Universiti Kebangsaan Malaysia
The National University of Malaysia

Bismillahirrahmanirrahim

Digital Transformation in Higher Education

Associate Professor Dr. Mashitoh Yaacob

**Pusat Pengajian Citra Universiti (School of Liberal Studies),
Universiti Kebangsaan Malaysia (is the National University of Malaysia)**

39th Annual Conference of the Arab Association of Collegiate Registrars & Admission Officers
(ARAB-ACRAO 2022)
Park Regency Sharm El-Sheikh Resort, Sharm El-Sheikh, Egypt
(12-15 December)

Content of Presentation

- Introduction

- Definitions

- Methodology

- Results & Discussions

- Conclusion

Introduction

COVID-19 pandemic is a blessing in disguise, in a way, for Malaysia higher education as far as digital transformation is concerned.

It contributes immensely to the acceleration of digital transformation especially in higher education institutions of which might have taken another decade for such a transformation to take place.

This paper explores the experience of Malaysia higher education institutions pertaining to digital transformation since COVID-19 pandemic through a scoping review of literature.

Definitions

Digital Transformation

- Digital transformation presents organisations with the opportunity of a new digital business model, enabling them to offer their products or services in a distributed space and using an anytime anywhere mode to their clients (D'Ambra et al., 2022; Latifah et al., 2022).

- COVID-19 pandemic has accelerated digital transformation in the higher education sector, as institutions transform their traditional teaching platforms to digital platforms (Krishnamurthy, 2020).

- The use of digital transformation in learning facilitates the transition from a face-to-face education system to a distance learning system (Latifah et al., 2022).

- The definition utilized in this paper defined the term to mean **'digital platforms in education'.**

Higher Education Institutions

- 'Higher-educational institutions include not only universities and colleges but also various professional schools that provide preparation in such fields as law, theology, medicine, business, music, and art' (Britannica, 2022).

- Also includes teacher-training schools, junior colleges, and institutes of technology) (Britannica, 2022).

- The higher education institutions in Malaysia comprises the public sectors (20 public universities) and private sectors (51 universities, 10 international branch campuses, 37 university colleges, and 338 colleges) with a minimal interface between them (Sirat & Wan, 2022).

- The definition utilized in this paper defined the term to mean **'public and private universities, international branch campuses, university colleges as well as colleges which are located in Malaysia'.**

Methodology

Formulating 2 Research Questions, i.e, what are the experiences of higher education institutions pertaining to digital transformation? And how the higher education institutions manage digital transformation in their respective higher education institutions?

Literature search was conducted in Google and Google Scholar databases for full documents, relevancy, reviewed articles, and included citations since 2020 using search terms relevant to the research questions such as 'digital transformation in Malaysia higher education institutions', 'Malaysia experience of digital transformation in higher education institutions', and 'management of digital transformation in Malaysia higher education institutions'.

Screening of Literature (is a work in progress) for relevancy, academic or scientific quality, and parsimony (the selection of the resulting literature from searches in Google and Google Scholar databases must be based on the highly relevant records, which is the first 100 records): Assessing Title, Abstract and Keywords of the Literature: 100; Relevant Literature Identified: 40; Eliminating Duplication of Literature: 18; Full-text Literature Assessment: 20

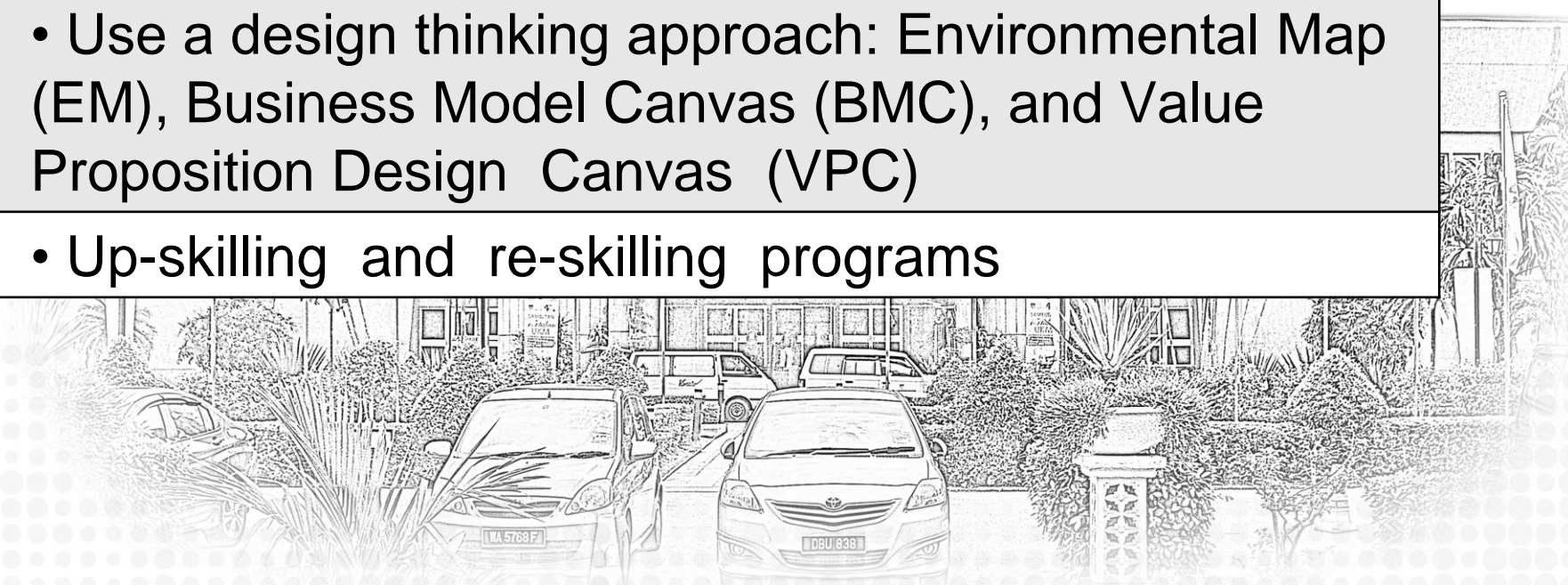Coding Thematically (is a work in progress): Full-text Literature: 20; Themes: 2

Reporting Results (is a work in progress): The 2 Themes, (i) Experience of Malaysia Higher Education Institutions in Digital Transformation (ii) Management of Digital Transformation in Malaysia Higher Education Institutions

Results & Discussion

Experience of Malaysia Higher Education Institutions in Digital Transformation
&
Management of Digital Transformation in Malaysia Higher Education Institutions

- Found 20 literature answered the questions: What are the experiences of higher education institutions pertaining to digital transformation? and How the higher education institutions manage the digital transformation in their respective higher institutions?

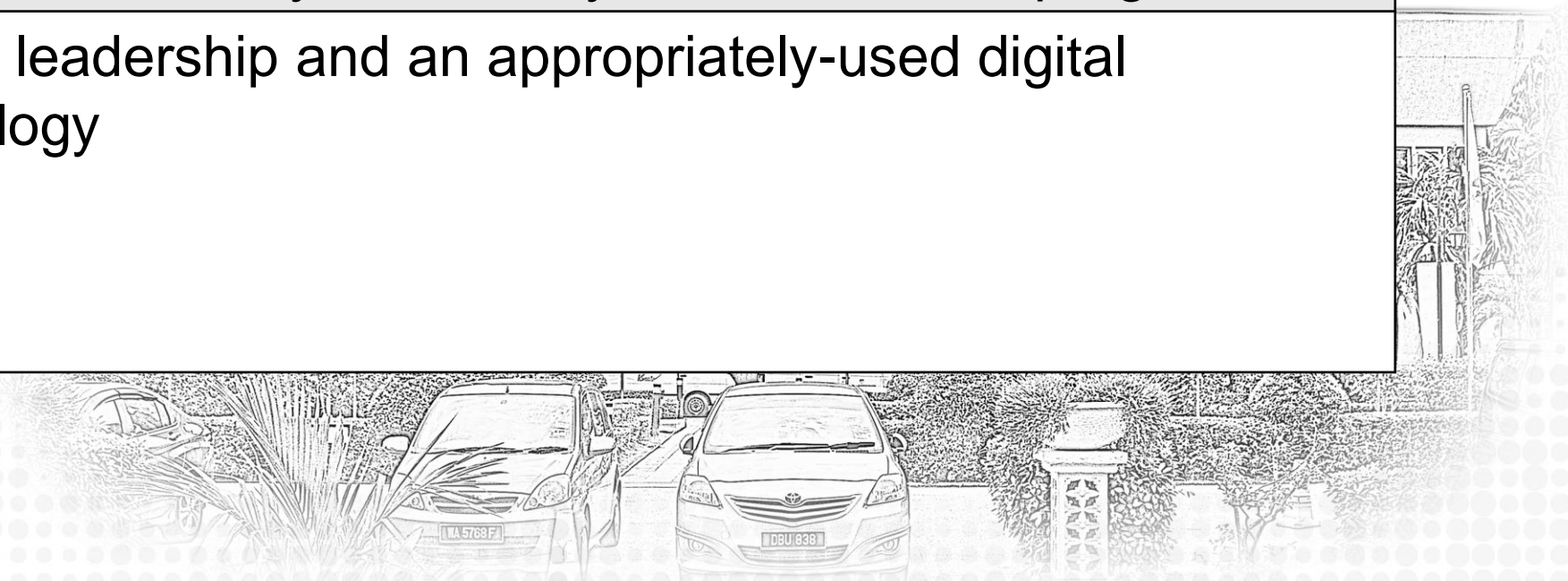| Number	Literature	What	How
1.	Abdussalam (2022)	• Successive modern technical developments in the digital age • Increasing demand for university education and frequent calls for literacy	• Investing the digital culture of the organization
2.	Alnagrat et al. (2022)	• Online learning and virtual education	• New ways of learning and working such as virtual reality (VR) technology
3.	Bujang et al. (2020)	• Challenge in identifying appropriate digital learning platforms and tools to engage students in learning at their own pace	• e-learning platforms
4.	Abbas et al. (2021)	• Adapting to new learning environment and models • Changes to organizational structure and business process • Financial constraints • Digital initiatives and technology barriers • Lack of digital strategic vision • Stakeholder digital literacy and expectations	• Leveraging enterprise architecture
5.	Wani et al. (2022)	• Technological advancement • Financial assistance • Market developments	• Use a design thinking approach: Environmental Map (EM), Business Model Canvas (BMC), and Value Proposition Design Canvas (VPC)
6.	Fahmy et al. (2022)	• Digital talent gap	• Up-skilling and re-skilling programs

Results & Discussion

Experience of Malaysia Higher Education Institutions in Digital Transformation
&
Management of Digital Transformation in Malaysia Higher Education Institutions

- Found 20 literature answered the questions: What are the experiences of higher education institutions pertaining to digital transformation? and How the higher education institutions manage the digital transformation in their respective higher institutions?

Number	Literature	What	How
7.	Xin et al. (2021)	• The effect of digital learning on learning motivation among Malaysian medical students	• Electronic books (e-books)
8.	Azman and Abdullah (2021)	• Online learning and digital divide	• Flexible education
9.	Adams et al. (2021)	• Technical skills • Difficult to use e-mails and the learning management system • Technology available • Self-directed learning	• Blended learning
10.	'Aini Abdullah et al. (2020)	• Fulfilling job demands due to the shifting IR 4.0 trend in job competency	• The combination of technical skills (information literacy, media skills and digital analytics skill) and soft skills (communication skills, problem solving skills, and leadership skills)
11.	Raju et al. (2022)	• Cyber security awareness of students in using digital platforms	• Taking computer and cyber security subjects, • Attend external cyber security and awareness programs
12.	Pramono et al. (2021)	• The way leadership and digital technology usage affect the faculty members' research performance in surviving higher education sustainability during the COVID-19 pandemic • COVID-Driven Innovation	• Good leadership and an appropriately-used digital technology

Results & Discussion

Experience of Malaysia Higher Education Institutions in Digital Transformation
&
Management of Digital Transformation in Malaysia Higher Education Institutions

- Found 20 literature answered the questions: What are the experiences of higher education institutions pertaining to digital transformation? and How the higher education institutions manage the digital transformation in their respective higher institutions?

Number	Literature	What	How
13.	Eri et al. (2021)	• Digital resilience in higher education in response to COVID-19 pandemic	• Redesign course delivery strategies to suit cohorts with multiple levels of digital competences, digital and emotional intelligence • Institute novel professional development programs for staff to instil much-needed digital competencies to drive digital hardware and software effectively.
14.	Sukumaran et al. (2021)	• Challenges of e-learning integration with STEM subjects	• Implementation of both the "hard structures" (referring to technology hardware such as platform, applications, tools, etc.) and the "soft structures" (encompassing people-related aspects including the management support and educators' knowledge and skills institutional structures) within the institutions
15.	Lyn et al. (2022)	• Online learning as a result of COVID-19	• Adopt innovative business models that prioritise the digital revolution and technology shift
16.	Tee et al. (2022)	• A lack of digital transformation readiness	• Education Reform • Translational Research • Technology Optimization planning

Results & Discussion

Experience of Malaysia Higher Education Institutions in Digital Transformation
&
Management of Digital Transformation in Malaysia Higher Education Institutions

- Found 20 literature answered the questions: What are the experiences of higher education institutions pertaining to digital transformation? and How the higher education institutions manage the digital transformation in their respective higher institutions?

| Number	Literature	What	How
17.	Ghavifekr & Fung (2022)	• The implementation of e-learning during the COVID-19 pandemic	• Round-the-clock ICT support • Hands-on • Immediate training to upskill technological competencies
18.	Jalil (2022)	• A need to appropriately align HEIs digitalization and management strategies	• The use of guiding metrix
19.	Sia & Adamu (2020)	• Distinctive rise of online learning, where teachings are done remotely on digital platforms due to COVID-19.	• Sufficient technical support • Good Internet services • Availability of user-friendly teaching pieces of software
20.	Kumar et al. (2020)	• Learning management system (LMS) technology for supporting out of classroom pedagogical	• Blended learning approach : Google classroom

Conclusion

Digital transformation has attracted worldwide attention, while education has become the main target for its development.

In the education sector, the current crisis brought upon by this pandemic is a quint-essential adaptive and transformative challenge without a pre-emptive measure or standard operational procedure in place. Thus, a leader's role is crucial in ensuring a positive experience during a crisis for a more successful outcome.

This study can serve as a guide for the management of higher education institutions to recognize possible barriers and better prepare for them in the future.
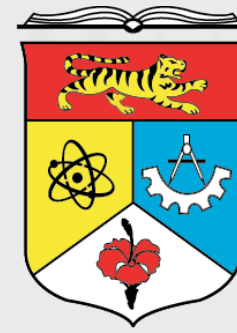
UNIVERSITI KEBANGSAAN MALAYSIA

The National University of Malaysia

Wabillahi Taufik wal Hidayah
was salammualaikum warahmatullahi wabarakatuh

Thank you