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Article

The Impact of COVID-19 on Curriculum and Employability in Lebanon

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Abstract: The COVID-19 pandemic negatively impacting the whole service sector, including higher education, has forced universities to quickly innovate and recreate. The sanitary crisis resulted in the greatest disruption to educational systems in human history, as well as a shift in the nature, qualifications, and mix of the workforce. The reopening of higher education institutions is another concern, with numerous new operational procedures in place, new opportunities, and prospective curriculum adjustments based on labour market realities. Due to the development of technology, businesses' requirements for human resource credentials and job types underwent several modifications. This study's goal is to investigate how COVID-19 has influenced curriculum revisions and employability requirements. The research used a mixed methodology, with quantitative analysis of changes in enrolled students by major and a qualitative study including two different sets of surveys based on the innovation and employability theories addressed to five human resource (HR) directors from institutions and organizations in Lebanon, as well as three universities. The objective was to answer the following questions: How can universities adapt to the changing demands of the labour market specifically in times of crisis? Should university curricula place greater emphasis on students' personal growth than on technical and conventional learning? The results lead to re-thinking about what higher education systems and institutions can do to redesign their curricula in accordance with the job market and the expectations of the students in this challenging context, where employment security and job market stability issues are more urgent due to the economic crisis and advanced technologies. According to the findings, the research implications include boosting the implementation of the new curriculum through improved HR practices from the Ministry of Education. This will also encourage innovative performance, which will necessitate realistic, swift technical procedures to be unbeatable, creative, and competitive. This study adds significantly to the literature by suggesting curriculum adjustments for online courses and e-training.

Keywords: innovation theory; education theory; employability; curriculum; skills and job market



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1. Introduction

Due to the current sanitary and economic crisis, higher education institutions are being compelled to reconsider their curricula and deepen the connections between tertiary education and the labour market. This has made the problem of employability more urgent. The COVID-19 pandemic has had far-reaching consequences for higher education, with a focus on shifting educational results toward online and digital curricula to permit education during lockdowns and emergency remote teaching. These rapid system-level changes have resulted in lower levels of student and staff well-being.

The coronavirus pandemic (COVID-19) crisis caused unforeseen issues around the world in 2020, which have been particularly difficult for the service industry (Suneson 2020). According to Tuzovic and Kabadayi (2021), this unprecedented worldwide pandemic has disrupted the economy in a variety of ways that not only affect service companies but also change how business services are provided (Finsterwalder and Kuppelwieser 2020).

Educational institutions were also closed and have evolved into virtual organizations (Duraku and Hoxha 2020; Carnevale and Hatak 2020).

The disruptive effects of the pandemic affect instructors' motivation and performance (Onyema et al. 2020). Although the conversion of traditional educational institutions into virtual organizations may simplify teaching procedures, it also presents difficulties (Kohntopp and McCann 2020). Pandemic-induced work transformations forced educational institutions to re-evaluate their leadership practices toward staff (Wiradendi Wolor et al. 2020). They also raised concerns about adequate training to address the challenges of technological emergence (UNESCO 2020) and uncertainty in maintaining secured employment (Onyema et al. 2020).

Education is frequently defined by traditional learning as opposed to thinking critically, emphasizing problem-solving techniques, and dealing with real-world problems. Additionally, jobs involving routine tasks that are simple to automate are disappearing because of the impact of rapidly developing technologies, which are frequently ICT-related (information and communications technology), and changes in the organization of work, while new employment creation involves tasks requiring non-routine skills (such as analytical, creative, and interpersonal) that humans are still better at than machines.

New industries are quickly transforming the labour market and altering the nature of employment. Graduates will need to be adaptable and possess the necessary personal qualities to handle complex and tough work environments. Employers are seeking to hire recent graduates who can contribute to the corporate culture and alter the business through fostering creative cooperation (Harvey et al. 1997).

In addition, the traditional educational system negatively impacted the performance of students and teachers in times of COVID-19 (García-González et al. 2020). Thus, by viewing innovation as a pressing issue and an opportunity, it can be enhanced over time for new knowledge contexts. In 200 countries, home to a billion children and youth, 98.6% of all students were affected by the pandemic as of July 2020 (United Nations 2020). Making learning possible and accessible through online learning was the solution (Boustani et al. 2022). Lebanese governments began closing schools and institutions all around the nation to stop the new coronavirus from spreading.

When COVID-19 hit Lebanon, the country was also facing an economic crisis, so majors changed and interests changed for graduate students. The Lebanese context has shown many disparities in the workforce, purchasing power, the sanitary crisis, and economic inflation in the years since 2019. Lebanese graduate students witnessed these changes in terms of teaching methods (online) and in terms of leaving the country to study abroad with financial support and aid. Moreover, many businesses ceased functioning, specifically banks and financial institutions, which made students think about other alternatives or specialization.

In this context and for the purpose of the study, the authors chose top business schools in Lebanon to examine how these institutions adapt to changing market demands and to determine if their curricula should place more emphasis on students' personal growth than the more traditional technical training with the new challenges of learning from home due to the pandemic. These issues arose because of several programs' declining enrolment, which forced some institutions to discontinue a particular curriculum. On the other hand, the researchers investigated the key developments and methodology that enable human resources (HR) recruiters to effectively match candidate profiles with positions or jobs that require constant change, as well as other HR-related issues that enable universities to innovate through their various curricula.

This research intends to answer the following questions: How important is innovation in higher education, as it enables students to improve their practical and soft skills needed in critical times and in online working? What would be the new requirements for human resources qualifications, another matter that innovative and leading universities should focus on specifically in times of crisis?

In conducting this exploratory study, the research aims to make recommendations for steps that business schools should take to carry out their mandate of providing innovative education. Therefore, theoretical background gaps in innovation, employability, and education theories are covered in part two, while the methodology used, and the conceptual framework are covered in part three. Part four emphasis is on the study's results and findings. Finally, in part five the findings are presented and discussed, and part six provides the conclusions, limitations, and future work.

2. Theoretical Background

2.1. Innovation Theory

Over the past few years, the word "innovation" has become increasingly common. Politics, businesses, start-ups, international organizations, and other fields all exhibit it. Innovation management is still a developing "science" despite its popularity. According to [Schumpeter \(2017\)](#), innovation, entrepreneurship, and market power are the driving forces behind economic progress. Market strength resulting from innovation may produce outcomes superior to the invisible hand and price competition. Technical innovation frequently results in transient monopolies that permit exceptional gains that would soon be displaced by rivals and copycats. These brief monopolies were required to provide businesses the motivation to create novel goods and procedures.

A higher rate of economic contact is required due to the complexity of modern economies, which is expanding. The knowledge-based economy of today relies on rapid technological advancement. Innovation now relies on the collaboration of many diverse players rather than on certain individuals.

The COVID-19 pandemic has compelled higher education institutions to embrace virtual platform-based online learning activities, leaving little time to prepare and train staff members to familiarize students with digital technology. While prior research has looked at how students used digital tools in their learning activities, the features of student participation in online learning have received less attention. [Salas-Pilco et al. \(2022\)](#) synthesized student involvement in Latin American higher education institutions during the COVID-19 epidemic from behavioural, cognitive, and affective dimensions, identifying the primary features of student engagement from these three dimensions. Shortage of technological resources, poor internet quality, and a lack of awareness of information and communication technology (ICT) have all been significant impediments, particularly in developing nations ([Aung and Khaing 2016](#)).

Despite the fact that interaction and variation were important components of successful online learning, instructors, on the other hand, experienced challenges motivating students, particularly when there was no visual connection. Ultimately, even with innovation, variety, and interaction, some majors of practical and social nature such as sport and physical education do not fully translate to the online setting ([Moustakas and Robrade 2022](#)).

The most important theories of innovation management propose a comparison so that the knowledge from one theory may be utilized to fill in the gaps of another. Numerous authors have written about innovation ([Henderson and Clark 1990](#); [Abernathy and Utterback 1978](#); [Tushman and Anderson 2018](#)). A great place to start for identifying and categorizing innovations is defined by [Henderson and Clark \(1990\)](#). They provided a fourfold typology by drawing from past work. While modular and architectural innovations have been only briefly discussed in the literature, two of the categories, radical and incremental innovation, have considerable literatures of their own:

- [Ettlie et al. \(1983\)](#) and [Tushman and Anderson \(2018\)](#) discuss incremental innovation. It brings about improvements in basic component quality. This kind of innovation is better characterized as remodelling.
- Contrarily, radical innovation intersects with other characteristics of innovation, including technical discontinuities, and is mentioned in a variety of sources, including [Schumpeter \(2017\)](#). A new meaning is introduced that may lead to a paradigm shift. The use of e-learning technologies in higher education comes with a firm promise that

the learning process will have improved performance. At present, the field of e-learning is at the intersection of commercial, educational, and technological interests, trying to obtain a dominant position in higher education (Dospinescu and Dospinescu 2020).

Finally, effective diffusion of innovation is essential. According to Rogers (2003), diffusion is the process through which an invention is gradually spread among the members of a social system. Further, those who accept any new product or concept may be divided into innovators (2.5%), early adopters (13.5%), early majority (34%), late majority (34%), and laggards (16%). These adoption percentages are based on the bell curve.

2.2. Employability Theory

Finding an employability theory might be challenging. It is a multi-dimensional notion, according to Little (2001), and it is important to distinguish between elements that are pertinent to the job and factors that are related to preparation for the job (Knight and Yorke 2002). Morley (2001) adds that employability is “a synergic blend of personal traits, abilities of various sorts, and subject comprehension”, Knight and Yorke (2002) assert that employability is not merely about students making deposits in a bank of skills.

For work security, the current economic crisis brought on by the pandemic presents difficulty (Sanchez et al. 2020). Yet, prior study has neglected the effect of employment security on employees’ psychological health and well-being during the COVID pandemic and other crises (Pacheco et al. 2020). Employees’ hopes for continuing secure and long-term positions inside the company are referred to as their expectations of employment security (Piccoli et al. 2017). Employee stress, worry, and depression can be brought on by employment instability during the pandemic (Pacheco et al. 2020; Wang et al. 2020). Most of the earlier research explored the impact of employment uncertainty on employee wellbeing and identified it as a predictor of unhappiness (Blom et al. 2018).

Given that Dearing (National Committee of Inquiry into Higher Education 1997) placed more stress on students’ personal attributes than on their general academic talents, it is possible to see that the concept of employability is more complex.

Knight and Yorke (2002) claim that students’ self-theories, personal traits, and views about their own efficacy all have an impact on their employability. They emphasize that the degree to which students believe they can “make a difference” is what is very important. This broadens the focus to cover a larger variety of qualities needed for work success, as well as qualities needed to manage one’s professional progression in a way that will keep one’s employability.

Employability, according to Nabi (Nabi and Bagley 1998), is about graduates learning a suitable level of abilities and traits and being able to use them to obtain and hold a suitable position. Employability is a notion that originated in the 1990s from the perspective of human resource development along with a rising belief among employees that they cannot rely on their employers for long-term employment. According to Baruch (2001), employability is a promise made to workers that they will have the ability to rapidly find new employment if their current position ceases abruptly. Previously, employability was defined in a variety of ways from both the individual and institutional viewpoints by Harvey (Harvey et al. 1997). Graduates’ individual employability is defined as their capacity to exhibit the qualities needed to land jobs.

2.3. Constructs and Research Hypothesis

To answer the research questions and to assess the impact of job market employment and majors offered by higher education institutions, the author considers the needs feedback changes and the innovations required for universities to improve their curriculum and offer (and disseminate) these changes among stakeholders (Figure 1).

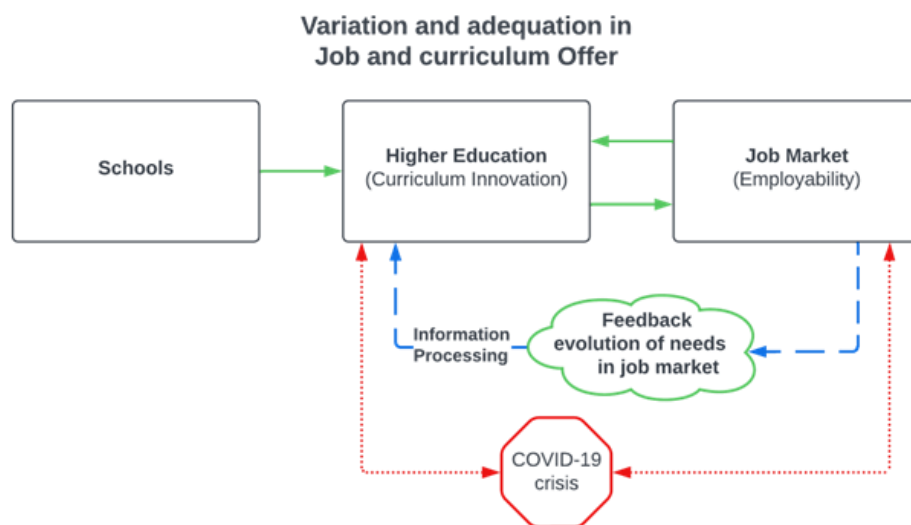


Figure 1. Relation among schools, universities, and job market.

The researcher used the conclusions as a foundation to think about the following research questions: How can universities adapt to the changing demands of the job market? Should business school curriculum and programs emphasize students' personal growth above their technical and conventional education?

Based on the literature analysis, two theories were chosen in this regard:

Hypothesis 1. *Curricula should emphasize technical and conventional learning in stable sectors that are not very innovative.*

Hypothesis 2. *Curricula should emphasize students' personal growth considering the rapidly evolving and innovative workplaces.*

3. Methodology

3.1. Lebanese Context of the Study

In an exploratory manner, our study employs a qualitative approach (Eisenhardt 1989). The authors choose the interpretative approach that enables them to take "a phenomena in its natural surroundings" into consideration. In a case study, the researcher delves deeply into a plan, occasion, activity, process, or person, in accordance with Creswell (2003), that enables the authors to comprehend the whole context of innovation in higher education. Researchers that are attempting to comprehend the social and cultural background most frequently use this method.

The Lebanese context revealed many disparities in the workforce, purchasing power, the sanitary crisis, and economic inflation in the last years, so the years 2019 to today witnessed these changes in terms of teaching methods (online), students leaving the country to study abroad with financial facilities and scholarships from many countries, and businesses that ceased operating, specifically banks and financial institutions.

3.2. Mixed Methodology

A mixed methodology is used, including:

Quantitative focusing on the last 4 years where data (almost 400 students) and statistics related to gender, number, concentration and causes of not enrolling in graduate studies are computed by the author.

Qualitative where the researcher has conducted two types of survey: with university responsible in different business schools and with HR responsible for the employability purpose.

Interviews that were moderated and semi-structured were used to acquire the data (during November and December 2021). One may better understand the process of innovation in education and its effects on employability by using centred semi-structured interviews as a trustworthy data gathering technique (Romelaer 2005).

Three separate sets of questions were employed for this study's purposes:

First, to determine the demands of Bachelor of Arts (BA) students, the authors looked at the quantitative evolution of the student population. Then, as part of this study and with the goal of tracking the innovation and progress of different programs and curricula at business schools, the authors spoke with two deans of Balamand University and of Lebanese University and with a rector of Sagesse University in Lebanon. They made it obvious that they take the lead in introducing innovation into many of their programs and courses. To preserve the participants' intended anonymity, the names of these professors have been coded using P1, P2, P3.

In addition, the authors conducted five in-depth interviews with human resources managers from significant, cutting-edge Lebanese and worldwide businesses. To preserve anonymity, the assigned codes for HR managers are HR1, HR2, HR3, HR4, HR5.

The authors carried out two qualitative investigations in order to properly conduct the study and take into account the significance of innovation in higher education, particularly in the context of crisis and online learning. The first one dealt with various innovations that Lebanese business schools have implemented, while the second research focused on the need for innovation in the labour market.

3.3. Questionnaire Set and Validation

The author developed two sets of questions and validated them in the university job setting; nevertheless, this university was not included in the study to avoid bias or any subjective opinion on the students' conditions of employment. The set of questions is based on two fundamental theories: employability and innovation, as well as the impact of COVID-19 on education.

The following inquiries were used in the semi-directive interviews:

Concerning Business School interviews:

1. Do you regularly monitor how the market's requirements for the competencies and abilities of recent graduates are changing, especially during COVID-19?
2. How many times do you consider making changes in your curriculum? Is it a result of proposals from students or market demand or any other disruption such as COVID-19 crisis?
3. What and how do you suggest stakeholders modify the curriculum?
4. What kind of innovation have you implemented over the past three years at your university due to COVID-19?

Human Resources related questions:

1. What are the roles in your company that demand innovation and changes all the time and you have noted during the sanitary crisis?
2. What is the process you use to successfully match a candidate's profile to a position or a job that is evolving or changing constantly?
3. What criteria and procedures do you employ in your company to look for prospective job changes, work enrichment opportunities, or position expansion?
4. Who makes changes to the job proposals, the corporation, or the employees in crisis times?

4. Findings

4.1. Site Survey

The site survey is divided into two parts: a first survey was conducted in 2016–2017 and 2018, and a second survey was conducted in 2019 to 2023, revealing a decrease in the number of business students at a well-known Lebanese university, as presented and analysed below. This calls into question the relevance of incorporating innovation into

some of this university's master's programs, as well as learning more about the impact of the COVID-19 period on graduate student choices. See Figure 2 below.

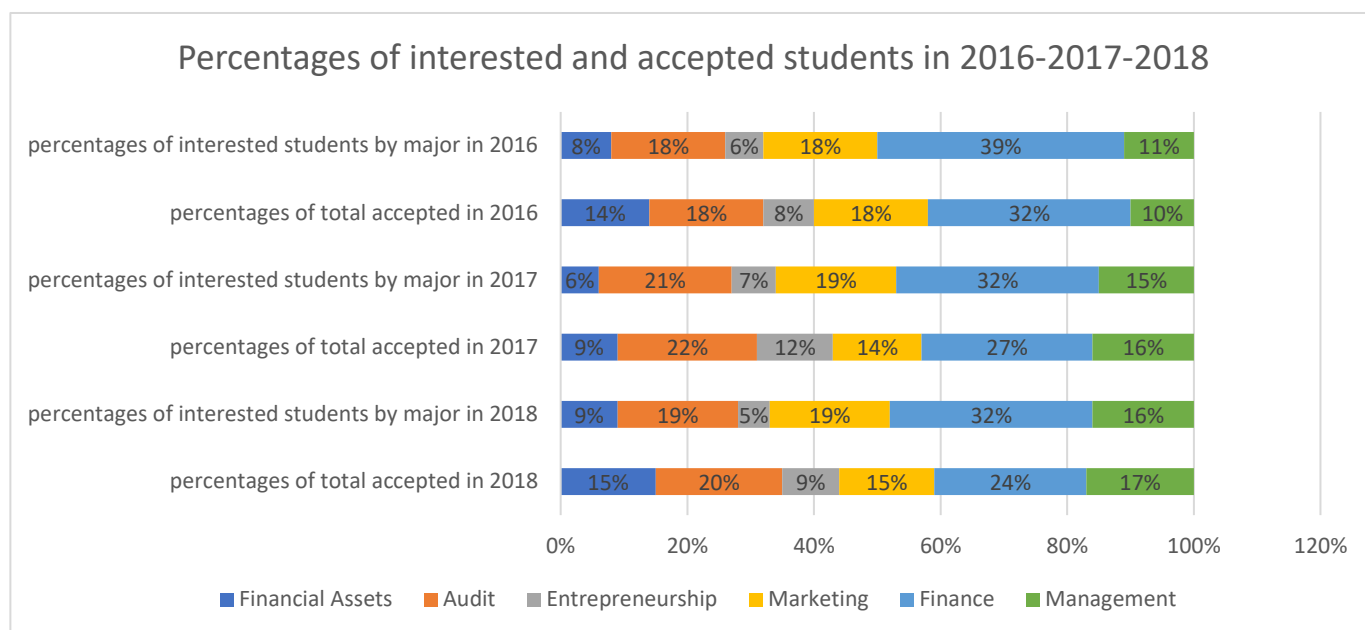


Figure 2. Percentages of accepted students in master's programs (2016–2017–2018).

The authors analysed the percentages and studied the number of students applying for different master's programs in the business school over the total number of students who enrolled in a specific master's program. The findings showed that over the past three years:

- In some majors, such as finance and audit, the percentages are in constant growth either for the demand of these master's programs or in the enrolled for the academic years.
- In other majors, such as management and marketing, the percentages are more or less stable and are not subject to enormous variation.

Furthermore, this business school has a very reasonable number of students (around two hundred receive their bachelor's degree yearly) and has expanded geographically over the Lebanese market. Therefore, for the same business school, in 2022 another qualitative study was conducted on 131 students enrolled in the BBA program but did not express interest in the business school master's program. This survey included several questions concerning their choices of master's program, their preferences for work or for any other university in Lebanon or abroad, in addition to identifying the reason for their intention. The results are shown in Figure 3.

The results of this survey showed that many of these students prefer to access the employment market with a bachelor's degree, whereby 30.53% of the sample have claimed no benefit from a master's degree. Additionally, 5.34% of the sample expressed no interest in pursuing a master's program due to their work schedule that forbids them to attend the courses on time, especially since some courses start at 3 p.m. Their primary objective was a job award then a master's degree which comes later as a secondary requirement.

Moreover, to get the importance of enrolled students post, during, and pre COVID-19, a statistical study related to specialization according to gender was also conducted in 2022–2023 going back from year 2019 until 2023. The above findings constituted a base for the researcher to consider different changes in the interest of students by gender. See Table 1 below.

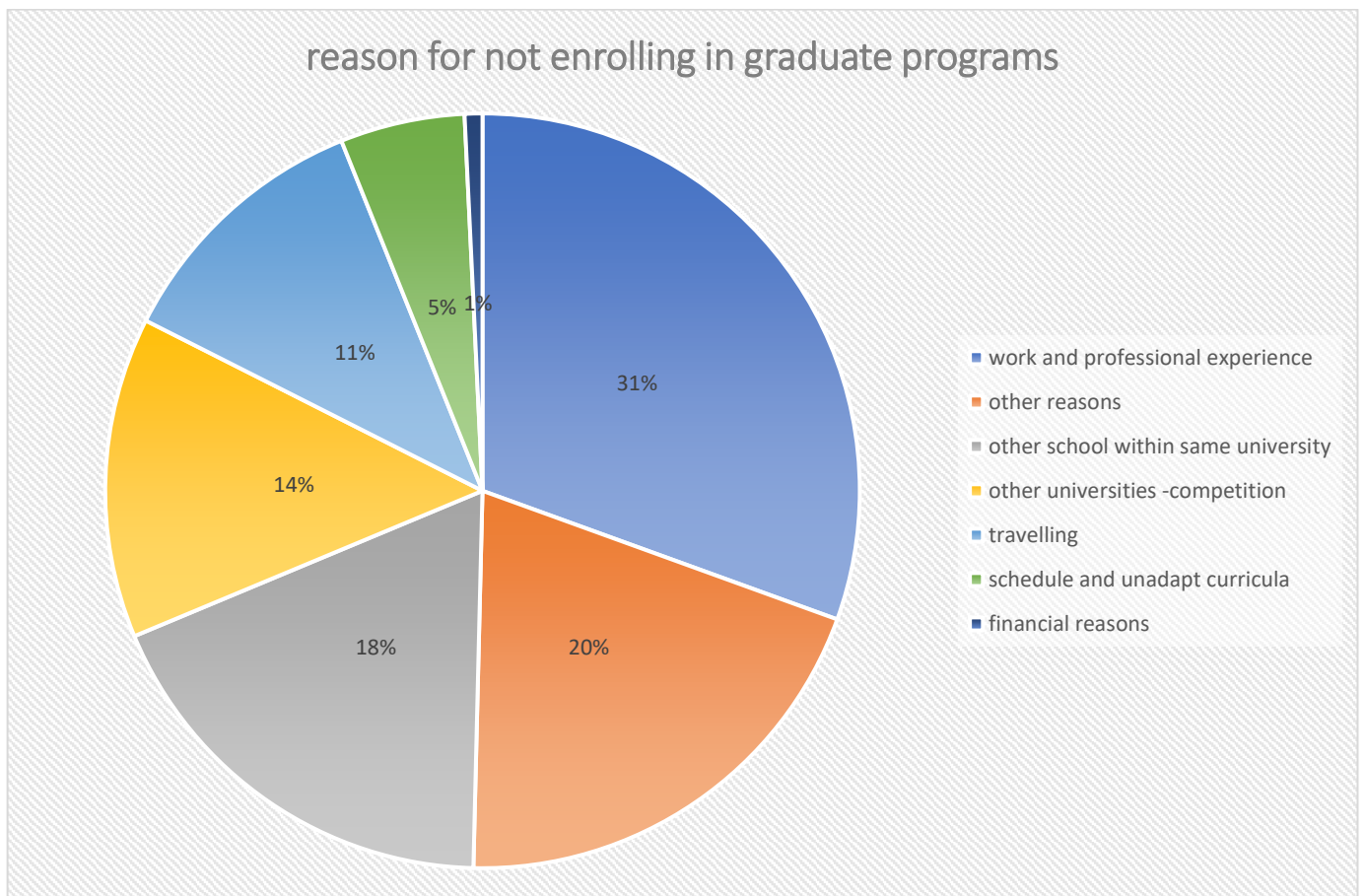


Figure 3. Reasons for disinterest in master’s programs.

Table 1. Registration figures by gender in master’s programs in a well-known Lebanese business school.

Year	Concentration	Number of Students Enrolled	F	M	% Female	% Male	% From Population
2022–2023	Accounting and audit	24	14	11	58.33%	45.83%	22.64%
	Entrepreneurship	9	4	5	44.44%	55.56%	43.40%
	Finance	15	6	9	40.00%	60.00%	14.15%
	Financial assets	21	8	13	38.10%	61.90%	19.81%
	Management	24	15	9	62.50%	37.50%	22.64%
	Marketing	13	8	5	61.54%	38.46%	12.26%
Total		107	55	52	51.89%	49.06%	100.00%
2021–2022	Accounting and audit	18	11	7	61.11%	38.89%	26.47%
	Entrepreneurship	0	0	0	0.00%	0.00%	0.00%
	Finance	15	9	6	60.00%	40.00%	36.76%
	Financial assets	10	2	8	20.00%	80.00%	14.71%
	Management	13	8	5	61.54%	38.46%	19.12%
	Marketing	12	8	4	66.67%	33.33%	17.65%
Total		68	38	30	55.88%	44.12%	100.00%
2020–2021	Accounting and audit	20	15	5	75.00%	25.00%	23.81%
	Entrepreneurship	10	5	5	50.00%	50.00%	11.90%
	Finance	21	12	9	57.14%	42.86%	55.95%
	Financial assets	6	1	5	16.67%	83.33%	7.14%
	Management	7	4	3	57.14%	42.86%	8.33%
	Marketing	20	14	6	70.00%	30.00%	23.81%

Table 1. Cont.

Year	Concentration	Number of Students Enrolled	F	M	% Female	% Male	% From Population
Total		84	51	33	60.71%	39.29%	100.00%
2019–2020	Accounting and audit	24	16	8	66.67%	33.33%	23.53%
	Entrepreneurship	11	4	7	36.36%	63.64%	10.78%
	Finance	23	11	12	47.83%	52.17%	22.55%
	Financial assets	3	0	3	0.00%	100.00%	2.94%
	Management	18	9	9	50.00%	50.00%	17.65%
	Marketing	23	14	9	60.87%	39.13%	22.55%
Total		102	54	48	52.94%	47.06%	100.00%

The findings revealed the existence of gender differences in terms of specialization:

- Throughout the four academic years, it is shown that male graduate students prefer finance related majors whereas the predominance of females is evident in the managerial and marketing concentrations.
- As for the accounting and auditing fields, a large majority of females are enrolled in this specialization.
- Entrepreneurship specialization suffered during COVID-19 crisis as noted in the non-existing/null percentage of enrolled graduate students in 2021–2022.

To have the trend of these specializations by two different majors, the authors combined accounting and audit with finance and financial assets as a first major and the remaining specialization, marketing, management and entrepreneurship in another major; the results showed that after and during COVID-19 the percentages of enrolled students in these fields is the highest at 55.95% in 2021, 63.24% in 2022 and 56.6% in 2023. See Figure 4 below.

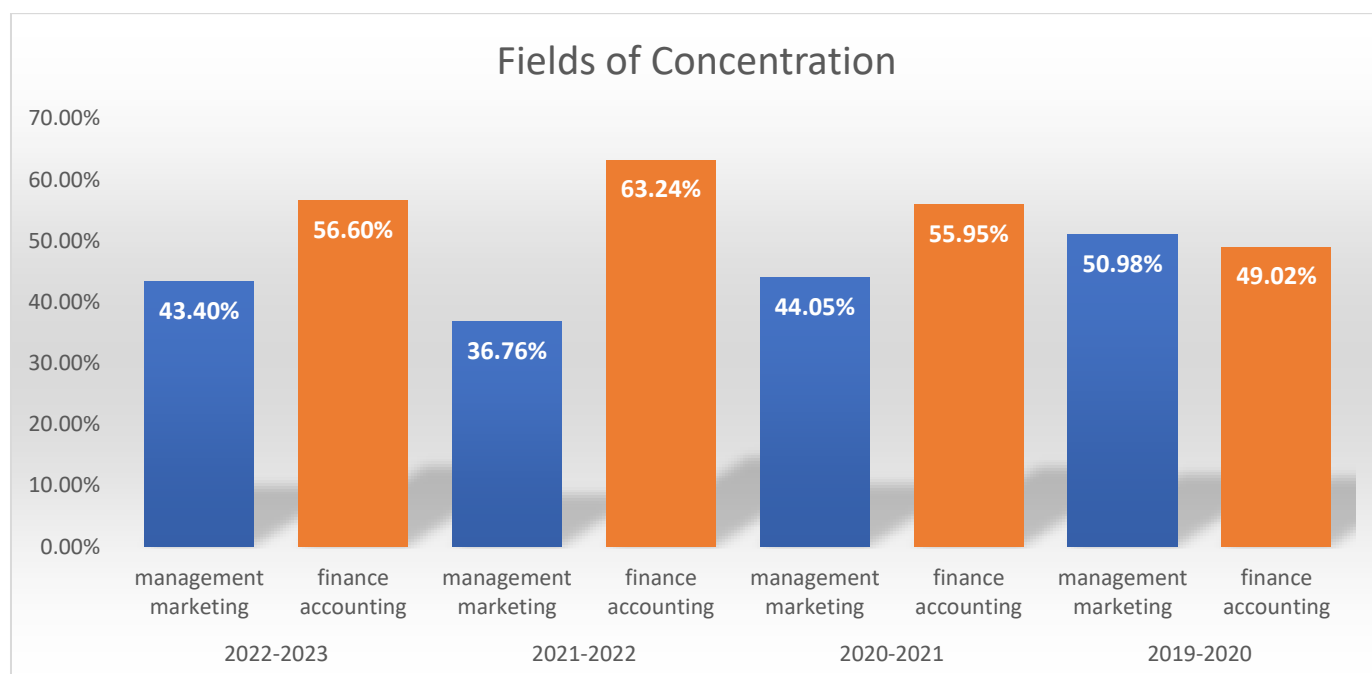


Figure 4. Fields of concentration in master’s programs.

4.2. Results from the HR Interviews

The human resources directors of five different organizations were coded by the authors as follows (see Table 2 below):

HR 1: Human resources director for a major organization (distribution, dining . . .)
 HR 2: Human resources manager for a holding (of services, goods, or automobiles).
 HR 3: Director of human resources and talent for a big marketing and communications company
 HR 4: A multinational holding's human resources manager (service, distribution, industry).
 HR 5: Human resources director for a major organization (retail).

Table 2. Key answers from the HR questionnaire.

	HR1	HR2	HR3	HR4	HR5
Q 1	Old School People have been in the same place for more than ten years, unable to change and advance with the times.	Following up on emerging trends and strategies in social media and marketing, as well as innovation in high technology departments like the IT and marketing ones.	Any positions within a department that have direct client or market interaction must constantly adapt to changes in the industry.	Due to outside circumstances like escalating competition, shifting market demands, shifting consumer behaviour, or because of corporate expansion. observe consumer behaviour, trends, and preferences.	All departmental jobs that directly interface with customers or the market must continuously adapt to changes in the sector.
Q 2	-Selection by interview -Personal and technical evaluation, as determined by performance review tools -An assessment of one's capacity to adapt to change	upgrading the skill system through repeated seminars, on-the-job training, and outsourced trainings conducted by professionals and consultants.	Compare the profile to the standards established by the company's culture, which states that "we recruit for attitude and train for skills." Our Talents are trained, coached, and developed to be proactive about change.	There are other methodologies, including staying current on trends and innovations through being close to the market and going to conferences and seminars.	With frequent seminars, on-the-job training, and outside trainings led by consultants and specialists, the skill system is upgraded.
Q 3	-The company's potential for development plus the business expansion signal Modernization of real-world commerce -Continuous research into and evaluation of the opposition. -Adopting new technologies, managing change, and evolving markets	When a new product was introduced, the concerned workers were given access to training and awareness-raising opportunities from upper-level employees of our organization and an outside company.	To be prepared for any impending changes in responsibilities, both locally and worldwide, trends progression and market analyses.	a number of methods, including conducting job analyses, shadowing workers to comprehend the task in issue and how the change will be implemented, creating updated job descriptions, etc.	should be ready for any upcoming changes in roles, both locally and globally, as well as for trends' advancement and market evaluations.
Q 4	Both: From employee input and, when necessary to adjust to changes, from management proposals.	In light of the changes affecting the business, the organization suggests adjustments to the job.	Most of the time, the Agency works in tandem with the Talents.	On an organizational level as well as an individual personnel level, this occurs.	From suggestions made by employees and, as needed to adapt to changes, from management recommendations.

Although such research looks at the association between the requirements of labour market through the opinion of HR and innovation in curriculum, it is necessary because several academics have noted that the studies are few (Waheed et al. 2019). The literature states that innovation activities need to be a focus in businesses by employing new human resources management techniques that can boost employees' involvement in new knowledge. Innovation within the curriculum can grow by implementing new courses and new skills that showed up after the pandemic and due to the digitalized process and methods. Additionally, innovative work is expected to produce innovative results (Crossan and Apaydin 2010), which presents an opportunity for ability enhancing skills and practices as well as providing challenges and motivation (Bos-Nehles et al. 2017).

Transforming learning environments into ones that are more effective and innovative, including e-training, having a hybrid system of alternating between online courses and on campus ones, moreover, focusing on new technologies in the curriculum is required in several jobs. The findings of our research suggest that Lebanese government should develop a strategy to provide more adequate regulations for the internet. To support an electronic and resilient educational system, backup measures are also required (Alsoud and Harasis 2021).

However, in changing scenarios from the past to the present, government organizations are attempting to promote their strategists to produce innovations while dealing with rapidly changing and unpredictable circumstances by focusing on distinctive employees and enhancing operating systems, as organizations need technological processes and practices to produce innovations (Ebersberger and Kuckertz 2021).

4.3. Results from the Academics/Faculties

The academics (professors/deans and rector) in three distinct business schools were classified by the authors as follows (see Table 3 below):

P1: Business school dean

P2: Business school dean

P3: Rector/president of a university

Table 3. Key answers from the academics questionnaire.

Questions	Answers
Q1 P1	We do. But not sufficient. However, we frequently receive alerts from our professional and social connections about the flaws in our programs and courses.
Q1 P2	I suppose that I, myself, have a longer-term perspective on changes; that is, when I arrange my courses, I pay more attention to long-term trends than to market demands. I frequently use research conducted by respectable professional companies like McKinsey, Deloitte, etc. to identify these patterns.
Q1 P3	Of course I (we) keep an eye on the shifting market demands, but this is more of a periodic process.
Q2 P1	Both in actuality, as well as our understanding of global evolution and tendencies We sometimes check over the main colleges' websites.
Q2 P2	As these patterns alter and as we see demands during classroom lectures, we adjust our curriculum accordingly.
Q2 P3	In general, we update our curriculum every five years. Each speciality has a committee that is suggested by the dean. The required improvements are proposed by the committee. Not the recommendations of the pupils, but rather changes in the market.
Q3 P1	The BBA curriculum have changed, and top professors have been met to discuss the adjustments. We sent the updates to the other teachers through email. Together with the External Consultative Council, we discussed the revisions.
Q3 P2	A curriculum can be changed without a drawn-out procedure.
Q3 P3	Adding or removing courses is one way to make modifications, as is recommending (adding or removing) new chapters for a current course. To the Faculty Council, then to the University Council, as a suggestion from the scientific committee.

Table 3. Cont.

Questions	Answers
Q4 P1	-New elective courses; -New BBA curriculum; -EDBA -Began the accreditation procedure -New teaching regulations established by the university were introduced at the FGM level. Systematic research and worldwide publishing were also encouraged.
Q4 P2	Employing flipped classrooms, where students provide lectures on certain subjects, and heavily utilizing case studies across the courses
Q4 P3	Expanding the range of multimedia used in literacy lessons.

The authors found that the country's economic destiny is strongly influenced by higher education. Several Lebanon-born students left Lebanese universities and joined other international universities abroad. Therefore, the demand for foreign higher education is anticipated to increase because of the current economic crisis Lebanon is facing. The impact of the pandemic on the rate of employment is the biggest worry and graduates are incapable of finding an appropriate job despite the high level of expertise and the quality of learning and the adequacy of the curriculum—the subjects of this research.

Since the outdated chalk-talk model has been replaced with the modern technology, teaching and learning are made feasible by e-learning systems (Mallah Boustani and Sayegh 2021). It will promote employability, happiness, health, and productivity through the development of new skills to assure the general progress in Lebanon. Employers evaluate applicants based on their educational credentials, such as grade point averages and degree classifications, as demonstrated by Piopiunik (Piopiunik et al. 2020).

Moreover, the placement of recent graduates in the labour market is thus also being impacted, which is causing higher job-separation rates and slower wage growth (Fredriksson and Ihlen 2018).

E-learning resources have been essential in facilitating student learning while schools and universities have been closed due to the pandemic (Subedi et al. 2020).

Therefore, Hypotheses 1 and 2 are supported by the data collected from the interviews and the authors found that: many majors, such as finance and management which are in the traditional learning, accept Hypothesis 1, yet the influence of changes is evident in these fields less than in those of other business majors. Additionally, Hypothesis 2 is considered viable for industries such as marketing, distribution, and entrepreneurship that need newer skills and more ICT expertise that COVID-19 lockdown led all industries to use, therefore digitalization and e-training are frequently the topic of innovation. The percentage of students has been decreasing as a result, according to the responsible participants in the different institutions interviewed, which has led to the radical innovation of these majors as well as a critical necessity for ongoing education to keep up with the evolving and changing demands of the labour market.

5. Discussion

According to the literature, firms should prioritize innovation activities by implementing new human resource management approaches that can increase employees' involvement in new knowledge. Curriculum innovation can increase by adopting new courses and skills that emerged after the pandemic and as a result of digitalized processes and procedures. Furthermore, innovative work is expected to provide novel results, which provides an opportunity for capacity enhancement skills and practices required for new employments, as well as difficulties and motivation, which align with the work of (Bos-Nehles et al. 2017).

The COVID-19 challenges created opportunities and innovation, while transforming learning settings into more effective and innovative ones, including e-training, having a hybrid system of alternating between online and on-campus courses, and focusing on new technologies in the curriculum. All are necessary in a variety of positions. The Lebanese

government should adopt a strategy to offer more adequate internet laws and regulations adapted to novel methods in learning. However, in changing scenarios from the past to the present, government organizations are attempting to promote their strategists to produce innovations while dealing with rapidly changing and unpredictable circumstances by focusing on unique employees and improving operating systems, as organizations require technological processes and practices to produce innovations. This agrees with the findings of (Ebersberger and Kuckertz 2021).

Moreover, E-learning technologies have made teaching and learning possible specifically during lockdowns as was found by (Mallah Boustani and Sayegh 2021). It will promote employment, happiness, health, and productivity through the development of new skills, ensuring Lebanon's overall progress. As illustrated by Piopiunik (Piopiunik et al. 2020), employers evaluate applicants based on their educational credentials, such as grade point averages and degree classifications. Furthermore, the placement of fresh graduates in the labour market is disrupted, resulting in increased job separation rates and slower wage growth (Fredriksson and Ihlen 2018). Our findings align with (Subedi et al. 2020) in the fact that during Lebanese crisis and pandemic lockdown, while universities were closed owing to the pandemic, e-learning services were critical in aiding student learning.

Online learning does not have a single pedagogy that works for everyone. There are numerous topics with various requirements and new updates and requirements in curriculum. Various methods of online learning are required for various courses and age groups (Doucet et al. 2020). Online learning also gives extra opportunities for students with physical disabilities and more freedom to interact in the virtual environment while learning, needing less movement (Basilaiia and Kvavadze 2020). However, the level of academic performance of the students is expected to decline for the classes held for both the year-end assessment and internal examination (Sintema 2020).

The results of this research underscore the necessity to rebuild efforts to focus on the SDGs, especially given the changing higher education scene during COVID-19. While there are still many students who face poor on-line higher education conditions, this provides a key foundation for speeding our understanding of accomplishing SDGs in higher education during and after the pandemic, as demonstrated by the findings of (Crawford and Cifuentes-Faura 2022).

Deng et al. (2022) investigated the impact and strength of the COVID-19 event, which was found to be negatively associated with perceived external employability and, as a result, lowered employee turnover intention. Furthermore, Deng et al. observed that organizational identification not only dampened the positive effect of perceived external employability on turnover intention, but also amplified the negative impact of perceived organizational growth on turnover intention. Moreover, Zhou et al. (2022) noted that employees' career commitment mediated its effect on their work engagement in times of COVID-19. These findings agreed with this research result when, in times of crisis, curriculum innovation and its positive implication on employability is a necessity, leading students to change in their specialization and career paths.

6. Conclusions and Limitations

Based on the findings, policymakers should enhance the educational sector to support e-learning, which improves the learning environment by encouraging innovation, creativity, and efficiency and adopting new changes to the curricula for universities. Government organizations should demand more innovation, particularly in developing nations where having the skills and capacities to spark original solutions is valuable human capital (Shahzad et al. 2016).

According to the findings of the current study, human resources are a crucial instrument for the education sector. As a result, the Ministry of Education should foster innovation across all ministries to promote HRM strategies.

The possibility of evaluating the feasibility of innovations developed by other institutions without necessarily needing to apply them themselves exists in varied higher

education systems. By allowing low-risk testing, creative behaviour opens the potential of studying its impacts without requiring that all institutions adopt it at once. This fosters better levels of customer focus, social mobility, efficiency, flexibility, innovativeness, and stability (both with reference to student and labour market demands).

Universities must also equip and retrain professionals for a world where the necessity for regular labour is steadily declining as robots, AI and ICT gradually take the place of employees. The need for more complex design thinking is still growing. Therefore, universities may and should play a significant role in lifelong learning in addition to their initial teaching and training functions at the tertiary level, particularly in several disciplines that the current research highlighted as having a high rate of innovation and change.

The online teaching approach has taken the place of the conventional teaching method. Students have the option to discover another perspective thanks to online instruction. The new teaching technique comes with several problems. Education institutions are working to make up for the lost learning while looking for solutions to the problems brought on by the lockdown. Universities require resources to make up for the learning lost when they reopen. New policies should be developed to aid recent graduates in their entry into the labour market in order to prevent the lengthier unemployment duration.

The creator of innovative educational tools may choose to concentrate on customization of the needs of workforce to address the difficulty of accessibility for all students from different economic backgrounds. Considering the current situation, educational systems all over the world need to invest in the professional development of teachers, particularly in ICT and effective pedagogy. The COVID-19 pandemic has shown us that teachers and students/learners need to be trained in how to use a variety of online educational resources. Teachers and students should be encouraged to continue using such online tools to improve teaching and learning after the COVID-19 pandemic when regular classes begin.

The limitation of the research is that it was conducted within a particular services industry (the educational business in three universities) in one country, and the small number of corporations in this study are the study's major limitations. In view of the students enrolment in the same university and country, the results produced are limited, although useful. As a result, additional research might be conducted in the future to investigate the causes of this obvious difference in perception among students from other countries, as well as within occupational skills and requirements.

Future researchers might try to replicate the findings in different contexts during the COVID-19 crisis to conduct a comparative analysis and maximize the value of the research findings. They could also conduct longitudinal and cross-sectional data to test the impact of evolutionary perspectives on innovation performance on curriculum since the current study concentrated on a qualitative approach. The invention can be modified over time to consider fresh information contexts and test the relationship in unanticipated situations such as the current economic crisis in Lebanon.

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