The Changing Stakeholder Roles, Responsibilities, and Expectations in Sustainable Modern Education

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Abstract
Most of the stakeholders of education, teachers, students, parents, governments, regulators, policymakers, and parliamentarians are puzzled about the way out, of the issues of modern education. Some of the issues of modern education are unemployment, adopting new technologies, manpower training, and learner discontent. The purpose of this study is to examine and analyze the education sector stakeholders and their importance in modern education, and to study the changes in the stakeholder's roles, responsibilities, and expectations. These findings and analysis are useful to enhance the education system, sustain it, and manage the education system. The methodology of the study is secondary research conducted to identify the factors and constructs for the conceptual model for this research. Primary research was used to get a consensus on the factors that influence the successful implementation of the education system to meet stakeholders' expectations. A pilot study and interviewing the experts were used to confirm the constructs for the conceptual model and then the quantitative questionnaire survey to be conducted across the various stakeholders via email using random sampling. The PLS-SEM has been used to validate and test the reliability of the conceptual model. The contribution of this study is the primary research done across the six countries and the contribution to integrating existing theories -the Lewin's change management model, Iceberg Model of Wilfried Kruger and built on them. The practical viewpoints might interest the higher education policymakers, evaluation and accreditation institutions, universities, and learners. This will evaluate the now failing education business models.

1. Introduction

Modern education is going through turmoil and shakeup. Modern education issues vary due to high unemployment rates in most economies across the world. The idea of globalization is getting redefined with the local population preferred, in most countries, struggling for employment opportunities. The cost of education is disproportionate to the risk involved, for the student, in getting future employment [1]. The education imparted is not able to satisfy the expectations of the learners, professionals across the globe. The learner wants to decide his curriculum, the method of study, and its location. The other stakeholders need to recognize this mindset of the learner and structure the education system to suit the learner's needs. Since the learner is the final customer, and the source of revenue [2]. It is important to understand the stakeholders of modern education for this research study. Stakeholders are the persons who are interested in the success of the modern education business. These stakeholders can be divided into internal and external stakeholders, depending on whether they are part of the modern education system (Universities) or who are external to the system and interested in its wellbeing (Mohan, 2019).

Internal Stakeholders include the administration, management, faculty- teachers and in campus academicians, back-office staff, alumina [3]. External Stakeholders include learner's, government- ministry, regulators- accrediting bodies inspectors and auditors, awarding body, society, competitors, employers, financiers/insurers, consultants, academicians, media, suppliers, NGO, activists, parents, technocrats, investors journals and publishers [4].

The earlier roles and responsibilities in the traditional education model, which was teacher- centric to new student-centric model, has changed drastically with the disruption due to the new technology [5,6]. The stakeholder's roles and responsibilities have changed with their expectations. Expectations of these Stakeholders are also changing due to the education revolution due to new technologies. These changes need to be studied and analyzed. Ultimately the stakeholder satisfaction will benefit the business and education [7,8]. The current education imparted is not able to satisfy the expectations of the learner's, professionals across the globe, due to various issues [9,10].

Sustainable modern education is technology-driven and disrupted. The shift to the new education model is going to be fast and disruptive. The various stakeholders are studying this

very carefully to adapt themselves to the changing scenario [11]. The education should be sustainable as it should be able to achieve its main objective or goal to disseminate information, knowledge, renew learner interests, impart competencies, impart new skills to the learners at an affordable price, to get employed and remove inequality in the globe.

Sustainable modern education has the responsibility to take care of the interests of all stakeholders at all times [12,13]. Lewin's change management model advocates the spread of awareness for the need for this change, the benefits, arouse the desire in the concerned employee/user the desire to participate in this change, explain how to make these changes, to incorporate these changes in the system regularly and to reinforce the implementation of this change and keep it in place in future. [14,15]. The change Iceberg model of Wilfried Kruger reviews the factors which are not visible in most changes i.e. the perceptions and beliefs of the concerned Employee/User and the power politics to be both managed for the change to be implemented properly [16].

2. Survey Literature
The research plan is to study research journal articles as much as possible to collect information and variables involved. The keywords like stakeholders, education users, education changes, educational Business stakeholders, as listed above were used on Google Scholar, ProQuest and other research material that are available. The purpose was to identify the independent variable that contributes to the dependent variable. For this purpose, an intense listing of the Journal article variables was considered to see which are the most appearing variables and to identify gaps in the research till now. A good combination of these will set the research problems, research objectives and enable the conceptual model as shown below [17].

3. Research Problem
Is the Stakeholder Roles, Responsibilities and Expectations in Sustainable Modern Education, changing? Research Questions and Objectives have been formulated as Hypotheses to make the conceptual framework shown in figure 4. The independent variable was identified as "Successful Implementation of Education System to meet Stakeholders Expectations" [18]. These 28 articles shortlisted were analyzed, and the major findings, gaps to identify dependent variables.

Figure 1

Subsequently, the variables which are frequented most are used as dependent variables. The same methodology is used for the keywords in the gap analyzed to get the most frequented variables. This leads to the independent variable being identified after categorizing them into similar groups.
- Changing Employment Environment Factors
- New Technologies Factors
- Employees' Mindset & Behavior
- Commercialization of Education

- New Technologies Adaption Intention to Education
- Successful Implementation of a sustainable Education system (SIES) to meet Stakeholders Expectations.
The sub-variables for each of these independent variables are identified by using the same methodology. For each Variable, about 5 articles were researched and analyzed for the sub-variables [19-21].

Figure 2

Figure 3

Serial No	Article Reference	Major Findings or Gaps mentioned	Factors or constructs Identified	Factors or constructs used in the article
1.	Asiyai, R. I. (2015). Improving Quality Higher Education in Nigeria: The Roles of Stakeholders. International Journal of higher education, 4(1), 61-70.	Internal and External Stakeholders identified, Geographical restriction of participants	Survey countries and domains if possible to get better results	Hence the participants were selected from different countries and across various educational domains as possible.
2.	Marshall, S. J. (2018). Internal and external stakeholders in higher education. In *Shaping the University of the Future* (pp. 77-102). Springer, Singapore. https://doi.org/10.1007/978-981-10-7620-6_1	Strategy to use technology in higher education, change implemented, is meant to move the organization to a future point where a new strategy will emerge as more effective.	Technological Integration, Organization readiness to adapt.	Technology integration with emerging technologies
3.	Abidin, M. (2015). Higher education quality: Perception differences among internal and external-stakeholders. *International Education Studies*, 8(12), 185-192.URL: http://dx.doi.org/10.5539/ies.v8n12p185	By comparing the perception between internal and external stakeholders, the university will find a comprehensive view to understand the gap between one another. Evaluation can be made on all programs and faculties of the university, by comparing one another.	perception between internal and external stakeholders, programs and faculties and facilities available at the university	Organization facilities available and infrastructure, perception of various stakeholders like Learners, faculty etc.
4.	Razak, N., Ab Jalil, H., & Ismail, I. (2019). Challenges in ICT integration among Malaysian public primary education teachers: The roles of leaders and stakeholders. *International Journal of Emerging Technologies in Learning (iJET)*, 14(24), 184-205.	Schools' leaders, especially the headmasters, should play their role in strategizing teachers' ICT integration by managing and transferring the ICT integration vision and mission to their subordinates.	ICT integration, Geographic restriction, Scope to check other regions.	The survey was taken across various regions and various education domains
5.	Belwal, R., Priyadarshi, P., & Al Fazari, M. H. (2017). Graduate Attributes and Employability Skills: Graduates' Perspectives on Employers' Expectations in Oman. International Journal of Educational Management, 31(6), 814-827	The research is based upon the students' perception of employers' preferences. A triangulation covering employers' perceptions will certainly boost the validity of our findings, which could be of interest to future researchers. Although the sample size was statistically determined, it would have been better to include some more alumni.	Students' perception of employers' preferences, employers' perceptions, alumni.	Successful implementation is very likely given the Employee's mindset and perceptions
6.	Nicolescu, L., & Nicolescu, C. (2019). Using PLS-SEM to build an employability confidence model for higher education recipients in the field of business studies. Kybernetes, 48, 1965-1988.	* influence on employability confidence of economic and market labour conditions. *possibility of generalization *study can be extended to other geographical regions and countries and to another student/graduate categories * international level to identify the impact of country-specific influencing factors.	Primary Research using Questionnaire and PLS-SEM for validity and reliability and secondary research to identify these factors	These independent variables and their relations need to be confirmed by the consensus of experts vide pilot survey, online interviews (30 participants) and online Questionnaire survey (Nicolescu et al.,2019).
7.	Browne, L., & Millar, D. K. (2019). Increasing student voice and empowerment through technology: not just listening to the voice of the learner but using their digital capabilities to benefit a whole college community. Journal of Further and Higher Education, 43(10), 1433-1443.	This research aimed to enhance digital student practice by exploring how learners experience, use and wish to work, in a technology-rich environment.	Student perception, technical skill acquisition, perceived improvements in soft skills	With the technology enhancement and the ever-evolving structure of the modern workplace, Learner expectations are increasing
8.	Peredrienko, T., Belkina, O., & Yaroslavova, E. (2020). New Language Learning Environment: Employers'-Learner s' Expectations and the Role of Teacher 4.0. International Journal of Instruction, 13(3), 105-118.	The fourth industrial revolution is substantially altering our reality. The phenomena and technologies like artificial intelligence (AI), augmented reality (AR), big data and the internet of things are sure to have an enormous impact on all jobs and industries, let alone education as change-sensitive and responsive to the needs and demands of society.	Curriculum for soft skills development and technology capabilities	The solution involves creating a holistic, customizable educational experience that allows each student to use their existing knowledge to master new skills and concepts

9.	Matthews, K. E., Garratt, C., & Macdonald, D. (2018). The higher education landscape: trends and implications. Discussion Paper. Brisbane: The University of Queensland, 2018.	Technological advancements are reshaping education. New and emerging technologies promise integrative systems affording a nuanced and personalized student experience creating opportunities for flexible, relevant, and deep learning.	New and emerging technologies promise integrative systems. How UQ invests in physical campuses to enrich the learning experience underpinned by seamless technological platforms	At the end of the day, adult learner s can be expected to contribute as much to the classroom conversation as they take away from it (Matthews et al, 2018)
10.	Ehrenberg, R. G. (2020). The economics of tuition and fees in American higher education. In the Economics of Education. Academic Press. The Economics of Education (Second Edition), A Comprehensive Overview, 2020, Pages 345-352.	With tuition levels, this high, many students have extremely large loan burdens upon graduation. Lack of accountability of the Universities towards learner skills imparted and relevant to Industry, to get jobs. How University invests in physical campuses to enrich the learning experience underpinned by seamless technological platforms	Technological advancements are reshaping education. New and emerging technologies promise integrative systems.	High fees, lack of employment opportunities, Technological integration and facilities invested by Universities.
11.	Selwyn, N. (2016). Is Technology Good for Education? Polity Press.Toronto, ON: John Wiley & Sons. Pages: 160. ISBN: 978-0-7456-9646-1 http://au.wiley.com/WileyCDA/WileyTitle/productCd-0745696465.html	Where there are failings and shortcomings in implementing educational technology theory or principles, these are large because, not to any inadequacies in the tools, but of too little attention being paid to the pedagogical, organizational, cultural and other factors that determine what fails, what works and what transfers successfully into other contexts.	implementing educational technology, pedagogical, organizational, cultural and other factors	The new technologies have a multi-faceted influence on the various stakeholders in Education. This has changed their roles, responsibilities and expectations of the stakeholders (Selwyn, 2016)
12.	Kövesi, K., & Csizmadia, P. (2016, September). Industry perception of new engineering graduates: the gap between requirements and reality. In 44-the SEFI Conference (pp. 12-15).	In addition to more and more specialised technical knowledge, they need new multidisciplinary skills and competencies. There is a real mismatch between the industry demand and the labour market offer.	Collaboration between universities and industries, Integration of technical and non-technical skills and competencies into education to meet Industry expectation.	This is happening due to the mismatch in the skills and competencies of the job's requirement to the Employee/User with other skills which are not having any demand. The education system should recognize this mismatch and try to fill in the gaps
13.	Bell, D. I., Wooff, D., & McLain, M. (2019). Re-designing Design and Technology Education: A living literature review of stakeholder perspectives. Patt 37, 233.	While this curricular flexibility, which has been an underlying feature of the subject's role in the school curriculum since inception is essential to ensure the subject equips future generations with essential skills, knowledge and understanding to develop both technological capability and confidence, this manifests as a fluid knowledge base, which makes it markedly different to other curriculum subjects. These subjects are ever-changing due to innovations and need to be updated every year	Flexibility in the curriculum of technology, STEM	The classroom technological tools have changed the way classroom learning can happen. So, the teachers need to be technology savvy to making the sessions and lessons interesting for the students who expect and embrace technology
14.	14. Byers, T., Imms, W., & Hartnell-Young, E. (2018). Evaluating teacher and student spatial transition from a traditional classroom to an innovative learning environment. Studies in Educational Evaluation, 58, 156-166.	The teachers spent more time providing focused instruction, feedback (appraisal) and suggesting future direction (refinement) to individuals and small groups of students. Therefore, this observed change had a significant effect on reducing student distraction and off-task behaviours.	providing focused instruction, feedback (appraisal) and suggesting future direction (refinement) to individuals and small groups of students.	the regulators to track the student progress
15.	Halimi, K., & Seridi-Bouchelaghem, H. (2020, June). Where the Competency-Based Assessment Meets the Semantic Learning Analytics. In International Conference on Intelligent Tutoring Systems (pp. 295-305). Springer, Cham	The scope of this paper is to address the issue of competency modelling in technology-enhanced learning systems to discover implicit competencies hidden behind students' activities and how to translate them into acquired competencies. To face these challenges, the authors proposed an approach of semantic analytics of students' activities data.	Competency modelling in technology-enhanced learning systems	The AI, Data analytics, ML has simplified the lives of administrators, government officials, the regulators to track student progress and their certifications

16.	Supasitthimethee, U., Waraporn, N., Porkaew, K., & Charoenkitkarn, N. (2017). Stakeholder involvement in teaching and learning. Proceedings of the Canadian Engineering Education Association (CEEA). 2017: June 4-7, 2017 University of Toronto. DOI: https://doi.org/10.24908/pceea.v0i0.10620 .	Since knowledge and skills in IT change rapidly, it may be difficult for lecturers to always keep pace with new knowledge and gain new IT skills to educate students. By incorporating different stakeholders into the traditional teaching and learning undergraduate classes, it helps the school both in terms of educating the academic and teaching staff and the students	(1) active learning, (2) problem-based learning, and (3) the closeness between students and the stakeholders	Technology is the main cause of changing Stakeholders roles, responsibilities and expectations in Modern Education
17.	Che Musa, M. F., Bernabé, E., & Gallagher, J. E. (2020). The dental workforce in Malaysia: drivers for change from the perspectives of key stakeholders. International Dental Journal.	This study provides evidence of 'policy-induced problems' in Malaysia, which, along with drivers from other domains that have potential implications for the recruitment, education /training, retention and future models of care, particularly in addressing the needs and demands of the population.	Restricted to Malaysian dental workforce and senior professionals	Technology is the main cause of changing Stakeholders roles, responsibilities and expectations in Modern Education
18.	Spencer, R. (2019). Managing Stakeholders: A Change Primer. International Journal of Business and Applied Social Science (IJBASS). VOL: 5, ISSUE: 4 April/2019. pp 1-10. https://ijbassnet.com/ E-ISSN: 2469-6501.	Managing change then involves helping people move from one step of the process to the next and cope with emotional losses experienced along the way. Change as a contact sport requires open discussions of potential losses to help people move through the change process.	Planning for Change Engaging Innovators Engaging Early Adopters	It has also increased the cybersecurity threats and fake news dissemination concerns. This has to addressed by countermeasures also given by technology (Spencer, 2019).
19.	Qin, X., Shi, Y., Lyu, K., & Mo, Y. (2020). Using a TAM-TOE model to explore factors of Building Information Modelling (BIM) adoption in the construction industry. Journal of Civil Engineering and Management, 26(3), 259-277.	This study conducted an in-depth analysis of variables that have an impact on the implementation of BIM in the Chinese construction industry. However, relationships between these variables vary with the development of BIM technology, thus future research is needed to update the models and results to identify the key issues at different stages.	An integrated TAM-TOE framework for BIM adoption. An integrated TAM-TOE BIM adoption model. Identify external variables, Technical factors, Economic factors, Organizational factors	Hence, there's the necessity to vary the mindsets of those educators towards the utilization of technologies within the classroom to satisfy the present demands of learner s
20.	John Rodzvilla (2019) O'Brien, K. L., & Jacobson, T. E. (Eds.) (2018). Teaching with digital badges: Best practices for libraries., Journal of Web Librarianship, 13:4, 312-313, DOI: 10.1080/19322909.2019.1656490	Changing Student Expectations Students seek: ● Flexible/shorter options to fit busy schedules ● Less debt ● Evidence of mastery of specific abilities and knowledge Resistance to change and insecurity	Insecurity, threat, Resistance	The mindset to use and towards the usage of these technologies need to drastically change. The resistance and insecurity towards technology need to be removed by training and by workshops to give these Employee/users the feel of technology use and the benefits it brings (John et al., 2019).
21.	Yu, D. (2019). The Role of For-profit Educational Leadership Styles in Creating Shared Values. M.A. in Leadership Studies: Capstone Project Papers. 58. https://digital.sandiego.edu/solesmalscap/58	First, the sample size was relatively small. In addition, the data was collected from a very homogenous sample. Given that the samples are only from China and the United States, the diversity within the sample may be minimal. Furthermore, the parameter of limitations is that the research lacks a comparison group. The research assumed that in the for-profit education field with social benefits, the leaders are indicative of the innovation and organizational changes, which might not relate to the existence of creating a shared value program.	Organizational cultural and economic environment effectively motivates leadership to align more community members in their organization.	Change the mindsets towards technologies utilization in the classroom to satisfy the emerging cultural change in the teaching and learning process. The advantages and therefore, the way forward for the use of those technologies within the classroom by the teachers were concisely examined (Yu, 2019).
22.	A. Haldorai, S. Murugan and A. Ramu, "Evolution challenges and application of intelligent ICT education: An overview", Computer Applications in Engineering Education, Feb. 2020.	Artificial intelligence (AI) aims at critically transforming the information and communication technology (ICT) sector through various technological advancements, such as machine learning, deep learning, and natural language processing. These technologies are meant	Integrating Emerging technologies in education	The soundness of the Investments for successful implementation of the new technologies (Haldorai et al., 2020).

		to develop the process of communication, digital commerce, content, and apps.		
23.	Chandwani, V. S. & Bhome, S. M. (2013). A study of the impact of commercialization of education in India. Episteme: An online Interdisciplinary, Multidisciplinary and Multicultural Journal. 1(5).	Education has today only become an option to make money than providing quality education to students. There is a strong need to change the basics of the education system, not its pattern, to revive education's real importance.	Cost of education, Quality of education Infrastructure and Environment	It is "a process of private ownership and management of educational institutions whereby investments are made with the motive of earning profit"
24.	Twebaze, R. M. (2015). Commercialization of education in Uganda; causes and consequences. International journal of recent scientific research, 6(7), 5107-5112.	Lack of supervision and regulation was also cited as another contributing factor to the commercialization of education. Government supervisors are thin on the ground and poorly motivated. private proprietors can start schools to make a quick buck without being stopped or supervised by anybody. Corruption among school owners and managers was also cited as a major contributing factor to the commercialisation of education. Most of the institutions cannot serve their clients and are characterised by insufficient infrastructure, insufficient and poorly qualified human resource and poor management systems. In most institutions, remuneration for workers is poor thereby affecting efficiency, professionalism and productivity.	Inefficiency, High cost, profit motive, over-supply of education, substandard education, very limited job opportunities, Lack of Infrastructure, Lack regulation, Lack of Infrastructure, Lack of regulation, corruption, Low salary for the teachers.	So, the emphasis on making a profit rather than a social motive. Investors must be working on ROI which is not sustainable in the current scenario.
25.	Abraham, N. M. (2017). The Challenges of Funding Private Education in a volatile economy. Keynote Address presented at the National Association of Proprietors of Private Schools (NAPPS) Conference held at Obi Wali International Conference Centre, Port Harcourt, on November 15.	Equal opportunities should not be limited to access alone, but the cost/who bears the cost, and, quality of instructional delivery, quality of learning environment, etc. Commercialization, Commercialization of Education, Dwindling Economy are the main reasons for the deteriorating education system in most countries.	Profiteering, Substandard Education High cost Lack of Infrastructure Bad Teacher Quality due to low salary Higher Result projected Curriculum not updated	This is due to the dropping volume of students keen to pursue courses due to the high fees, not so many opportunities at the end of graduation
26.	Lingard, B., Sellar, S., Hogan, A. & Thompson, G. (2017). Commercialisation in Public Schooling (CIPS). Sydney, Australia: New South Wales Teachers Federation. final report summary prepared for the New South Wales Teachers Federation.	The increasing flows of knowledge, ideas, people and policy mean that both developed countries, and emerging markets and economies, all recognise the transformational value of education. These include attitudes towards school autonomy, teacher accountability, student behaviour, questions of student success and ability	Survey countries, across periods to update the findings	This can be done by Government intervention and by sponsored, philanthropic educational grants, investments from entrepreneurs who are looking at education as social investment or funding the education Infrastructure as a charity
27.	Iyer S.S., Seetharaman A., Maddulety K. (2020) Education Transformation Using BlockChain Technology - A Student Centric Model. In: Sharma S.K., Dwivedi Y.K., Metri B., Rana N.P. (eds) Re-imagining Diffusion and Adoption of Information Technology and Systems: A Continuing Conversation. TDIT 2020. IFIP Advances in Information and Communication Technology, vol 617. Springer, Cham. https://doi.org/10.1007/978-3-030-64849-7_19.	The student-centric education model is the future of Global Education. The Model is going to be powered by modern technologies like Blockchain Technology, Artificial Intelligence, Machine Learning, Virtual Imaging, Virtual Reality. It will reduce the cost, efforts, staff hour needs and security of the new education system. A smart city like Dubai is well poised to take this route due to the availability of Infrastructure, political will and the skilled workforce. Education student-centric model in smart cities like Dubai is going to make it the future. The investment and the process are well on their way for this educational transformation.	"The relationship between constructs of technology-related factors, People's related Factors, Environmental related Factors, Organizational related factors and Adaption of Blockchain Technology for Education	The viewpoint of each stakeholder will be from Journal references and reputed books and authors. To make an in-depth study, this quantitative research (after the pilot study) is confined to education transformation using technology and the change in the stakeholder roles, responsibilities due to this transformation (Iyer et al., 2020).
28.	Uddin, M. A., Alam, M. S., Mamun, A. A., Khan, T.-U.-Z., & Akter, A. (2019). A Study of the Adoption and Implementation of Enterprise Resource Planning (ERP): Identification of Moderators and Mediator. Journal of Open Innovation:	The study follows the deducting reasoning approach with the positivism paradigm. Out of 235 responses, the study used 225 replies collected through a self-administered sampling, and the data were analyzed by using PLS-based structural equation modelling. The study revealed	Dependents: Performance Expectancy Effort Expectancy Social Influence Facilitating Conditions Education Firm size	So, we accept the hypotheses and the results will prove that the new technologies adaption intention can adequately meet the requirements of the Education System and the successful implementation is

	Technology, Market, and Complexity, 6(1), 2. MDPI AG. Retrieved from http://dx.doi.org/10.3390/joitmc6010002	that the hypothesized direct influences are significant except the influence of facilitating conditions on actual use. Likewise, the intention to use mediates the impact of facilitating conditions on the actual use of ERP	Moderator: Intention to use ERP Actual Usage of ERP more studies with the increasing breadth of scope and larger sample size might strengthen the robustness of the model and generalizability of the findings. Other moderators like experience and voluntariness can be moderators.	very likely given the Employee's mindset and perceptions, new technologies features, the commercial angle to education and the changing environment both external and internal to the organization.

Table 1: Table of references on which the Conceptual model constructs have been derived from

4. Literature Review
It is important to study each of these factors for this research. The factors, constructs, the dependent and independent variables are identified from the articles cited above using the gaps mentioned as per table 1.

4.1. Changing Employment Scenario, Changing Environment
The employment rate across the world has been ever increasing in the last decade [22]. This has been a major worry for all developed, developing and under-developing countries. It has come to such a extend it has become a social bane for all societies [23,24]. With the technology enhancement and the ever-evolving structure of the modern workplace, Learner expectations are increasing [25]. Instructors and institutions can maintain a competitive advantage by identifying the learner's lifelong aspirations to advance and stay employable [26]. At the end of the day, adult learners can be expected to contribute as much to the classroom conversation as they take away from it [27]. The main reason is the fees paid by taking student education loan does not justify the employment opportunity available nor it justifies the employability skills that are imparted by most Universities [28]. The jobs scenario is disrupted as Industry demand in technologies like AI, Data Analytics, ML, VR etc. is ever increasing and at any time it is more than 1 million vacancies across the globe. At the same time, there is an ever-increasing unemployed or underemployed who are without jobs. This is happening due to the mismatch in the skills and competencies of the job's requirement to the employee/user with other skills which are not having any demand [10]. The recessionary trend across the globe, anti-globalization trends, unemployment trends, educational costs, COVID 19 situation has changed the environment scenario in recent times.

4.2. New Technologies
The new technologies have a multi-faceted influence on the various stakeholders in education. This has changed their roles, responsibilities and expectations of the stakeholders [29]. The classroom technological tools have changed the way classroom learning can happen. So, the teachers need to be technology savvy to making the sessions and lessons interesting for the students who expect and embrace technology [30]. The Internet Infrastructure makes it possible for distance learning, video conferencing etc. which add to their interests. The AI, Data analytics, ML has simplified the lives of administrators, government officials, the regulators to track student progress and their certifications [31,32]. The digital revolution has made storing the certificates and transcripts electronically and to be retrieved by only authorized persons, an efficient system. Technology is the main cause of changing Stakeholders roles, responsibilities and expectations in modern education [33,34]. It has opened the world to everyone and social media is the place of self-expression and reality check across the World. It has also increased the cybersecurity threats and fake news dissemination concerns. This has to addressed by countermeasures also given by technology [2]. Technological innovations and emerging usefulness to education like online courses has come as an enabler in the current COVID situation and social distancing.

4.3. Employee/User's mindset
IT and communication technology advances have forced Employee/User to change their mindset towards modern education. However, most administrators, Academicians and teachers are convinced that the traditional method of classroom teaching is the best [35]. Hence, there's the necessity to vary the mindsets of those educators towards the utilization of technologies within the classroom to satisfy the present demands of learners [35]. The educators, Academicians, teachers acquire and start using these technologies to improve classroom deliveries and improve efficiency [32]. The resistance and insecurity towards technology need to be removed by training and by workshops to give this Employee / User the feel of technology use and the benefits it brings (John et al., 2019). Training can change the mindsets towards technologies utilization in the classroom to satisfy the emerging cultural change in the teaching and learning process. However, the advantages and therefore, the way forward for the use of those technologies within the classroom by the teachers were concisely examined [37].

4.4. Commercialization of education
Commercialization of education means giving educational services and products with the motive of making a profit. Revenue is earned from the receivers of education or students, learners [38]. It is "a process of private ownership and management of educational institutions whereby investments are made with the motive of earning profit" [39]. Investors must be working on ROI which is not sustainable in the current scenario [40]. This is due to the dropping volume of students keen to pursue courses due to the high fees, not so many opportunities at the end of graduation [1,41]. So, the Investors need to be convinced to work on long term returns in Education instead of looking at

short term returns. This can be done by Government intervention and by sponsored, philanthropic educational grants, investments from entrepreneurs who are looking at education as social investment or funding the education Infrastructure as a charity [42]. The employment model for change management (Lewin's Change Management Model) is based on the "freeze, change and unfreeze" once the changes have been made.

The first part is the toughest to convince the employees for the change and the necessity of it to change, adapt the technology and monitor it. The technology acceptance model (TAM) explains the acceptance of the employees of the new technologies by the employees considering their resistance, spreading the awareness, change in perception, mindset and behaviour of the employees towards adaption of these new technologies. The Change Iceberg Model of Wilfried Kruger, return on Investment and NPV of investment determines the commercial viability and soundness of the Investments for successful implementation of the new technologies (Haldorai et al., 2020). So, looking at the above factors there seems to be a relationship and might be the important influencers in the successful implementation of a sustainable education system.

4.5. New Technologies Adaption Intention to Education

Gender bias was not a factor in using new technologies as most employers had the same mindset whether male/females. The firm size was not a good moderator as the or institutes whether big or small were equally not ready to experiment with new technologies as the current face- to -face model was working well and earning more revenue than the online versions. However, the current COVID situation has changed the whole scenario. The users/ employers had the prejudiced opinion that the online version was not so good as face- to-face. However, the social distancing norm has changed the opinion towards new technology usage including the organization to be ready to invest in them [43,44]. So, it was decided to test new technologies adaption intention as a moderator after using the Adanco outcome results run on the pilot study data from 30 participants, which confirmed this intuition that the new technology adaption intention was a good moderator to consider (Uddin et al., 2019).

4.6. Successful Implementation of a sustainable Education System to meet Stakeholders Expectations.

The outcome of the endeavour is to have a sustainable education system that is agile and take care of the changing environment, unemployment and the various challenges faced by the current education. The new education system should be learner-centric and take care of the stakeholder expectations [17,21].

5. Conceptual Framework

The Hypotheses to be tested

H1: The changing employment environment and new technologies adaption intention have very a significant relationship

H2: New technologies and the adaption intention of new technologies to education have a very significant relationship

H3: Influence of Employee/User's mindset and behavior towards adaption intention of technologies to education has a significant relationship.

H4: The commercialization of education has a significant relationship to the intention of adapting to new technologies.

H5: The New Technologies Adaption Intention are mediated between changing employment environment, new technologies, user mindset & behavior to sustainable education on its successful implementation to meet stakeholders' expectations.
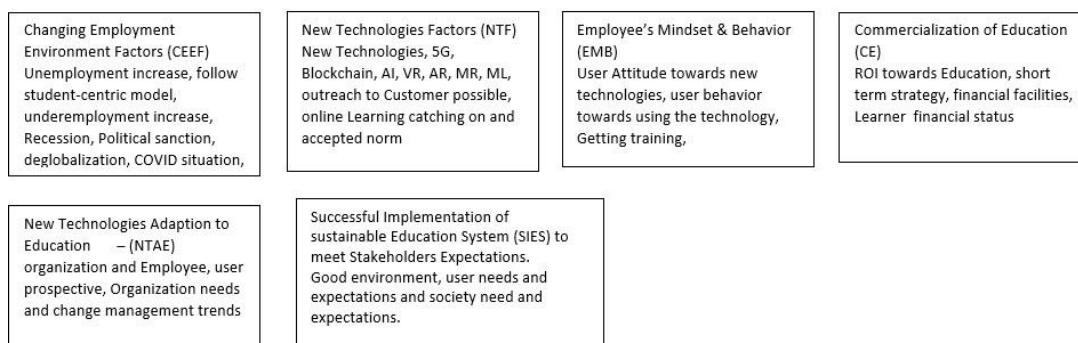
Changing Employment Environment Factors (CEEF) Unemployment increase, follow student-centric model, underemployment increase, Recession, Political sanction, deglobalization, COVID situation,

New Technologies Factors (NTF) New Technologies, 5G, Blockchain, AI, VR, AR, MR, ML, outreach to Customer possible, online Learning catching on and accepted norm

Employee's Mindset & Behavior (EMB) User Attitude towards new technologies, user behavior towards using the technology, Getting training,

Commercialization of Education (CE) ROI towards Education, short term strategy, financial facilities, Learner financial status

New Technologies Adaption to Education – (NTAE) organization and Employee, user prospective, Organization needs and change management trends

Successful Implementation of sustainable Education System (SIES) to meet Stakeholders Expectations. Good environment, user needs and expectations and society need and expectations.
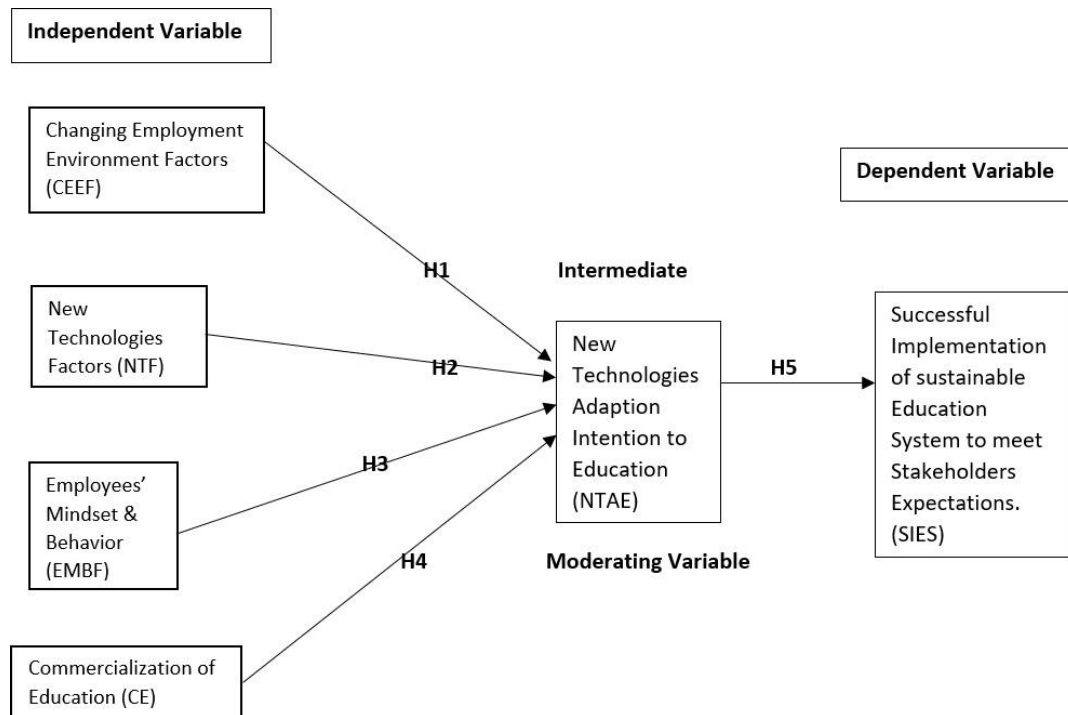
Figure 4

Figure 5

6. Research Methodology

Information for research was gathered from different sources of secondary data to identify the constructs-independent and dependent variables and sub-variables for constructing the conceptual model figure 4. Most data were collected from an online search of relevant indexed journals, industry reports and reference books [20,21]. The research methodology details the existing core variables identified through an exhaustive literature survey (Ravitch et al, 2018). A simple direct relationship between four core variables – Changing Employment Scenario, New Technologies, Employee/User's Mindset Commercialization of Education and the changing Stakeholder Roles, Responsibilities and Expectations, is positioned in the research model [45].

Subsequently, Primary research through an online Questionnaire survey, to be used for getting consensus on the factors that influence the successful implementation of the education system to meet stakeholder's expectations [46,47]. The study of the articles and books, newspaper articles indicate that none of the theories and the model on their own can be applicable in the current situation like COVID [17,48]. Therefore, a new model needs to be envisaged and tested for reliability and validated using PLS-SEM [21]. The factors or independent variables identified and their relations explained by hypotheses, to be tested (Kumar, 2019) These independent variables and their relations need to be confirmed by a consensus of experts vide pilot survey, online interviews (30 participants) and online Questionnaire survey [49].

7. Findings and collected data- Analysis

Demographic Variable	Category	Percentage (Numbers)
Age Group	18-25	14.45(56)
	26-35	32.56(125)
	36-45	29.79(115)
	46-60	22.12(85)
	60+	1.03(4)
Total		100 (385)

Demographic Variable	Category	Percentage	Demographic Variable	Category	Percentage
Education	Highschool	1.28	Region	Middle East	23.97
	Undergraduate	12.54		Asian Sub-continent	33.47
	Graduate	21.00		Europe	7.60
	Post Graduate	48.34		Australia- New Zealand	15.82
	Doctoral	16.84		USA-CANADA	12.61
				African Sub-continent	6.53

The Stakeholder role of the Respondent	% Percentage	Income Level of the Respondent per Annum	% Percentage
Learner /Student	17.15	Less than 20000 USD	22.67
Teacher/Lecturer/Professor	22.45	20001 to 40000 USD	28.35
Parent	25.52	40001 to 60000 USD	32.52
Public/community member	8.23	60001 to 80000 USD	8.16
Professional Educationist	7.80	80001 to 100000 USD	5.50
Consultant	3.70	More than 100000 USD	2.80
Academician	3.45		
Regulator	3.60		
Government Official	3.10		
Human Activist	2.5		
Employer	1.5		
Corporate	1.0		

Demographics of the Respondents Table 2

8. Reflective Measurement Model

The reflective measurement is the first stage of examining the reliability and validity of the measurement model. This section will be divided into several subtopics: (1) indicator reliability (loadings), (2) construct reliability, (3) convergent validity and, (4) discriminant validity (Sarstedt et al., 2014).

9. Indicator Reliability

The indicator loading score above 0.7 as seen from the output table 2 means that the variable explains more than 50 per cent which is represented by the construct [46].

Indicator	CEEF	NFT	EMB	CE	NTAE	SIES
CEEF1	0.8068					
CEEF2	0.9063					
CEEF3	0.7834					
CEEF4	0.7935					
CEEF5	0.8292					
CEEF6	0.7465					
NFT1		0.7401				
NFT2		0.7367				
NFT3		0.7598				
NFT4		0.8679				
NFT5		0.8709				
NFT6		0.7780				
EMB1			0.8321			
EMB2			0.8881			
EMB3			0.8121			
CE1				0.7022		

CE2				0.7811	
CE3				0.8530	
CE4				0.8796	
NTAE1					0.7626
NTAE2					0.8476
NTAE3					0.8503
NTAE4					0.8215
NTAE5					0.8345
SIES1					0.8245
SIES2					0.8706
SIES3					0.8536

Table 3: Indicator Loadings

10. Internal Consistency Reliability

Internal consistency reliability examines estimates the reflective measurement model, the higher the value of the indicator means better the reliability of the model (Joseph et al., 2010). Also, Jöreskog's rho (ρc) displays the internal consistency reliability. The minimum acceptable value for internal consistency reliability was 0.6, whereas the table values are well over 0.9 meaning major significance and reliability for the internal consistency reliability. (Cheong et al.,2020); (Drolet and Morrison, 2001).

11. Construct Reliability

Cronbach's alpha value for all the constructs as per table 3 is well over 0.7 which is the cut-off value, indicating excellent internal consistency and construct, reliability (Joseph et al., 2010).

Construct	Dijkstra-Henseler's rho (ρ_A)	Jöreskog's rho (ρ_c)	Cronbach's alpha(α)
CEEF	0.9428	0.9455	0.9301
NFT	0.9477	0.9539	0.9418
EMB	0.9265	0.9420	0.9086
CE	0.9076	0.8666	0.7966
NTAE	0.9399	0.9532	0.9382
SIES	0.9114	0.9442	0.9114

Table 4: Construct reliability

12. Convergent Validity

Convergent validity explains the extent that a construct converges with a specific construct indicator and the item variance. (Hair et al., 2011; Sarstedt et al., 2014). The AVE value is the measure that indicates the measure for all items associated with a construct (Cheah et al., 2018). All the items explain more than 50% of the variance in the construct, as table 4 displays a value well over 0.5.

Construct	The average variance extracted (AVE)
CEEF	0.7443
NFT	0.7756
EMB	0.8441
CE	0.6290
NTAE	0.8033
SIES	0.8495

Table 5: Convergent Validity

13. Discriminant Validity

Discriminant validity measures how each variable/construct correlates with other variables and how much the indicators represent only a single variable. Fornell-Larcker criterion recommends that the bold figures in the table groups are the maximum and the rest of the values in the column and rows are well below this value. It evaluates and proves the discriminant validity as per table 5, for the model suggested. (Mohd, 2013; Hair et al., 2013; Sarstedt et al., 2014).

Construct	CEEF	NFT	EMB	CE	NTAE	SIES	
CEEF	**0.7443**						
NFT	0.6620	**0.7756**					
EMB	0.6480	0.7180	**0.8141**				
CE	0.6287	0.6567	0.6759	**0.7290**			
NTAE	0.6092	0.6327	0.6557	0.6921	**0.8033**		
SIES	0.5702	0.6394	0.6403	0.6921	0.7718	**0.8495**	
Squared correlations; AVE in the diagonal.							

Table 6: Discriminant validity

14. Structural Model Assessment

The structural model assessment includes testing for collinearity, predictive relevance, significance and relevance of path-coefficients as per Adanco user manual 2.0. The structural model assessment is used to test for the potential collinearity between the predictor constructs to ensure the quality of the results.

15. Collinearity

Adanco user manual recommends that the variance inflation factor (VIF) be used to ensure collinearity bias issues are avoided by measuring VIF for each indicator in the construction. It is noticed that the table figures of VIF are below the value of five 5 and hence acceptable and assumed to be safe for avoiding any collinearity issues (Benitez et al., 2020). This result shown in table 6 indicates that there were no significant collinearity issues in the model.

Indicator	CEEF	NFT	EMB	CE	NTAE1	SIES1	
CEEF1	4.2094						
CEEF2	4.1117						
CEEF3	2.2809						
CEEF4	2.6884						
CEEF5	4.0795						
CEEF6	3.0404						
NFT1		3.5920					
NFT2		3.9645					
NFT3		3.8200					
NFT4		4.3391					
NFT5		4.3687					
NFT6		3.7481					
EMB1			4.1763				
EMB2			4.8681				
EMB3			2.2787				
CE1				1.2165			
CE2				1.4095			
CE3				4.1513			
CE4				4.3070			
NTAE1					2.6418		
NTAE2					4.9191		
NTAE3					4.1068		
NTAE4					4.3625		
NTAE5					3.1906		
SIES1						2.6807	
SIES2						3.6294	
SIES3						3.3042	
Variance inflation factors (VIF)							

Table 7: Indicator Collinearity

16. Predictive Elevance (R^2)

The coefficient of determination (R^2) measures the relationship between the constructs and explain the construct relates to all the constructs in the research. Adanco Manual and researchers recommend the minimum requirement of R^2 as 0.2, for the construct to be relevant and significant (Hair et al., 2011). It is seen from Table 7, the value of R^2 and adjusted R^2 are above 0.8, which means that the intermediate constructs were relevant and significant.

Construct	Coefficient of determination (R^2)	Adjusted R^2
NTAE	0.8177	0.8158
SIES	0.8718	0.8714

Table 8: Coefficient Determination

17. Significance and Relevance of Path Coefficients

The significance and relevance of structural model assessment are assessed from the value of p and t values and is illustrated in table 8 where the two-sided p values are zero showing the high significance of the constructs and the relationships displayed in the model in figure 2 below. The t-values are well over five as required showing the high significance of the constructs and the relationship existing in the model. The path coefficients are well over 0.6 for the model meaning a strong positive relationship between the constructs (Sarstedt et al., 2014). The results from the standard bootstrapping procedure (383 cases, 4999 samples, no sign changes option) as shown in Table 8.

Effect	Original coefficient	Standard bootstrap results					Percentile bootstrap quantiles				
		Mean value	Standard error	t-value	p- value (2-sided)	p-value (1-sided)	0.5%	2.5%	97.5%	99.5%	Supported/ Not Supported
CEEF - > NTAE	0.2581	0.2547	0.0411	6.2877	0.0000	0.0000	0.1421	0.1725	0.3341	0.3616	Supported
NFT -> NTAE	0.0211	0.0248	0.0773	5.2727	0.0000	0.0000	0.1663	0.1782	0.1823	0.2401	Supported
EMB -> NTAE	0.2004	0.2010	0.0454	5.4122	0.0000	0.0000	0.0767	0.1908	0.2880	0.3150	Supported
CE -> NTAE	0.4453	0.4429	0.0405	11.0065	0.0000	0.0000	0.3268	0.3593	0.5185	0.5397	Supported
NTAE1 > SIES	0.9337	0.9328	0.0100	93.4974	0.0000	0.0000	0.9025	0.9107	0.9497	0.9539	Supported

Table 9: Bootstrap direct effects inference

	Dependent variable	
Independent variable	NTAE	SIES
CEEF	0.2765	
NFT	0.2260	
EMB	0.2146	
CE	0.4769	
NTAE		**0.9337**

Table 10: Path coefficient

The Final Research Model (Figure 6), is tested and validated as per the parameters shown in tables 1 to 9. The conclusion is that Hypotheses 1 to 5 have been proven to be acceptable and significantly valid as the model path coefficients and the R2 is above the acceptable value. So, we accept the hypotheses and the results will prove the relations between the constructs are positive and significant. (Uddin et al., 2019). All the β values are above and the path coefficient is significant ***, the t-test value is well above 5.0 to prove the relationship between the constructs are significant to be noted and the overall R2 are well over 0.7 making the model, an excellent one. The PLS-SEM structural equation model suggests the model is reliable and validated [10].

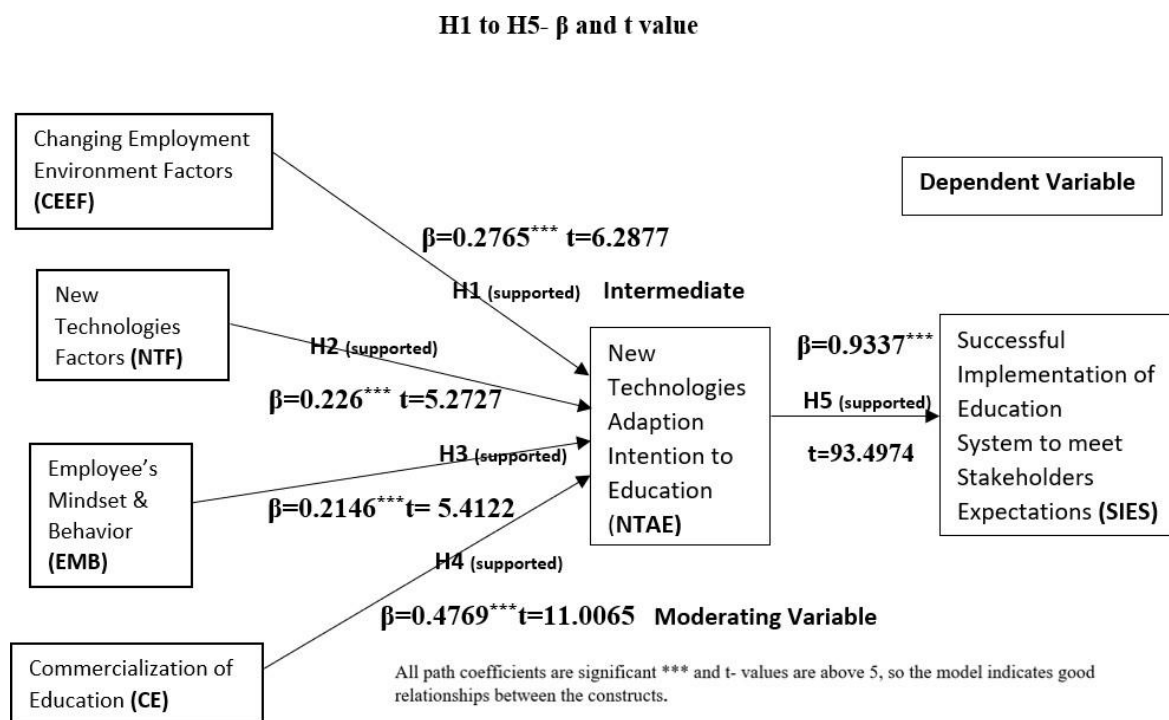## 18. Discussions and Implementation

H1 to H5- β and t value

Figure 6

The changing employment environment factors, the new technologies, the employee's mindset & behaviour and the commercialization of education are found to have a positive significant relationship on the successful implementation of education to meet stakeholder's expectations through the mediating factor of new technology adaption intention to education. The Changing Employment Scenario Impact Modern Education Stakeholders Roles, Responsibilities & Expectations has happened due to the changes in skills and competencies required by the industry which are more weaved in new technologies. Till recently most Universities were not prepared to accept online, distance, virtual classroom teaching and considered them inferior to the classroom face-face interactive classroom lectures [8]. However, the COVID situation and the technology has made it possible to have interactive classes online using zoom, skype, Microsoft teams etc. [50,51]. The stakeholders need to adjust to the "changing employment scenario" by creating employability skills to cater to the existing and future employment opportunities [52]. Ultimately it is necessary to get the education model changes to the student-centric model to satisfy learner needs and their expectations and that of other stakeholders [53,54]. Now the organization have to invest in technology, training of the employees to continue to keep the organization competitive [17].

The advent of New Technologies impact Modern Education Stakeholders Roles, Responsibilities & Expectations as it is more efficient and the millennial learners thrive on it. AI, IoT, ML, VR is making inroads into our daily lives and more so in education. Classroom technologies have changed the way classroom can be managed and the tools are innovative [55]. The meeting across the regulators and government agencies can be done using video conferencing to reduce time and save on costs [56]. Administrators and academicians can use technology to store certificates, transcripts in a digital manner and retrieved them using password-protected access. The use of modern technologies supports to equip the learners with required Employability skills, technical skills and usability skills as required by Industry [57]. The industry and educators can be on common levels using digital platforms to enhance the employability skills, technical skills and usability skills of learners and relevant stakeholders [58]. It will bring down the cost of education and standardize the education policies across the globe [59].

The Concerned Employee/User mindset, impact the Modern Education Stakeholders Roles, Responsibilities & Expectations as it is the main resistance and hurdle to implementing these technologies. Employee/User are not wanting to change and to adapt the technology for educational purposes. There is an urgent need to spread awareness to the concerned Employee/User to induce change in mindset to adjust to the current requirements & address the resistance by conducting workshops [60,61]. This can be achieved only by the participation of every stakeholder hence, the need to convince them of the needed changes. Discussing and reducing the insecurities around these changes can be of great help in successful implementation [62]. The Change Iceberg Model of Wilfried Kruger concerns the factors which are not visible in most changes i.e. the perceptions and beliefs of the concerned Employee/User and the power politics to be both managed for the change to be implemented properly [63].

The Commercialization of Education leading to the changing

Modern Stakeholders Roles, Responsibilities & Expectations
The drop in ROI on education Investments has convinced the investors that their investments are no longer lucrative, so the change in their roles, responsibilities and expectations (Hogan et al, 2017). It is necessary to address and convince Investors to adjust their ROI, to view education as a long-term Investment and shift from their short-term perspective [64]. Most Countries look at education as business proportion and look at investments from private sector Entrepreneurs like USA, Europe, Japan, India, UAE etc. This has led to higher fees revenue and it has become unviable for the investors and also for the students [65]. The social motive has been lost in the profit-seeking motive for these ventures. This has also led to brand building for some Universities and they do not want to lose this competitive advantage they build, despite a need for a common curriculum, common certification, common standards for all Learners on common platforms across the globe (Holloway et al, 2017). The various governments need to fund these earlier projects on cheap credit and over some time make it free for everyone [66-68].

ROI model of Investment is the business model which allows calculating the return on investment made in a project like an educational institute, university [69,70]. Unfortunately, the ROI applies to the learner as an investment in an educational course by taking a loan and it is not viable any longer as can be inferred from the educational loan defaults [71,72]. The current theories mentioned in the paper are relevant to the current scenario as education disruption is happening due to the recession, due to COVID 19, due to the social distancing, due to the high unemployment rates and lack of employment opportunities (Papadakis et al., 2020).

How the Modern Education Stakeholders roles, responsibilities and Expectation are changing. The main reason for the changes has been the demand from the student fraternity for a student-centric education system, to enable the use of technology and to make the education affordable and value-added to impart skills and competencies to make them employable [3]. The COVID19 has made sure that distance learning and the use of technology has become mandatory and acceptable to all stakeholders and would be the future of education [73].

The contribution to this topic has been the integration of major factors which has led to the change in education stakeholders' roles, responsibilities and expectations which has been laid back for more than a decade despite the technology and other Infrastructure being available. This has been due to the lack of interest of the Academicians to support distance Learning, recognizing online certifications thus delaying the advancement of the student-centric education model (Aithal et al., 2020). The Investors have been following this view as it suited their profitability motives. The Government and education regulators showed laid back attitude towards this change which was coming [74].

19. Limitations and Future Research Recommendations
This study can be a precursor to future studies on the education sector, its failure to meet global aspirations of stakeholders in getting employment, upgrading their skills and getting employable by considering a bigger sample size, involving more stakeholders. Future research can be done in this direction and to study the correlation between the various factors like investor mindset, insecurity on part of the Academia to accept online studies and courses. Future studies can look at the government initiatives to get the regulators on board by involving a world body like UNDP, which mandates cheap education for every child especially for poverty-stricken societies and make them employable [75]. Also, future studies can be made using Firm size as the moderator variable as more firms are adopting new technologies in the current scenario and will continue to do in the need future. The anti-globalization sentiments have been openly seen even in developed economies like the USA and Europe. The authors have no intention to declare that these issues discussed are exhaustive, however, the discontent amongst the stakeholders is quite evident across the globe.

20. Conclusion
The stakeholders of educational University have been taken as an example to study to identify the internal and external stakeholders. Their roles, responsibilities and expectations and changes have been identified to study the reason for such changes and the benefits of these changes to modern education [73]. The conceptual model suggested and tested for reliability using PLS-SEM and validated to confirm that the independent variables are found to have a positive significant relationship on the dependent variable - successful implementation of education to meet stakeholder's expectations, through the mediating factor of new technology adaption intention to education. The future of modern education is unfolding due to the advent of technology and towards student-centric education model and this will benefit everyone in the long run [76]. This study will be particularly helpful to college administrators, teachers, students, parents, government and Investors [49]. Also, the contribution of this research study is the primary research conducted across the six countries and the contribution to integrate existing theories -the Lewin's change management model, Iceberg Model of Wilfried Kruger and extend them. Universities need to recognize the changing needs, expectations, roles and responsibilities of the stakeholders and be agile to face these changes and challenges to adopt new technologies continuously and be sustainable in long term.

References
1. Abraham, N. M. (2017). The Challenges of Funding Private Education in a volatile economy. In *Keynote Address presented at the National Association of Proprietors of Private Schools (NAPPS) Conference held at Obi Wali International Conference Centre, Port-Harcourt, on November* (Vol. 15).
2. Spencer, R. (2019). Managing Stakeholders: A Change Primer.
3. Basnan, N., Md Salleh, M. F., Ahmad, A., Upawi, I., & Mohd Harun, A. (2016). Information Needs for Accountability Reporting: Perspectives of stakeholders of Malaysian public universities. *Acta Universitatis Danubius. Œconomica, 12*(3).

4. Aarrevaara, T., Wikström, J., & Maassen, P. (2017). External stakeholders and internal practices in departments of teacher education at European universities. *Higher Education Quarterly, 71*(3), 251-262.

5. Wagner, N., Hassanein, K., & Head, M. (2008). Who is responsible for e-learning success in higher education? A stakeholders' analysis. *Journal of Educational Technology & Society, 11*(3), 26-36.

6. Smith, K. R. (2016). *Towards the validation of the educational interpreter roles and responsibilities (EIRR) guiding checklist: Exploring expert stakeholders' perspectives* (Doctoral dissertation).

7. Swoszowski, N. C., Evanovich, L. L., Ennis, R. P., & Jolivette, K. (2017). Evaluating implementation of check in/check out in alternative educational settings: Stakeholder perspectives. *Residential Treatment for Children & Youth, 34*(2), 107-121.

8. Sam, C., & Dahles, H. (2017). Stakeholder involvement in the higher education sector in Cambodia. *Studies in Higher Education, 42*(9), 1764-1784.

9. Camacho, D. J., & Legare, J. M. (2016). Shifting gears in the classroom—movement toward personalized learning and competency-based education. *The Journal of Competency-Based Education, 1*(4), 151-156.

10. Kövesi, K., & Csizmadia, P. (2016, September). Industry perception of new engineering graduates: the gap between requirements and reality. In *44th SEFI Conference* (Vol. 11).

11. Raja, R., & Nagasubramani, P. C. (2018). Impact of modern technology in education. *Journal of Applied and Advanced Research, 3*(1), 33-35.

12. Gerritsen-van Leeuwenkamp, K. J., Joosten-ten Brinke, D., & Kester, L. (2017). Assessment quality in tertiary education: An integrative literature review. *Studies in Educational Evaluation, 55*, 94-116.

13. Yang, J., & Tan, C. (2019). Advancing student-centric education in Korea: Issues and challenges. *The Asia-Pacific Education Researcher, 28*(6), 483-493.

14. Gelaidan, H. M., Al-Swidi, A., & Mabkhot, H. A. (2018). Employee readiness for change in public higher education institutions: examining the joint effect of leadership behavior and emotional intelligence. *International Journal of Public Administration, 41*(2), 150-158.

15. Cummings, S., Bridgman, T., & Brown, K. G. (2016). Unfreezing change as three steps: Rethinking Kurt Lewin's legacy for change management. *Human relations, 69*(1), 33-60.

16. Rosenbaum, D., More, E., & Steane, P. (2018). Planned organisational change management: Forward to the past? An exploratory literature review. *Journal of Organizational Change Management, 31*(2), 286-303.

17. Iyer, S. S., Seetharaman, A., & Maddulety, K. (2020). Education Transformation Using Block Chain Technology-A Student Centric Model. In *Re-imagining Diffusion and Adoption of Information Technology and Systems: A Continuing Conversation: IFIP WG 8.6 International Conference on Transfer and Diffusion of IT, TDIT 2020, Tiruchirappalli, India, December 18–19, 2020, Proceedings, Part I* (pp. 201-217). Springer International Publishing.

18. Belwal, R., Priyadarshi, P., & Al Fazari, M. H. (2017). Graduate attributes and employability skills: Graduates' perspectives on employers' expectations in Oman. *International Journal of Educational Management, 31*(6), 814-827.

19. Keerthanaa, K., & Shanmugapriya, S. (2019). A Conceptual Framework to Study the Effectiveness of Interface Management in Construction Projects. *Journal of Construction Engineering and Project Management, 9*(3), 1-21.

20. Al-Emran, M., Mezhuyev, V., & Kamaludin, A. (2019). PLS-SEM in information systems research: a comprehensive methodological reference. In *Proceedings of the International Conference on Advanced Intelligent Systems and Informatics 2018 4* (pp. 644-653). Springer International Publishing.

21. Gupta, R., Seetharaman, A., & Maddulety, K. (2020). Critical success factors influencing the adoption of digitalisation for teaching and learning by business schools. *Education and Information Technologies, 25*(5), 3481-3502.

22. Papadakis, N., Amanaki, E., Drakaki, M., & Saridaki, S. (2020). Employment/unemployment, education and poverty in the Greek Youth, within the EU context. *International Journal of Educational Research, 99,* 101503.

23. Levy, F., & Murnane, R. J. (2004). Education and the changing job market. *Educational leadership, 62*(2), 80.

24. Nwajiuba, C. A., Igwe, P. A., Akinsola-Obatolu, A. D., Ituma, A., & Binuomote, M. O. (2020). What can be done to improve higher education quality and graduate employability in Nigeria? A stakeholder approach. *Industry and Higher Education, 34*(5), 358-367.

25. Browne, L., & Millar, D. K. (2019). Increasing student voice and empowerment through technology: not just listening to the voice of the learner but using their digital capabilities to benefit a whole college community. *Journal of Further and Higher Education, 43*(10), 1433-1443.

26. Peredrienko, T., Belkina, O., & Yaroslavova, E. (2020). New Language Learning Environment: Employers'-Learners' Expectations and the Role of Teacher 4.0. *International Journal of Instruction, 13*(3), 105-118.

27. Matthews, K. E., Garratt, C., & Macdonald, D. (2018). The higher education landscape: trends and implications.

28. Ehrenberg, R. G. (2020). The economics of tuition and fees in American higher education. In *The economics of education* (pp. 345-352). Academic Press.

29. Selwyn, N. (2016). *Is technology good for education?.* John Wiley & Sons.

30. Irving-Bell, D., Wooff, D., & McLain, M. (2019, June). Re-designing design and technology education: A living literature review of stakeholder perspectives. In *PATT37: Developing a knowledge economy through technology and engineering education* (pp. 233-249). University of Malta.

31. Byers, T., Imms, W., & Hartnell-Young, E. (2018). Evaluating teacher and student spatial transition from a traditional classroom to an innovative learning environment. *Studies in Educational Evaluation, 58,* 156-166.

32. Halimi, K., & Seridi-Bouchelaghem, H. (2020). Where

the Competency-Based Assessment Meets the Semantic Learning Analytics. In *Intelligent Tutoring Systems: 16th International Conference, ITS 2020, Athens, Greece, June 8–12, 2020, Proceedings 16* (pp. 295-305). Springer International Publishing.

33. Supasitthimethee, U., Waraporn, N., Porkaew, K., & Charoenkitkarn, N. (2017). Stakeholder involvement in teaching and learning. *Proceedings of the Canadian Engineering Education Association (CEEA)*.

34. Musa, M. F. C., Bernabé, E., & Gallagher, J. E. (2020). The dental workforce in Malaysia: drivers for change from the perspectives of key stakeholders. *International Dental Journal, 70*(5), 360-373.

35. Gabriel, B. F. C. C., Valente, R., Dias-de-Oliveira, J. A., Neto, V. F. S., & De Andrade-Campos, A. G. D. O. (2018). A model for the effective engagement of all stakeholders in engineering education and its pilot implementation. European *Journal of Engineering Education, 43*(6), 950-966.

36. Qin, X., Shi, Y., Lyu, K., & Mo, Y. (2020). Using a TAM-TOE model to explore factors of Building Information Modelling (BIM) adoption in the construction industry. *Journal of Civil Engineering and Management, 26*(3), 259-277.

37. Yu, D. (2019). The Role of For-profit Educational Leadership Styles in Creating Shared Values.

38. Borgohain, S. (2016). Commercialization of Education system: A critical analysis. *International Research Journal of Interdisciplinary & Multidisciplinary Studies (IRJIMS), 1*(12), 71-76.

39. Chandwani, V. S., & Bhome, S. M. (2013). A study of impact of commercialization of education in India. *Episteme: An online Interdisciplinary, Multidisciplinary and Multicultural Journal, 1*(5).

40. Twebaze, R. M. (2015). Commercialization of education in Uganda; causes and consequences. *International journal of recent scientific research, 6*(7), 5107-5112.

41. Abraham, N. M. (2018). Commercialization of education in a dwindling economy. *Journal of Teacher Perspective, 13* (1), 1, 8.

42. Lingard, B., Seller, S., Hogan, A., & Thompson, G. (2017). Commercialisation in public schooling (CIPS).

43. Henseler, J., & Dijkstra, T. K. (2015). ADANCO 2.0. Kleve. *Germany: Composite Modeling GmbH & Co*.

44. Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European business review, 31*(1), 2-24.

45. Mohajan, H. K. (2018). Qualitative research methodology in social sciences and related subjects. *Journal of economic development, environment and people, 7*(1), 23-48.

46. Cheong, J. W., Muthaly, S., Kuppusamy, M., & Han, C. (2020). The study of online reviews and its relationship to online purchase intention for electronic products among the millennials in Malaysia. *Asia Pacific Journal of Marketing and Logistics, 32*(7), 1519-1538.

47. Eizaguirre, A., García-Feijoo, M., & Laka, J. P. (2019). Defining sustainability core competencies in business and management studies based on multinational stakeholders' perceptions. *Sustainability, 11*(8), 2303.

48. Obrenovic, B., Du, J., Godinic, D., Tsoy, D., Khan, M. A. S., & Jakhongirov, I. (2020). Sustaining enterprise operations and productivity during the COVID-19 pandemic:"Enterprise Effectiveness and Sustainability Model". *Sustainability, 12*(15), 5981.

49. Nicolescu, L., & Nicolescu, C. (2019). Using PLS-SEM to build an employability confidence model for higher education recipients in the field of business studies. *Kybernetes, 48*(9), 1965-1988.

50. Vincent-Lancrin, S. (2007). Building future scenarios for universities and higher education: an international approach. In *Prospects of Higher Education* (pp. 3-27). Brill.

51. Bojović, Ž., Bojović, P. D., Vujošević, D., & Šuh, J. (2020). Education in times of crisis: Rapid transition to distance learning. *Computer Applications in Engineering Education, 28*(6), 1467-1489.

52. Shenoy, V., & Aithal, P. S. (2016). Changing approaches in campus placements-a new futuristic model. *International Journal of Scientific Research and Modern Education (IJSRME) ISSN (Online),* 2455-5630.

53. Ahmed, A. Z., & Azim, M. (2017). Employment Scenario in Bangladesh: A Study on the Gap between Expectations of Employers and the Quality of Graduates. *International Journal of Entrepreneurship and Development Studies, 4*(2), 175-195.

54. Wan, X. L., Liu, Y., Zhao, Y., & Li, M. T. (2017). Primary Exploration on Innovation Practice and Employment Model of Resource Recycling Science and Engineering. Guangzhou Chemical Industry, 2017(19), 61.

55. Stukalenko, N. M., Zhakhina, B. B., Kukubaeva, A. K., Smagulova, N. K., & Kazhibaeva, G. K. (2016). Studying innovation technologies in modern education. *International journal of environmental and science education, 11*(15), 7297-7308.

56. Lyapina, I., Sotnikova, E., Lebedeva, O., Makarova, T., & Skvortsova, N. (2019). Smart technologies: perspectives of usage in higher education. *International journal of educational management, 33*(3), 454-461.

57. Akhmetshin, E. M., Mueller, J. E., Chikunov, S. O., Fedchenko, E. A., & Pronskaya, O. N. (2019). Innovative technologies in entrepreneurship education: The case of European and Asian countries. *Journal of Entrepreneurship Education, 22*(1), 1-15.

58. Dhanawade, Sunil and Bhola, Sarang Shankar, Employability Skills of MBA Students at Entry Level: An Employers and Students Perspective (November 29, 2015).

59. Tsvyk, V. A., & Tsvyk, I. V. (2019, August). Digital Technologies in Modern Education: Ethical Aspect. In 5th International Conference on Arts, Design and Contemporary Education (ICADCE 2019). Atlantis Press.

60. Dweck, C. S., & Molden, D. C. (2017). Their impact on competence motivation and acquisition. *Handbook of competence and motivation: Theory and application, 2,* 135-154.

61. Talebian, A., & Salavati, S. (2016). The Role of Philosophical Mindset in Educational Innovation Adoption. *European Journal of Education Studies*.

62. Muhammad, G. (2017). Challenges in development of eLearning systems in higher education of the developing countries. *London Journal of Research in Humanities and Social Sciences.*

63. Marsh, D., & Diaz, W. (2018). Shaping the future: A KDI framework for building CLIL environments in Higher Education. *Universidad de Guadalajara.*

64. Devi, K. N. (2019). Changing Educational Trends in Manipur: A Shift from Privatization to Commercialization. *International Journal of Research in Social Sciences, 9*(6), 908-916.

65. Darko, I. N. (2017). Concealed Market and the Commercialization of Education and its Implication for Inclusivity. In *Inclusive Education in African Contexts* (pp. 129-137). Brill.

66. Olmedo, A. (2016). Philanthropic governance: charitable companies, the commercialization of education and that thing called "democracy". *World yearbook of education*, 44-62.

67. Rathod, D. G. (2018). The negative impact on privatization and commercialization of educational institutes in India. *Epitome: International Journal of Multidisciplinary Research, 4*(1), 40-47.

68. Dahlbeck, J., & Lilja, P. (2019). The unexpected alignment of progressive ideals and the commercialization of education in entrepreneurial learning. *Philosophy of Education, 2017*, 392-405.

69. Dorius, S., Tandberg, D., & Cram, B. (2017). Accounting for institutional variation in expected returns to higher education.

70. Dillon, T. W., Reif, H. L., & Thomas, D. S. (2016). An ROI comparison of initiatives designed to attract diverse students to technology careers. *Journal of Information Systems Education, 27*(2), 105.

71. Mueller, H. M., & Yannelis, C. (2019). The rise in student loan defaults. *Journal of Financial Economics, 131*(1), 1-19.

72. Scott-Clayton, J. (2018). The looming student loan crisis is worse than we thought.

73. Geryk, M. (2018). Universities of the future: Universities in transition under the influence of stakeholders' changing requirements. In *Advances in Human Factors, Business Management and Leadership: Proceedings of the AHFE 2017 International Conferences on Human Factors in Management and Leadership, and Business Management and Society, July 17– 21, 2017, The Westin Bonaventure Hotel, Los Angeles, California, USA 8* (pp. 116-124). Springer International Publishing.

74. Burnell, I. (2017). Teaching and learning in further education: The Ofsted factor. *Journal of Further and Higher Education, 41*(2), 227-237.

75. Vladimirova, K., & Le Blanc, D. (2016). Exploring links between education and sustainable development goals through the lens of UN flagship reports. *Sustainable Development, 24*(4), 254-271.

76. Marshall, S. J., & Marshall, S. J. (2018). Internal and external stakeholders in higher education. *Shaping the University of the Future: Using technology to catalyse change in university learning and teaching,* 77-102.

77. Abdurrahaman, D. T., & Osman, Z. (2017). Development of conceptual framework for Nigerian generation Y-ers' purchase intention and response towards indigenous celebrity-endorsed products: A PLS-SEM Study on Selected Mobile Service Providers in Nigeria. *Journal of Administrative and Business Studies, 3*(1), 49-59.

78. Aithal, P. S., & Aithal, S. (2020). Promoting Faculty and Student-Centered Research and Innovation based Excellence Model to Reimage Universities. *International Journal of Management, Technology, and Social Sciences (IJMTS), 5*(1), 24-41.

79. Sinhgad International Business Review, Vol. V, Issue II, January 2012-June 2012.

80. Vásquez, L. M. G., Naveira, Y. A., & Bernabel, A. P. (2018). Implementing University Social Responsibility in the Caribbean: perspectives of internal stakeholders. *RIDU, 12*(1), 101-120.

81. Haldorai, A., Murugan, S., & Ramu, A. (2021). Evolution, challenges, and application of intelligent ICT education: An overview. *Computer Applications in Engineering Education, 29*(3), 562-571.

82. Hogan, A., & Thompson, G. (2017). Commercialization in education. In *Oxford research encyclopedia of education.*

83. Holloway, S. M., & Escueta, M. M. (2019). Investment in Education Technology Across the Globe: Where Profit Meets Purpose.

84. Rodzvilla, J. (2019). O'Brien, KL, & Jacobson, TE (Eds.) (2018). Teaching with digital badges: Best practices for libraries. Lanham, MD: Rowman & Littlefield, 2018, 226 pp., $45.00, ISBN: 978-1-5381-0417-0.

85. Juaneda-Ayensa, E., Olarte-Pascual, C., San Emeterio, M. C., & Pelegrín-Borondo, J. (2019). Developing new "Professionals": Service learning in marketing as an opportunity to innovate in higher education. *Studies in Educational Evaluation, 60,* 163-169.

86. Uddin, M. A., Alam, M. S., Al Mamun, A., & Akter, A. (2020). A study of the adoption and implementation of enterprise resource planning (ERP): Identification of moderators and mediator. *Journal of Open Innovation: Technology, Market, and Complexity, 6*(1), 2.

87. Wu, B., & Chen, X. (2016). Continuance intention to use MOOCs: Integrating the technology acceptance model (TAM) and task technology fit (TTF) model. *Computers in human behavior, 67,* 221-232.