the blended learning strategy in developing the skills of e-marketing among female students of commercial high schools, which may enhance the possibility of adopting this strategy in teaching other courses within the business sciences. The research also presents an integrated design of the blended learning environment and its implementation mechanisms to teach suggested educational topics entitled “E-marketing concepts and skills”, which provides a framework Practically to develop the educational process. In addition, the research provides a set of scientifically based research tools that can be useful for teachers, mentors, and researchers in measuring and analyzing the impact of modern educational strategies. On the other hand, research contributes to developing the knowledge and skills of e-marketing among female business education students, which enhances the link between education and the requirements of the digital labor market, and helps prepare a generation capable of keeping pace with modern economic and technological transformations.

### **Hypotheses of the Study**

1. There is no statistically significant difference at the level of (0.05) between the mean scores of female students in the pre- and post-testing of the cognitive for e-marketing concepts after studying the blended learning strategy.
2. There is no statistically significant difference at the level of (0.05) between the mean scores of female students in the pre- and post-testing of the outcome evaluation card for e-marketing skills after studying the integrated learning strategy.

### **Theoretical Framework**

The role of technology for effective teaching and learning has emerged as governments and educational institutions move forward with plans and investments to successfully modernize education in the context of technological change, by encouraging teachers to use advanced teaching methods that help provide flexible learning patterns for learners, including those used in and out of the classroom, by integrating technology into learning, which helps in the availability of opportunities for self-learning or lifelong learning.

Educational technology has led to many innovations. Electronic learning is one of the most prominent, as it creates an interactive environment between teacher and learner, rich in applications and practical practices (Mohamed Abdel Hadi, 2020).It also focuses on the use of modern technologies in education to solve some problems such as: the temporal and spatial dimension and the lack of educational equipment, which has made modern technology a source of information, improving knowledge, and developing Education and bringing about positive changes in the field of education, which made the educational institution seek to achieve quality requirements in education, use these multimedia and train students to use them in order to improve the educational process (Narges Al-Olayan, 2019).

In light of the spread of information and communication technology in all areas of life, and the rapid access to knowledge and information, economic and commercial activities have developed, and the means of communication and information transfer have multiplied, which makes it imperative for those interested in education to integrate and employ technology in the curricula of technical education so that students can keep

pace with the new fields of the digital economy related to the labor market (Mohamed Nassef, 2021).

Due to the nature of the marketing course, which is characterized by continuous change due to its connection to the behavior, needs and desires of individuals, which change in a continuous and rapid manner with the development of technology that has affected the field of marketing and its functions (Ashraf Abdel Qawi, 2014), it is necessary for commercial technical education institutions to pay attention to the development of teaching and evaluation methods, in an effort to prepare a modern graduate who has the knowledge and skills that qualify him to compete in the local and regional labor market (Mohamed Elkhosht, 2019), through the diversity of modern teaching strategies used in the educational process, and the employment of educational technology within educational systems.

E-learning environments have varied according to the autonomy it provides to learners, and Blended Learning (B.L) is a modern learning style in which more than one educational method is integrated, to communicate information and improve educational outcomes, focus on the active role of the learner, take into account individual differences between learners, and provide a high level of independence for learners. It is also considered one of the best appropriate solutions to solve the problems and defects of traditional learning and control e-learning based on the Internet, including the development of practical skills that the student cannot learn during the time of the approved class, and it is difficult for the teacher to evaluate it electronically, and the theoretical information that consumes the time and effort of the student and the teacher in the usual ways (Fawzi Louhidi et al., 2020). The task of education in the digital age has become to teach the student how to think and learn on his own, as he relies on his individual abilities in how to search for knowledge, and access it himself through various sources of knowledge in addition to the teacher and writers, such as: scientific journals, electronic references, electronic software, knowledge banks, and information networks (Aqeel Rifai, 2012), which increases the learning experiences of students, and thus achieves educational goals through the use of technological innovations.

Blended learning is a modern educational trend that seeks to combine the advantages of traditional education with the attractiveness of e-learning, with the aim of achieving more effective and flexible learning (Garrison & Vaughan, 2008). It combines face-to-face meetings in the classroom with learning activities across e-learning environments, providing learners with wider opportunities for interaction, practice, and self-assessment. Al-Shammari, 2020 pointed out that blended learning enhances the learner's autonomy, develops his research and exploration abilities, and provides him with diverse learning experiences that take into account individual differences. Graham, 2013' s studies also confirmed that this style contributes to raising the motivation to learn and is more suitable for the 21st century, which is characterized by rapid digital development.

E-marketing uses the Internet and various digital technologies to promote goods and services, communicate with consumers, and facilitate buying and selling processes (Kotler & Keller, 2016). It is one of the most relevant areas of modern technology and is a prerequisite for the digital job market. Manaseer (2019) points out that commerce education is required to prepare students to understand the concepts of e-marketing and provide them with applied skills, to enable them to compete in the digital commerce environment.

Blended learning is an ideal environment for teaching e-marketing topics, as it allows theoretical concepts to be introduced through classroom lectures or digital materials, while e-learning activities (e.g., virtual simulations or online collaborative learning projects) provide an opportunity to put these concepts into practice. A study (Alammary, Sheard & Carbone, 2014) showed that blended learning achieves a balance between human interaction and technological support, leading to improved academic performance and applied skills. A study (Hussain, 2021) also showed that the integration of digital technologies in the teaching of commerce subjects contributed to the development of critical thinking and digital communication skills among female students.

Through the above, the blended learning strategy represents an effective approach to developing e-marketing concepts and skills among female commercial high school students, as it combines knowledge depth and practical training, and provides a dynamic learning environment that enhances the quality of the educational process and links it to the digital labor market.

## Literature Review

Many studies and researches have proven the effectiveness of the blended learning strategy and its importance in the educational process, and raising the level of learners' skills and academic achievement, including: the

study of Mahmoud Abu Naji et al. (2019), which revealed the effect of the use of blended learning and its inclusion of the type of electronic learning through electronic learning in the development of habits of mind. It contributes to the activation of the education process, and the study of Hamed Al-Shahrani and Hassan Mahmoud (2022), which indicated the effectiveness of the blended learning strategy in developing the skills of designing and producing e-lessons, and the knowledge achievement of students at the College of Education at King Khalid University and their attitudes towards it.

Many studies and researches have confirmed the effectiveness of the blended learning strategy in technical education, including: the study of Hanan Tamman (2015), which confirmed the effectiveness of a proposed model based on blended learning in developing the economics curriculum in commercial high schools to develop the concepts of the knowledge economy in the age of information, and the study of Huwaida Al-Far (2016.), which pointed to the effectiveness of blended learning in teaching tax accounting in raising the level of achievement of students of commercial technical schools and developing their professional skills, and the study of Mina El-Desouki (2019) that proved the effectiveness of blended learning in teaching specialized technical sciences to develop the competence of painting and knowledge achievement, and the study of Khaled Omran et al. (2020) that found the effectiveness of blended learning based on Web 2.0 tools in developing the skills of using accounting software among students of commercial secondary education., and the study of Sarah Mehran and Shaima Ibrahim (2021) that found the effectiveness of using blended learning in designing the model design course and implementing children's clothing at the Faculty of Home Economics.

Al-Shammari (2020) studied the effectiveness of using blended learning in developing self-learning skills among high school students, and the results showed the superiority of the experimental group studied using blended learning compared to traditional education, which confirms the role of this strategy in enhancing learners' independence and developing their cognitive and skill abilities. Three different design models for blended learning in higher education, and it concluded that models that achieve a balance between e-learning and face-to-face achieve better results in academic performance and the acquisition of applied skills, and the study of Manaseer (2019) addressed the basic concepts of e-marketing and its tools, and emphasized the importance of including them in the curricula of commerce education, especially at the secondary level, because of its role in preparing students for the requirements of the digital labor market, as the study of Harrigan et al. (2021) Customer interaction with brands on social media platforms from a marketing perspective, showed that learners' understanding of e-marketing concepts contributes to developing their abilities to implement innovative digital marketing strategies.

Hussain's (2021) study investigated the effect of integrating digital learning strategies on the development of business education students' skills, and the results showed that the use of blended learning tools (e.g., e-simulations and interactive forums) contributed to improved levels of understanding and practical application of commerce skills, while Al-Fraihat, Joy & Sinclair (2020) focused on Finally, Aljawarneh's (2020) study examined the role of blended learning in developing digital skills and research abilities among university students, and recommended that its use should be expanded in practical subjects such as e-marketing.

Previous studies show that blended learning is an effective strategy in developing both cognitive and skill aspects, especially in areas that require a combination of theory and practical application such as e-marketing. Although there are many studies on blended learning in general, studies that have directly applied this strategy to secondary school students in the field of digital marketing are still limited, highlighting the importance of this current research to bridge this gap.

### **Methodology of the Study**

The current study adopted the experimental method to investigate the effect of the independent variable "blended learning strategy" on the dependent variables, which are the concepts and skills of e-marketing among female students of the first grade of commercial secondary school. The semi-experimental design of the study group, which studies some topics face-to-face and others through the blended learning environment, was used to measure the effectiveness of the blended learning strategy to develop the concepts and skills of e-marketing among female students of the first grade of commercial secondary school.

## **Procedures of the Study**

The research followed a series of organized procedures to achieve its objectives and study the effectiveness of the blended learning strategy in developing the concepts and skills of e-marketing among the students of the first grade of commercial secondary school. At the beginning, the researcher reviewed the previous studies and research and the Arab and foreign literature related to the subject, to prepare the theoretical framework for the research and identify the basic concepts and areas of application.

Afterwards, the blended learning environment was designed according to the stages and procedures of the modified Abdul Latif Al-Gazzar model (2013), which included several main steps: preparing a list of e-marketing concepts and presenting them to a group of arbitrators for approval, as well as preparing a list of e-marketing skills and presenting them to arbitration and reaching a final list. The educational content of the proposed topics entitled “E-Marketing Concepts and Skills” was also selected to support the marketing course for the first grade of commercial secondary school after its analysis.

Regarding the study instruments, an achievement test was designed to measure cognitive concepts and the student’s final product evaluation card to measure performance skills, and they were presented to a group of experts and specialists to modify and adjust them. The teacher’s guide and the student’s handbook were also prepared for the use of the blended learning environment and presented for judging. Afterwards, the pilot study was conducted to adjust the content and research tools and determine the time plan for studying the material.

The study sample consisting of (40) female students was selected, and the assessment instruments were administrated pre-testing to monitor the main results. Afterwards, the basic intervention was conducted using the blended learning environment, followed by the post administration of measurement instruments, which included the achievement test and the outcome evaluation card.

Finally, the results were adjusted, statistically treated, analyzed and interpreted, based on the study objectives, and practical recommendations and suggestions were made in the light of the drawn results

## **Study Materials and Instruments**

### **First: Preparing Study Materials**

The preparation of the study materials included the development of a blended learning environment, which included suggested educational topics entitled “Digital Marketing Concepts and Skills”. The educational content has been organized into 11 educational topics according to the stages and procedures of the modified Abdul Latif Al-Gazzar Model (2013), ensuring the logical sequence of concepts and skills. A comprehensive list of e-marketing concepts, a list of its practical skills, as well as a teacher’s guide and a student’s handbook for using the blended learning environment, was also prepared, to ensure that students are systematically and effectively guided through educational experience.

### **Second: Preparing Study Instruments**

#### **1. Cognitive achievement test in e-marketing concepts:**

The achievement test is designed to measure the level of students’ achievement of e-marketing concepts and cognitive skills. The process of designing the test included several steps: defining the goal, formulating its vocabulary, developing instructions, and designing the correction method, where the total score of the test is 50 marks.

The test items were divided into multiple types to ensure objectivity and accuracy, as they included 20 multiple-choice questions, 20 true and false questions, and 10 questions to complement the statements. To ensure the validity of the test, the researcher proposed the test to a group of experts and a panel of jury members, and an experimental test was conducted to pilot the reliability on a pilot sample, according to Cronbach’s alpha coefficient, where the reliability value of the total test was (0.912), which confirms the validity of the test for application.

#### **2. Outcome Evaluation Card for the Student:**

The card aimed to assess the extent to which students can perform practical skills related to the content of “e-marketing concepts and skills”. The card included 4 main criteria and 42 sub-indicators, and quantitative estimates (Highly Available = 2, Medium Available = 1, and Unavailable = 0) were adopted, with a final score

of 84 points.

The instructions for the card are clearly designed to show the purpose of the assessment and how each skill is appreciated. To verify the authenticity of the card, it was presented to experts and specialists, and to ensure its reliability, an experimental application was conducted on a pilot sample, and according to the coefficient of the evaluators agreement using the Holste equation, where the mean agreement reached 90%, which confirms the validity of the card for the final administration to the basic study sample.

### Results of the Study

The first hypothesis states that “ There is no statistically significant difference at the level of (0.05) between the mean scores of female students in the pre- and post-testing of the cognitive for e-marketing concepts after studying the blended learning strategy.”

The mean and standard deviation of the scores of the study sample in the pre- and post-testing of the Cognitive Achievement Test for e-marketing concepts were calculated, and the “T” test was used for the associated samples to indicate the differences between the mean scores of the study sample in the pre- and post-testing of the cognitive achievement test of e-marketing concepts, as in Table (1):

Table (1)

The results of the “T” test to calculate the significance of the difference between the mean scores of the first grade students of the commercial secondary school in the pre- and post-testing of cognitive achievement test for e-marketing concepts

Testing Levels	Sample Number	Mean scores of post-testing	Mean scores of post-testing	Difference Between the two mean scores	Standard deviation	Calculated value (v)	Degrees of Freedom df	Statistical Significance
Testing as a whole	40	39.32	91.9	52.58	6.82	25.60	39	D

The tabular value (v) at the significance level of (0.05) = 2.02

It is clear from the previous table that the calculated value of “T” was (25.60) while the tabular value of “T” for the significance of the two parties was found at the degree of freedom (39) equal to (2.02), and there is a statistically significant difference at the level of (0.05) between the mean scores of the female students of the study group in the pre- and post-testing of the cognitive achievement test of the concepts of e-marketing for the first grade of commercial secondary school as a whole in favor of the post application, and therefore the first zero hypothesis was rejected to be replaced by the hypothesis “There is a statistically significant difference at the significance level of (0.05) between the mean scores of the students of the study group in the pre- and post-application of the test of cognitive achievement of e-marketing concepts after their study according to the blended learning strategy in favor of the post application”.

The second hypothesis stated that “There is no statistically significant difference at the level of (0.05) between the mean scores of female students in the pre- and post-testing of the outcome evaluation card for e-marketing skills after studying the integrated learning strategy”. To test the validity of the hypothesis, the mean and standard deviation of the research sample scores in the pre-post-application of the outcome evaluation card for female students were calculated. The “t” test for the associated samples was also used to indicate the difference between the mean scores of the study sample in the pre- and post-applications of the outcome evaluation card for female students related to e-marketing skills. As in Table (2):

Table (2)

The results of the “T” test in the pre- and post-applications of the outcome evaluation card for female students related to e-marketing skills

Skill	Sample Number	Pre-testing mean scores	Standard deviation	Post-testing mean scores	Standard deviation	Calculated value (T)	Degrees of Freedom df	Statistical Significance
Skills as a whole	40	14,51	3.23	69.01	5.17	12.30	39	D

The tabular value (v) at the significance level of (0.05) = 2.02

It is clear from the previous table that the calculated value of “T” was (12.30), while the tabular value of “T” for the significance of the two parties at the degree of freedom (39) was equal to (2.02), and there is a statistically significant difference at the level of (0.05) between the mean scores of the female students of the study group. In the pre- and post-applications of the outcome evaluation card for female students related to e-marketing skills in favor of the post-application application, Figure (1) shows the graph of the values of the average scores of the study group in the pre- and post-application

Figure (1) The average scores of the study group in the pre- and post-application of the study group

In order to verify the effectiveness of the blended learning strategy in developing the performance aspects of e-marketing skills among the students of the first grade of commercial secondary school, Cohen’s Eta square equation( $\eta^2$ ) was used, and in light of the value of the Eta square ( $\eta^2$ ), the effect size was calculated using the effect size equation (D), for the e-marketing skills as a whole, which was (8.80).) The impact magnitude strength (D) is explained as in Table (3):

Table (3)

The Effect of the Blended Learning Strategy on the Development of E-Marketing Skills

Skill	ETA Box ( $\eta^2$ )	Value (D)	Effect Size
Skills as a whole	0.93	8.80	big

It is clear from the previous table that the value of the ETA square ( $\eta^2$ ) is equal to 0.93 and the effect size is more than (0.8), which indicates that the blended learning environment has a great effect on the development of electronic marketing skills among the students of the first grade of commercial secondary school.

### Calculating Effectiveness Using the Black Equation

The Black equation was used to calculate the effectiveness of the blended learning strategy in developing the e-marketing skills of the first grade of commercial secondary students, to measure the practical performance of e-marketing skills as a whole, as in Table (4)

Table (4)

Adjusted Profit Percentage for Black

Tool	Bone End	Pre-testing mean scores	Post-testing mean scores	Adjusted Profit Ratio	Statistical Significance
Skills as a whole	84	14.51	69.01	1.38	D

It is clear from the previous table that the adjusted gain rate of e-marketing skills as a whole was (1.38), which is a value greater than (1.2), and therefore the blended learning environment has a high degree of effectiveness in developing e-marketing skills among female students of the first grade of commercial secondary school.

Therefore, the second null hypothesis of the research hypotheses was rejected, which means that there is a statistically significant difference at the significance level of (0.05) between the mean scores of the students of the research group in the pre- and post-application of the outcome evaluation card for female students related to the e-marketing skills as a whole in favor of the post application, and the main skills are (designing a website through the Blogger website , and Creating an email through Mail chimp, creating a Facebook page , and creating a YouTube channel), and it is noted that the mean scores of female students in the post application are

higher than their mean scores in the pre- application.

This indicates that the blended learning strategy contributed to the development of the performance aspects of e-marketing skills among female students of the first grade of commercial secondary school.

## **Discussion**

Considering the results obtained, it can be said that the effectiveness of the blended learning environment in developing the concepts and skills of e-marketing among the students of the first grade of commercial secondary school is due to a set of interrelated factors that contributed to achieving a positive effect. The preparation of a comprehensive list of e-marketing concepts (30 concepts) and its gradual organization contributed to helping the students understand the basic topics such as: The combination of e-marketing, market research, customer journey, email marketing, and search engine marketing has enhanced their ability to grasp concepts and relate them to practical reality. The list of practical skills (4 main skills and 24 sub-skills) also helped provide opportunities for practical application in designing websites, creating emails, social media pages, and YouTube channels, which increased students' engagement and motivation towards learning.

On the other hand, the design of the blended learning environment according to instructional design models made it possible to organize the educational content in a systematic and sequential manner, which helped students to recall information easily, thus developing conceptual achievement and the ability to practice skills in a practical way. The diversity of learning resources (texts, images, videos, electronic links) also helped to diversify the methods of content presentation, which helped to enhance understanding, enrich discussions, and stimulate creative thinking among students.

In addition, interactivity within the blended learning environment, whether through discussions between students or through educational activities and feedback from the teacher, contributed to the exchange of ideas and practical experiences, and the development of a spirit of collaboration and collective creativity. The presence of various activities, midterm tests and final exams played a prominent role in ensuring that the students mastered each part of the content, which helped to consolidate concepts and develop skills in a cumulative and continuous manner.

The results also confirm that the positive effect is not attributed to chance but is due to the effectiveness of the independent variable "blended learning environment" on the dependent variables represented in the acquisition of concepts and the performance of practical skills. This was clearly reflected in the high rates of academic achievement of female students and the improvement of their performance in practical applications related to e-marketing.

These findings are consistent with the findings of previous studies that highlighted the role of blended learning in improving achievement and skills development, such as the study of Iman Abdel Hafez (2022), the study of Hanan Taman (2015), the study of Huwaida Al-Far (2016), the study of Mona El-Desouki (2019), and the study of Khaled Omran et al. (2020). It is also in line with the study of Zainab Ahmed (2022), which highlighted the importance of enhancing knowledge of e-marketing ethics among students, which reflects the integrated role of blended learning in developing cognitive, skill, and value aspects In the commercial field.

## **Recommendations and Suggestions:**

Based on the findings of the current research, the study recommends the need to employ modern teaching and learning strategies in teaching courses, especially courses of an applied and practical nature such as technical and commercial education courses, as this plays an effective role in improving learning outcomes and developing practical skills among female students. It also recommends the need to train teachers of technical education (commercial, industrial, agricultural, and hotel) on how to apply blended learning strategies in a practical way, as this contributes to raising the level of achievement Knowledge and enhancing the skill performance of students.

In addition, the study emphasizes the importance of adopting blended learning environments in general and technical education, and taking advantage of their interactive components, various educational stimuli and the continuous feedback they provide, in order to enhance the quality of the educational process and make it more in-depth and effective. It also recommends that the design of the curriculum be reviewed to integrate with the characteristics of blended learning environments, so as to provide students with wider opportunities

for interaction and practical practice, in addition to encouraging the use of modern digital technologies, such as interactive educational platforms. Virtual classrooms and e-simulation tools to support the development of concepts and refine skills in line with the requirements of the labor market.

The current study proposes a set of research tracks that can contribute to deepening the understanding about the effectiveness of blended learning strategies. The most prominent of these are: studying the effectiveness of the blended learning environment in developing the skills of teaching commercial subjects among commercial secondary school teachers and investigating the impact of this environment on the development of e-marketing concepts and skills among technical education students in its various disciplines (industrial, agricultural, and hotel). It is also proposed to conduct a comparative study between the effectiveness of blended learning and full e-learning in developing the cognitive achievement and performance skills of students at the Secondary education.

It is also suggested to examine the effect of blended learning environments on the development of digital entrepreneurship skills among commerce high school students, in addition to conducting field studies that investigate the challenges and obstacles facing the application of blended learning in technical and business education, and examine the best ways to overcome them.

**Funding:**

- 1- This work was supported by the Deanship of Scientific Research, Vice Presidency for Graduate Studies and Scientific Research, King Faisal University, Saudi Arabia [Grant No. KFU253492].
- 2- The authors extend their appreciation to the Deanship of Scientific Research and Graduate Studies at King Khalid University for funding this work through a Large Research Group Project under Grant Number RGP 2/681/46
- 3- The authors extend their sincere thanks to Ajloun National University(ANU), represented by the Deanship of Scientific Research, for its generous support, which had a significant impact on the completion of this research.

## References

1. Alammary, A., Sheard, J., & Carbone, A. (2014). Blended learning in higher education: Three different design approaches. *Australasian Journal of Educational Technology*, 30(4), 440-454.
2. Al-Fraihat, D., Joy, M., & Sinclair, J. (2020). Evaluating E-learning systems success: An empirical study. *Computers in Human Behavior*, 102, 67-86.
3. Aljawarneh, S. A. (2020). Reviewing and exploring innovative ubiquitous learning tools in higher education. *Journal of Computing in Higher Education*, 32, 57-73.
4. Al-Manaseer, Khaled. (2019). *E-Marketing and its Contemporary Applications*. Dar Al-Yazouri, Amman.
5. Almasaeid, T. F. (2019). *The effect of using blended learning on ninth grade students' achievement in science and their attitudes toward its use*. *Education and Learning Research Journal*, 14(2), 25-38.
6. Alshammari, A. S. (2024). *The effect of blended learning via Madrasati platform on developing critical thinking skills and the attitude toward it among first secondary grade students in Saudi Arabia*. *Journal of Curricula and Teaching Methods*, 7(3), 115-134.
7. Al-Shammari, Abdullah. (2020). *The Effectiveness of Blended Learning in the Development of Self-Learning Skills*. *Arab Journal of Specific Education*, 7(2), 115-132.
8. Aqeel Mahmoud Rifai. (2012). *Active Learning. Concept, strategies, and evaluation of learning outcomes*. New University Publishing House, Alexandria.
9. Ashraf Bahgat Abdel Qawi. (2014). Developing the Marketing Curriculum in the Commercial High School in the Light of the Requirements of Sustainable Development. *Journal of Educational Sciences*, 1- Part 2, 1-35.
10. Fawzi Louhidi, Hamad Jalloul, and Abdel Raouf Mohamed Thamer. (2020). Blended Learning and its Role in Improving the Level of the Educational Process. *Journal of Humanities*, um Al-Bawaqi University, 7(1), 288-298.
11. Garrison, D. R., & Vaughan, N. D. (2008). *Blended Learning in Higher Education: Framework, Principles, and Guidelines*. Jossey-Bass.
12. Graham, C. R. (2013). Emerging practice and research in blended learning. In M. G. Moore (Ed.), *Handbook of Distance Education* (pp. 333-350). Routledge.
13. Hamed Ali Al-Shahrani and Hassan Ahmed Mahmoud. (2022). The Effectiveness of Using Blended Learning in Developing the Skills of Designing and Producing E-Lessons and Knowledge Achievement among Students of the College of Education at King Khalid University and Their Attitudes Towards it. *The Professor's Journal of Humanities and Social Sciences*, King Khalid University, 61(1), 117-142.
14. Hanan Abu Al-Majd Taman. (2015). A Proposed Model Based on Blended Learning for the Development of the Economics Curriculum in Commercial High Schools to Develop Knowledge Economy Concepts in the Age of Informatics. *Journal of the Faculty of Education*, Tanta University, (57), 1-45.
15. Harrigan, P., Evers, U., Miles, M., & Daly, T. (2021). Customer engagement with tourism social media brands. *Tourism Management*, 79, 104093.
16. Hussein, Mona. (2021). *The Impact of Using Digital Learning Strategies on the Development of Business Education Students' Skills*. *Journal of Educational Studies*, 12(4), 55-78.
17. Huwaida Mohammed Al-Sharqawi Al-Farr. (2016). The Effectiveness of Blended Learning in Teaching Tax Accounting in Raising the Level of Achievement of Commercial Technical School Students and Developing Their Professional Skills. *Scientific Journal*, Damietta University, 70, 34-82.
18. Iman Ismail Ahmed Abdel Hafez, Saber Hussein Mahmoud, and Amal Nasreddin Suleiman. (2022). The Effectiveness of a Proposed Program Based on the Employment of Digital Marketing Tools to Develop Entrepreneurship and Social Responsibility Skills among Commercial Technical Education Students. *Studies in University Education*, (57), 81-130.
19. Jayalakshmi, R., & Prasad, K. (2024). *A systematic review of blended learning effectiveness in secondary education across 15 countries*. *International Journal of Multidisciplinary Research and Analysis*, 8(7), 325-345.
20. Khaled Abdel Latif Omran, Shuaib Jamal Saleh, and Mohamed Medhat Hussein. (2020). Employing Blended Learning Based on Web 2.0 Tools in Developing the Skills of Using Accounting Software among Business Secondary School Students. *Journal of Young Researchers*, Sohag University, 10(10), 256-278.

21. Kotler, P., & Keller, K. (2016). *Marketing Management* (15th ed.). Pearson.
22. Mahmoud Sayed Abu Naji , Shaaban Abdel Azim Hassan Mohammed, Omran Hassan, and Hussein Awad Al-Todari. (2019). Blended Learning and the Development of Some Habits of Mind among Secondary Boiler Students. *Scientific Journal of the Faculty of Education, Assiut University*, 35(11), vol. 2, 530-554.
23. Ministry of Education. (2020). *The Kingdom's Vision 2030 and Digital Transformation in Education*. Riyadh: Ministry of Education.
24. Mohamed Kamal Afifi and Zidan Al-Omari. (2016). Developing Educational Design Quality Standards for E-Learning Courses at the University of Dammam. *Educational Sciences Studies*, 43(1), 149-212.
25. Mohamed Mohamed Abdel Hadi. (2020). The Role of E-Learning in Supporting the Education System. *Journal of Studies in University Education, Thirteenth International Conference*, 49(49), 179-190.
26. Mohamed Othman Elkhosht. (2019, April 11-12). Developing Education in Egypt: Challenges, Prospects for Success. Conference on the Development of Education in Egypt, Cairo University, <https://www.almasryalyoum.com/news/details/1375601>.
27. Mohamed Yahya Nassef. (2021). The Contributions of Some Fields of Digital Economy to the Digitization of Technical Education from the Perspective of Experts. *Journal of Educational Research, National Center for Educational Research and Development, Cairo*, 1(40), 83-137.
28. Mona Mohamed El-Desouki. (2019). The Effectiveness of Blended Learning in Teaching Specialized Technical Sciences to Develop Painting Competence and Cognitive Achievement among Decorative Industrial High School Students. *Journal of the Faculty of Education, Helwan University*, 4(25), 127-176.
29. Nabil Gad Azmi. (2016). ADDIE Instructional Design Model According to PDCA Quality Model. *Journal of E-Learning*, (11), 1-19.
30. Narges Qasim Marzouq Al-Olayan. (2019). The Use of Modern Technology in the Educational Process. *Journal of the Faculty of Basic Education for Educational Sciences and Humanities, University of Babylon*, (42), 271-288.
31. Rahmawati, D., & Ahmad, F. (2023). *The effectiveness of blended learning on critical thinking skills among secondary school students in chemistry subject*. *International Journal of Academic Research in Business and Social Sciences*, 13(12), 455–472.
32. Sara Ibrahim Mahran and Shaimaa Mostafa Ibrahim. (2021). The Effectiveness of Blended Learning Using “Microsoft Teams” to Achieve Outcomes Mainstreaming the Model Design and Implementation of Children’s Clothing Course. *Journal of Research in the Fields of Specific Education, Helwan University*, 7(33), 1119-1158.
33. Singh, J., Steele, K., & Singh, L. (2022). *Combining the best of online and face-to-face learning: Blended learning benefits and challenges*. *Education and Information Technologies*, 27(2), 1255–1275.
34. Zainab Elsayed Ahmed. (2022). A Proposed Educational Module Based on Electronic Mind Maps for the Development of Musicians with E-Marketing Ethics and Purchasing Awareness among Commercial Secondary Education Students, *Educational Journal, Sohag University*, 1(77), 27-104.