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Blended Learning and Accounting Student Success in Oman: An Empirical Post-COVID-19 Study

Abstract

This research aims to explore blended learning (basic requirements and knowledge) and accounting students' success after COVID-19 among graduating students in Oman. Furthermore, this study examines how blended learning (BL) effectiveness acts as a mediator between the BL basic requirements and the success of accounting students, as well as between the BL basic knowledge and the success of accounting students. A quantitative research methodology was employed to collect data for this study, using a questionnaire distributed through WhatsApp and email to students attending various universities in the Sultanate of Oman. Following that, the researcher analyzed the data using partial least squares structural equation modeling (PLS-SEM). The study found that the BL basic requirements have a positive impact on accounting students' success. It also showed that BL basic knowledge has no significant relation to accounting students' success after COVID-19. The findings also show that there is a mediating effect of BL effectiveness between BL basic requirements and accounting students' success after COVID-19. Limited generalizability exists because the respondents were restricted

to Oman. Future research could expand the sample by including participants enrolled in non-accounting courses. The study highlights the importance of delivering both online and face-to-face learning and a range of online activities. This study emphasizes how students engage with and participate in a BL accounting course.

K e y w o r d s: Blended learning, knowledge, accounting students, COVID-19, Oman

Blended learning (BL) combines conventional and online teaching methods to promote a more adaptable and student-centered approach to learning (Ballouk et al., 2022). Global trends in open and remote learning indicate that BL is vital for any distant or e-learning education institution that wants to stay relevant in an extremely competitive world. A key component of any BL strategy is online learning environments (Hrastinski, 2019). According to Sharma (2010) and Dahmash (2020), BL was first introduced in the year 1990 in the context of language teaching, containing three definitions: “A blend of in-person and online blended learning, a mixture of technology, and a mixture of techniques”. BL is a learning strategy that mixes face-to-face and online learning through the use of e-learning resources (Nopiyanto et al., 2021) and it is a style of teaching that employs laptop computers or other technological devices like tablets and cellphones (Altbach & Knight, 2007). Learning technology advancements have forced Higher Educational Institutions (HEIs) to rethink how they create and deliver their programs (Rosenbusch, 2020).

The use of technology enabled teaching strategies in accounting classes is being encouraged (Peng, 2019). Due to the abstract nature of accounting information, some students enrolling in the course may find it difficult to excel academically since they lack the requisite numerical and analytical competencies (Liu & Zainuddin, 2021). However, the usage of a technology-enabled learning component provides such students with enhanced graphics content and visual methods, which is greatly useful for strengthening accounting students’ learning abilities (Herrador-Alcaide et al., 2020). Students must embrace and utilize e-learning technologies to guarantee successful online learning. This is especially critical in higher education in the aftermath of the COVID-19 epidemic (Terblanche et al., 2023).

Although BL has become a popular approach in higher education, many institutions still encounter difficulties in fully implementing and conceptualizing such learning environments. The use of multiple learning management systems can be daunting for students who are unfamiliar with the technology, leading to reluctance to participate (Kaisara & Bwalya, 2021). Additionally, some students have reported being unable to access the university’s e-learning platform due to

issues with internet data charges. Moreover, slow loading of the e-learning system has caused some students to give up using it, exacerbating the situation (Kaisara & Bwalya, 2021).

The COVID-19 pandemic has put institutions under more pressure than ever before (Fray et al., 2022). Thus, they are working harder than ever to increase student engagement, academic accomplishment, and the pleasure of their education. Although BL had been a successful practice even before the current group of students enrolled in accounting courses, each generation's demands for learning accounting courses required technological advancement (Eliyasni et al., 2019). Thus, the primary objective of this study is to explore BL (basic requirements and knowledge) and accounting students' success after Covid-19 among graduating students in Oman. Furthermore, this study examines how BL effectiveness acts as a mediator between the BL basic requirements and the success of accounting students, as well as between the BL basic knowledge and the success of accounting students.

Therefore, this research intends to address the following research questions (RQs):

RQ1. How does BL basic requirement affect accounting students' success after COVID-19?

RQ2. How does BL basic knowledge affect accounting students' success after COVID-19?

RQ3. Is there a mediation effect of BL effectiveness on the relationship between BL (basic requirements & basic knowledge) and accounting students' success after COVID-19?

Literature Review

The teaching environment and instructional methods have undergone significant changes as a result of COVID-19 (Hill & Fitzgerald, 2020). BL at HEIs is still quite new. Chowdhury (2019) aimed to explore BL, including the development of a BL program, its benefits, and the requirements for effectively implementing such a program in a HEIs.. Online/BL should better address the academic needs of students throughout any type of incident, such as a pandemic, war, or natural disaster. The application of conversational science and data, the entire teaching technique has been transformed into a learner-centered pedagogy by information communication technology-based innovation, with technological skills being the most important capabilities for both teachers/educators and students. Therefore, Bordoloi et al., (2021) aimed to investigate how instructors and students feel about using online and BL paradigms for teaching and learning. They also look

more closely at the advantages and disadvantages of providing online and BL, particularly throughout and after the COVID-19 period.

Online instructors are developing and implementing a BL model that currently teaches an entire field of teaching, learning, and research. Digital technology is transforming the way that people teach and learn, and today's students are more acclimated to living in a world that is becoming more tech-savvy (Adams et al., 2020). BL is becoming more popular in contemporary lectures (Van Goidsenhoven et al., 2020). Educational institutions have adopted a variety of strategies, such as e-learning and BL to help college students with the ease of access (Hogan & Devi, 2019). Zhang and Dang (2020) aimed to identify factors that could impact advanced technology-supported blended learning. As a result, higher education has witnessed significant changes, transitioning from e-learning to more creative forms of blended learning. Although BL has been used on university and college campuses for 20 years, it continues to top concerns about adopting technology-enabled learning in higher educational institutions (Qian & Huang, 2019).

The literature analysis on BL, however, reveals that there has not been much innovation in the methods used for BL to date. Hence, BL innovation has been considered a management issue, not just for analyzing technical know-how professionals' issues, but as a means of achieving the higher education goal of accounting students' success (Thompson et al., 2019). Higher educational sectors, it is becoming more crucial than ever to support students' engagement and success across a range of academic growth strategies. It is essential to comprehend how college students interact throughout their postsecondary education and how the diversity of engagement qualities contributes to the performance of accounting students given that academic delivery is becoming more challenging at present (Bowden, 2022).

In BL environments, students' interactions with learning management systems (LMSs) may be utilized to identify college students who are in danger of failing (Fahd et al., 2021). Revolutionary technological advancements are dramatically transforming the landscape of teaching and learning in higher education. Among these changes, blended learning stands out as a groundbreaking movement that merges the best of both worlds by combining traditional face-to-face instruction with the flexibility and interactivity of online learning. Hence, examining the theoretical underpinnings of BL research along with how it has been adopted and utilized in relation to students, instructors, and administration is crucial as the number of policies pertaining to BL grows (Anthony et al., 2020). The solution for delivering instruction in the perspective of the twenty-first century should be BL. But unlike traditional education, open schooling has expanded the range of learning under the guiding principle of "Bring your own device to learn".

The widespread adoption of free educational materials, open educational resources, extensive open e-learning courses, use of social media, and widespread use of mobile applications during the period of COVID-19 lockdown has expanded

students' minds and made it possible for them to gain essential instructional inputs, training, and competencies. There will be a significant impact on how academic operations are performed in the days to come (Bordoloi et al., 2021). By implementing BL strategies, HEIs can improve the quality of teaching, as well as the accessibility and affordability of their degree programs. However, in order to achieve this, students, parents, teachers, academic researchers, administrators, and policymakers must accept latest theories and methods of teaching and learning (Chowdhury, 2019). BL tactic should be used to alert teachers to potentially challenging students, highlighting the need for additional help or remediation to help them succeed (Fahd et al., 2021).

The primary findings of Anthony et al., (2020) reveal the notions and factors that motivate students, instructors, and administrators in higher education to engage in BL. Additionally, they indicated that the diffusion of improvements and the ad hoc, technological know-how acceptance model, data device success model, and unifying principle of acceptance and utilization of technology, were the most frequently used in prior research to examine BL adoption. Additionally, the social environment has changed as a result of technological improvements and technology has made it easier to develop and deploy new instructional settings and delivery systems, these developments have affected education (Al Fadda, 2019).

Institutions employ BL instructional strategies because they may help to raise student achievement. Fisher et al., (2021) found that blended teaching approaches are delivery strategies rather than instructional strategies since they have a favorable impact on perceptions of engagement, performance, and satisfaction. The "multicomponent BL mode" greatly excelled conventional teaching strategies in terms of both the course assessment score and students' academic accomplishment. According to studies, student engagement and passion for studying have increased Lo et al., (2021). Hussein et al., (2020) found that COVID-19 has had a detrimental effect on BL due to distraction and lack of focus, a hefty workload, technological and internet problems, and a lack of assistance from instructors and peers. Hence, a BL intervention can greatly increase students' learning behaviors, attitudes, inspiration, academic success, and self-efficacy in a mixed learning system (Zhang et al., 2020). In light of this, the following hypotheses have been formed:

H₁: BL basic requirements positively affect BL effectiveness after COVID-19

H₂: BL basic knowledge positively affects BL effectiveness after COVID-19

H₃: BL basic requirements positively affect accounting students' success after COVID-19

H₄: BL basic knowledge positively affects accounting students' success after COVID-19

H_{5a}: BL effectiveness mediates the relation between BL basic requirements and accounting students' success after COVID-19

H_{5b}: BL effectiveness mediates the relation between BL basic requirements and accounting students' success after COVID-19

H_6 : BL effectiveness positively affects accounting students' success after COVID-19

Accordingly, below logical framework (see Figure 1) was constructed to characterize the relationship between variables.

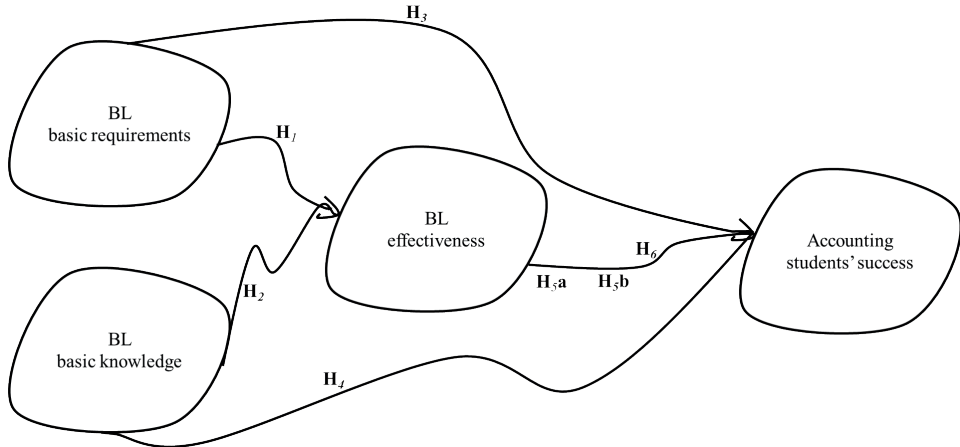


Figure 1. Schematic Diagram of Research Framework

Source: Own work.

Structure of the Study and Measurements

The BL variables that were hypothesized and the relationships between them in the framework used in this study are adapted from Prinsloo and Van Rooyen (2007) and modified if necessary for mediating variable, that is, BL effectiveness. The proposed extended theoretical framework of the research is shown in figure 1. The study's variables were measured applying a five-point Likert scale across a range of questions, with responses varying from strongly disagree (SD, 1) to strongly agree (SA, 5). Students from various universities and colleges in the Sultanate of Oman participated in a survey to collect the data for the study. There were finally 127 set usable questionnaires considered for this study. To establish adequate reliability, a minimum of three elements were employed for each construct (Nunnally, 1978). Six hypotheses are to be tested in the proposed model.

Data Analysis

The data were examined using Structural Equation Modelling-Partial Least Squares (SEM-PLS). Because it aims to increase the dependent variable, accounting students’ success, enhance their ability for prediction, and speed up theory development, this statistical approach was applied in this research (Sinkovics et al., 2016; Hair et al., 2011). According to a Monte Carlo simulation research, SEM-PLS can generate significant findings with a small sample size, like twenty respondents (Hoyle,1999).

Instrument Reliability and Validation

The study employs a composite reliability approach to examine the reliability, which assesses a construct using two types of inner consistency and Cronbach’s Alpha (Ghozali, 2006) to ascertain whether a coefficient of dependability is used as adetermining factor. If the coefficient is >0.60, the entire items of the variables are considered reliable. The study was utilized to assess the square root of the average variance extracted (AVE), the frequency of each construct also with correlation with other constructs within the same model as part of the data validity assessment (Ghozali, & Latan, 2014).

Table 1
Results of construct’s reliability and validity

Construct	Items	Item Loading	VIF	CA	rho_A	CR	AVE
Accounting Students Success	Acct_SS1			0.799	0.817	0.881	0.713
	Acct_SS2	0.857	1.796				
	Acct_SS3	0.782	1.536				
	Acct_SS4	0.890	1.980				
BL Basic Knowledge	BL_BK1	0.875	2.154	0.894	0.895	0.934	0.826
	BL_BK2	0.937	4.099				
	BL_BK3	0.913	2.154				
BL Basic Requirements	BL_BR1	0.877	2.090	0.818	0.842	0.890	0.731
	BL_BR2	0.812	1.763				
	BL_BR3	0.874	1.743				
BL Effectiveness	BL_E1	0.913	2.540	0.833	0.847	0.900	0.751
	BL_E2	0.876	2.340				
	BL_E3	0.806	1.582				

N o t e: Collinearity Statistics- VIF stand for Variance inflation factor; CA stands for Cronbach’s Alpha; CR stands for Composite Reliability; and AVE stands for Average Variance Extracted.

S o u r c e: Own work.

A good value for discriminant validity is considered to exist if the correlation among a construct and the other constructs in the model is higher than the average variance extracted square root of each construct. All of the BL constructs, including the mediating variable, BL efficiency exhibit acceptable Cronbach’s alpha (CA), and composite reliability (CR) values. By using the variance inflation factor, the existence of multicollinearity – a situation in which two or more variables are extremely closely linearly linked – was examined (VIF). In the present study, all VIF values are lower than ten. Therefore, the research data did not have any multicollinearity problems. Table 1 shows the results of construct’s reliability and validity of the construct.

Results

Demographic Characteristics

The descriptive analysis by construct in Table 2 indicate that, on average, the success of accounting students is average (with a 3.052 mean and a 1.017 standard deviation), but the actual range is large. Of the three components, BL basic knowledge receives the highest score (with a 3.531 mean and a 1.168 standard deviation). The mean scores of BL basic requirements also have a competent value (i.e., 3.424 with a standard deviation of 1.058). The test with the lowest mean score is BL effectiveness (i.e., 3.262 and standard deviation of 1.074).

Table 2
Descriptive statistics by constructs

Variable	n	Mean	Min	Max	SD
Accounting Students Success	127	3.052	1.000	5.000	1.017
BL Basic Knowledge	127	3.531	1.000	5.000	1.168
BL Basic Requirements	127	3.424	1.000	5.000	1.058
BL Effectiveness	127	3.262	1.000	5.000	1.074

Source: Own work.

The findings regarding the discriminant validity of constructs are presented in Table 3. Discriminant validity assesses the degree of differentiation between the measures of multiple possibilities. However, as shown in Table 3, discriminant validity of the constructs can be explored by looking at the correlation among constructs and the square-root of the study variance produced for a construct. According to the study, each construct’s correlations were lower than the square-root of the average by the values that represented that construct, implying that the

measure’s discriminant validity was sufficient. The measuring model, in summary, showed acceptable level of reliability, discriminant validity and convergent validity.

Table 3
Discriminant validity of constructs

Constructs	Accounting Students Success	BL Basic Knowledge	BL Basic Requirements	BL Effectiveness
Accounting Students Success	0.844			
BL Basic Knowledge	0.506	0.909		
BL Basic Requirements	0.576	0.873	0.855	
BL Effectiveness	0.633	0.746	0.832	0.866

Source: Own work.

The current study also examined the coefficient of determination R square (R^2) or adjusted R^2) and Q^2 to assess the structural model. The coefficient of determination, which evaluates the model’s likelihood to forecast results, is a measure of the endogenous variable’s dispersion and can be described by all exogenous variables. Some disciplines may view coefficients of determination beyond 0.20 as significant, while values between 0.25 and 0.50 are thought to be satisfactory (Achen, 1982). Table 5 illustrates how the exogenous factors’ R^2 and adjusted R^2 values of 0.409 and 0.394, respectively, can be used to explain the endogenous variable, accounting for students’ success. Though, the endogenous variable, that is, BL effectiveness can be described by the exogenous variables with the value of R^2 and adjusted R^2 respectively by 0.693 and 0.688 which is quite more than accounting students’ success. The resultant values denoted that the connections are justified by the strength approaching (Latan and Ghozali, 2015).

Table 4
Variance Explained

Endogenous Construct		Variance Explained (R^2)	(R^2) Adjusted
Exogenous Variables -> Endogenous (Accounting Students Success)	Acct_SS	0.409	0.394
	BL_E	0.693	0.688

Source: Own work.

The ultimate impact size for each predictor variable varies between 0.09 to 0.19 and is in the small to moderate range. The model has predictive significance as evidenced by the value of predictive relevance, Q^2 which yielded robust endogenous variables, i.e., more than 0.

Table 5
Predictive relevance Q²

CV redundancy	Excluded predictor	Q ²	Effect size
0.273	Accounting Students Success	0.421	Medium
	BL Basic Knowledge	0.612	Medium
0.501	BL Basic Requirements	0.447	Medium
	BL Effectiveness	0.489	Medium

Source: Own work.

Hypotheses Testing

Below Table 6 and 7 show the path coefficients and hypotheses test results. SEM-PLS is employed in regression analysis, which is employed in hypothesis testing. The hypotheses, H₁, H₂, H₃, H₄, and H₆ tested the direct effect on the endogenous variable. The results of the path coefficients and hypotheses test are shown in Table 6. In conclusion, this study supports the findings of the success of accounting students in relation to BL by supporting H¹, H³, and H⁶. Where H¹, reveals that BL basic requirements have a positive effect on BL effectiveness after COVID-19 ($\beta = 0.759, p < 0.001$); H³, reveals that BL basic requirements have a positive significant effect on accounting students' success after COVID-19 ($\beta = 0.566, p < 0.001$); and H⁶ reveals that BL effectiveness has also had a positive effect on accounting students' success after COVID-19 ($\beta = 0.498, p < 0.001$). However, H₂, shows that BL basic knowledge has no effect on BL effectiveness after COVID-19 ($\beta = 0.083, p > 0.05$); and H₄ presents that BL basic knowledge does not affect accounting students' success after COVID-19 ($\beta = 0.012, p > 0.05$).

Table 6
Testing of hypotheses and path coefficients (direct effect)

Hypotheses	Relationship	Standard β	Standard error	t-value	P-value	Decision
H ₁	BL_BRà BL_E	0.759	0.122	3.801	0.000***	Supported
H ₂	BL_BKà BL_E	0.083	0.138	0.599	0.550	Not supported
H ₃	BL_BRà Acct_SS	0.566	0.170	3.334	0.001***	Supported
H ₄	BL_BKà Acct_SS	0.012	0.167	0.073	0.941	Not supported
H ₆	BL_Eà Acct_SS	0.498	0.131	3.801	0.000***	Supported

Note: Levels of significance: ***p < 0.001 (t > 3.33), **p < 0.01 (t > 2.33), *p < 0.05 (t > 1.605) (based in one-tailed test)

Source: Own work.

H_{3a} and H_{3b} test the mediating effect on the endogenous variable. The results of the path coefficients and hypotheses test are presented in Table 7. In conclusion, this study supports the mediating effect of BL effectiveness between BL basic requirements and accounting students' success after COVID-19. H_{3a} reveals that BL effectiveness mediates the relationship between BL basic requirements and accounting students' success after COVID-19 ($\beta = 0.378, p < 0.001$). However, H_{3b} proves that BL effectiveness has no mediating relation between BL basic requirements and accounting students' success after COVID-19 ($\beta = 0.041, p > 0.05$).

Table 7
Testing of hypotheses and path coefficients (mediating effect)

Hypotheses	Relationship	Standard β	Standard error	t-value	P-value	Decision
H _{3a}	BL_BRàBL_Eà Acct_SS	0.378	0.110	3.438	0.001***	Supported
H _{3b}	BL_BKàBL_Eà Acct_SS	0.041	0.073	0.568	0.570	Not supported

Note: Levels of Significance: *** $p < 0.001$ ($t > 3.33$), ** $p < 0.01$ ($t > 2.33$), * $p < 0.05$ ($t > 1.605$) (based in one-tailed test)

Source: Own work.

Discussion

The Effect of BL (Basic Requirements and Basic Knowledge) and BL Effectiveness

The study first examined the link between BL basic requirements with BL effectiveness after COVID-19 . Further, it tested BL's basic knowledge of BL effectiveness after COVID-19 . Several earlier studies indicated that BL basic requirements and basic knowledge might be considered an important determinant for BL effectiveness (Fadhilatunisa et al., 2020; Kadirbergenovna, 2022). The majority of students believe that BL is a successful strategy for fostering learner autonomy because they possess moderately high levels of learning individuality as well as moderately high levels of students' motivation, participation, and responsibility, and suggests that even in a BL approach, teachers continue to play a crucial role (Chen, 2022). The path coefficient assessment shown in Table 6 indicates, for H₁, a significant relationship between BL basic requirements and BL effectiveness ($\beta=0.759, p < 0.001$). These findings strengthen the study's hypothesis, which states that BL efficiency among accounting students in Oman might be increased by BL's basic requirements. This research reveals that BL requirements, such as the need for a laptop or desktop computer to participate in online classes, are crucial

factors in determining whether accounting students can effectively participate in BL accounting classes. Adequate internet connectivity to attend online classes is another basic requirement to attend BL accounting classes. However, handling BL accounting course modules using online-based study is crucial. Access to learning resources, the internet, and library resources were all topics of considerable concern. A well-learning management system design helps students to easily access course modules and BL is ideal for learning accounting courses (Gqokonqana et al., 2022). Therefore, it can be inferred that the rational explanation for the accomplishment of this outcome for the hypothesis is that BL basic requirements help BL effectiveness, ultimately resulting in accounting students' success in learning online accounting classes. However, in Hypothesis H₂, BL basic knowledge has no effect on BL effectiveness after COVID-19 ($\beta=0.083$, $p>0.05$). Thus, hypothesis H₂ is not in agreement with the hypothesis put forward in the present study. The reason could be that accounting students may be familiar with IT skills, university website browsing, and systems for managing BL.

The Impact of BL (Basic Requirements and Basic Knowledge) and Accounting Students' Success

The study then examined the link between BL basic requirements with accounting students' success after COVID-19. Further, it tested BL basic knowledge of accounting students' success after COVID-19. Several earlier studies indicated that BL basic requirements and basic knowledge might be considered an important determinant for accounting students' success (Fortin et al., 2019; Kamalluarifin et al., 2018). The perspectives of students are influenced by their traits, and a well-designed BL approach can change perceptions and enhance writing and problem-solving skills among accounting students (Russo et al., 2022). The path coefficient assessment shown in Table 7 indicates, for hypothesis H₃, a significant relationship between BL basic requirements with accounting students' success ($\beta=0.566$, $p<0.001$). These findings strengthen the study's hypothesis, which states that accounting students' success after COVID-19 might be increased by BL basic requirements. This research reveals that BL requirements, such as the need for a laptop or desktop computer to participate in online classes, are crucial factors in determining accounting students' success in BL environment. Adequate internet connectivity to attend online classes is another basic requirement for accounting students' success after COVID-19. When instructors are given the required policies and skills, BL environments in elementary schools raise learners' academic achievement levels. Overall, BL had a positive significant impact on students' learning attainment (Kundu et al., 2021). Therefore, it can be inferred that the rational justification for the accomplishment of this outcome for the hypothesis is that BL basic requirements help accounting students' success after COVID-19 in

learning online accounting classes. However, Hypothesis H_4 proves that BL basic knowledge does not affect accounting students' success after COVID-19 ($\beta=0.012$, $p>0.05$). Thus, hypothesis H_4 is not consistent with the hypothesis put forward in the present study. The reason could be that accounting students may not be familiar with general BL technical skills and knowledge systems for managing BL.

The Impact of BL Effectiveness and Accounting Students' Success

The study finally examined the link between BL effectiveness with accounting students' success after COVID-19. Further, it tested mediating effect of BL effectiveness on the relationship between BL basic requirements and accounting students' success after COVID-19. It also tested mediating effect of BL effectiveness on the relationship between BL basic knowledge and accounting students' success after COVID-19. Several earlier studies indicated that BL effectiveness mediates students' success in BL environment (Lin et al., 2020; Law et al., 2019). Varma et al., (2022) stated that perceived learning considerably impacted the link between learning performance and technological commitment to an online accounting program. The path coefficient assessment shown in Table 6 indicates, for hypothesis H_6 , a significant relationship between BL effectiveness with accounting students' success after COVID-19 ($\beta=0.498$, $p<0.001$). Further, H_{3a} shows that BL effectiveness mediates the relation between BL basic requirements and accounting students' success after COVID-19 ($\beta=0.378$, $p<0.001$). These findings strengthen the study's hypothesis, which states that accounting students' success after COVID-19 might be increased by BL effectiveness. The findings of this study demonstrate that students perceive BL as effective due to factors such as a user-friendly website interface, prompt feedback from teachers when topics are not fully understood during blended learning, and a general preference for blended learning over traditional classroom teaching, particularly in skill-based accounting courses. For future course delivery, it is crucial to assess BL effectiveness, identify the conditions in which they perform best, and enhance the blended activities established from the perspectives of both students and teachers (Serrano et al., 2019). Therefore, it can be inferred that the rational explanation for the accomplishment of this outcome for the hypothesis is that BL effectiveness significantly affects accounting students' success after COVID-19 in learning online accounting classes. However, Hypothesis H_{3b} proves that BL effectiveness does not mediate the relation between BL basic knowledge and accounting students' success after COVID-19 ($\beta=0.041$, $p>0.05$).

In Figure 2 below, the structural model is presented, with BL determinants (basic requirements and basic knowledge) and accounting students' success and mediation effect of BL effectiveness in the relation between BL (basic requirements and basic knowledge) and accounting students' success.

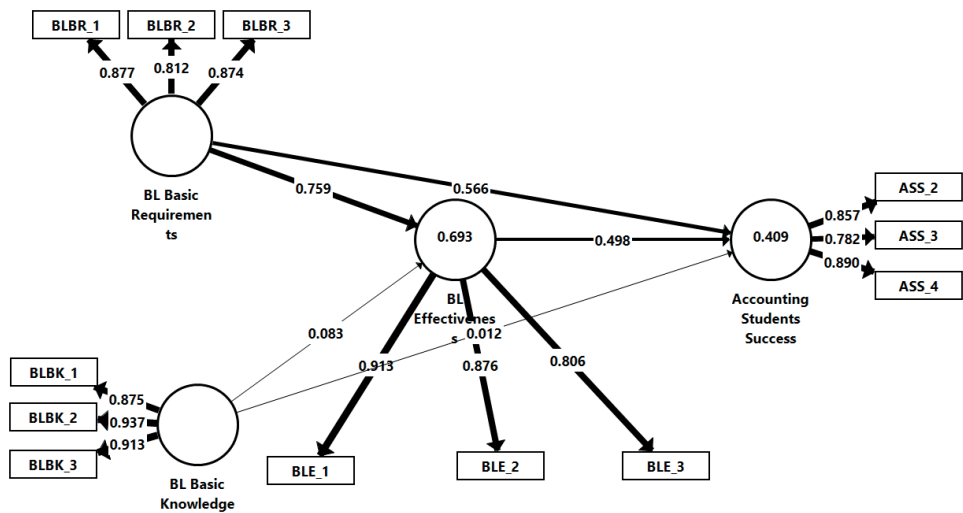


Figure 2. Structural model

Source: Own work.

Conclusion

Fortin et al., (2019) observed that despite a rise in BL studies from recent years, there is still a lack of research studies analyzing BL in accounting courses. Prior research studies on BL (Namyssova et al., 2019; Asarta, & Schmidt, 2020) have generally compared conventional and BL approaches and examined the effects, challenges, and benefits of BL. Though, little study has been performed on the success of accounting majored students and the mediating effect of BL effectiveness in the BL environment. This research contributes to drawing on this BL in the accounting literature. The success of accounting students can be increased by using BL basic requirements as a strategic fusion of technologies. Participating in BL increased accounting students' technical abilities, and they believe that it is more effective than on-campus classroom instruction at helping students understand the concepts covered in the accounting courses they are studying. Additionally, students considered that BL would aid in improving employable skills. This study has shown the validity of BL as a potential direction to enhance the efficiency of teaching, learning, and achieving accounting students' success. Despite the fact that this study examined BL effectiveness as a mediating factor that increases the significance of the research. After COVID-19, accounting students today, especially, have higher expectations of their online platforms. As a result, careful

attention must be paid to have BL basic requirements that result in BL effectiveness, which will ultimately lead to accounting students' success particularly to improve their practical skills in the accounting field.

Implications

The success of accounting students using BL can be understood by this research, which also proposes a theoretical model to comprehend BL basics requirements and BL basic knowledge, and explains the factors that affect accounting students' success. It also tests the mediating effect of BL effectiveness to use BL. Therefore, this study offers a number of theoretical implications for students and faculty that promote the usage of BL. Theoretically, this research defines the basic requirements for BL variables that affect accounting students' success in using BL. The presented model is intended to assist educationalists in making effective pedagogical design judgments concerning the appropriate use of BL in enhancing the strategy of accounting students' learning. Thus, this study provides insight into BL effectiveness as a mediating factor between BL basic requirements and accounting students' success in order to enhance students' practical abilities and competency, particularly from an Oman perspective. The findings thus inform HEIs in Oman on students' competence for adapting and readiness for the eventual use of BL platforms for accounting courses. Additionally, to improve the competency of accounting majored students, these findings motivate lecturers to use technology-enabled teaching in their lectures.

From a practical standpoint, this research provides insights on how future measures should be focused on to enhance the integrity of accounting students' learning and teaching experiences in Oman HEIs institutions. The findings of this research study offer guidance to universities on how to improve learning programs in connection with technological advancements that will be helpful to accelerate BL ideas. Additionally, the results of this research study offer helpful guidelines for the institutional sector to restructure their educational instructions using BL techniques and to better comprehend how specific delivery methods for instruction relate to the growth of students' learning. Therefore, faculties could make take advantage of the findings to better understand why accounting students agree and adopt BL approaches.

Limitations

There are many limitations to this research. The study's results cannot be easily generalized because of the study's small sample size of 127 accounting students. This study is contextually bound to Oman and post-COVID-19 learning environments, which significantly frames the research. Additionally, in classes having a higher number of students, there may be a considerable difference in the resources required for a BL method and the success of accounting students. Observations from students with majors other than accounting are not included in this article because they are outside the purview of the research. Future studies could examine additional factors related to BL across students of various other majors, as well as the effects of online learning on other academic endeavors. Examining the usage of BL in other practical courses would serve to further and extend this research.

References

- Achen, C. H. (1982). *Interpreting and using regression* (Vol. 29). Sage
- Adams, D., Tan, M. H. J., & Sumintono, B. (2020). Students' readiness for blended learning in a leading Malaysian private higher education institution. *Interactive Technology and Smart Education*, 18(4), 515–534. <https://doi.org/10.1108/ITSE-03-2020-0032>
- Al Fadda, H. (2019). The Relationship between Self-Regulations and Online Learning in an ESL Blended Learning Context. *English Language Teaching*, 12(6), 87–93. <https://doi.org/10.5539/elt.v12n6p87>
- Altbach, P. G., & Knight, J. (2007). The internationalization of higher education: Motivations and realities. *Journal of studies in international education*, 11(3-4), 290–305. <https://doi.org/10.1177/1028315307303>
- Anthony, B., Kamaludin, A., Romli, A., Raffei, A. F. M., Phon, D. N. A., Abdullah, A., & Ming, G. L. (2020). Blended learning adoption and implementation in higher education: A theoretical and systematic review. *Technology, Knowledge and Learning*, 1–48. <https://doi.org/10.1007/s10758-020-09477-z>
- Asarta, C. J., & Schmidt, J. R. (2020). The effects of online and blended experience on outcomes in a blended learning environment. *The Internet and Higher Education*, 44, 100708. <https://doi.org/10.1016/j.iheduc.2019.100708>
- Ballouk, R., Mansour, V., Dalziel, B., McDonald, J., & Hegazi, I. (2022). Medical students' self-regulation of learning in a blended learning environment: a systematic scoping review. *Medical Education Online*, 27(1), 2029336. <https://doi.org/10.1080/10872981.2022.2029336>
- Bordoloi, R., Das, P., & Das, K. (2021). Perception towards online/blended learning at the time of Covid-19 pandemic: an academic analytics in the Indian context. *Asian Association of Open Universities Journal*, 16(1), pp. 41–60. <https://doi.org/10.1108/AAOUJ-09-2020-0079>

- Bowden, J. L. H. (2022). Analogues of engagement: Assessing tertiary student engagement in contemporary face-to-face and blended learning contexts. *Higher Education Research & Development*, 41(4), 997–1012. <https://doi.org/10.1080/07294360.2021.1901666>
- Chen, J. (2022). Effectiveness of blended learning to develop learner autonomy in a Chinese university translation course. *Education and Information Technologies*, 1–25. <https://doi.org/10.1007/s10639-022-11125-1>
- Chowdhury, F. (2019). Blended learning: how to flip the classroom at HEIs in Bangladesh?. *Journal of Research in Innovative Teaching & Learning*, 13(2), 228–242. <https://doi.org/10.1108/JRIT-12-2018-0030>
- Dahmash, N. B. (2020). I couldn't join the session': Benefits and challenges of blended learning amid Covid-19 from EFL students. *International Journal of English Linguistics*, 10(5), 221–230. <https://doi.org/10.5539/ijel.v10n5p221>
- Eliyasni, R., Kenedi, A. K., & Sayer, I. M. (2019). Blended Learning and Project Based Learning: The Method to Improve Students' Higher Order Thinking Skill (HOTS). *Jurnal Iqra': Kajian Ilmu Pendidikan*, 4(2), 231–248. <https://doi.org/10.25217/ji.v4i2.549>
- Fadhilatunisa, D., Rosidah, R., & Fakhri, M. M. (2020). The effectiveness of the Blended Learning model on the students' critical thinking skills and learning motivation in accounting department. *Lentera Pendidikan: Jurnal Ilmu Tarbiyah Dan Keguruan*, 23(2), 194–208. <https://doi.org/10.24252/lp.2020v23n2i1>
- Fahd, K., Miah, S. J., & Ahmed, K. (2021). Predicting student performance in a blended learning environment using learning management system interaction data. *Applied Computing and Informatics*. Vol. ahead-of-print No. ahead-of-print. <https://doi.org/10.1108/ACI-06-2021-0150>
- Fisher, R., Perényi, A., & Birdthistle, N. (2021). The positive relationship between flipped and blended learning and student engagement, performance and satisfaction. *Active Learning in Higher Education*, 22(2), 97–113. <https://doi.org/10.1177/1469787418801>
- Fortin, A., Viger, C., Deslandes, M., Callimaci, A., & Desforges, P. (2019). Accounting students' choice of blended learning format and its impact on performance and satisfaction. *Accounting Education*, 28(4), 353–383. <https://doi.org/10.1080/09639284.2019.1586553>
- Fray, L., Jaremus, F., Gore, J., Miller, A., & Harris, J. (2022). Under pressure and overlooked: The impact of COVID-19 on teachers in NSW public schools. *The Australian Educational Researcher*, 1–27. <https://doi.org/10.1007/s13384-022-00518-3>
- Ghozali, I. (2006). Aplikasi Analisis Multivariate dengan Program SPSS, Badan Penerbit Undip, Semarang.
- Ghozali, I. and Latan, H. (2014), Partial Least Square Concepts, Methods and Applications Using the WarpPLS4.0 Program, Universitas Diponegoro, Semarang.
- Gqokonqana, O., Olarewaju, O. M., & Cloete, M. B. (2022). Blended Learning Challenges During COVID-19: A Case of Cost Accounting 2 Students at a Selected South African Higher Education Institution. *Research in Social Sciences and Technology*, 7(2), 87–107. <https://doi.org/10.46303/ressat.2022.11>
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing theory and Practice*, 19(2), 139–152. <https://doi.org/10.2753/MTP1069-6679190202>
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2016). Testing measurement invariance of composites using partial least squares. *International marketing review*, International Marketing Review, 33(3), pp. 405–431. <https://doi.org/10.1108/IMR-09-2014-0304>
- Herrador-Alcaide, T. C., Hernández-Solís, M., & Hontoria, J. F. (2020). Online learning tools in the era of m-learning: Utility and attitudes in accounting college students. *Sustainability*, 12(12), 5171. <https://doi.org/10.3390/su12125171>

- Hill, K., & Fitzgerald, R. (2020). Student perspectives of the impact of COVID-19 on learning. *All Ireland Journal of Higher Education*, 12(2). <http://ojs.aishe.org/index.php/aishe-j/article/view/459>
- Hogan, R. P., & Devi, M. (2019). A synchronous pedagogy to improve online student success. *International Journal of Online Pedagogy and Course Design (IJOPCD)*, 9(3), 61–77. DOI: 10.4018/IJOPCD.2019070105
- Hoyle, R.H. ed. (1999), *Statistical strategies for small sample research*. sage.
- Hrastinski, S. (2019). What do we mean by blended learning?. *TechTrends*, 63(5), 564–569. <https://doi.org/10.1007/s11528-019-00375-5>
- Hussein, E., Daoud, S., Alrabaiah, H., & Badawi, R. (2020). Exploring undergraduate students' attitudes towards emergency online learning during COVID-19: A case from the UAE. *Children and youth services review*, 119, 105699. <https://doi.org/10.1016/j.childyouth.2020.105699>
- Kadirbergenovna, B. L. (2022, February). Massive open online course basic requirements for digital educational resources. In *Conference Zone* (pp. 187–190).
- Kaisara, G., & Bwalya, K. J. (2021). Investigating the E-learning challenges faced by students during COVID-19 in Namibia. *International Journal of Higher Education*, 10(1), 308–318. <https://doi.org/10.5430/ijhe.v10n1p308>
- Kamalluarifin, W. F. S. W., Aniza, F. N. F. M., Jayabalan, H., Saufi, M. L. H. M., Bakar, N. A. A., & Karib, S. H. F. (2018). Blended Learning: Satisfaction among Accounting Students in UNITEN KSHAS. *Global Business & Management Research*, 10(3).
- Karma, I., Darma, I. K., & Santiana, I. (2019). Teaching strategies and technology integration in developing blended learning of applied mathematics subject. *International research journal of engineering, IT & scientific research*. <https://doi.org/10.21744/irjeis.v5n5.726>
- Kundu, A., Bej, T., & Nath Dey, K. (2021). Time to Achieve: Implementing blended learning routines in an indian elementary classroom. *Journal of Educational Technology Systems*, 49(4), 405–431. <https://doi.org/10.1177/0047239520984406>
- Latan, H. and Ghozali, I. (2015), Partial least squares: Concepts, techniques and application using program SmartPLS 3.0
- Law, K. M., Geng, S., & Li, T. (2019). Student enrollment, motivation and learning performance in a blended learning environment: The mediating effects of social, teaching, and cognitive presence. *Computers & Education*, 136, 1–12. <https://doi.org/10.1016/j.compedu.2019.02.021>
- Lin, C. Y., Huang, C. K., & Ko, C. J. (2020). The impact of perceived enjoyment on team effectiveness and individual learning in a blended learning business course: The mediating effect of knowledge sharing. *Australasian Journal of Educational Technology*, 36(1), 126–141. <https://doi.org/10.14742/ajet.4446>
- Liu, T., & Zainuddin, S. (2021). Extrinsic and intrinsic motivation towards the online component of blended learning in accounting education: evidence from a Malaysian public university. *Quality Assurance in Education*, 29(2/3), 293–310. <https://doi.org/10.1108/QAE-12-2020-0152>
- Lo, C. M., Han, J., Wong, E. S., & Tang, C. C. (2021). Flexible learning with multicomponent blended learning mode for undergraduate chemistry courses in the pandemic of COVID-19. *Interactive Technology and Smart Education*, 18 (2), pp. 175–188. <https://doi.org/10.1108/ITSE-05-2020-0061>
- Namyssova, G., Tussupbekova, G., Helmer, J., Malone, K., Mir, A., & Jonbekova, D. (2019). Challenges and benefits of blended learning in higher education. <http://nur.nu.edu.kz/handle/123456789/4494>
- Nopiyanto, Y. E., Sutisyaana, A., Raibowo, S., & Yarmani, Y. (2021). Blended learning with jigsaw in increasing interest, motivation, and learning outcomes in sports sociology learning. *Kinestetik: Jurnal Ilmiah Pendidikan Jasmani*, 5(1), 26–34. <https://doi.org/10.33369/jk.v5i1.13905>
- Nunnally, J.C. (1978), *Psychometric Theory*, McGraw-Hill, New York, NY.

- Peng, W. (2019). Construction and application of accounting computerization skills teaching resource database under the background of. *Curriculum and Teaching Methodology*, 2(1), 1–4. DOI: 10.23977/curtm.2019.21001
- Prinsloo, P., & Van Rooyen, A. A. (2007). Exploring a blended learning approach to improving student success in the teaching of second year accounting. *Meditari Accountancy Research*, 15(1), pp. 51–69. <https://doi.org/10.1108/10222529200700004>
- Qian, Y., & Huang, G. (Eds.). (2019). *Technology Leadership for Innovation in Higher Education*. IGI Global
- Rosenbusch, K. (2020). Technology intervention: rethinking the role of education and faculty in the transformative digital environment. *Advances in Developing Human Resources*, 22(1), 87–101.
- Russo, A., Warren, L., Neri, L., Herdan, A., & Brickman, K. (2022). Enhancing accounting and finance students' awareness of transferable skills in an integrated blended learning environment. *Accounting Education*, 31(1), 67–91. <https://doi.org/10.1080/09639284.2021.1961087>
- Serrano, D. R., Dea-Ayuela, M. A., Gonzalez-Burgos, E., Serrano-Gil, A., & Lalatsa, A. (2019). Technology-enhanced learning in higher education: How to enhance student engagement through blended learning. *European Journal of Education*, 54(2), 273–286. <https://doi.org/10.1111/ejed.12330>
- Sharma, P. (2010). Blended learning. *ELT journal*, 64(4), 456–458. doi:10.1093/elt/ccq043
- Suweken, G., Waluyo, D., & Okassandiari, N. L. (2017). The improvement of students' conceptual understanding and students' academic language of mathematics through the implementation of SIOP model. *International Research Journal of Management, IT and Social Sciences*, 4(4), 58–69. <https://sloap.org/journals/index.php/irjmis/article/view/474>
- Terblanche, W., Lubbe, I., Papageorgiou, E., & van der Merwe, N. (2023). Acceptance of e-learning applications by accounting students in an online learning environment at residential universities. *South African Journal of Accounting Research*, 37(1), 35–61. <https://doi.org/10.1080/10291954.2022.2101328>
- Thompson, K., Jowallah, R., & Cavanagh, T. B. (2019). “Solve the Big Problems”: Leading Through Strategic Innovation in Blended Teaching and Learning. In *Technology leadership for innovation in higher education* (pp. 26–48). IGI Global. DOI: 10.4018/978-1-5225-7769-0.ch002
- Van Goidsenhoven, S., Bogdanova, D., Deeva, G., Broucke, S. V., De Weerd, J., & Snoeck, M. (2020). Predicting student success in a blended learning environment. In *Proceedings of the Tenth International Conference on Learning Analytics & Knowledge*, 17–25. <https://doi.org/10.1145/3375462.3375494>
- Varma, A., Mancini, D., Dalela, A. A., & Varma, A. (2022). Online accounting courses: digital loyalty for an inclusive and open society. *Journal of Information, Communication and Ethics in Society*, (ahead-of-print). <https://doi.org/10.1108/JICES-07-2021-0076>
- Zhang, J. H., Zou, L. C., Miao, J. J., Zhang, Y. X., Hwang, G. J., & Zhu, Y. (2020). An individualized intervention approach to improving university students' learning performance and interactive behaviors in a blended learning environment. *Interactive Learning Environments*, 28(2), 231–245. <https://doi.org/10.1080/10494820.2019.1636078>
- Zhang, Y. G., & Dang, M. Y. (2020). Understanding essential factors in influencing technology-supported learning: A model toward blended learning success. *Journal of Information Technology Education. Research*, 19, 489. <https://doi.org/10.28945/4597>

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Blended Learning i sukces studentów rachunkowości w Omanie: empiryczne badanie po COVID-19

S t r e s z c z e n i e

Niniejsze badanie ma na celu zbadać blended learningu (podstawowych wymagań i wiedzy) oraz sukcesu studentów rachunkowości po pandemii COVID-19 wśród kończących studia studentów w Omanie. Analizuje również, w jaki sposób skuteczność blended learningu (BL) pośredniczy w relacji między podstawowymi wymaganiami BL a sukcesem studentów rachunkowości, a także między podstawową wiedzą BL a ich sukcesem. Zastosowano ilościową metodologię badawczą – ankieta została rozpowszechniona za pośrednictwem WhatsAppa i e-maila wśród studentów różnych uczelni w Sultanacie Omanu, a dane przeanalizowano za pomocą modelowania równań strukturalnych metodą najmniejszych kwadratów cząstkowych (PLS-SEM). Wyniki wykazały, że podstawowe wymagania BL mają pozytywny wpływ na sukces studentów rachunkowości, natomiast podstawowa wiedza BL nie wykazuje istotnego związku z sukcesem studentów po COVID-19. Ponadto stwierdzono, że skuteczność BL odgrywa rolę mediatora między podstawowymi wymaganiami BL a sukcesem studentów rachunkowości. Ze względu na ograniczenie próby do studentów z Omanu, możliwości uogólnienia wyników są ograniczone; przyszłe badania mogłyby objąć studentów innych kierunków. Badanie podkreśla znaczenie łączenia nauki zdalnej i stacjonarnej oraz różnorodnych aktywności online, a także sposób, w jaki studenci angażują się w kursy rachunkowości realizowane w formule BL.

S ł o w a k l u c z o w e: Blended learning, wiedza, studenci, rachunkowości, COVID-19, Oman

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Aprendizaje combinado y éxito de los estudiantes de contabilidad en Omán: un estudio empírico post-COVID-19

R e s u m e n

Esta investigación tiene como objetivo explorar el aprendizaje combinado (requisitos básicos y conocimientos) y el éxito de los estudiantes de contabilidad después del COVID-19 entre los estudiantes que están finalizando sus estudios en Omán. Además, el estudio analiza cómo la efectividad del aprendizaje combinado (BL, por sus siglas en inglés) actúa como mediadora entre los requisitos básicos del BL y el éxito de los estudiantes de contabilidad, así como entre los conocimientos básicos del BL y dicho éxito. Para la recolección de datos se empleó una metodología de investigación cuantitativa, mediante un cuestionario distribuido a través de WhatsApp y correo electrónico a estudiantes de diversas universidades del Sultanato de Omán. Posteriormente, los datos fueron analizados utilizando el modelo de ecuaciones estructurales por mínimos cuadrados parciales (PLS-SEM). El estudio encontró que los requisitos básicos del BL tienen un impacto positivo en el éxito de los estudiantes de contabilidad. También mostró que los conocimientos básicos del BL no tienen una relación significativa con el éxito de los estudiantes de contabilidad después del COVID-19. Los hallazgos revelan además que la efectividad del BL tiene un efecto mediador entre los requisitos básicos del BL y el éxito de los estudiantes de contabilidad tras la pandemia. La generalización de los resultados es limitada debido a que los encuestados estaban restringidos a Omán. Investigaciones

futuras podrían ampliar la muestra incluyendo participantes de carreras distintas a contabilidad. El estudio destaca la importancia de ofrecer tanto enseñanza en línea como presencial, así como una variedad de actividades digitales. Esta investigación resalta cómo los estudiantes se implican y participan en un curso de contabilidad basado en aprendizaje combinado.

Palabras clave: aprendizaje combinado, conocimiento, estudiantes de contabilidad, COVID-19, Omán

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Смешанное обучение и успех студентов бухгалтерского учёта в Омане: эмпирическое исследование после COVID-19

Аннотация

Данное исследование направлено на изучение смешанного обучения (базовые требования и знания) и успеха студентов бухгалтерского учёта после COVID-19 среди выпускников в Омане. Кроме того, исследование рассматривает, как эффективность смешанного обучения (BL) выступает в качестве посредника между базовыми требованиями BL и успехом студентов-бухгалтеров, а также между базовыми знаниями BL и их успехом. Для сбора данных была использована количественная методология с применением анкеты, распространённой через WhatsApp и электронную почту среди студентов различных университетов Султаната Оман. Затем данные были проанализированы с использованием моделирования структурных уравнений методом наименьших квадратов (PLS-SEM). Результаты показали, что базовые требования BL положительно влияют на успех студентов-бухгалтеров, тогда как базовые знания BL не имеют значимого влияния на их успех после COVID-19. Также установлено, что эффективность BL оказывает опосредующее влияние между базовыми требованиями BL и успехом студентов-бухгалтеров после пандемии. Возможности обобщения результатов ограничены, так как респонденты были только из Омана. Будущие исследования могут расширить выборку, включив студентов других специальностей. Исследование подчеркивает важность сочетания онлайн- и очного обучения, а также разнообразных онлайн-активностей. Особое внимание уделяется тому, как студенты вовлекаются в курсы бухгалтерского учёта, реализуемые в формате BL.

Ключевые слова: Смешанное обучение, знания, студенты бухгалтерского учёта, COVID-19, Оман