
DETERMINATION OF KNOWLEDGE MANAGEMENT IN MALAYSIAN PUBLIC UNIVERSITIES

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Abstract Knowledge management is the functions involved in the management of data, information, and knowledge in the form of expertise and experience gained from information created, transferred, or stored in the heads of individuals or documented in written form in organisational standards, procedures, or systems. Knowledge management is a challenging but vital job for educational institutions. In contrast, thorough research in public universities is severely circumscribed. This study evaluated the essence of knowledge management through the lenses of leadership, organisational culture, and information management. This article will analyse how top administrators at Malaysian public institutions manage knowledge and identify the regulatory framework for knowledge management at Malaysia's public universities. In addition, the future of senior administrators in Malaysian public institutions is contingent upon leadership, culture, and technology to control knowledge management. Face-to-face interviews with top management leaders and university senate members from around Malaysia were used to collect qualitative data, which was then analysed using ATLAS.Ti. Leadership, organisational culture, and information technology are critical in knowledge management. Thus, the finding

underscored the significance of knowledge management for improved quality and efficiency in university practice.

Keywords: “Knowledge management”, “leadership”, “Organisational Culture”, “Information Technology”, “Public Universities”, “Malaysia”

1. Introduction

The underlying premise of a knowledge economy is that data and information have become modern commodities for business, and knowledge management is crucial for organisations to develop values from intellectual capital in knowledge (tacit or explicit). In the framework of the knowledge economy, the function of universities as knowledge producers became crucial, and how these universities structured their knowledge had the potential to influence the entire organisational growth, societal growth, and economic growth (Money & Cohen, 2018).

The national aspiration of Malaysia, known as Vision 2020, is to become a developed country by the year 2020 (although this target has been pushed back to 2030), and it has emphasised the demand for knowledge workers. The 7th Malaysian Former Prime Minister, YAB Tun Dr. Mahathir Mohamad, stated that for Malaysia to be a prosperous nation, it was necessary to uphold two core values: diligent labour and superior knowledge. According to the YAB previous Prime Minister 7th, expertise originated from hard work in pursuing knowledge. For individual, organisational, and social success, university students must develop these qualities. The Malaysian Higher Education Blueprint for 2015 to 2025 has highlighted the imperative of knowledge automation for leaders at higher learning institutions. These leaders will be empowered with greater decision-making rights to support knowledge-related agendas such as knowledge transfer programs, knowledge integration, and the development of knowledgeable graduates. (Han et al., 2021)

Previous research has investigated this subject from various vantage points that are unique to the knowledge management research field. Scholars have taken knowledge management from a social standpoint, in which individuals or leaders were the agents for knowledge management and associated and interacted with one another during activities involving information sharing. This concept has been a significant research area in public universities (Alavi et al., 2005; Nam Nguyen & Mohamed, 2011; Suppiah & Singh Sandhu, 2011) and continues to be relevant for current studies in line with the social, economic, and technological changes. Knowledge sharing is the norm in universities. The universities, classified as knowledge centres, were required to implement effective organisational knowledge management for academic and administrative reasons. It was imperative for academicians and students that the function of university administration was to facilitate various work processes such as teaching and learning, research, and innovation, which led to an excellent performance by the institution as a whole. The valid justification for performing regular assessments of the procedures was offered by the advantages that come with exceptional knowledge management for organisations. In the framework of educational institutions that offer higher education, national and worldwide ranking systems for universities have impacted how universities' performances are evaluated. For instance, to meet the criteria for publication, universities were required to publish their articles in peer-reviewed journals, and academics relied on a number of databases to manage the information contained in the extensive collections of academic journals.

When there is access to a robust academic database, users have access to data that can be trusted, and this database then becomes the primary source of information. The researcher's own experiences in information management at one of Malaysia's public universities provided the impetus for this line of inquiry. The compilation and reporting of performance success for the entire university, consisting of approximately 40 departments spread over three campuses, was one of the most critical challenges the university faced. There were difficulties in managing a substantial amount of information effectively, and they were closely linked with knowledge management within the university. Knowledge management has become an essential tool in universities' performance systems, and several factors were

critical for creating this knowledge management capability. To develop knowledge management capability, these universities required social infrastructure in leadership and culture and technical infrastructure such as hardware and software (Abualoush et al., 2018). It is worth noting that knowledge in an organisation is not only available in documents but also embedded in organisational leaders and cultures, and five organisations need to focus on three components to manage knowledge effectively – people, process, and technology (Oyewunmi et al., 2017).

Therefore, this paper examined three predictors of leadership, organisational culture, and information technology regarding knowledge management in Malaysian public universities. It has been expected that the leadership, culture and information technology usage patterns in these universities may differ based on the contextual background (Barley et al., 2018; Basit & Medase, 2019; Chong & Chong, 2009; Coelho et al., 2016).

2. Literature

Information is stored in various formats and locations throughout all organisations, including digital records, databases, physical documents stored in folders, and even the human brain itself. It was typical to practise for one individual inside an organisation to repeat the work completed by others working for the same organisation. This situation occurred because there was no system to track information or capitalise on the organisation's existing knowledge. The worst-case scenario was that people working in the same department were unaware of the information being held by one another. It is necessary for organisations, which are made up of people, to be aware of the knowledge resources they possess and to be able to put these resources to use for the benefit of the organisation.

Knowledge management in an organisation means the methodical gathering of data, information, skill, and experience that employees could draw upon when performing their duties. According to (Chong & Chong, 2009), the accumulation of knowledge can be

produced and stored in the individual's mind, or it can be documented in the organisation's procedures, records, or systems. Managing knowledge is a process that denotes the actions of organising knowledge (either tacit or explicit), which includes the generation, transfer, and storage of knowledge. Managing knowledge can also refer to the act of organising knowledge. For an organisation to maintain its competitive advantages in the long run, it is essential to have a knowledge management system that works properly, and it is as important to make sure that information flows efficiently (Mahdi et al., 2019). The term "knowledge management" has been given many distinct definitions by academics, but there are only a select few that have garnered widespread consensus across a variety of viewpoints.

The best method to describe knowledge management was to determine how it should be understood concerning the context in which it was implemented. For example, in information technology, knowledge management refers to managing both the soft and hard infrastructure, including databases and software. On the other hand, the business context included institutions of higher education, managed the knowledge with a greater focus on the individuals who were involved with the knowledge, and viewed organisational issues from the perspective of social aspects such as organisational culture, leadership, and other organisational concerns (Wai & Chai, 2008).

The foundation of knowledge management was centred on producing and making use of various knowledge resources to advance the organisation's goals and objectives. Knowledge management is the process of collecting and connecting the vast amounts of knowledge already present within an organisation due to work outputs and experiences (Bollinger & Smith, 2001). Additionally, it was referred to as the installation of a culture of knowledge and the exercise of leadership to make information sharing possible (Bhatt, 2001). The efficient management of information was the primary objective of knowledge management, which led to an improvement in the organisation's overall performance, in addition to additional benefits of knowledge management such as enabling the organisation to be more inventive and successful (Okunoye & Bertaux, 2008).

Knowledge management might be regarded as an encouragement to exchange knowledge to produce ideas and value-adding products and services, according to Coelho et al. (2016). In addition, knowledge management refers to the process of locating and disseminating both implicit and explicit information stored in individuals, organisations, processes, and products (Bollinger & Smith, 2001). Knowledge management helped an organisation develop the competencies necessary to maintain a high level of organisational performance using the knowledge resources that were already available (Pan & Scarbrough, 1999). As a result, knowledge management may be defined as the activity of amassing specific information from past experiences and applying it to both present and future decision-making to enhance an organisation's efficiency (Alavi et al., 2005).

In addition to the experiences, the management of knowledge encompassed working methods, tools, and artefacts that were imbued with knowledge and contributed, in some way, to integrating fundamental knowledge with more recent information via at least four actions (Baskerville & Dulipovici, 2006). These four activities—generation of information, storage of that knowledge, distribution of that knowledge, and application of that knowledge—span all functional units across business areas and levels to improve organisational performance. According to the research conducted by Abuloush et al. (2018), knowledge management is defined as the process of systematically locating, acquiring, organising, and transmitting information as a regular activity within an organisation's many functional units.

Knowledge management created an awareness strategy among the organisation's members, resulting in the proper knowledge being delivered to the right people at the right time. Additionally, knowledge management assisted individuals in sharing information in ways that led to actions that improved the organisation's performance (Baskerville & Dulipovici, 2006). Knowledge management was the strategy that the company used to manage its knowledge assets through collaborative processes and a sharing culture that promoted effective business processes to build intellectual capital. This matter was accomplished through the organisation's adoption of knowledge management.

Knowledge management enables organisations to make the most of their knowledge-related effectiveness and advantages from their knowledge assets and continually refresh their intellectual capital (Bollinger & Smith, 2001). In addition, Coelho et al. (2016) emphasised that the primary purpose of knowledge management and public administration was to make organisations act as strategically as possible by optimising the best value of their knowledge assets. This mean was explicitly emphasised as the primary purpose of knowledge management and public administration. Organisational work processes organised the actions that led to value creation, and knowledge management improved the capabilities to generate new knowledge resources. As a result, sourcing and deploying the appropriate knowledge was improved, leading to achieving the desired outcomes.

It was also hypothesised that knowledge management combines the knowledge and competencies required for human resource management. As a result, knowledge management is related to activities associated with human resources, such as identifying and developing leaders, creating knowledge, and analysing information. For organisations to accomplish this goal, they require the ability to construct, transform, organise, and efficiently use their intellectual and knowledge assets. Knowledge management has evolved into a standard practice in today's businesses as a means for companies to meet their organisational goals and adapt to the rapidly shifting nature of the modern business environment. According to this point of view, the primary purpose of knowledge management is to establish a favourable culture for growth, encouragement, exploration, and utilisation of knowledge on both the individual and organisational levels. In this manner, knowledge management can convey the appropriate information to the appropriate individuals at the appropriate time. In addition, it ensures that an ideal culture would support a sound system for effectively exchanging and managing information about knowledge.

3. Method

This paper focuses on exploring and examining the knowledge management practice that can identify the factor determining knowledge management in public universities. Thus, a group of industry experts (Vice-Chancellor) who hold the critical informant of knowledge management in public universities become samples in this study. The study was conducted on an individual level. It sought to examine the “what” and “how” of actions or behaviours for knowledge management in a public university context. The data collection process comprised face-to-face with unstructured interviews among top management officers in public universities about knowledge management at their organisations. All interviews were held at their university for about 45 - 60 minutes. The standard protocol for the interview was implemented per session and was voice recorded with the interviewees’ consent.

Guest et al. (2006) suggested that six interviews would be sufficient to provide meaningful interpretations for exploring high-level and comprehensive key themes of essential data. However, Saunders et al. (2018) have said that if the data has reached a saturation level, then that is sufficient for research purposes. Therefore, this research conducted five interviews among the Vice-Chancellors from five Public universities in Malaysia. Specifically, for knowledge management research, scholars have seen individuals or leaders as relevant knowledge management agents who interact during knowledge-sharing activities (Kremer et al., 2019).

The main objective of this interview is to explore the attributes and perceptions of public university leadership related to the role of leadership, organisational culture, and information technology in maintaining effective knowledge management in public universities in Malaysia. The information gathered is helpful for incorporating and completing survey instruments that include specific research contexts.

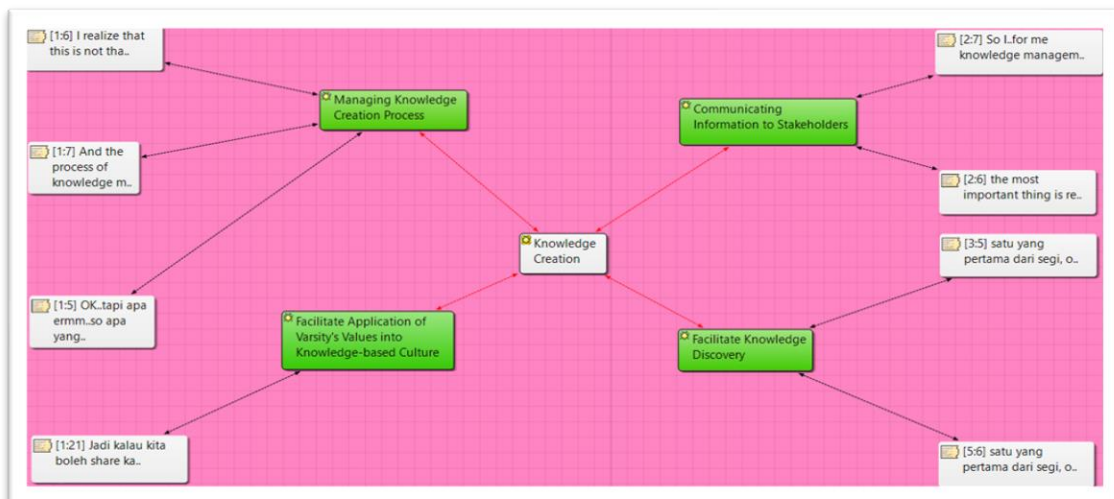
Once the data was gathered, verbatim responses were transcribed for content analysis. This critical process was crucial to acquire significant information data and feedback to develop

the conceptual framework and theme of the study accordingly. Next, all the data gathered and processed were analysed with computer-aided qualitative data analysis (CAQDAS), ATLAS.ti. to generate a result for this paper.

4. Findings

The previous part explains the research design that guided the overall research process. Then, the validation aspects encompass internal validity, external validity, construct validity, face validity, and reliability. The main aim for assessing the research quality was to increase the accurateness of findings and qualitative evidence to answer the paper's objective.

Figure 1.1 Knowledge Creation Output of ATLAS.Ti



Based on the evidence presented in the above figure, it is clear that all four sub-themes for Knowledge Creation were present in Malaysian public universities.

Theme 1: Knowledge Creation

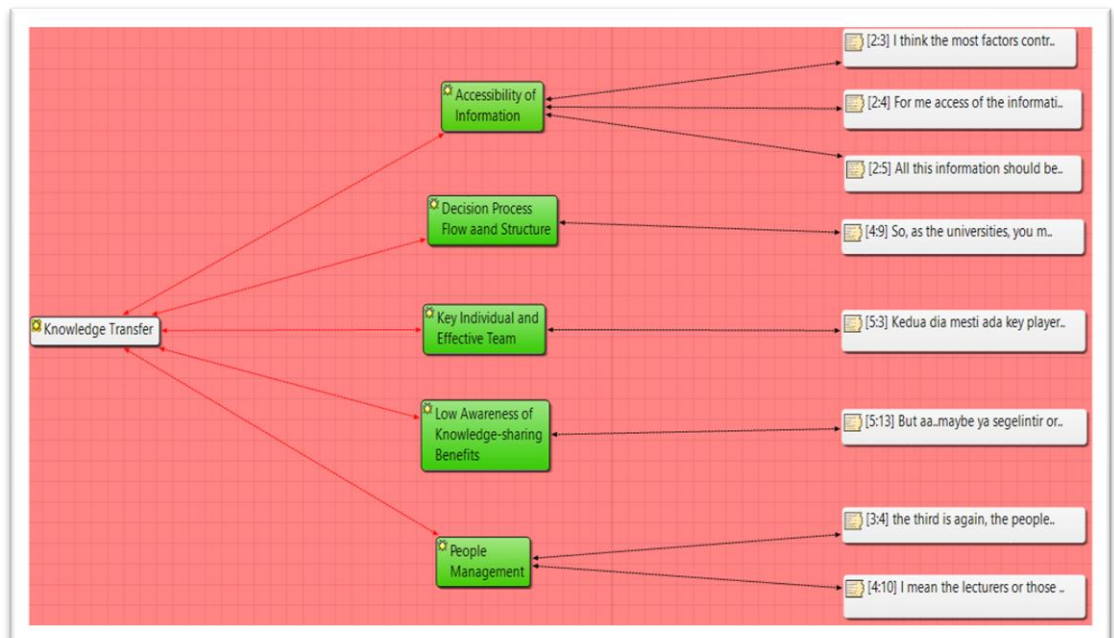


Figure 1.2 Knowledge Transfer Output of ATLAS.Ti

ATLAS.ti result output derived from eight-node of the statement from the informant indicated five sub-elements. Thus, the presence of five sub-element forms on the value of theme, knowledge transfer, is significantly associated with acknowledgement management in Malaysian public universities.

Theme 2: Knowledge Transfer

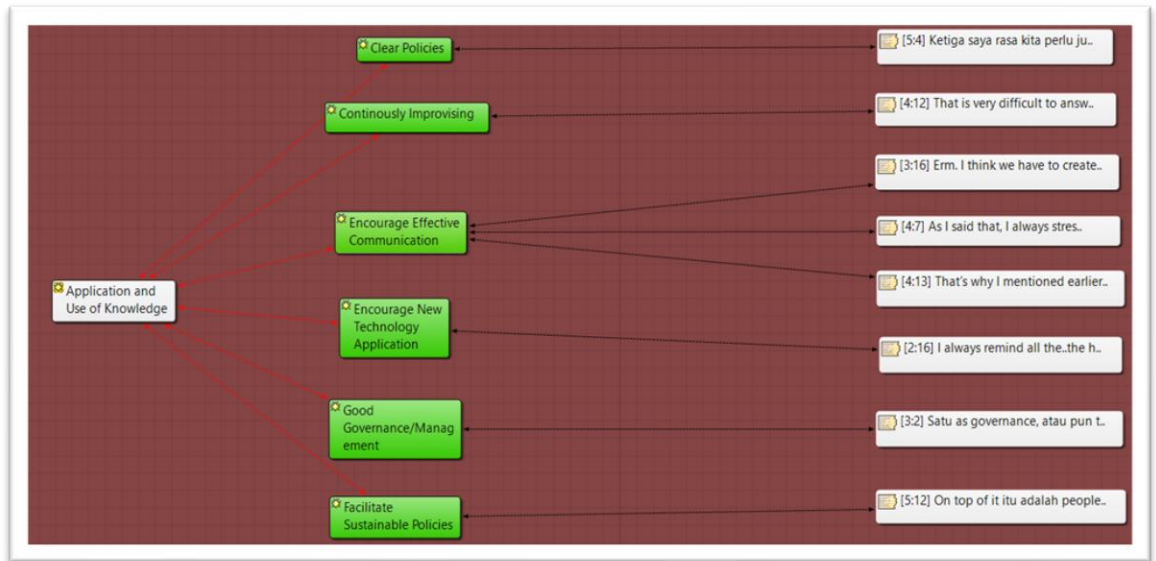


Figure 1.3 Application and Use of Knowledge Output of ATLAS.Ti

Based on the evidence presented in the above table, it is clear that all five sub-themes for Application and Use of Knowledge were present in Malaysian public universities.

Theme 3: Application and Use of Knowledge

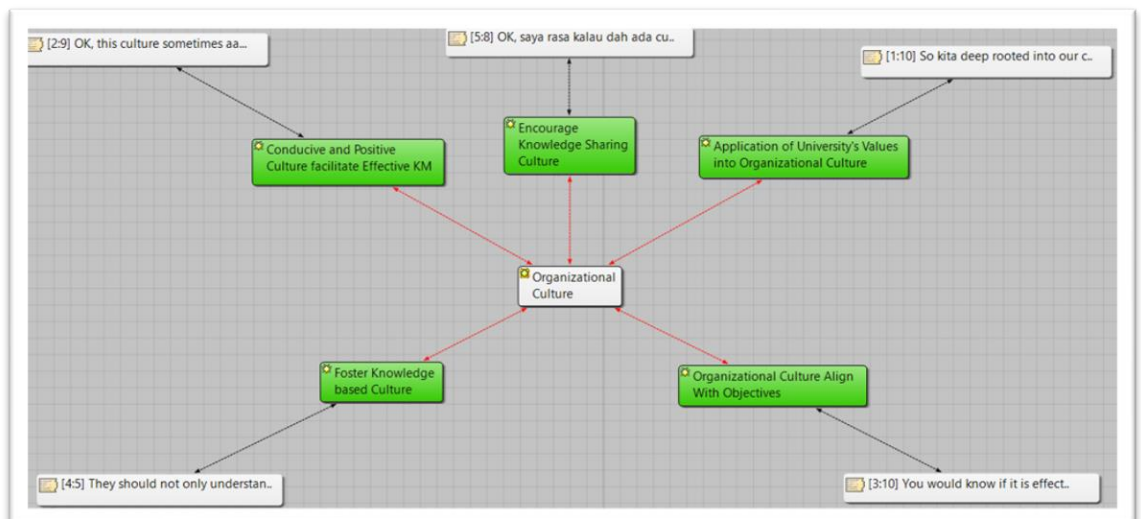


Figure 1.4 Organizational Culture Output of ATLAS.Ti

Based on the evidence presented in the above table, it is clear that all five sub-themes for Organizational Culture was found present in Malaysian public universities.

Theme 4: Organizational Culture

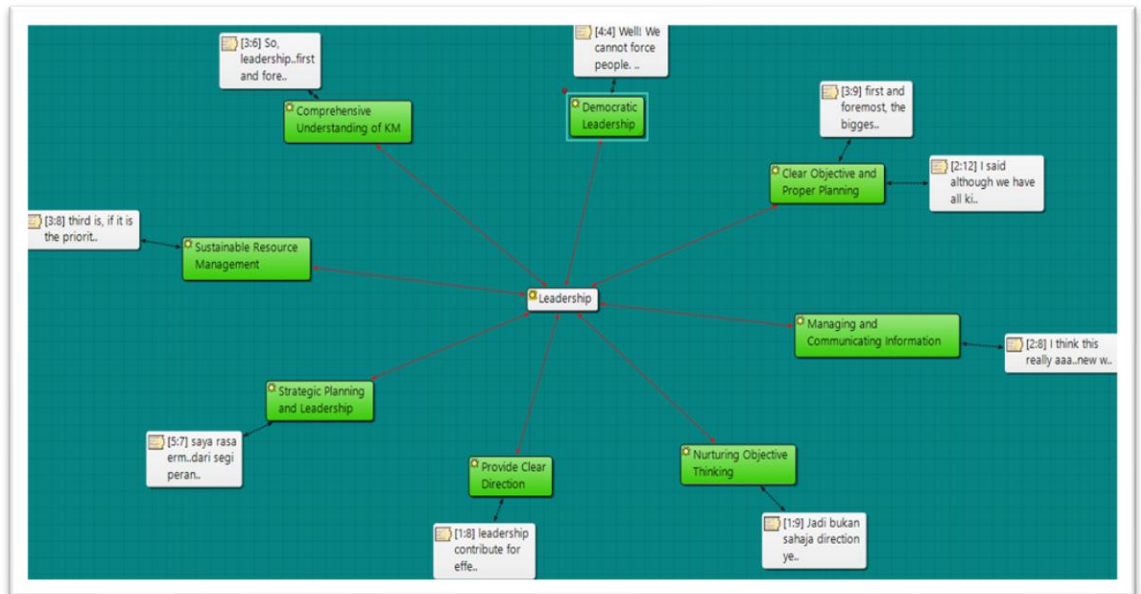


Figure 1.5 Leadership Output of ATLAS.Ti

Based on the evidence presented in the above table, it is clear that all eight sub-themes for Leadership was found present in Malaysian public universities.

Theme 5: Leadership

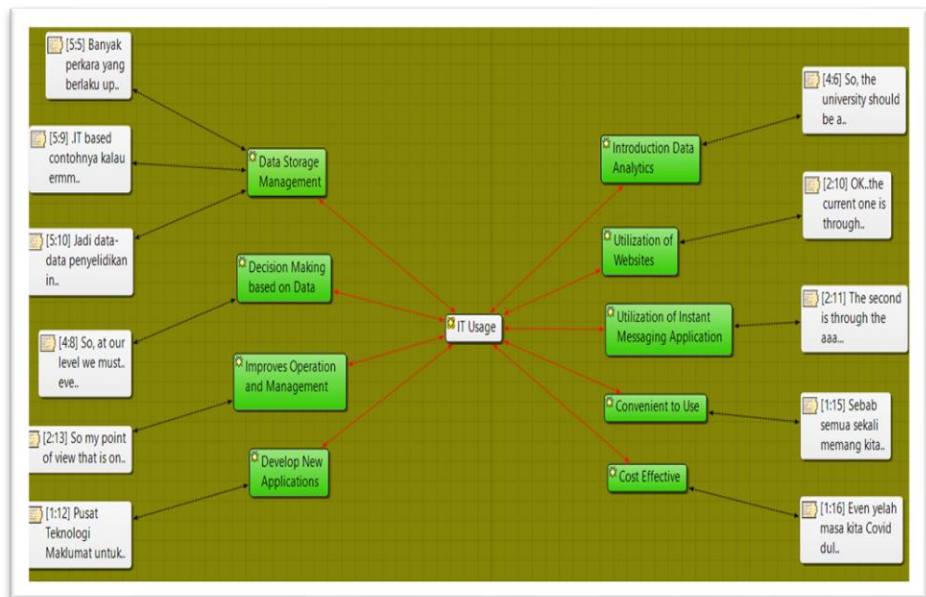


Figure 1.6 Information Technology Output of ATLAS.Ti

Based on the evidence presented in the above table, it is clear that all eight sub-themes for Leadership was found present in Malaysian public universities.

Theme 6: Information Technology

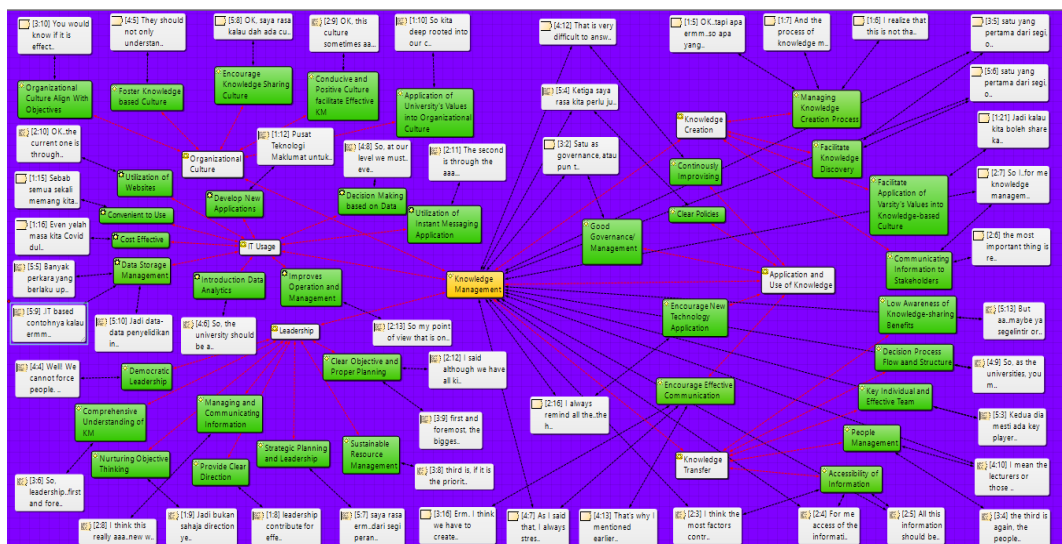


Figure 1.7 Knowledge Management Output of ATLAS.Ti

The findings of this study revealed the presence of the six elements or factors that could be associated with the success of Knowledge Management practices in the Malaysian public university, namely Knowledge Creation, Knowledge Transfer, Application and Use of Knowledge, Organizational Culture, Leadership, and Information technology. Additionally, the researcher also discovered unique variables for all of the six elements.

Explicitly, four dimensions were found for Knowledge Creation, five dimensions for Knowledge Transfer, six dimensions for Application and Use of Knowledge, five dimensions for Organizational Culture, eight dimensions for Leadership, and nine dimensions for Information Technology.

5. Conclusions and Recommendations

The main objective of this paper was to determine knowledge management practice at Malaysian public universities. Concurrently, this objective emerges the question of how Malaysian public universities govern knowledge management practice at the universities, and why is knowledge management significant and essential. A qualitative finding was generated to clarify the doubt of this question; the evidence provided by the informant output clearly showed the significance of governance knowledge management practice in their organisation. The implementation governance of knowledge management in Malaysia Public Universities has been covered from the top to bottom of their organisation operations. Three significant dimensions of knowledge management practice employed in Malaysia Public Universities are knowledge creation, knowledge transfer, and application and use of knowledge.

Moreover, these three dimensions can be segregated into different sub-dimension of knowledge management implementation. Fundamentally, knowledge creation covers communication information among stakeholders, facilitates knowledge discovery, facilitates the application of varsity value into a knowledge-based culture, and manages the knowledge

creation process. Then, for knowledge transfer, five sub-dimension has been discovered that are accessibility information, decision process flow and structure, critical individual and effective team, low awareness of knowledge sharing benefits, and people management. Finally, for application and use of knowledge, there are six propositions of top manager application and use of knowledge: clear policy draft or development, continuous improvising, encouraging new technology application, good governance, and facilitating sustainable policy.

Through this identification objective one and research question, one has been answering accordingly. Moreover, those discovery has also become part of a conceptual model built and questionnaire development component. It substantiates that finding leads to discovering another dimension of organisation culture, leadership, and Information technology usage. These three substantiate factors discovery has reflected the relationship towards knowledge management as shown in the output section. Thus, the finding has completed the conceptual model development theme for knowledge management practice governance in Malaysian public universities.

The research findings and contributions have implications for knowledge management in public university sectors from a theoretical and practical aspect. From the finding, this research confirmed that successful knowledge management practices were influenced by leadership, which shaped the organisational culture and managed information technology so that it could be used optimally while highlighting the university's role as the most significant knowledge management collection and dissemination centre. While on a practical aspect, the result generated from this research helped Malaysian public universities develop better practices and policies for innovation management and commercialisation. Specifically, this research has three implications for university leadership, managers (Boards) and policymakers (MOEs)

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