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Online instructional modalities and pragmatic business education: evidence from transition to eLearning during COVID-19 crisis

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Abstract: The response to the emerging challenges posed by stringency and social distancing regulations resulted in the evolutionary shift in the pedagogical landscape. The development and implementation of an alternative education strategy became inevitable to allow for the continuity of instruction and therefore, the sustainability of educational outcomes. This research aims to explore the potential post-crisis developments in the education systems with the relevant antecedents, processes, and outcomes. The findings of this research are developed from the survey conducted in the universities in Georgia. Results are based on the qualitative and quantitative analysis of the reflection/perception of instructors in the business disciplines to the pragmatic approach to teaching, to the success/failure, or administrative eagerness and preparedness to respond to the crises, and the evaluation of the student outcomes. The results suggest that the transition to online education has encouraged a comeback to pragmatic approach in business education.

Keywords: business education; remote learning; COVID-19; educational disparity; pragmatism.

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Biographical notes: Audil Rashid Khaki is an educator, researcher, and curriculum-management practitioner, and enthusiast. He has received his PhD in Finance from the University of Kashmir during which he worked on the Effectiveness of Financial Inclusion Initiatives in Kashmir Valley. Before starting his academic career, he worked as a rural banking officer in Kashmir to understand the nitty gritties of barriers to financial inclusion in Kashmir Valley. He has diverse experience in teaching different finance courses and has many publications in well-reputed journals to his credit, besides an experience in the structure and design of the curriculum management and assurance of learning processes. His research interests include financial inclusion, poverty alleviation, financial market dynamics and integration, FINTECH, disruptive education, and cryptocurrencies.

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1 Introduction

Apart from the health, stringency, economic, financial, and psychological impact that the COVID-19 crisis has had on human lives; unlike any other crisis, this pandemic has posed an even bigger challenge in the field of education. As reported by OECD (2021) the current pandemic has given rise to considerable learning losses and an increase in inequality. Since the beginning of the crisis, the institutions and the educational systems across the globe faced greater expectations to quickly respond to the evolving situation by adequately equipping themselves with tools and approaches to cater to the educational

needs of the society without compromising the quality. Amid uncertainty and stringent government regulations, institutions were expected to respond adequately to reassure all stakeholders, most importantly – students and their parents by upgrading educators' capacity to entirely switch to remote teaching modalities. OECD (2021) emphasised that Countries around the globe need to implement learning recovery programs, protect educational budgets, and prepare for future shocks by 'building back better'. It is also emphasised that this transition is not just about the technological/digital aspect of education, rather, in the long run, this sharp transition will logically require efficient trifold activities to adjust educational strategies, institutional support, and educator's increased methodological capacity to close the huge academic gap that has emerged as physical academic practices have been moved to a virtual education system using technology (Nur Ullah et al., 2022). The methodological and contextual changes are expected to provide an entirely new direction to the educational landscape and its evolution for good, where strategies, institutional vision, pedagogies, platforms, and resources might be re-evaluated for a deeper reconsideration. Notwithstanding the fact that significant progress has been made by rapid transformation in technology and digitalisation even before the COVID-19 pandemic, the educational institutions, in particular, were still lagging in many areas with regard to shifting completely to remote modulation (Johannes et al., 2020; McFarlane, 2019).

Against this backdrop, the current study is motivated to achieve the following objectives: Firstly, we review the existing literature for evidence on both the implicit and explicit opportunities created in education during and following the crises, particularly – unexpected crises and their management life-cycle. Secondly, we contribute to filling the gap in the existing literature by providing fresh evidence on how educational institutions responded to a health crisis of such a great magnitude; as also provide for the suggested development of a new recovery life-cycle by specifying an approach that seems more appropriate for rapid adjustments of education to the current and future global needs, would a need arise for such adjustments in future.

The researchers working on the sustainability of business education under recent developments agree, that "business education is now irrevocably changed and that, without dramatic shifts in policy and strategy, it will confront even more significant challenges to its legitimacy into the future" (Hogan et al., 2021). It is, therefore, central to understand what approaches to business education will have the best impact on the creation of the public value expected by its stakeholders. Thought leaders in higher education must reimagine their strategies as the provision for education evolves in new directions, particularly by focusing on forging alliances, maintaining integrity, sustainability, and encouraging the stakeholders to buy the vision of the leadership and build an impactful legacy (El-Amin et al., 2021). Despite the fact that the digital technologies may open new avenues for teaching and learning and in spite of the huge ICT desiderata accumulated by educational institutions, the strategic focus and institutional vision to implement ICT in the instructional construct have so far been limited (Johannes et al., 2020; Chauhan, 2017; Li and Ma, 2010). Educational institutions have faced reluctance on part of the management in implementing and adopting ICT platforms for instruction (Kgwefane and Batane, 2021). This leads to the following research questions:

- How does the institutional direction and vision support the shift to remote teaching?
- What are the instructors' efforts and achievements during remote teaching?
- How teachers unconsciously or based on their knowledge about pragmatism in education handle the implementation of principles of pragmatism?

2 Literature review

2.1 Access to quality education

COVID-19 emerged and affected businesses, individuals, and governments in a way the world has not seen for over a century (CRS, 2021). The global economies and businesses found themselves in a straitjacket by the time they realised the real impact of COVID-19 – stringency, shutdowns, layoffs, uncertainty, all complimented each other to create a situation too complicated to respond to within too little time (ILO, 2020). In most countries, management dealt with public health and safety as a primary concern with different degrees of success, and therefore, some industries, for instance, tourism (IMF, 2020a), airlines (ICAO, 2020), education (UNICEF, 2020) were so severely affected. On 5th January, 2020 the World Health Organization (WHO) published its first Disease Outbreak News on the new virus. On 12th March, 2020, WHO remarked that they were deeply concerned about the alarming levels of spread, severity, and alarming inaction of the concerned stakeholders, therefore declaring COVID-19 as a pandemic (WHO, 2020). The stringency measures and guidelines thereafter enforced necessarily and heavily curbed the ability to organisation and movement, and therefore, access to on-site education almost globally.

Access to quality education and the disparity, thereof, has almost always been a problem, otherwise too, but the enforced stringency meant a total and impartial exclusion and distancing from the educational institutions. While schooling may not essentially lead to quality education, it essentially is a pathway to quality education and a way to improve the standard of living among communities. Despite a huge rise in the enrolments in the school education system in recent years, about 11% of primary-school-aged children and 20% of lower-secondary-aged children still have no access to formal school education (UNICEF, 2021). What is worse is that this disparity in enrolments is further exacerbated for children from impoverished backgrounds, ethnic minorities, and conflict-ridden areas, besides a huge gender disparity in enrolments. According to UNICEF, there is a serious need to reimagine education by harnessing the potential of technology and digital platforms to expand the outreach and quality of education, particularly in the wake of disruption caused by the COVID-19 pandemic. While it has been argued that access to education has considerably improved over years, the enrolments alone may not essentially lead to learning. The learning gaps around the globe are estimated at around 617 million children and adolescents, about two-thirds of them coming from the school, are unable to acquire the desired levels of proficiency and skills (UNICEF, 2021). While the children were already struggling to gain access to adequate learning materials, trained teachers, schooling infrastructure, sanitation, health facilities, and food, the COVID-19 pandemic exacerbated the concerns of access to quality education. According to

UNESCO monitoring, "over 100 countries have implemented nationwide closures, impacting over half of the world's student population. Several other countries have implemented localised school closures, which later became nationwide, millions of additional learners to experience education disruption" (UNESCO, 2020). World Bank evaluated the situation as an unprecedented threat and remarked 'We are living amidst what is potentially one of the greatest threats in our lifetime to global education, a gigantic educational crisis' (Saavedra, 2020).

2.2 Transition to remote learning

Amid the devastating impact of COVID-19, educational institutions were almost immediately closed after WHO declared COVID-19 as a global pandemic on March 12, 2020 (WHO, 2020). The COVID-19 pandemic lead to the closure of educational institutions across an estimated 107 countries affecting roughly about half of the worlds' student population (Viner et al., 2020). The crisis of this nature and magnitude with stringency and lockdowns as the only viable solution, is fraught with unimaginable consequences, particularly regarding the dispensation of education. In extreme, the potential damage may be characterised by extremely undesirable loss of learning discipline, confidence, and self-esteem in students; decline in quality teaching and learning; therefore – threatening continuity and sustainability of education. Beknowing the long-term nature of the stringency impact of the crisis, the educational institutions expedited their efforts to stave off the impact of the crisis on their bottom line and sustainability. Educational Institutions responded to this crisis by leveraging this opportunity to their advantage by further strengthening and diversifying their delivery platforms. Educational institutions started working on shared platforms realising that the globalisation of online education can happen only if there are standard and universal technology platforms (like the internet), bridging of the digital divide, accommodation of diverse languages and cultures, standard curriculum, and evaluation processes (Palvia et al., 2018). Their response was very proactive and quick, as they realised that besides institutional sustainability, there is no use in delaying the transition to online education; moreover, this transition helped pilot another delivery platform which in normal circumstances would have been very costly and inconvenient affair. Though the transition to e-learning modulation has been previously tested in some localised settings in response to regional health pandemics, the relevance, impact, and applicability of those initiatives have largely remained temporary, local, and unscalable (Allen and Seaman, 2010; Wingkvist, 2009). Pertinently, due to the magnitude and scale of the COVID-19 pandemic, the institutions were more eager to undertake the transition since the outcomes of the transition were almost known from the institutional sustainability point of view, and therefore, they felt safe venturing into a known set of potential risk and threat domains.

The transition to remote teaching as an alternative to face-to-face learning was, however, fraught with its unique challenges and threats. The most evident and widely discussed by experts and policymakers is that socially disadvantaged groups face difficulties in meeting the basic conditions required by online learning (Eyles et al., 2020), thus widening the gap between students from different social layers (Montacute, 2020). While giant leaps are being made to ensure equitable access to education, there is a socio-demographic divide in the provision of educational services where poverty,

infrastructure, gender, and ethnic background still remain the most obstinate barriers for equitable access to education (Kondakci and Orucu, 2017; Kalindi, 2015; Pahlke and Goble, 2015). According to UNICEF, children from impoverished households are almost five times more likely to drop out of schools than those at the top of the socio-economic pyramid. Likewise, children from rural areas are almost twice more likely to drop out of the schooling system compared to their counterparts from urban areas (Qazi et al., 2020; UNICEF, 2021). The disparities get worsened in the conflict-prone areas, where currently almost about 27 million children have no access to formal schooling or have dropped out due to violence or conflict (UNICEF, 2021). The digital divide among children from different backgrounds is so wide that it would take around 3.5 billion US dollars to connect the children on the other side of the divide to gain access to digital solutions for learning. The closure of schools due to the COVID-19 pandemic has affected more than 1.5 billion students globally. About half of the children across the globe in the school system do not have access to computers and about 40% do not have reliable internet access. The disparity in the provision of e-learning is so huge that about 56 million children live in areas with no access to mobile internet (Walters, 2020).

While the pandemic was fraught with so many challenges and uncertainties as to the evolution of e-learning modulation in education, the institutions had to face a dilemma about the choices they make. While the crisis exposed these institutions to unexpected challenges, limiting their abilities to achieve their goals, it also surfaced some new opportunities to explore, exposing 'perceived need to accelerate innovation in online learning, considering pedagogical, social and technological points of view' (Ferri, 2020) and at the same time, providing out-of-the-box solutions even if the initial institutional strategies for such transition were not initially introduced or developed. These developments lead to leveraging the crisis as an opportunity to diversify different delivery platforms, pedagogies, and other ICT-enabled interfaces (digital whiteboards and interactive tables, data storage in the cloud, etc.) to enhance the pragmatic approach to education (Pedagoo, 2020). The integration of technology in the delivery interface, pedagogical approaches, and program structure will continue to play an important role in the years to come, particularly as we evolve to the coexistence and seamless interplay of physical and virtual spaces in a world known as 'metaverse'. While the traditional educational ecosystem will continue to remain the most popular mode of delivery, online delivery platforms and modulations will rise and coexist with the traditional platforms to promote diversity, equality, and innovation in education (Xie et al., 2020).

2.3 Remote learning and student outcomes

Evidence suggests that in the past also, academic institutions have been forced to resort and adopt e-learning measures, although the effectiveness of such measures has not been evaluated. It will require measurement of outcomes in the long-run, like the observation of on-the-job application of newly acquired knowledge; use of scenarios and simulations; achievement of performance goals; use of assessments to gauge employees' knowledge and skills; promotion of social learning; turning employees into instructors; gaining insight directly from employees; taking full advantage of learning analytics, etc. (Pappas, 2015). The e-learning measures were developed in response to previous health disasters, for instance, H1Ni (Allen and Seaman, 2010); natural disasters (Meyer and Wilson, 2011; Sener, 2008; Lorenzo, 2008), as an alternative measure, however, those previous events have largely been local to regional and of a comparatively negligible magnitude, and

therefore, the initiatives in the past in the direction of eLearning have not been scalable and sustainable (Wingkvist, 2009). The current pandemic, nonetheless, has provided for an opportunity to scale up the initiatives in eLearning to make it sustainable and mainstream (Sener, 2008), without the need to distinguish the online from classroom programs by innovative pedagogical approaches and ICT implementation (Blumenstyk, 2020). Researchers argue that the integration of eLearning, even to the extent of hybrid forms of content delivery is going to increase the confidence of the students by allowing them to break free from the structural inequalities (Farhadi, 2019) and lead to a more pragmatic and active approach to learning (Bowen, 2012; Murphy, 2020).

The existing research on the outcomes of online/distance education is mixed. While some argue that the online modality supports independent learning, decreases dropout rates, and improves the likelihood of student success (Cochran et al., 2014; Hachey et al., 2013). Bibhiya et al. (2020) evaluate the effectiveness of online teaching and identify frequency and duration as the major determinants of students' performance. Likewise, many recent studies indicated that online education has enhanced many aspects of student learning, critical thing, creativity, etc. (Pee, 2020; Neuhauser, 2010). We view eLearning, video-assisted learning, learning analytics, distance education as some examples of technology in the teaching and learning process. Sanaa (2020) argues that the integration of technology has a profound impact on pragmatic outcomes when blended with traditional learning approaches. Jensen et al. (2020) highlighted the major issues faced by the teachers in the digital teaching context, for instance, anonymity, student-teacher interaction, prioritising teaching over learning, etc. Pliakoura et al. (2020) consider that the experience of integrated learning management platforms can be substantially enhanced by improving the content of the lectures and other information related to the curricula and learning outcomes in the e-learning ecosystem. Studies have also reported greater drop-out rates in online instruction compared to traditional instruction (Murphy and Stewart, 2017, Atchley et al., 2013). UNESCO estimates that 23.8 million additional children and youth (from pre-primary to tertiary) may drop out or not have access to school next year due to the pandemic's economic impact alone (UNESCO, 2020). While there is no general consensus on the efficacy of the online modality vis-à-vis traditional instruction, it is important to realise that the COVID-19 pandemic has caused the educational institutions to rethink their resource use and allocation to thrive under the elements of uncertainty. While the transition to eLearning is evident, Bob and Williams (2020) argue that institutional integrity and accountability is the cornerstone of all the policy and strategic transitions to eLearning and they argue that it could play a key role in advancing equitable education in the post-COVID educational landscape.

2.4 COVID-19: a window of opportunity

The current pandemic fuelled a strange confusion and stalled education policies and plans at the outset, posing risk to the continuation of education and sustainability of educational institutions. As the crisis evolved globally with no near-term end in sight, a set of well-concerted and almost synchronous strategic initiatives were taken by the educational institutions across the globe to scale up their online modalities. There was this very narrow window of opportunity for the educational institutions to respond to the crisis, and they responded timely and effectively, and it changed the educational landscape for good. As remarked by Jerjian (2018), "Those few who welcome their crisis and steadily rise to meet the storm, are the ones who profit from this window of opportunity".

The COVID-19 crisis exposed the educational system to a strange dilemma, waiting for the crisis to be over or to take bold initiatives, and indeed the educational institutions took bold, timely, and responsible steps to turn the crisis to their advantage. Remarking on this dilemma, Saavedra (2020) pointed out that a delay in starting school or interrupting it will considerably disrupt the lives of children, parents, and teachers; and a lot of this can be overturned by resorting to remote learning strategies in teaching and learning.

In the current landscape of the education systems globally, if we rephrase and reverse Frederic Bastiat, repairing 'broken windows' really could stimulate vital changes in education, i.e., 'things seen' can guide the path to important and valuable 'things not seen'[1] – iceberg of challenges has underwater opportunities for improved values in teaching and learning. There are excellent examples of how "often a crisis acts as the forcing mechanism to compel expeditious innovation, leading to rapid advances in technology, policy, and/or procedures" (Langan-Riekhof et al., 2017). This report by Brookings provides cases of coping with challenges caused by exploded and collapsed rig in the Gulf of Mexico in 2010; Asian debt crisis in 1997–1998; Iraq's invasion of Kuwait in 1990; etc. and summarises their outstanding solutions and profound results for the future generations. Likewise, educational institutions need to be applauded for showing eagerness and responsibility for scaling up their initiatives, investment in ICT infrastructure, flexibility, and willingness to transform, despite numerous systemic deficiencies and barriers, government's untimely or no response. The educational institutions responded on their own without being forced to do so through government regulations and directions, supported by actively engaged teaching fraternity and motivated students and parents to generate result-oriented outcomes (Abkhazava, 2020).

2.5 Pragmatism in education: reimagining instruction

Researchers have been actively seeking better ways of delivering knowledge, especially in the extremely turbulent last decades (Jones and Mahon, 2012). It was long realised that the traditional teaching methods were ineffective, but to change the conventional approaches and delivery mechanisms was almost impossible until the COVID-19 crisis came along, forcing educators and institutions to rethink their pedagogical approaches, adopt active learning, and use diverse delivery platforms (University of Pennsylvania, 2020). Consequently, remote teaching has evolved as the only sustainable modality for education during the pandemic, however, it has also unveiled many unknown challenges associated with the eLearning platforms. For instance, as opposed to eLearning, face-to-face instruction involves communication in different ways (observe body language, gestures, use eye contact, etc.); during office hours devoting time to personal discussions with students. As argued by Dewey (1947, p.38), the true teaching-learning process is not just in being a master or 'authority,' it is in knowing enough about students, their talents, desires, experiences, initial and developed skills, and knowledge, to be able to accept them as counterparts in the process of acquiring quality knowledge. These components of personal and verbal interaction are largely missing in remote education, contributing to the barriers to the performance and engagement of students in the learning process. Therefore, the instructors are faced with a challenge of uncontrollable where the responsibilities extend far beyond the simple sharing of knowledge to student engagement, development, and fair assessment with a renewed sense of responsibility, understanding, and urgency (Saavedra, 2020). The quality of instruction in business

schools may be substantially improved if the innovation in the learning process through the iterative search processes and discovery is embedded in the learning processes and institutional culture (Balslev, 2021).

The ongoing drastic changes in the modalities of instruction seem to set new goals and directions for educators and educational institutions alike. Flexibility in accepting and responding to those changes would mean a shift to dynamic, ever-revisable teaching methods to deliver the content through diversified platforms and pedagogies. This study closely follows John Dewey; the American philosopher and educator, a founder of the philosophical movement known as pragmatism, who remarked that there is no such thing as a fixed and final set of objectives, even for the time being or temporarily. Each day of teaching ought to enable a teacher to revise and better in some respect the objectives aimed at in previous work (Dewey, 1931a).

Even before the ongoing crisis, the world was experiencing a crisis in education – sub-standard funding and grants (Blankenberger, 2020; Hazelkorn and Gibson, 2019), budgetary allocations (Ferguson, 2020), political oversight and motivation (Brittingham, 2008). In countries with accessible education, learning did not always mean acquiring knowledge and basic skills necessary for real life. Bringing the damage which the education system will experience due to the pandemic to a minimum and succeeding in handling the challenge are current and immediate goals. The latest developments in response to the COVID-19 crisis, must act as a trigger and provoke pragmatism and flexibility in the societies' actions, particularly towards education. Dynamism, flexibility, and disruption are the core of pragmatism, and therefore, allow considering many different realities, analysing them, finding the best realistic option, and acting according to the experience. Unfortunately, though, the world has not embraced a pragmatic approach to education as a core philosophy, and that is the reason, even increased spending on education worldwide has not resulted in the desired quality mix of fundamental (ideal) and pragmatic education. A detailed account of pragmatism is available in the studies of Dewey (1903, 1916, 1931a, 1931b, 1931c).

3 Research methodology

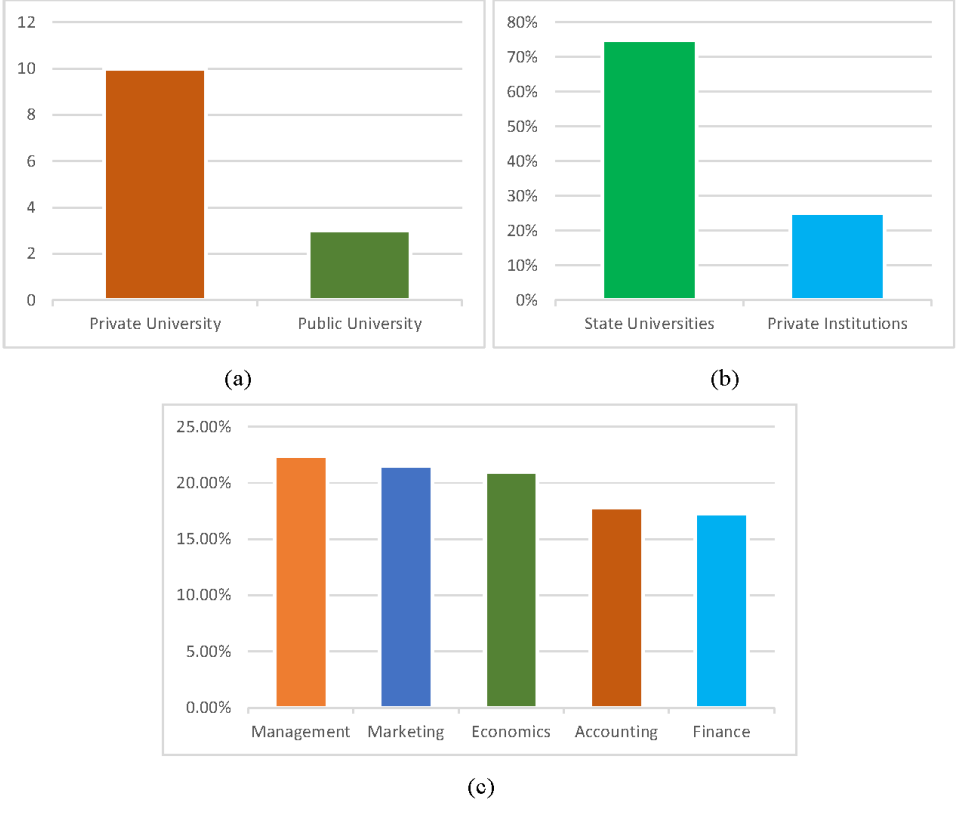
3.1 Survey instrument

The survey instrument is a self-administered questionnaire composed of 26 questions divided into three dimensions according to the research questions. The first dimension has 7 questions measuring the general institutional direction, vision, and support; the second dimension has 7 questions assessing the individual instructor's efforts and achievements during remote teaching; and the third dimension has 11 questions measuring the student outcomes vis-à-vis pragmatic education, in terms of an understanding as to how teachers unconsciously or based on their knowledge about pragmatism in education handled the implementation of principles of pragmatism. Together with the model of the research, the Questionnaire was finalised after discussion with a panel of experts. Each item was rated on a five-point Likert Scale – the numeral '1' referring to the verbal statement 'strongly disagree' and the numeral '5' referring to the verbal statement 'strongly agree'.

3.2 Data collection

Data was collected from the universities in Georgia using a convenient sampling method. The survey was conducted in spring-summer 2020. The questionnaires were distributed to professors in business departments who were able and willing to represent their educational institutions and easy to access with the permission of their administrations. The distribution of the sample is presented in Figure 1, the sample comprises 214 professors in business disciplines from 10 private and 3 state universities. Approximately 25% of total respondents are working in state universities and 75% are in private educational institutions. The sample consisted of 22.4% from Management and Project Management; 21.5% from Marketing; 21% from Economics; 17.8% from Accounting; and 17.3% from Finance disciplines.

Figure 1 (a) Distribution of institutions; (b) distribution of respondents (A) and (c) distribution of respondents (B) (see online version for colours)



3.3 Data analysis

The data collected was classified broadly into three distinct dimensions – Institutional Dimension, Application Dimension, and Pragmatic Dimension. Institutional Dimension comprises the general direction, vision, approaches, communication, resources, and administrative support provided by the institution to enable a transition from face-to-face

to online teaching. Application Dimension refers to the individual efforts taken by the instructors within the organisational framework by organising, implementing, adjusting the course material, supplementary resources, and pedagogies to fit within the e-learning environment. Pragmatic Dimension refers to the achievements of the pragmatic approach to business education by using e-learning as an opportunity to reinforce independent, experiential, and application-oriented learning in business education. The key dimensions under the pragmatic dimension comprised clearly communicating the real-life-based applicability, interaction, active engagement, timeliness, independent learning, experience-based learning, team-building, etc.

The data analysis was carried out mostly through different qualitative analysis tools using SPSS Software. The internal consistency and reliability of the construct was confirmed through the reliability testing as indicated by the reliability statistics in Table 1 below. The alpha coefficient of 0.848 suggests that the items in the construct have a high relative consistency.

Table 1 Reliability statistics

Cronbach's Alpha	*No. of Items*
0.848	25

In order to check the dimensionality of the studied variables, the theoretical dimensionality was confirmed upon Factor Analysis – Principal Component Analysis using Varimax Rotation (the results of PCA are available upon request).

The descriptive statistics in Table 2 suggest that the institutions were not best suited (or at least not well prepared) to provide for a smooth transition to remote learning (μ, $\sigma = 3.34$, 0.48). There appears to be a clear lack of vision (μ, $\sigma = 2.57$, 0.89) and integration of online delivery model in the institutional long term professional development strategy(ies) (μ, $\sigma = 2.98$, 0.89), however, the institutions were found to be suitably equipped in terms of ICT infrastructure (μ, $\sigma = 3.79$, 0.94) and the delivery platforms (μ, $\sigma = 3.99$, 1.02). During the transition to e-learning forced by the COVID-19 crisis, the application dimension (μ, $\sigma = 3.82$, 0.59), which refers to the instructors' efforts to adjust to the e-learning environment has witnessed considerably higher scores indicating that the transition to online teaching has been largely successful due to the ability of the instructors to adjust to and quickly blend with the e-learning landscape (Adjusting assessment instruction, μ, $\sigma = 4.03$, 0.95; Instructional Tools and resources, μ, $\sigma = 4.3$, 0.70). There is, however, one area where instructors reported more disagreement, i.e., adjusting the syllabus prior to transitioning to the e-learning environment (μ, $\sigma = 2.98$, 1.08). This could probably be because of the limited time available and the limited administrative planning foresight or because the courses were already suited for online delivery as well. On the other hand, contrary to the specific lack of vision and institutional strategy, the achievements in the pragmatic dimension were considerably higher (μ, $\sigma = 3.99$, 0.53). This suggests that business educators have been able to contribute to and make substantial progress in furthering pragmatic approaches in business education during this transition. The progress made in the pragmatic approach can once again be attributed to the instructors' abilities, willingness, and initiatives to promptly switch to and blend with the e-learning environment, which is in line with our earlier theoretical expectations. The interaction between the application dimension and the pragmatic dimension is further elaborated later in the analysis section of this study.

Table 2 Descriptive statistics

Description of a measurable indicator	*Mean*	*Std. deviation*	*Skewness*		*Kurtosis*	
	Statistic	*Statistic*	*Statistic*	*Std. error*	*Statistic*	*Std. error*
1.1. Institutional vision	2.57	0.889	–0.133	0.166	–0.696	0.331
1.2. Communication	3.48	1.024	–0.333	0.166	–0.198	0.331
1.3. Professional development strategy	2.98	0.89	–0.115	0.166	–1.392	0.331
1.4. Methodological direction	3.32	1.017	–0.13	0.166	–0.232	0.331
1.5. Supportive environment/ ICT Infrastructure	3.79	0.942	–0.463	0.166	–0.18	0.331
1.6. Online teaching platforms	3.99	1.023	–0.928	0.166	0.32	0.331
1.7. Additional pedagogical support	3.3	0.767	–0.958	0.166	0.54	0.331
1. Institutional dimension	3.3471	0.47978	–0.383	0.166	0.875	0.331
2.1. Implementing curriculum	3.95	1.003	–1.022	0.166	0.725	0.331
2.2. Utilising online platforms	3.51	1.074	–0.415	0.166	–0.798	0.331
2.3. Conducive online environment	4	1.016	–0.84	0.166	–0.037	0.331
2.4. Adjusting assessment instructions	4.03	0.956	–0.911	0.166	0.56	0.331
2.5. Identify gaps in learning	4	0.937	–0.855	0.166	0.442	0.331
2.6. Adjusting syllabus	2.98	1.088	0.037	0.166	–0.929	0.331
2.7. Adjustment in instructional tools, resources, and syllabus (post-facto)	4.3	0.703	–0.667	0.166	–0.109	0.331
2. Application dimension	3.8244	0.59539	–0.964	0.166	1.414	0.331
3.1. Communication vis-à-vis applicability	3.93	1.037	–0.934	0.167	0.351	0.332
3.A. Principle of utility	3.9112	1.06879	–1.033	0.166	0.758	0.331
3.2. Learning instructions and rules	3.97	1.127	–0.987	0.166	0.191	0.331
3.3. Instructions on rewards	4.06	0.918	–0.995	0.166	0.697	0.331
3.4. Online interactivity tools	4.45	0.639	–0.842	0.166	0.189	0.331
3.5. Self-awareness and independent learning	4.21	0.876	–1.396	0.166	2.428	0.331
3.B. Principle of interest	4.1706	0.56148	–0.649	0.166	0.418	0.331
3.6. Setting and communicating deadlines	3.86	1.067	–0.878	0.166	0.049	0.331
3.7. Identifying experience-oriented areas of agreement/ disagreement	4	1.016	–0.84	0.166	–0.037	0.331
3.8. Peer-interaction	3.86	1.004	–0.606	0.166	–0.314	0.331

Table 2 Descriptive statistics (continued)

Description of a measurable indicator	*Mean*	*Std. deviation*	*Skewness*		*Kurtosis*	
	Statistic	*Statistic*	*Statistic*	*Std. error*	*Statistic*	*Statistic*
3.9. Instructor feedback	3.7	0.99	–0.512	0.166	–0.387	0.331
3.C. Principle of experience	3.8528	0.73114	–0.798	0.166	0.919	0.331
3.10. Break frame-dependence/ explore	3.86	0.967	–0.669	0.166	0.229	0.331
3.11. Reinforcing a sense of community	3.98	0.914	–0.41	0.166	–0.851	0.331
3.D. Principle of integration	3.9229	0.85574	–0.359	0.166	–0.709	0.331
3. Pragmatic dimension	3.9883	0.53241	–0.569	0.166	0.578	0.331

We further analysed whether or not there were significant differences across the major academic disciplines across the three studied dimensions. The analysis was carried out using cross tabulation on SPSS and the results are presented in Tables 3–5. The results in Table 3 indicate that there were no differences across the organisational variables as one would expect, as also theoretically, the organisational support to faculty across all academic disciplines should be uniform. However, when it comes to communication, the Finance and Accounting disciplines appear to have substantially struggled with organisational communication with regard to the transition to online learning (discipline-wise and detailed cross-tabulation results are available upon request). Furthermore, the results indicate that the instructors believe that the organisational support and initiatives were somewhat insufficient as the responses are mostly between 'neutral' and 'agree' categories. There is, however, a considerable disparity in the institutional vision toward online learning and in the professional development strategy. The respondents tend to disagree that the institutional vision and its professional development strategy were best suited for the transition to online teaching. Moreover, in almost all variables more than 50% of the responses are in the non-satisfactory range (strongly disagree, disagree, neutral), thereby, highlighting the inability or unpreparedness of the institution to be fully prepared or aligned for this transition. These findings are consistent with our theoretical expectations that for a successful transition to e-learning organisational vision, strategies, professional development, and training of the instructors are instrumental.

As shown in Tables 4 and 5, the instructors are fairly satisfied with the progress in the application dimension and the pragmatic dimension, except for prior adjustments to the syllabus in the application dimension which may be an outcome of institutional unpreparedness toward online learning in their vision as well as in the professional development strategies. It also indicates that the programs and courses could possibly be inherently designed to be conducted through the online-delivery mode, as reflected by outcomes in the pragmatic approach during online teaching. It may, therefore be encouraging for the institutions to integrate e-learning in their institutional core values and vision and also assist them to introduce more programs that can be conducted online or via hybrid delivery modes.

Table 3 Summarised cross tabulation results: institutional dimension

Criteria	*Measure*	*1*	*2*	*3*	*4*	*5*	*Chi-Square Tests*	
1.1. Institutional Vision	Count	27	69	87	31	0	Pearson Chi-Square	10.095
	Expected Count	27.0	69.0	87.0	31.0	0.0	Sig.	0.608
	Percentage	12.6%	32.2%	40.7%	14.5%	0.0%		
1.2. Communication	Count	9	21	79	68	37	Pearson Chi-Square	44.039
	Expected Count	9.0	21.0	79.0	68.0	37.0	Sig.	0.000
	Percentage	4.2%	9.8%	36.9%	31.8%	17.3%		
1.3. Professional development strategy	Count	4	75	57	78	0	Pearson Chi-Square	20.663
	Expected Count	4.0	75.0	57.0	78.0	0.0	Sig.	0.056
	Percentage	1.9%	35.0%	26.6%	36.4%	0.0%		
1.4. Methodological direction	Count	10	27	92	55	30	Pearson Chi-Square	14.349
	Expected Count	10.0	27.0	92.0	55.0	30.0	Sig.	0.573
	Percentage	4.7%	12.6%	43.0%	25.7%	14.0%		
1.5. Supportive environment/ICT Infrastructure	Count	3	14	61	82	54	Pearson Chi-Square	11.872
	Expected Count	3.0	14.0	61.0	82.0	54.0	Sig.	0.753
	Percentage	1.4%	6.5%	28.5%	38.3%	25.2%		
1.6. Online teaching platforms	Count	5	16	35	79	79	Pearson Chi-Square	17.423
	Expected Count	5.0	16.0	35.0	79.0	79.0	Sig.	0.359
	Percentage	2.3%	7.5%	16.4%	36.9%	36.9%		
1.7. Additional pedagogical support	Count	6	22	87	99	0	Pearson Chi-Square	16.379
	Expected Count	6.0	22.0	87.0	99.0	0.0	Sig.	0.174
	Percentage	2.8%	10.3%	40.7%	46.3%	0.0%		

Table 4 Summarised cross tabulation results: application dimension

Criteria	*Measure*	*1*	*2*	*3*	*4*	*5*	*Chi-Square Tests*	
2.1. Implementing curriculum	Count	6	16	29	95	68	Pearson Chi-Square	39.885
	Expected Count	6.0	16.0	29.0	95.0	68.0	Sig.	0.001
	Percentage	2.8%	7.5%	13.6%	44.4%	31.8%		
2.2. Utilising online platforms	Count	5	45	36	92	36	Pearson Chi-Square	19.939
	Expected Count	5.0	45.0	36.0	92.0	36.0	Sig.	0.223
	Percentage	2.3%	21.0%	16.8%	43.0%	16.8%		
2.3. Conducive online environment	Count	3	19	35	75	82	Pearson Chi-Square	50.609
	Expected Count	3.0	19.0	35.0	75.0	82.0	Sig.	0.000
	Percentage	1.4%	8.9%	16.4%	35.0%	38.3%		
2.4. Adjusting assessment instructions	Count	4	10	40	81	79	Pearson Chi-Square	56.091
	Expected Count	4.0	10.0	40.0	81.0	79.0	Sig.	0.000
	Percentage	1.9%	4.7%	18.7%	37.9%	36.9%		
2.5. Identify gaps in learning	Count	3	13	37	90	71	Pearson Chi-Square	58.014
	Expected Count	3.0	13.0	37.0	90.0	71.0	Sig.	0.000
	Percentage	1.4%	6.1%	17.3%	42.1%	33.2%		
2.6. Adjusting syllabus	Count	15	68	52	64	15	Pearson Chi-Square	29.094
	Expected Count	15.0	68.0	52.0	64.0	15.0	Sig.	0.023
	Percentage	7.0%	31.8%	24.3%	29.9%	7.0%		
2.7. Adjustment in Instructional tools, resources, and syllabus (post-facto)	Count	0	2	24	95	93	Pearson Chi-Square	20.823
	Expected Count	0	2.0	24.0	95.0	93.0	Sig.	0.053
	Percentage	0.0%	.9%	11.2%	44.4%	43.5%		

Table 5 Summarised cross tabulation results: pragmatic dimension

Criteria	*Measure*	*1*	*2*	*3*	*4*	*5*	*Chi-Square Test*	
3.1. Communication vis-à-vis applicability	Count	6	18	32	86	71	Pearson Chi-Square	14.515
	Expected Count	6.0	18.0	32.0	86.0	71.0	Sig.	0.560
	Percentage	2.8%	8.5%	15.0%	40.4%	33.3%		
3.2. Learning Instructions and rules	Count	9	17	34	66	88	Pearson Chi-Square	26.025
	Expected Count	9.0	17.0	34.0	66.0	88.0	Sig	0.054
	Percentage	4.2%	7.9%	15.9%	30.8%	41.1%		
3.3. Instructions on rewards	Count	2	16	24	98	74	Pearson Chi-Square	43.835
	Expected Count	2.0	16.0	24.0	98.0	74.0	Asymp. Sig. (2-sided)	0.000
	Percentage	.9%	7.5%	11.2%	45.8%	34.6%		
3.4. Online interactivity tools	Count	0	1	14	87	112	Pearson Chi-Square	20.283
	Expected Count	0	1.0	14.0	87.0	112.0	Sig.	0.062
	Percentage	0	.5%	6.5%	40.7%	52.3%		
3.5. Self-awareness and independent learning	Count	4	7	19	94	90	Pearson Chi-Square	43.835
	Expected Count	4.0	7.0	19.0	94.0	90.0	Sig.	0.000
	Percentage	1.9%	3.3%	8.9%	43.9%	42.1%		
3.6. Setting and communicating deadlines	Count	6	26	25	93	64	Pearson Chi-Square	35.389
	Expected Count	6.0	26.0	25.0	93.0	64.0	Sig.	0.004
	Percentage	2.8%	12.1%	11.7%	43.5%	29.9%		
3.7. Identifying experience-oriented areas of agreement/ disagreement	Count	3	19	35	75	82	Pearson Chi-Square	50.609
	Expected Count	3.0	19.0	35.0	75.0	82.0	Sig.	0.000
	Percentage	1.4%	8.9%	16.4%	35.0%	38.3%		

Table 5 Summarised cross tabulation results: pragmatic dimension (continued)

Criteria	*Measure*	*1*	*2*	*3*	*4*	*5*	*Chi-Square Test*	
3.8. Peer-Interaction	Count	3	20	47	79	65	Pearson Chi-Square	27.193
	Expected Count	3.0	20.0	47.0	79.0	65.0	Sig.	0.039
	Percentage	1.4%	9.3%	22.0%	36.9%	30.4%		
3.9. Instructor Feedback	Count	3	27	47	91	46	Pearson Chi-Square	38.225
	Expected Count	3.0	27.0	47.0	91.0	46.0	Sig.	0.001
	Percentage	1.4%	12.6%	22.0%	42.5%	21.5%		
3.10. Break Frame-dependence/explore	Count	5	10	56	81	62	Pearson Chi-Square	63.202
	Expected Count	5.0	10.0	56.0	81.0	62.0	Sig.	0.000
	Percentage	2.3%	4.7%	26.2%	37.9%	29.0%		
3.11. Reinforcing a sense of community	Count	0	12	55	72	75	Pearson Chi-Square	46.003
	Expected Count	0	12.0	55.0	72.0	75.0	Sig.	0.000
	Percentage	0.0%	5.6%	25.7%	33.6%	35.0%		

The results further indicate that the outcomes in the application dimension and pragmatic dimension are not uniform across all academic disciplines and there are statistically significant differences across the disciplines. Across almost all the variables in the application dimension, the instructors in the finance and accounting disciplines appear to have substantially lower applicability and outcomes, as one would expect due to the more practice-oriented (and sometimes lab-based) nature of courses within these disciplines. In the application dimension, the outcomes for finance and accounting disciplines are considerably lower in 5 out of 7 variables. Likewise, in the pragmatic dimension, the outcomes in 8 out of 11 variables are considerably lower for finance and accounting disciplines (discipline-wise and detailed cross-tabulation results are available upon request).

We further analysed the interaction among the three distinct dimensions to see if improvements in one could lead to another, particularly to check the determinants of pragmatic education. We first checked the correlation among the dimensions to give an idea of the direction and extent of that interaction, the results of which are presented in Table 6.

Table 6 Correlation matrix – dimension level

	1	*2*	*3*
1. Institutional dimension	1		
2. Application dimension	0.330**	1	
3. Pragmatic dimension	0.295**	0.838**	1

Correlation is significant at the 0.01 level (2-tailed).

The results indicate that the institutional dimension is not strongly correlated to either the application dimension or the pragmatic dimension, however, the application dimension appears to be strongly correlated to the pragmatic dimension. Though theoretically, institutional variables and application variables should lead to better outcomes in the pragmatic dimension. To test this, regression analysis was conducted, the results are presented in Table 7.

Table 7 Regression analysis results

Model	*R*	*R Square*	*Adjusted R Square*	*Std. error of the estimate*
1	0.838[a]	0.702	0.699	0.29196

[a]Predictors: (Constant), 2. Achievements dimension, 1. Organisational dimension.

Regression – Coefficients[a]					
	Unstandardised coefficients		*Standardised coefficients*		
Model	*B*	*Std. error*	*Beta*	*t*	*Sig.*
(Constant)	1.070	0.166		6.454	0.000
1. Institutional dimension	0.023	0.044	0.021	0.515	0.607
2. Application dimension	0.743	0.036	0.831	20.878	0.000

[a]Dependent Variable: 3. Pragmatic dimension.

The regression results are consistent with our earlier observations that the pragmatic dimension is strongly affected by the instructor's willingness, abilities, initiative, and motivation to apply pedagogical approaches consistent with the delivery model and the student requirements. Theoretically, the institutional vision, administrative resources, and strategic direction must also contribute to the positive outcome of the pragmatic approach in any delivery model, however, the results show that the institutional dimension is not statistically significant and does not contribute substantially toward achieving the outcomes of pragmatic education. It may, therefore, be concluded that, besides the ICT infrastructure and other administrative resources necessary to operate online delivery models in education, the most important factor contributing to the pragmatic approach is the professional development of the instructors and their readiness to be able to switch to different models of delivery and being able to blend different pedagogical approaches to enhance the quality of business education.

4 Research summary and conclusions

4.1 Implications

For an educational institution to be sustainable in the face of a crisis requires dynamism and the ability to foresee and plan for the future. In support of the findings of this study, below are some of the core potential changes that are suggested to enhance the quality of education by following a pragmatic approach:

1 Follow the mission of the educational institution and plan for a clearer vision

The mission has to be re-evaluated through a stress-testing and scenario analysis to analyse and plan how long-term sustainability can be achieved in turbulent times, and what alternative modalities can be worked out before, during, and after the crisis.

2 Consider re-building post-crisis education as a project

Start managing the new project to put education affairs in order: set the online project working team; identify units that need to integrate; define the scope of work; develop the schedule of activities; consider resources and calculate costs; use existing and establish new channels of communication; work closely with institutional QM/QA team; foresee risks that can accompany critical changes.

3 Re-consider prevailing knowledge and experience of teaching

Pedagogies should not just focus on conducting and leading the online class session by turning on autopilot. The teacher loses students' concentration immediately when the interaction component is lost, the pedagogies must be reevaluated for efficacies from the lessons learned during the current phase of eLearning.

4 Effectively use the freed-up time

Institutions need to help faculty to switch their mindset and mood from negative to potentially positive outcomes in the new ecosystem by encouraging them to use the time for reflection of their background teaching experience in valuable research papers. This will help to ensure improved teaching skills and more cogent knowledge sharing in the future.

5 Acquire additional skills to grow

Teachers need to step up and improve their digital literacy to use learning tools efficiently. "Beyond digital literacy challenges, teachers and students need to find new ways to communicate and use learning tools effectively" (TUAC Secretariat Briefing, 2020).

6 Highlight 'togetherness'

When the risk is evident, people tend to unite. Teachers can better use online sessions to develop a sense of solidarity. This time can be used for distributing messages to students about the need to support each other to handle the crisis together, focus their attention on potential post-crisis economic and business challenges, and encourage promoting solidarity about acquiring new knowledge.

7 Use the chance to go out-of-box

By social distancing, following government restrictions and contraction of activities, people started looking for widening their comfort zones. Educators certainly need to find new ways of delivering knowledge that will bring satisfaction to students, create job security based on their employability in the future, thus contributing to the economic security of the nation.

4.2 Research limitation

There are two major limitations in this study that could be addressed in future research. First, the study focused on only one country by analysing the data collected from business educational institutions. The future research shall include more countries to investigate the potential of institutional support to instructors committed to or following pragmatic approaches in teaching. Secondly, this study could not comprehensively evaluate the role of instructors role in administering and overseeing the assessment process and its output during online instruction attributable to pragmatic approaches in instruction. It would also be worthwhile to study how the attitudes and behaviours of learners and teachers have changed during and after the transition to online modulation, and whether or not such impact has had a lasting impact on the stakeholders in higher education.

4.3 Conclusion and suggestions

The research findings reveal that at the given stage there is a lack of sufficient empirical evidence to support a consistent institutional vision and efforts towards a pragmatic approach to education. However, there is a rich theoretical pull of John Dewey's works detailing principles of pragmatism. The core of our research is consistent with the existing literature on the necessary changes in the education policy and provides thoughts and major directions for its re-designing to have a sustainable community impact, such as technological adoption, innovative curricula, active learning pedagogies, and robust assessment methods, etc.

To sum it up, a holistic approach to education that blends the elements of pragmatism can go a long way in overcoming apathy in the dispensation of education, particularly, to addressing the general challenges like low standards of teaching; inert students; a poorly funded education system; and erratic evaluation systems.

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Note

[1]Bastiat, Frédéric (1850). That Which Is Seen, and That Which Is Not Seen [original French: Ce qu'on voit et ce qu'on ne voit pas].

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