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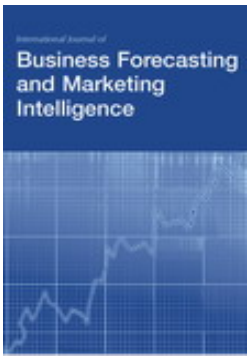

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Do customers still buy online services? Comparing the purchase intention towards online paid courses in the COVID-19 era with the short and long-term periods after COVID-19

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Abstract: COVID-19 changed many aspects of our lives, one of which has been the use of online educational services. Currently, we are gradually recovering from the COVID-19; however, the question whether people still want to purchase online paid courses (OPCs) or not is still relevant. Therefore, this study aims to compare the purchase intention concerning OPCs in the COVID-19 era with the short and long-term periods after the pandemic. Five hundred ninety-seven students from northern Iran's universities completed a survey during April and June 2022. The answers were analysed with the help of the paired-samples T test method. The results demonstrated that there was no significant difference in the era and short-term period after COVID-19, however, there has been witnessed a considerable decrease in such intentions during the long-time period.

Keywords: purchase intention; online paid courses; OPCs; customer behaviour; post COVID-19; paired-samples T test.

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1 Introduction

Due to the COVID-19 pandemic, many countries experienced lockdowns, which resulted in various changes in behaviour and habits, compared to what was before the COVID-19 period, one of which was a higher use of various digital technologies such as

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internet-based services for communicating, interacting and working from home (De et al., 2020). In fact, due to several ongoing lockdown restrictions, increased uncertainty, and unpredicted consequences caused by the COVID-19, consumers had to change their behaviour and their usual ways of living and working (Erjavec and Manfreda, 2022).

These changes had wide implications and transformed our normal daily activities and purchase behaviour, simply implying many aspects of our lives were affected. For instance, in case of purchasing travel services, telemedicine and online learning (Beigi et al., 2022; Polzin et al., 2021; Truong and Truong, 2022), Javadinasr et al. (2022) study findings substantiate significant observed, (i.e., during the COVID-19) and expected, (i.e., after the COVID-19) changes in people's habits and preferences. According to their study, 48% of the respondents expected to have the option to work from home even after the pandemic, which indicates an approximately 30% increase compared to the pre-pandemic period. Additionally, in the post-pandemic period, auto and transit commuters are expected to be 9% and 31% less than pre-pandemic, respectively. A considerable rise in hybrid work and grocery online shopping was expected as well. Moreover, 41% of pre-COVID-19 business travellers predicted to have fewer flights (after the COVID-19) while only 8% anticipated more, compared to the pre-COVID-19. Moreover, recent researches show that online shopping increased with the advent of lockdowns (Sirimanne, 2021; Saleh, 2022; Shaw et al., 2022), presuming such online purchases will increase in the future (Sirimanne, 2021). Shaw et al. (2022) suggested that post-COVID-19 online shopping would be higher than the period before the pandemic. Another aftermath of this phenomenon was the methods of learning and education during the pandemic, in which the online services such as educational courses increased in order to respond to this new behaviour of consumers. Notwithstanding the COVID-19 pandemic has negatively impacted the global higher education and disrupted its normal functions from various perspectives (Santiago et al., 2021). It posed significant and unprecedented challenges in the routine activities of education, including the enforced closure of schools, colleges and universities (Watermeyer et al., 2020). However, it did not lead to a cessation of learning, teaching and assessment; instead, online plans were designed to continue teaching and assessment via a digital interface so that students could progress with their studies (Rapanta et al., 2020). For this purpose, different online education models were introduced around the world (Qazi et al., 2020; Tesar, 2020; Phillips, 2021). The emergency response from educational institutions during crises, (e.g., pandemics or conflict) which shifts teaching, learning practice and assessments online is known as emergency remote education (Shin and Hickey, 2020; Jackson et al., 2023), which can include adapting the contents, traditionally taught face to face, as blended learning or fully distance learning (Shin and Hickey, 2020). Mostly, before the COVID-19, students participated in-person courses, but lockdowns rendered it impossible. In fact, a research showed that 71% of participants had to close their educational institutions (Naroo et al., 2020), therefore, the COVID-19 pandemic created challenges and caused disruption across the higher education sector; as the result, university campuses closed and in-person teaching and assessment shifted to an online format (Bashir et al., 2021; Tesar, 2020). Although the pandemic paved grounds to digital education in the tertiary sector, it posed challenges for teachers and learners simultaneously (Zheng et al., 2020), and despite the advantages of e-learning and assessments, there are still challenges and limitations (Adetayo, 2023; Herman, 2020; Xiong et al., 2020). These challenges became more obvious by extended use of online platforms during COVID-19. These challenges, which need to be addressed, include lack

of social connections (Jackson et al., 2023), authentic assessments and timely feedback (Adetayo, 2023), lower student participation rates by hiding behind cameras since it was not compulsory for them to turn it on (Carrillo and Flores, 2020), having no one to admire students (Lucenko et al., 2023), and even higher level of stress among them while using e-learning platforms (Selvam et al., 2023). All these problems considered, it could be assumed that some customers of online educational services will return to in-person courses. It should be mentioned that there are several types of online educational services: academic, MOOCs and online paid courses (OPCs). In academic courses that were conducted online, students were forced to participate in the courses, but in OPCs, unlike university courses, people participated voluntarily and based on their needs. They are online skill training courses; such as SEO, photography, foreign languages, computer skills, graphics, music, etc. By uplifting the restrictions in one side and the continuation of online purchase habits in other side, a question rises as to whether this increase in purchase intention of online educational services will be the same during short and long-term periods after COVID-19 or student will prefer the face to face learning?

2 Hypothesis development

We have conducted this research for several reasons: First, as mentioned before, it is controversial to predict whether purchase intention in case of online education services will increase or decrease in the future? On one hand some researches show that the popularity of online education will increase; most online courses were well accepted by the students, and 80% of them wanted to continue with some online instruction after the pandemic, which had already experienced high growth and adoption even before COVID-19 (Erickson and Siau, 2003). On the other hand, there are problems in online education that may discourage participation in such courses, for example, Xin and Siau (2020) state that many instructors and students have little or no training in online education, in addition to other common problems such as insufficient bandwidth and unavailable hardware and software. Therefore there is not any clear cut evidence about the intention of students for continuing online courses after the pandemic. Second, although comparative studies of online purchase behaviour during the COVID-19 and post-COVID-19 period have been conducted, these researches have focused on the other subjects such as online purchase of groceries (Shen et al., 2022; Tyrvainen and Karjaluoto, 2022), or travelling services (Bulchand-Gidumal and Melián-González, 2021) or academic courses, instead of OPCs (Alam et al., 2022) or focused on the education differences in before and after COVID-19 (Estebanez et al., 2023). In addition, most of the researches have been conducted in rich and developed countries (Europe or USA), where online education was common before COVID-19 (Erickson and Siau, 2003) or Hispanic context (Bortolo et al., 2023), but the focus of this research is in a developing country, namely Iran, where prior to COVID-19, most of the educational services were held face to face and people became more familiar with online educational services during the pandemic. Hence, this research fills this gap, and the following first hypothesis is presented for the study: Hypothesis one: the purchase intention towards OPCs is different during the COVID-19 era (PIOE) from the short-term period after it (PIOS).

However, many of these behavioural changes will remain in customers, and it is assumed that all the circumscriptions related to COVID-19 will disappear and conditions

will completely return to the normal, especially in the long-term. Accordingly, the second question of purchase behaviour should be about the long-term period after COVID-19. In this study we follow the question asked by Sheth (2020) who has suggested for future research: 'Will consumers permanently change their consumption habits due to lockdown and social distancing or will they go back to their old habits once the global crisis is over?' Thus, the second hypothesis is stated:

Hypothesis two: the purchase intention behaviour towards OPCs is different during the COVID-19 era (PIOE) and long-term period after it (PIOL).

We empirically compare the intention to purchase online education platforms during the COVID-19 with short-term and long-term periods after the pandemic; this is what the present study seeks to do. It's notable that platform of education is vital in influencing consumers' purchasing behaviours (Ma et al., 2022).The definition of purchase intention is adapted from the related academic literatures. As defined, actual purchase behaviour can be measured with the help of purchase intention, which refers to the predisposition of the customers regarding their action of purchasing (Liu and Li, 2019; Trivedi and Raval, 2016). Purchase intention is in-advance planning of the customers to buy certain products in future (Warshaw and Davis, 1985).

3 Methodology

The study was conducted using a 13 item questionnaire, which included demographic questions (four items: age, gender, level of education and marital status) and nine main questions measuring the purchase intention, which were adopted from Hong and Cha (2013). Also, herein purchase intention is defined as the consumers' inclination to purchase online. The definition used was drawn from Hong and Cha (2013). However, we made substantial modifications such as localisation and designed all the questions following the characteristics of purchase intention towards OPCs. The questionnaire was on a five-point rating scale, ranging from strongly disagree (one point), disagree (two points), do not know (three points), agree (four points) and strongly agree (five points). Data collection was carried out online and offline, using direct surveys, online surveys via Google forms, WhatsApp (the most popular social network in Iran), and e-mail, between April and June 2022. The researcher preferred this time because during that time Iranian educational institutions like colleges and universities were reopened after an extensive shutdown due to COVID-19. The target population of the study was students of different universities and colleges at the age of 18 or higher in two northern providences of Iran (Golestan and Mazandaran). We followed random sampling method and contacted individuals, who are students within the mentioned age range, randomly for the survey invitation. We received 635 responses, out of which 38 were discarded for a variety of reasons. Therefore, the final sample comprised 597 responses. Next, based on the purpose of this study, we used paired-samples T test method to analyse the data. To conduct the paired-samples T test, first the researcher should be sure about the data normality; therefore, sampling adequacy, applicability and normality of the data were checked out simultaneously with the help of Kolmogorov-Smirnov, Shapiro-Wilk and Bartlett's tests.

4 Results

To measure and assess the data we utilise SPSS. We added the 'other' in the question about 'gender' because we believe that some people identify themselves as a bisexual or other case. The descriptive statistics of study participants are demonstrated in Table 1.

Table 1 Descriptive statistics OF study participants

Variable	*Value and frequency*		*Percentage*	
Gender	1	Male (322)	1	54%
	2	Female (275)	2	46%
	3	Other (0)	3	0%
Age	1	18–22 (454)	1	76%
	2	23–29 (125)	2	21%
	3	More than 30 (18)	3	3%
Education	1	Bachelor (431)	1	72%
	2	Master (135)	2	22%
	3	PhD (28)	3	5%
	4	Other (3)	4	1%
Marital status	1	Married (316)	1	53%
	2	Unmarried (275)	2	46%
	3	Other (6)	3	1%

Source: Field survey

To estimate the normality, adequacy and applicability of the data, we used the Kolmogorov-Smirnov, Shapiro-Wilk and Bartlett's tests. The results of the tests are presented in Table 2. Basically if the Sig. value is Sig. > 0.05, then the data are normal, and if it is Sig. < 0.05, then the data distribution is not normal. According to Table 2, for the Kolmogorov-Smirnov test, the value of Sig. for PIOE is 0.200 and for SOPI is 0.197 and for PIOL is 0.160, which are Sig. > 0.05, so it indicates the normality of the data. This result is also valid for the Shapiro-Wilk test, because the Sig value is 0.801 for PIOE, 0.826 for PIOS and 0.644 for PIOL and Sig. > 0.05. The significance value of Bartlett's test is also 0.000, which shows the adequacy of the sample (Table 3).

Table 2 Tests of normality

	Kolmogorov-Smirnov			*Shapiro-Wilk*		
	Statistic	*Df*	*Sig.*	*Statistic*	*df*	*Sig.*
PIOE	0.304	597	0.200	0.751	597	0.801
PIOS	0.243	597	0.197	0.786	597	0.826
PIOL	0.346	597	0.160	0.784	597	0.644

Source: Field survey

The 'mean of each variable' (mean), 'number of observations' (N), 'standard deviation' (Std. deviation) and 'standard error of the mean' (Std. error mean) can be found in Table 4. The means for pair 1 (PIOE and PIOS) of the variables are close to be equal.

Table 3 Bartlett's test

Bartlett's test of sphericity	df	36
	Sig.	0.000

Source: Field survey

Table 4 Paired samples statistics

		Mean	*N*	*Std. deviation*	*Std. error mean*
Pair 1	PIOE	3.9289	597	1.14796	0.09373
	PIOS	3.8244	597	1.00683	0.08221
Pair 2	PIOE	3.9289	597	1.14796	0.09373
	PIOL	2.1867	597	1.07475	0.08775

Source: Field survey

To compare the purchase intention behaviour towards OPCs for the same student in different periods, supposing the normal distribution of the data, we conducted the paired-samples T test. As we defined two different timelines (COVID-19 era versus the short-term period after COVID-19 and COVID-19 era against the long-term period after the pandemic), we had two pairs of variables for the comparison test. Therefore, SPSS displayed two outputs. Then the correlation coefficient between pairs of variables was calculated to indicate the existence of a relationship between them (Table 5). The strong correlation for pair 1 is obvious.

Table 5 Paired samples correlations

	N	*Correlation*	*Sig.*
Pair 1: PIOE-PIOS	597	0.751	0.000
Pair 2: PIOE-PIOL	597	0.011	0.895

Source: Field survey

Table 6 Paired samples T test

	Paired differences							
	Mean	*Std. deviation*	*Std. error mean*	*95% confidence interval of the difference*		*t*	*df*	*Sig. (two-tailed)*
				Lower	*Upper*			
Pair 1: PIOE-PIOS	0.10444	0.77155	0.06300	–0.02004	0.22893	1.658	596	0.099
Pair 2: PIOE-PIOL	1.74222	1.56402	0.12770	1.48988	1.99456	13.643	596	0.000

Source: Field survey

Final hypotheses testing results: at the end of the output, the result of the paired-samples T test in SPSS is demonstrated (Table 6). For each pair of variables, one line is considered. In Table 6, the mean of pair 1 is close to zero (0.10), so the difference between the average of PIOE and PIOS is not much. Also the value of t is 1.65 (less than 1.96), which shows that PIOE had not significant association with PIOS and our first

hypothesis 'the purchase intention behaviour towards OPCs is different during the COVID-19 (PIOE) and short-term period after it (PIOS)', is rejected, and the degree of purchase intentions in case of online educational services in during the pandemic are almost the same as in the post-COVID-19 short-term period. Furthermore, according to Table 6, the mean difference of pair 2 is high (1.74) and the t-value is greater than 1.96. Therefore, our second hypothesis 'the purchase intention behaviour towards OPCs is different during the COVID-19 era (PIOE) and the long-term period after it (PIOL)' is confirmed.

5 Discussion and conclusions

COVID-19 caused some restriction in our daily lives and there is no doubt that it also changed the online purchase behaviour of customers and that increased the purchase intention towards online services such as educational courses, which played a key role during the pandemic. Although change is indispensable for all involved in the education system (Ratten, 2023), and online education became an integral component of education after the pandemic (Xin and Siau, 2020), it is predictable that these restrictions will be lifted and educational institutes will open again in some countries. However, COVID-19 is still present as variants continue to emerge. Due to this we can suppose two time lines: short and long-term after COVID-19. The main question was how long this purchase intention will remain as an aspect in customers' behaviour. To answer this question this study was conducted in order to compare the expected pandemic-related online purchase intention behaviours towards OPCs such as SEO, photography, foreign language, music lessons, computer skills, etc. during the pandemic, and short-term and long-term periods after it.

First, we analyse the demographic results. In Table 1, we note the higher percentage of undergraduates (72%) compared to graduated students, so it can be deemed that results of the research on this population are more adaptive. Likewise congruent with Table 1, frequency of age 18 to 22 (454) is higher than other age groups. Hence, the mentioned corollary for education level can be abreast with age condition. The rest of the demographics have almost equal frequency.

Second, we consider the results of hypothesis testing. Our findings showed that customers' desire to buy online educational services during the pandemic and the short-time period after COVID-19are not much different, with a decrease of about 2.64%, which is negligible. It indicates the habit of online shopping persisted after COVID-19. This result is similar to a study of Xin and Siau (2020) or more generally with Sirimanne (2021) and Shaw et al. (2022).

In contrast, the purchase intention towards online educational services in COVID-19 era and the long-term after COVID-19 experienced a considerable fall of 44.34%; this illustrates that nearly half of the customers, after the end of restrictions and returning to the same conditions as before the COVID-19, tend to participate in face-to-face classes. This should be a kind of caution for managers and marketers who are active in the field of online education who put a remarkable part of their marketing strategy and budget in the field of online education with the assumption that customers will attend online classes, with the wrong conjecture that they got used to it and this habit will be maintained. Hereupon, they have to redesign or review their strategy. They have to either

develop a new strategy for the new conditions or increase their focus to attract customers for online classes by capitalising on the advantages of online education to improve learning efficiency.

In addition, this study is an answer to the question, Sheth (2020) asked about whether people will maintain these buying habits in the long run or not? It can be answered that in the short-term after COVID-19, the answer is positive, but based on the results of this research, in the long run, the answer will apparently be 'no', and this tendency will decrease significantly, at least in the studied society.

6 Recommendations and contributions

The adaptations, alterations, and innovations in management education during the pandemic are posed to have a significant impact on shaping the future of management education. Lessons should be learned, reflected, and used to inform strategies for the future, which could be facilitated through reviews of extant research (Donthu et al., 2021; Kraus et al., 2022; Lim et al., 2022; Mukherjee et al., 2022; Mahajan et al., 2023). In this paper we try to understand the learners' intention for e-learning in future especially after COVID-19. Therefore, based on the result of this work we offer several theoretical implications and contributions by addressing the proposed research questions; both to researchers and practitioners in marketing of online educational services.

This research sought to understand how online educational institutes reacted at the end of COVID-19 restrictions. Of course, in answer to the first question of the study regarding how the consumer purchase intention behaviour towards OPCs was during the COVID-19 era (PIOE) and short-term period after it (PIOL), there were not any obvious changes in attitude. But for the second question, as the outcome of the research was, it can be concluded that most managers will face the challenge of attracting customers for their OPCs in long-term after COVID-19. Through identifying the purchase intention behaviour adopted by respondents in this study, it is valuable for individual online educational business owners and managers in assisting them with ongoing strategic planning to ensure education institutes, active in e-learning, are well-placed in the future to withstand any significant changes in the future online environment and in consumer purchase intention behaviour. Taken collectively, this outcome should serve as a useful and valuable resource for gaining a one-stop overview of current insights and future directions on preparing for, navigating in, and recovering from the marketing strategies of OPCs from oncoming consumer decline. Most notably, the ability for online educational institutes to quickly adapt, innovate and pivot their operations in response to changes in purchase behaviour will be critical for their e-learning business survival. In this regard, the use of technology, digital tools, and marketing is important to allow online educational institutes to stay connected with the customers and clients, as respondents indicated their loss of enthusiasm and interest in OPCs in long-term period after COVID-19, therefore, the managers can increase or improve their online capabilities and offerings including new or enhanced websites, digital marketing and online service delivery capability. Additionally, they have the opportunity in short-term to review and rebuild their marketing strategies so that they will not suffer due to the loss of customers. The marketing managers can take a step forward by building their marketing response plan. In addition to marketing manager, this review informs policymakers as the same way of the need to invest in digital teaching and learning. In particular, this research

highlights how online educational institutes' managers responded to the impact of lockdown lifting up after COVID-19 by adapting their business operations to meet changing consumer purchase behaviour.

This study contributes to the nascent empirical scholarly research on the consumers purchase intention in long-term after COVID-19. First, the paper extends the literature in this field by forecasting about the consumer behaviour in future. Second, its finding can be used for researchers. In this regard, they can design their future researches based on this presupposition. The consumer behaviour was evaluated with a questionnaire. The students, as evaluators, were able to express their points of view on the purchase intention towards e-learning after the lockdown so this research was justified to be conducted since it provides measurable and quantitative data. Future researcher can compare our research with the research of other authors or with their own.

7 Limitations and avenues for future research

Herein some limitations of the research survey and suggestions for future research must be mentioned. First, as Grimmer (2022) suggested, it is acknowledged that due to the applied nature of the research, the study is descriptive in type which somewhat limits a contribution to theory. Future research can extend this study through a greater theoretical lens.

Second, the research focused on customer behaviour during and after COVID-19 pandemic, conducted in the context of a developing country, i.e., Islamic Republic of Iran in 2022 and findings can be generalised only to the similar countries. In the future, researches can be conducted in different cultures and economies to enhance generalisability in consumer purchase intention. Also, the studied population was students, while to increase the representativeness of ideas, future research can study other groups such as housewives or employees, etc. who are likely to participate in these OPCs.

Third, this is a cross-sectional study conducted at a specific point in time; however, the online educational platforms are dynamic. Future research could use longitudinal methods to investigate changes in the OPCs over time and capture updated trends in real time, because, new technologies such as artificial intelligence may change consumer behaviour and purchase intention in the future as well.

Forth, this research just shows the degree and average intention for online educational services in the future and does not indicate the reasons for this kind of behaviour and is only a general guide for future research. Therefore, future studies should apply a qualitative research approach with an in-depth interview to obtain extensive information from the students or can focus on exploring the impact of mediating and moderating factors such as income, social class, job, families and etc. to investigate the reasons of purchase intention decrease.

Fifth, this research was done in case of optional online tuition-paid classes; therefore, the author advises that future research be conducted in universities where class attendance is mandatory and free.

Finally, this research is based on the students' points of view; hereupon, it is suggested for researchers to investigate this issue from the viewpoints of teachers, online educational institutes' managers, policymakers and so on.

References

Adetayo, A. (2023) 'Post Covid-19 pandemic and library users' education: impact on examination and survey', *The Journal of Academic Librarianship*, Vol. 49, No. 3, https://doi.org/10.1016/j.acalib.2023.102695.

Alam, S., Hoque, S.M.S., Mahmud, I., Akter, R. and Sohel Rana, S.M. (2022) 'Predicting students' intention to continue business courses on online platforms during the Covid-19: an extended expectation confirmation theory', *The International Journal of Management Education*, Vol. 20, No. 3, https:// doi.org/10.1016/j.ijme.2022.100706.

Bashir, A., Bashir, S., Rana, K., Lambert, P. and Vernallis, A. (2021) 'Post-COVID-19 adaptations; the shifts towards online learning, hybrid course delivery and the implications for biosciences courses in the higher education setting', *Frontiers in Education*, Vol. 6, DOI: 10.3389/feduc.2021.711619.

Beigi, P., Haque, M., Rajabi, M.S. and Hamdar, S. (2022) *Bike Share's Impact on COVID-19 Transmission and Bike Share's Responses to COVID-19: A Case Study of Washington DC*, https://doi.org/10.48550/arxiv.2205.05011.

Bortolo, G., Valdes, J. and Nicolas-Sans, R., (2023) 'Sustainable, technological, and innovative challenges post Covid-19 in health, economy, and education sectors', *Technological Forecasting & Social Change*, Vol. 190, https://doi.org/10.1016/j.techfore.2023.122424.

Bulchand-Gidumal, J. and Melián-González, S. (2021) 'Post-COVID-19 behavior change in purchase of air tickets', *Annals of Tourism Research*, Vol. 87, https://doi.org/10.1016/j.annals.2020.103129.

Carrillo, C. and Flores, M.A. (2020) 'COVID-19 and teacher education: a literature review of online teaching and learning practices', *European Journal of Teacher Education*, Vol. 43, No. 4, pp.466–487, https://doi.org/10.1080/02619768.2020.1821184.

De, R., Pandey, N. and Pal, A. (2020) 'Impact of digital surge during Covid-19 pandemic: a viewpoint on research and practice', *International Journal of Information Management*, Vol. 55, https:// doi.org/10.1016/j.ijinfomgt.2020.102171.

Donthu, N., Kumar, S., Mukherjee, D., Pandey, N. and Lim, W.M. (2021) 'How to conduct a bibliometric analysis: an overview and guidelines', *Journal of Business Research*, Vol. 133, pp.285–296, https://doi.org/10.1016/j.jbusres.2021.04.070.

Erickson, J. and Siau, K. (2003) 'Education', *Communications of the ACM*, Vol. 46, No. 9, pp.134–140, DOI: 10.1145/903893.903928.

Erjavec, J. and Manfreda, A. (2022) 'Online shopping adoption during COVID-19 and social isolation: extending the UTAUT model with herd behavior', *Journal of Retailing and Consumer Services*, Vol. 65, https://doi.org/10.1016/j.jretconser.2021.102867.

Estebanez, R., Grande, E., Espada, M., Villacorta, M., Lorain, M. and Martin, G. (2023) 'Rethinking international cooperation in higher education institutions, in the post COVID world from the student's perspective', *International Journal of Educational Development*, Vol. 98, https://doi.org/10.1016/j.ijedudev.2023.102750.

Grimmer, L. (2022) 'Lessons from the COVID19 pandemic: the case of retail and consumer service firms', *Journal of Retailing and Consumer Services*, Vol. 68, https://doi.org/10.1016/j.jretconser.2022.103012.

Herman, P.C. (2020) 'Online learning is not the future', *Inside Higher Education* [online] https://www.insidehighered.com/digital-learning/views/2020/06/10/online-learning-not-future-higher-education-opinion (accessed 3 April 2022).

Hong, I. and Cha, H. (2013) 'The mediating role of consumer trust in an online merchant in predicting purchase intention', *International Journal of Information Management*, Vol. 33, pp.927–939, DOI: 10.1016/j.ijinfomgt.2013.08.007.

Jackson, J., Moreno, T. and Scoulas, J. (2023) 'Examining undergraduate student perceptions and engagement during the second year of the COVID-19 pandemic', *The Journal of Academic Librarianship*, Vol. 49, https://doi.org/10.1016/j.acalib.2023.102683.

Javadinasr, M., Maggasy, T., Mohammadi, M., Mohammadain, K., Rahimi, E., Salon, D., Conway, M.W., Pendyala, R. and Derrible, S. (2022) 'The long-term effects of COVID-19 on travel behavior in the United States: a panel study on work from home, mode choice, online shopping, and air travel', *Transportation Research Part F: Psychology and Behaviour*, Vol. 90, pp.466–484, https://doi.org/10.1016/j.trf.2022.09.019.

Kraus, S., Breier, M., Lim, W.M., Dabić, M., Kumar, S., Kanbach, D., Mukherjee, D., Corvello, V., Piñeiro-Chousa, J., Liguori, E., Fernandes, C., Ferreira, J.J., Marqués, D.P., Schiavone, F. and Ferraris, A. (2022) 'Literature reviews as independent studies: guidelines for academic practice', *Review of Managerial Science*, Vol. 16, No. 8, https://doi.org/10.1007/s11846-022-00588-8.

Lim, W.M., Kumar, S. and Ali, F. (2022) 'Advancing knowledge through literature reviews: 'what', 'why', and 'how to contribute', *The Service Industries Journal*, Vol. 42, pp.481–513, https://doi.org/10.1080/02642069.2022.2047941.

Liu, D. and Li, M., (2019) 'Exploring new factors affecting purchase intention of mobile commerce: trust and social benefit as mediators', *International Journal of Mobile Communications*, Vol. 17, No. 1, pp.108–125, https://doi.org/10.1504/IJMC.2019.096519.

Lucenko, G., Lutsenko, O., Tiulpa, T., Sosnenko, O. and Nazarenko, O. (2023) 'Online – education and training in higher educational institutions of Ukraine: challenges and benefits', *International Journal of Educational Research*, Open, Vol. 4, https://doi.org/10.1016/j.ijedro.2023.100231.

Ma, L., Sharif, S.P. and Khong, K.W. (2022) 'What factors drive the purchase of paid online courses? A systematic literature review', *Journal of Marketing for Higher Education*, DOI: 10.1080/08841241.2022.2101172.

Mahajan, R., Lim, W.M., Kumar, S. and Sareen, M. (2023) 'COVID-19 and management education: from pandemic to endemic', *The International Journal of Management Education*, https://doi.org/10.1016/j.ijme.2023.100801.

Mukherjee, D., Lim, W.M., Kumar, S. and Donthu, N. (2022) 'Guidelines for advancing theory and practice through bibliometric research', *Journal of Business Research*, Vol. 148, pp.101–115, DOI: 10.1016/j.jbusres.2022.04.042.

Naroo, S.A., Morgan, P.B., Shinde, L. and Ewbank, A. (2020) 'The impact of COVID-19 on global contact lens education', *Journal of Optometry*, DOI: 10.1016/j.optom.2020.11.002.

Phillips, H. (2021) 'Re-imagining higher education: a cohort of teachers' experiences to face the 'new normal' during COVID19', *International Journal of Educational Research Open*, Vol. 2, https://doi.org/10.1016/j.ijedro.2021.100069.

Qazi, A., Naseer, K., Qazi, J., AlSalman, H., Naseem, U., Yang, S. and Gumaei, A. (2020) 'Conventional to online education during COVID-19 pandemic: do develop and underdeveloped nations cope alike', *Children and Youth Services Review*, Vol. 119, DOI: 10.1016/j.childyouth.2020.105582.

Rapanta, C., Botturi, L., Goodyear, P., Guàrdia, L. and Koole, M. (2020) 'Online university teaching during and after the Covid-19 crisis: refocusing teacher presence and learning activity', *Postdigit Sci. Education*, Vol. 2, pp.923–945, DOI: 10.1007/ s42438-020-00155-y.

Ratten, V. (2023) 'The post COVID-19 pandemic era: changes in teaching and learning methods for management educators', *The International Journal of Management Education*, https://doi.org/10.1016/j.ijme.2023.100777.

Saleh, M. (2022) *Increase in E-Commerce Due to COVID-19 in Africa, Country* [online] https://www.statista.com/statistics/1233745/share-of-consumers-shopping-more-online-due-to-covid-19-in-selected-african-countries (accessed 10 May 2022).

Santiago, C.D., Bustos, Y., Jolie, S.A., Flores Toussaint, R., Sosa, S.S., Raviv, T. and Cicchetti, C. (2021) 'The impact of COVID-19 on immigrant and refugee families: qualitative perspectives from newcomer students and parents', *School Psychology*, pp.348–357, https://doi.org/10.1037/spq0000448.

Selvam, R., Xavier, S., Kasinathan, P., Wadaan, M., Khan, M. and David, M. (2023) 'Causes of higher levels of stress among students in higher education who used eLearning platforms during the COVID-19 pandemic', *Journal of King Saud University*, Vol. 35, No. 4, https://doi.org/10.1016/j.jksus.2023.102653.

Shaw, N., Eschenbrenner, B. and Baier, D. (2022) 'Online shopping continuance after COVID-19: a comparison of Canada, Germany and the United States', *Journal of Retailing and Consumer Services*, Vol. 69, https://doi.org/10.1016/j.jretconser.2022.103100.

Shen, H., Namdarpour, F. and Lin, J. (2022) 'Investigation of online grocery shopping and delivery preference before, during, and after COVID-19', *Transportation Research Interdisciplinary Perspective*, Vol. 14, https://doi.org/10.1016/j.trip.2022.100580.

Sheth, J. (2020) 'Impact of Covid-19 on consumer behavior: will the old habits return or die?', *Journal of Business Research*, Vol. 117, pp.280–283, https://doi.org/10.1016/j.jbusres.2020.05.059.

Shin, M. and Hickey, K. (2020) 'Needs a little TLC: examining college students' emergency remote teaching and learning experiences during COVID-19', *Journal of Further and Higher Education*, Vol. 45, No. 7, pp.973–986, DOI: 10.1080/0309877X.2020.1847261.

Sirimanne, S. (2021) *COVID-19 and E-Commerce: A Global Review* [online] https://unctad.org/system/files/official-document/dtlstict2020d13_en_0.pdf (accessed 25 June 2022).

Tesar, M. (2020) 'Towards a post-Covid-19 'new normality?': physical and social distancing, the move to online and higher education', *Policy Future in Education*, Vol. 18, No. 5, pp.556–559, https://doi.org/10.1177/1478210320935671.

Trivedi, R. and Raval, R.D. (2016) 'Consumer buying intentions towards smart phones: a conceptual framework', *International Journal of Applied Research*, Vol. 2, No. 12, pp.736–742.

Truong, D. and Truong, M.D. (2022) 'How do customers change their purchasing behaviors during the COVID-19 pandemic?', *Journal of Retailing Consumer Services*, Vol. 67, https://doi.org/10.1016/j.jretconser.2022.102963.

Tyrvainen, O. and Karjaluoto, H. (2022) 'Online grocery shopping before and during the COVID-19 pandemic: a meta-analytical review', *Telematics and Informatics*, Vol. 71, https://doi.org/10.1016/j.tele.2022.101839.

Warshaw, P.R. and Davis, F.D. (1985) 'Disentangling behavioral intention and behavioral expectation', *Journal of Experimental Social Psychology*, Vol. 21, No. 3, pp.213–228, https://doi.org/10.1016/0022-1031(85)90017-4.

Watermeyer, R., Crick, T., Knight, C. and Goodall, J. (2020) 'COVID-19 and digital disruption in UK universities: afflictions and affordances of emergency online migration', *High Education*, Vol. 81, pp.623–641, DOI: 10.1007/s10734-020-00561-y.

Xin, X. and Siau, K. (2020) 'Online education during and after COVID-19 pandemic', *AMCIS 2020 TREOs*, p.93 [online] https://aisel.aisnet.org/treos_amcis2020/93 (accessed 14 April 2022).

Xiong, W., Mok, K.H. and Jiang, J. (2020) *Hong Kong University Students' Online Learning Experiences under the Covid-19 Pandemic*, Higher Education Policy Institute, Oxford, UK [online] https://www.hepi.ac.uk/2020/08/03/hong-kong-university-students-online-learning-experiences-under-the-covid-19-pandemic (accessed 21 April 2022).

Zheng, F., Khan, N.A. and Hussain, S. (2020) 'The COVID 19 pandemic and digital higher education: exploring the impact of proactive personality on social capital through internet self-efficacy and online interaction quality', *Children and Youth Services Review*, Vol. 119, DOI: 10.1016/j.childyouth.2020.105694.