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**INTENTION TO  
USE METAVERSE IN TEACHING AMONG  
UNIVERSITI MALAYSIA KELANTAN LECTURER**

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**UNIVERSITI MALAYSIA KELANTAN**

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## ABSTRACT

The intention to use the metaverse in teaching among lecturers is a growing phenomenon in the field of education. The metaverse, encompassing virtual reality (VR), augmented reality (AR), and other immersive technologies, provides a unique platform for enhancing teaching and learning experiences. This study aims to explore the factors that influence lecturers' intention to adopt the metaverse in their teaching practices. The research utilized a mixed-methods approach and a quantitative survey. The Technology Acceptance Model (TAM) served as the theoretical framework for understanding lecturers'. The respondents among UMK lecturer were targeted respondents and a total of 123 respondent were successfully responded through the online survey. Data collected was analyzed by using Statistical Package for Social Science (SPSS) version 27. The findings of this study have implications for educational institutions and policymakers aiming to promote the adoption of the metaverse in teaching. Further research is needed to explore the long-term impact of metaverse integration on teaching and learning outcomes. Through this study can understand about performance expectancy, effort expectancy and facilitating condition.

**Keywords:** Intention to use metaverse, Performance Expectancy, Effort Expectancy, Facilitating Condition, UMK lecturer.

## ABSTRAK

Hasrat untuk menggunakan metaverse dalam pengajaran di kalangan pensyarah merupakan fenomena yang semakin berkembang dalam bidang pendidikan. Metaverse, merangkumi realiti maya (VR), realiti tambahan (AR) dan teknologi mendalam yang lain, menyediakan platform unik untuk meningkatkan pengalaman pengajaran dan pembelajaran. Kajian ini bertujuan untuk meneroka faktor-faktor yang mempengaruhi niat pensyarah untuk mengamalkan metaverse dalam amalan pengajaran mereka. Penyelidikan ini menggunakan pendekatan kaedah campuran dan tinjauan kuantitatif. Model Penerimaan Teknologi (TAM) berfungsi sebagai kerangka teori untuk memahami pensyarah. Responden dalam kalangan pensyarah UMK adalah responden sasaran dan seramai 123 responden telah berjaya menjawab melalui tinjauan dalam talian. Data yang dikumpul dianalisis dengan menggunakan Statistical Package for Social Science (SPSS) versi 27. Dapatan kajian ini memberi implikasi kepada institusi pendidikan dan penggubal dasar yang bertujuan untuk menggalakkan penggunaan metaverse dalam pengajaran. Kajian lanjut diperlukan untuk meneroka kesan jangka panjang integrasi metaverse ke atas hasil pengajaran dan pembelajaran. Melalui kajian ini dapat memahami tentang jangkaan prestasi, jangkaan usaha dan keadaan memudahkan.

**Kata kunci:** Niat menggunakan metaverse, Jangkaan Prestasi, Jangkaan Usaha, Keadaan Memudahkan, pensyarah UMK.

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# CHAPTER 1

## 1.1 INTRODUCTION

This chapter will talk about the historical past of the study, problem statement, studies objectives, studies questions, the importance of the study, the definition of the term, and the final chapter summary.

## 1.2 BACKGROUND OF STUDY

The purpose of this study is to investigate the intention to use Metaverse in teaching among University Malaysia Kelantan lecturer. The metaverse is a new internet that integrates the physical and virtual worlds using VR headsets, block chain technology, and avatars (Lee et al., 2021a; The Verge, 2021). For years, VR headsets and avatars have allowed players to interact in immersive multimedia online games. Second Life, created in 2003 by Linden Lab, lets users build and operate avatars and socialize in a virtual world (Gent, 2022; Ludlow & Wallace, 2007). Roblox and Fortnite, which allow users to create avatars and engage with other gamers in their own virtual universe, are also considered antecedents to the metaverse (Damar, 2021). These platforms have had many global users since the early and mid-2000s, but their platform independence and functionality limit them in the metaverse.

Teaching is engaging with students to help them comprehend and apply concepts and procedures. Design, content selection, delivery, assessment, and reflection. Teaching involves students in knowledge construction. A teacher must know subject matter and how to make students enthusiastic learners. Thus, good teaching involves methodical learning knowledge. Teaching not only imparts information but also turns students into active knowledge builders. Of course, students must help the teacher change. Teaching is about providing the pedagogical, social, and

ethical conditions for students to take charge of their learning, individually and collectively. C. Roland Christensen et al. (1991).

Being a lecturer in the 'super complexity' (Barnett, 2000) in the "super complexity" of a contemporary institution, lecturing requires much more than just being an expert in a particular topic. Understanding what it means to be a lecturer requires evaluating our own identities as academics, our conceptions of learning, the purpose of education, and our place in contemporary society. Here, I attempt to make sense of the academic environment by "eroticizing the domestic," or, as Bourdieu (1984) put it, "revisiting the commonplace" or "regular activities." By doing this, it is possible to assess the significance of common academic roles and identities in connection to the environment in which higher education is practiced.

### **1.3 PROBLEM STATEMENT**

The metaverse will affect many facets of human existence, including the educational system. However, the worlds of education and technology will not be divided; indeed, as we can already see, progress in technology will not be possible without a solid education. According to Ning et al. (2021), the metaverse is a brand-new category of online application and social form that integrates a variety of cutting-edge technology. It has qualities that are hyper spatiotemporal, social, and multi-technological. The outstanding technologies of augmented reality (AR) and virtual reality (VR) are going to be combined in something called the metaverse, which will have a tremendous impact on the field of education.

The growth of the metaverse supports frequent human interaction and communication. The researchers used the metaverse in a learning setting, concentrating on the application of a problembased method in which students and professors may present the problem and provide

various solutions in the fictional universe utilizing three-dimensional courses and the avatar (Barry et al., 2009).

On the other hand, the higher the level of immersive contact, the simpler it is for users to indulge in it, which might lead to "cyber-syndrome," or physical, social, and mental illnesses caused by excessive cyberspace use [64]. However, XR presents many visual and aural cues that may raise cognitive workload [43], [65]. Metaverse schooling appears to require immersive game technologies. Thus, Metaverse education must address how to create a game that promotes learning without becoming addictive. Metaverse education is a tool, not a panacea [66, 67]. Some instructional content that does not require Metaverse simulation will perform better in the actual world and avoid addiction.

Security and privacy are other issues. The metaverse will increase Internet use. Metaverse corporations will acquire large amounts of user privacy data to analyses their thoughts and behaviors [58]. The data will be unique. These companies must satisfy recognized for protecting personal data and ensure programmers are always in place to meet additional standards (e.g., data regulatory risks). In the future, the Metaverse education system should address its inadequacies in user data gathering, storage, and management. Information security matters. Thus, metaverse education should incorporate CIA (Confidentiality, Integrity, and Availability) [59].

Fast and straightforward internet technology is needed for the metaverse, but it is also expensive, which will be a barrier. According to yesterday's outbreak, slow networks or even those who cannot receive a signal can sometimes cause online learning to be delayed, and not all parents have the money to buy their kid's cell phones (Tira, 2022). Since gen-z tends to favor a digital environment, technology is constantly changing, and the metaverse is gradually coming to life, there is potential for the metaverse to transform education into a virtual environment. Education

must follow these growth tendencies as technology develops continuously. The possibilities for using metaverse for teaching are endless because it is a technology that offers a virtual reality and imagined environment. Education has started to advance due to young people's involvement in the digital world regularly, even as early as little children. Schools and colleges can become more appealing platforms for the younger generation with the aid of the metaverse (Nurmala, 2022).

#### **1.4 RESEARCH OBJECTIVE**

The target of study is the intention to use metaverse in teaching. This research will focus on how performance expectancy, effort expectancy and facilitating conditions can influence the metaverse in teaching.

- 1: To investigate the relationship between performance expectancy and metaverse in teaching.
- 2: To investigate the relationship between effort expectancy and metaverse in teaching.
- 3: To investigate the relationship between facilitating conditions and metaverse in teaching.

#### **1.5 RESEARCH QUESTIONS**

There are essential questions that have been raised about the findings and direction of the research to determine the influence the intention to use metaverse in teaching among University Malaysia Kelantan lecturer.

1. What performance expectancy are used in metaverse teaching among UMK Lecturer?
2. What effort expectancy can impact metaverse teaching among UMK Lecturer?
3. What facilitating conditions influence metaverse teaching among UMK Lecturer?

## 1.6 HYPOTHESIS SUMMARY

H1: Performance expectancy have a significant relationship with the metaverse in teaching among UMK lecturer.

H2: Effort expectancy has a significant relationship with the metaverse in teaching among UMK lecturer.

H3: Facilitating conditions has a significant relationship with the metaverse in teaching among UMK lecturer.

## 1.7 SIGNIFICATION OF THE STUDY

The major rationale for the metaverse's significance is its industrial and procedural nature. It, like the Internet, may be used for almost any activity, including socializing, working, gaming, and learning. It has the potential to transform all part of our life, including our professional and personal lives. This metaverse research will assist to increase the bar for online education. The project's goal is to encourage students to use the metaverse in online learning and to raise awareness of the metaverse in general. This study investigates the relationship between the metaverse in teaching. The metaverse provides immersive and interactive virtual environments that can enhance the learning experience. By studying the metaverse, educators can explore how to design educational activities that engage students in experiential learning, allowing them to explore realistic simulations, interact with virtual objects, and gain practical skills in a safe and controlled environment. Metaverse has the potential to support personalized and adaptive learning approaches. Through the study of the metaverse, educators can understand how to leverage the virtual environment to tailor learning experiences to individual students' needs, preferences, and



learning styles. This includes adaptive feedback, personalized content delivery, and customized learning paths.

Next, metaverse enables students from different geographical locations to collaborate, communicate, and learn together in virtual classrooms. By studying the metaverse, educators can explore how to facilitate global collaborations, fostering cultural exchange, and creating opportunities for students to work with peers from diverse backgrounds, promoting intercultural understanding and global citizenship. Simulation-Based Training: The metaverse offers a platform for realistic simulations and training scenarios. Educators can study the metaverse to design and implement simulation-based training programs, allowing students to practice real-world skills in a virtual environment. This is particularly valuable in fields such as healthcare, engineering, aviation, and emergency response, where hands-on experience is essential.

Then, Accessible Education in metaverse has the potential to address barriers to educations. Through the study of the metaverse, educators can explore how to create inclusive virtual environments that accommodate diverse learners, including those with disabilities or limited access to traditional educational resources. This promotes equitable access to education and fosters a more inclusive learning environment. By studying the metaverse, educators can guide students in understanding ethical behavior, online safety, digital identity management, and responsible participation in virtual communities. This equips students with the necessary skills and knowledge to navigate the metaverse responsibly.

Lastly, metaverse is closely tied to emerging technologies and digital transformation. By studying the metaverse, educators can ensure students develop the skills and competencies required for the future workforce, such as digital literacy, critical thinking, problem-solving, collaboration, and adaptability. Integrating the metaverse into teaching prepares students for a technology-driven

world. In summary, the study of the metaverse in teaching holds significance for immersive and experiential learning, personalized education, global collaboration, simulation-based training, accessibility, digital citizenship, and future-ready skills. By exploring the potential of the metaverse in education, educators can enhance learning outcomes, engage students in innovative ways, and prepare them for the opportunities and challenges of the digital age.



## 1.8 DEFINITIONS OF TERMS

Key terms	Definition
Intention Metaverse in teaching	<p>The metaverse aims to build a digital universe that combines elements from the real and virtual worlds, such as simulated or mirrored environments, avatars, non-player characters, etc. Numerous modeling and simulation tools, including Sketch Up, Unity, and Blender, are already available to create digital objects (Tlili et al., 2022). Therefore, "intention to use metaverse in teaching" refers to an individual's deliberate plan or inclination to employ the metaverse, which represents a virtual reality space or collective virtual shared space, for the purpose of facilitating teaching and learning activities. It suggests a conscious decision to leverage the metaverse's potential as a tool or platform for educational instruction and engagement.</p>

<p>Performance Expectancy</p>	<p>Several authors and researchers from various domains have studied performance expectancy (Venkatesh, Morris, Davis, and Davis, 2003; Derntl, 2011; Khayati and Zouaoui, 2013). Rogers (2003) said that the idea was used in several studies to explain how people adopted and used information technology. (Venkatesh et al., 2003)</p> <p>Performance expectancy (PE) is how much a person thinks a method will help them do their job better. (Venkatesh &amp; Davis, 2000): "Perceived ease of use" (technology acceptance model), "external motivation" (motivational model), "job fit" (personal computer utilization model), "relative advantage" (innovation diffusion theory), and "outcome expectancy" (social cognition theory) are the five factors that lead to "performance expectancy."</p>
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<p>Effort expectancy</p>	<p>People's acceptance that they will find it easy to use the invention is what's meant to be understood by the term "effort expectation." According to Venkatesh et al. (2012), effort expectancy is significant because it emphasizes how straightforward it is for purchasers or clients to become acquainted with the framework. In the end, it is easier to become comfortable with the framework, and the more grounded an aim the customers have to embrace advanced innovation, the simpler it is to become familiar with the framework. Additionally, effort expectancy is mentioned as one of the most critical factors of societal aim to utilize the invention (Chong (2013); Venkatesh et al.2012). [Chong]</p>
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<p>Facilitating conditions</p>	<p>Venkatesh et al. (2003)'s UTAUT Model includes term enabling conditions. The authors stated that the construct measures an individual's belief that an organizational and technological infrastructure supports system utilization. Facilitating conditions are how much university professors think technical infrastructure improves digital library use. Facilitating conditions introduced a new paradigm that transformed digital library organizational and development ideas and system use. So, enabling conditions (infrastructure) are still technological solutions put in place and kept up by trusted groups to make sure that user services are sustainable and of good quality. Conditions aid digital library creation. It shows how a community of users uses a digital library.</p> <p>Teo (2015)</p>
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## 1.9 SUMMARY

In this chapter, we have studied influencing the intention to use metaverse in teaching. As for the background of the study, the metaverse of teaching has been explained. Next, problem statements that include all the problems such as team collaboration, not working together. After that, research objectives; as a group, we made a total of five objective research for our study based on suitable variables that we chose. The research questions must relate to the research objectives because they can be answered through the study's aim. For the significance of the study, we must refer to the purpose of our research. Finally, for the definition of terms, we must find the meaning of metaverse online learning, performance expectancy, effort expectancy, and facilitating condition.



## CHAPTER 2

### LITERATURE REVIEW

#### 2.1 INTRODUCTION

This section looked at the intention to use metaverse in teaching among UMK lecturer in terms of performance expectancy, effort expectancy and facilitating condition. This study is also based on a theoretical framework and the way that different factors are related to each other. Theory is the exactness of the right way to do something, so a thesis theory has to be very exact for all of the key parts. The Unified idea of Acceptance and Use of Technology (UTAUT) is the idea that this study is based on. This part could talk in depth about the different factors in this study.

#### 2.2 LITERATURE REVIEW

##### 2.2.1 INTENTION TO USE METAVERSE IN TEACHING

Scholars say that education is one of the most important ways to use the metaverse, with a lot of promise for the future. We think that the metaverse can be used as a new educational environment (Suzuki et al., 2020; Prieto et al., 2022; Rospigliosi, 2022); therefore, the metaverse in education can be seen as an educational environment improved by metaverse-related technologies that combine elements of the virtual and real educational environments. It lets students use wearable devices to join an educational setting without being bound by time or place. It also lets them use their digital identities to talk to avatars, intelligent non-player characters, and virtual learning tools in real time. They can feel like they are there, just like if they were in a real



school. From this point of view, it's clear that using the metaverse in education can give kids a lot of great ways to learn.

Intention is how hard and determined someone is to do something. The subjective likelihood that an individual will carry out an action is referred to as that person's behavioral intention (BI) (Fishbein and Ajzen, 1975). Consumer attitude, perceived conformity to the norm, and perceived ability to exert behavioral control are the three distinct antecedents that determine behavioral intention. TRA demonstrates that a person's intentions regarding their behavior are the single most important factor in determining their actions... Fishbein and Ajzen (1975) believed that purpose drives behavior. Bagozzi (1992) believed that once the intention is triggered, it will self fulfil and force people into a "must do " or "will do " state. Ajzen (2012) defines behavioral intents as motivational factors that determine how much effort a person will put into an action. However, Malhotra and McCort (2001) proposed that marketing researchers should focus on improving consumer behavioral intentions. However, theory of reasoned action (TRA) claims that a person's (BI) depends on their attitude and subjective norms ( $BI = A + SN$ ), while theory of planned behavior (TPB) explains why people do things. Chian-sonyu (2012) examines mobile banking adoption factors. Performance expectation, perceived financial cost, social impact, and perceived credibility influenced 441 respondents' desire to embrace mobile banking. Intention and aid greatly exaggerated the conduct. However, consumer intention plays a distinctive role in consumer behavior. Customer intention provides a foundation for predicting consumer behavior on a certain action (Gaur, 2006; Gomes, 2011).

### **2.2.2 PERFORMANCE EXPECTANCY**

Performance expectancy is how much a person thinks the method was help them do their job better. (Venkatesh et al., 2003) Performance expectancy is a person's belief in the system's rewards. That is, Venkatesh et al. (2012) looked at how well people used technology to finish jobs. Al-Hujran et al. (2014) say that the performance goal is how well mobile learning services help students learn. Performance expectation (Chao, 2019) measures how much students think mobile learning can help them do better in school.

Rahi et al. (2019) say that knowing what will happen can make people more likely to use Internet banking. (Jahan bakhshet et al., 2018) say that health integration systems improve user performance, work efficiency, and the level of health care. This makes them more appealing to users.

### **2.2.3 EFFORT EXPECTANCY**

UTAUT's effort expectancy construct measures the ease of using an information technology. Venkatesh et al. (2003) defined effort expectation as information system ease. Postgraduate students anticipate smart phone use to be effortless. Work effort, performance, and rewards are linked in effort expectations (Ghalandari, 2012). Postgraduate students' mobile studying using smart phones affects effort expectation. This is because postgraduate students' use of smart phones for mobile study may depend on how easy or difficult it is to access essential information quickly. Thus, postgraduate students may use smart phones for mobile learning if they realize how easy it is.

#### 2.2.4 FACILITING CONDITION

(Venkatesh et al., 2003) say that "facilitating conditions" are the degree to which a person thinks that the organizational and technical framework is there to help them use the system. In the context of this study, it meant things like infrastructures and tools that UMK lecturers wanted to use metaverse in their teaching. Venkatesh et al. (2013) say that there is a positive link between conditions that make it easier to use and adopt technology and people's intentions to use and adopt it. But age and experience changed the way the relationship worked, so the effect was stronger for workers who were older and had more experience. According to TPB/DTPB, enabling events are direct causes of usage and are not important when both performance expectancy and effort expectancy constructs are present, which is something that MPUC also has.

The UTAUT was supported by the empirical test of four organizations' data and the cross validation with two more organizations' data. The new model explained 70% of usage intention variance, compared to the previous models' maximum of 40%.

Content validity was limited because of how the measures were made, so the authors suggested that future research should focus on making and validating appropriate scales for each construct, with a focus on content validity, and revalidating or expanding UTAUT with the new measures (Venkatesh et al., 2003).

## 2.3 HYPOTHESIS

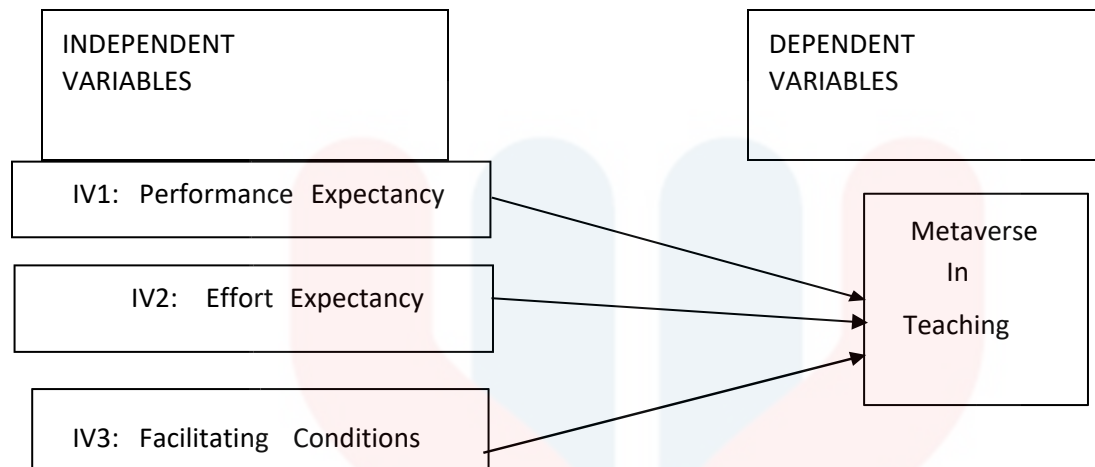
H1: There is relationship between Performance expectancy and metaverse in teaching among UMK lecturer.

H2: There is relationship between Effort expectancy and metaverse in teaching among UMK lecturer.

H3: There is relationship between Facilitating condition and metaverse in teaching among UMK lecturer.

## 2.4 CONCEPTUAL FRAMEWORK

Toward finishing the analysis, a conceptual framework might be used as a device for accumulating information on this research. Thus, this framework is likewise beneficial in describing the connection among impartial variables and based variables in the research. The conceptual framework for this looks at is proven in figure 2.4.1 below.



**Figure 2.4 Conceptual Framework**

Figure above suggests the connection among impartial variables and based variables on this have a look at. The unbiased variables are finished with the aid of using elements that have an impact on the usage of metaverse in teaching among UMK Lecturer. Essentially, there are three (3) unbiased variables on this take a look at, overall performance expectancy, effect expectancy, and facilitating situations.

Based on several preceding studies, this takes a look at will attempt to discover the impact of overall performance expectancy, effect expectancy, facilitating situations and with metaverse in Teaching. The present studies locating performs a full-size effect for researchers through getting help in completing our paperwork. It is used as a connection with assist and make this take a look at extra strong and dependable for in addition uses.

## 2.5 SUMMARY

In this chapter, we need to have a look at literature review within side the metaverse in teaching. As for Dependent variables it's been defined in extra information about the metaverse in teaching. Next, impartial variables on this chapter have three which includes overall performance expectancy, effort expectancy, and facilitating conditions. After that, the speculation we made primarily based totally at the base and unbiased variable that we've got linked. Lastly, the conceptual framework we applied indicates that structured and impartial variables are intently associated with every other.



## CHAPTER 3

### METHODOLOGY

#### 3.1 INTRODUCTION

This chapter talks about how the study was done and how the results were analyzed. In this chapter, we talked about the research design, the study population, the sample size, the sampling strategy, and the way for gathering data, the research tool, and the analysis of data. At the conclusion, the study is described. This particular investigation used a quantitative research approach. Additionally, the primary goal of the research is to investigate

#### 3.2 RESEARCH DESIGN

A study's design, a sample plan, an actual work plan, a method for acquiring data, and a research procedure are all essential components of research methodology (Mukesh, Salim & Ramayah, 2013). A plan for collecting, measuring, conducting, and interpreting data can be considered of as the simplest definition of research design.

Quantitative research places more focus on exact, convergent thinking than divergent reasoning (P. Bhandari, 2020). The quantitative study's design emphasizes how events are judged and described in a detached way. This approach uses data, control, and statistics in the study design to maximize impartiality. As a result, the study used a quantitative approach was used in collecting research data of this study.

Primary data for the study were gathered by the quantitative research approach. Kumar claims that descriptive research may reveal everything, including trends, current events, and characteristics of

a person, a group, or an organization, among other things (2013). William (2011) defined quantitative analysis as the process of preparing data such that it can be quantified and statistically evaluated to establish or reject specific knowledge claims. This study examines the performance expectations, effort expectations, and facilitating condition of lecturer at UMK who use the Metaverse for teaching. Quantitative method is the best approach included surveys, observations for numeric information in this research.

### **3.3 POPULATION SAMPLE**

A "population" is a group of people, corporations, or other research subjects. The sample is the researcher's target population within a research group of people, events, or intriguing items (Kumar, 2013). According to Reid (2001), the population of the study consisted of additional units known to the researchers to have particular characteristics. According to Mukesh, the term "population" describes the researcher's intention to examine certain things, people, or events (2013). The target population for this research are 568 UMK Lecturer because the researchers want to know the intention to use metaverse in teaching among UMK lecturer.

### **3.4 SAMPLE SIZE**

A sample accurately represents the population (King'oriah, 2004 and Leary, 2001). According to Kothari (2004), a good sample should be representative of the population, feasible, economical, methodical, and error-free. Locally owned registered active KTA members were sampled. Kothari (2004) defined sample size as the number of universe-selected items. Census, similar research, public tables, and formulas can be used to calculate sample size. In this study the research focus on the 123 respondent from UMK lecturer.



<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	100000	384

Note.—*N* is population size. *S* is sample size.  
 Source: Krejcie & Morgan, 1970

**Figure 3.1 Determining sample size of a known population**

**(Source: Krejcie & Morgan (1970))**

**3.5 SAMPLING METHOD**

Research requires selecting a tiny sample from a big population. The researchers sample the population for further examination. Probability and non-probability sampling methods exist. Researchers use probability theory to choose samples from a population. This sampling method draws samples from the entire population. Researchers randomly select individuals in non-probability sampling. This sampling is unplanned. Convenience sampling is cheap and easy. This study employs non probability. Because the researcher knows the sample, non-probability sampling is faster and cheaper.

### 3.6 DATA COLLECTION PROCEDURE

The phases involved in gathering data, according to Creswell (2014), are defining the parameters of the research, amassing statistics thru unstructured or semi-established observations and interviews, documents, and visible materials, as nicely as designing the methodology for recording data. Data collection is a process used to gather and assess data for analysis and validation. Data is gathered to examine a problem, determine a solution, and even spot potential future trends. Data gathering techniques support creation. A questionnaire was utilized as the study instrument by the researcher to collect data from respondents. The study will make use of the questionnaire's parts A and B. The researcher will use the Likert scale based on the answers to the questions. Bertram (2016) says that the Likert Scale is a psychometric response scale that is often used in polls to find out how much people agree with a statement or set of words. In the sections that follow, you'll find out about the respondent's gender, race, weekly spending, and other important facts. The Part B rating has five options: strongly disagree (1), disagree (2), neutral (3), agree (4), and strongly agree (5). Data collection can also be used to collect data by questionnaire, google form, survey firm and personal interview. Respondents were encouraged to collaborate more by this technique. The primary data source is a questionnaire, which offers a list of questions for respondents to check the ones they find pertinent (Ajayi, 2017). In this study, the main way that information was gathered was through a questionnaire. A survey questionnaire is a type of data collection tool used to get, look at, and judge the different points of view of a group of people from a certain population. The poll form has been used in many different areas, such as politics, market research, and psychology. For the study, 123 questionnaires were collected. There are 123 questionnaires in total were given to lecturer in teaching at UMK. Based on their desire to take part in the survey, a random selection process was used to choose all respondents. When they're

done, all the questionnaires will be collected, and the researcher will then count up how many questionnaires were given out overall. The researcher can conserve their time by employing the questionnaire-based data gathering approach.

### 3.7 RESEARCH INSTRUMENT

A research instrument is a piece of equipment used to gather, assess, and look at documents related to your study interests. Interviews and questionnaires are two examples. A research tool is a measuring equipment comprising statement customized interviews and questionnaires to get important data from target respondents on a favorite subject of interest (Sekaran & Bougie, 2010). As a result, choosing the appropriate research tool for data collection is crucial. Several study tools include qualitative and quantitative methods (Trigueros, Juan & Sandoval, 2017).

**Table 3.1: Source of Measurements**

Variable	Source of Measurement
Intention metaverse in teaching	(Amina Almarzouqi, Aburayya, & Said A. Salloum, 2022)
Performance expectancy	Onaolapo, S., & Oyewole, O. (2018).
Effort expectancy	Onaolapo, S., & Oyewole, O. (2018).
Facilitating conditions	Onaolapo, S., & Oyewole, O. (2018).

### 3.7.1 Demographic Profile

Gender, Race, Age, Education level are some examples of demographic information.

With survey questions, collecting this type of information is simple and effective.

**Table 3.2: Demographic Profile**

Characteristic	Categories
Gender / Jantina	Male Female
Age / Umur	30 years and below  31 - 40 years  Above 41 years
Academic Grade / Gred  Akademik	Lecturer  Senior lecturer  Professor
Highest Education /  Pendidikan  Tertinggi	Degree  Master  Doctor of Philosophy (PHD)

### 3.7.2: INTENTION USE METAVERSE IN TEACHING

Part B contains questions about intention to use metaverse in teaching among UMK lecturer. The purpose of section B is to comprehend the intention that contribute to improving the metaverse in teaching. For this section, five (5) questions have been created. The respondent must react to the questions on a 5 - point Likert Scale, with one (1) representing ‘Strongly disagree’ - five (5) ‘Strongly agree’.

Table 3.3: Section B – Intention to use Metaverse in Teaching

NO	ITEMS	SUPPORTING REFERENCES
1	I have high intentions to use the metaverse in teaching	
2	I believe that use of metaverse in teaching would enhance student motivation	
3	I will use metaverse in my teaching	(Venkatesh et al., 2012)
4	I agree that using metaverse technology in teaching is very appropriate	
5	I will adapt metaverse in daily teaching	

### 3.7.3 PERFORMANCE EXPECTANCY

Table 3.4: Performance Expectancy

NO	ITEMS	SUPPORTING REFERENCES
1	I believe that using metaverse can improve my teaching professional development	
2	I agree that using metaverse requires minimal effort for teaching purposes	(Venkatesh et al., 2012)
3	I think that using metaverse will improve my ability to give individualized instruction to students	
4	I believe that using metaverse will improve my teaching skills	
5	I agree that using metaverse will enhance my teaching outcomes	

### 3.7.4: EFFORT EXPECTACY

NO	ITEMS	SUPPORTING REFERENCES
1	I agree that students will easily learn how to use metaverse in learning	(Venkatesh et al., 2012)
2	I believe using metaverse in teaching requires a lot of effort	
3	I agree there are many effective resources in using metaverse in teaching	
4	I agree that the metaverse in teaching is quite simple for understanding	
5	I believe that metaverse in teaching can further speed up the online learning process	

### 3.7.5: FACILITING CONDITION

NO	ITEMS	SUPPORTING REFERENCES
1	I believe that having access to reliable internet connection intention to use metaverse in teaching	(Venkatesh et al., 2012)
2	I will increase my knowledge in handling using metaverse	
3	I will use the free time to explore how to teach using the metaverse	
4	I am willing to invest in using metaverse in teaching	
5	I agree that the ease of navigation platforms facilities intention to use it in teaching	

### 3.8 DATA ANALYSIS



Data analysis is complete once it has been processed, structured, and cleaned. Various data analysis techniques are available to understand, interpret, and draw conclusions depending on the requirement. Data visualization can also be used to visually examine data to gain a better understanding of the messages contained within the data.

Data evaluation is finished while there and quantity of information is amassed and remodel the information right into a significant perception to discern out its pattern. Hence, the information evaluation for facts tool of this studies examine questionnaire had been performed the use of the not unusual place statistical software program SPSS (Statistical Package for Social Science). All of the questions referred to with inside the questionnaire have been analyzed for my part and the end result of it'll similarly supported via way of means of diverse analyses which includes the Descriptive Analysis, Reliability Test, Inferential evaluation, and Pearson correlation.

### **3.8.1 DESCRIPTIVE ANALYSIS**

Descriptive analysis, also called descriptive statistics, describes an event, a situation, or the characteristics of a business or a person. The goal of descriptive statistics is to describe how appealing a new idea is to the respondent (Mukesh et al., 2013). In other words, descriptive studies were the answer to "who, where, when, and what" questions and a way to answer the real questions being asked... In the studies observe, descriptive evaluation changed into utilized in demographic phase in time period of gender, age, instructional grade and maximum education. Through those questions, the use of descriptive evaluation will assist to in addition help the observe with the aid of using forming the frequency percent and charts to summarize facts of the pattern concerning at the deciding on of goal to apply metaverse in coaching that offer amongst UMK lecturer.

### **3.8.2 RELIABILITY ANALYSIS**

Reliability, according to Blumberg, Cooper, & Schindler (2015), is the quality of a measurement that yields constant results with similar values. While Twycross & Shields (2004) noted that consistency, reproducibility, and stability of outcomes are qualities of dependability. Only a consistent result -one that stays the same regardless of where and when the researcher does the test - can be deemed credible.

In this study, the reliability scale's measurement and internal consistency were both tested using Cronbach's Alpha. According to Nunnally & Bernstein (1994), the range of acceptable alpha values in social research is between 0.7 and 0.8. The Cronbach's Alpha thumb rule is (as shown in table 3.9)

**Table 3.7: The rule of thumb of Cronbach's Alpha**

Cronbach's Alpha	Internal consistency
$A > 0.9$	Excellent
$0.9 > a > 0.8$	Good
$0.8 > a > 0.7$	Acceptable
$0.7 > a > 0.6$	Questionable
$0.6 > a > 0.5$	Poor
$A > 0.5$	Unacceptable

Source: Stephanie (2014)

### 3.8.3 INFERENCE ANALYSIS

Inferential analysis or correlation analysis is the most important part of analysis related to making conclusions and decisions based on data that has been collected and processed. The main focus is to find out something about the whole population based on a part of the sample to be studied. It may be a sort of non-experimental investigation in which their searcher measures two factors and investigate the measurable relationship (correlation) between them with small to control unessential variables. There are essentially two reasons why analysts curious about measurable connections between variables would favor a relationship ponder instead of a try. Moment, they do not consider the statistical association to be a causal one. The other explanation why researchers would favor a relapse test instead of a test is that the statistical relationship of intrigued is accepted to be causal so that the analyst cannot manipulate an autonomous variable since it is impossible, impractical or unethical. There are many advantages to the use of inferential analysis in particular that it offers a surplus of detailed information tons 32 extra that you'd hacc after strolling a descriptive analysis test. This information gives researchers and analysts complete insights into relationships among variables. It can also show consciousness closer to purpose and impact and predictions concerning trends and patterns through industries. Plus, due to the fact it's so extensively used in the business world as well as academia, it's a universally universal approach to statistical analysis.

#### **3.8.4 PEARSON CORRELATION**

Determine whether there is a link between two or more variables using the Pearson correlation analysis, and if yes, what kind of relationship there is and how strong it is. In terms of Pearson correlation, Mukesh et al. (2013) state that it assesses the strength of a linear relationship between two variables (measured in either interval and or ratio). The presence of a positive correlation indicates that there is a tendency for a high value in one variable to be associated to a

high value in the other variable. On the other hand, the presence of a negative correlation indicates that there is a tendency for a high value in one variable to be associated to a low value in the second variable. The magnitude of the connection and the path it took were the two dimensions that required the greatest attention.

### **3.9 SUMMARY**

This chapter talked about the research strategy that was used for this study, the population sample, the detailed method, the instrument, and the data analysis. Through this chapter, the researcher will know more about how the questionnaire was done and what parts of it can be used in this study.

## CHAPTER 4

### FINDING AND DISCUSSION

#### 4.1 INTRODUCTION

This chapter goes into more detail about the results of an analysis of the data gathered by sending a poll to 123 lecturers at University Malaysia Kelantan. The results of the poll are talked about in this bankruptcy. The results of the frequency analysis, the summary analysis, the reliability analysis, the reliability test, the Pearson correlation coefficient analysis, and the discussion are all based on the study's goal.

#### 4.2 RESULT OF DESCRIPTIVE ANALYSIS

The poll was done with 123 people who answered clear-cut questions, and the end result is a demographic profile that has been put together and summed up. The information that has been asked for in the demographic profile is the person's gender, age, grade in school, and highest level of schooling. In the table 4.2.1 below, you can see a summary of the demographic description.

##### 4.2.1 The number of respondents based on Gender

**Table 4.1: Statistic Table Based on Gender**

		Gender			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	88	71.5	71.5	71.5
	Male	35	28.5	28.5	100.0
Total		123	100.0	100.0	

Table 1 shows the statistic table that based on gender of the respondents. The total of all the respondents is 123 respondents. In this research, the female respondents have the highest percentage compared to the male. Female respondents have higher percentage with 71.5% (N=88) respondents. While male have 28.5% (N=35) respondents.

#### 4.2.2 The number of respondents based on Age

**Table 2: Statistic Table Based on Age**

		Age			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	30 years	39	31.7	31.7	31.7
	31 - 40	69	56.1	56.1	87.8
	Above 41	15	12.2	12.2	100.0
Total		123	100.0	100.0	

Based on the result from table 2, the table show the statistic table that based on age of the respondents. Out of 123 respondents the highest number of group age of 31-40 years old with 56.1% (N=69) respondents followed by second highest group age of 30 years old with 31.7% (N=39) respondents. As for the group age of above 41 the percentage is 12.2% (N=15) respondents.

### 4.2.3 The number of respondents based on Academic Grade

**Table 3: Statistic Table Based on Academic Grade**

		Academic Grade			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Lecturer	92	74.8	74.8	74.8
	Professo	15	12.2	12.2	87.0
	Senior L	16	13.0	13.0	100.0
	Total	123	100.0	100.0	

Table 3 illustrate the frequency and status based on the academic grade of respondents. Out of 123 respondents 92 of them were lecturer with 74.8% (N=92) respondents while the other senior lecturer with 23.0 % (N=16) respondents and professor with 12.2% (N=15).

### 4.2.4 The number of respondents based on Highest Education

**Table 4: Statistic Table Based on Highest Education**

		Highest Education			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Degree	14	11.4	11.4	11.4
	Doctor o	49	39.8	39.8	51.2
	Master	60	48.8	48.8	100.0
	Total	123	100.0	100.0	

Table 4 illustrate the respondents based on their highest education. With 48.8% (N=60) respondents have a master. With 39.8% (N=49) of the respondents have doctor which is the second highest level of education. The followed by 11.4% (N=14) respondents have degree.



## 4.2.5 DESCRIPTIVE STATISTICS ON VARIABLES

### 4.2.5.1 INDEPENDENT VARIABLE 1 (IV 1 Performance Expectancy)

Item Statistics			
	Mean	Std. Deviation	N
I believe that using metaverse can improve my teaching professional development	4.6098	.60914	123
I agree that using the metaverse requires minimal effort for teaching purposes	4.6098	.62245	123
I think that using metaverse will improve my ability to give individualized instruction to student	4.6911	.57446	123
I believe that using metaverse will improve my teaching skill	4.6911	.57446	123
I agree that using metaverse enhance my teaching outcomes	4.7073	.52373	123

The table above has shown the descriptive analysis for independent variable 1 (IV 1). The highest mean score is question 5 “I agree that using metaverse enhances my teaching outcome” which is 4.7073. The second highest is question 3 “I think that using metaverse will improve my ability to give individualized instruction to students” and question 4 “I believe that using metaverse will improve my teaching skill”. These two questions share the same mean which is 4.6911. The third is question 1 “I believe that using metaverse can improve my teaching professional development” and question 2 “I agree that using the metaverse requires minimal effort for teaching purposes” the mean for the questions is 4.6098. These two questions also share the same mean.



#### 4.2.5.2 INDEPENDENT VARIABLE 1 (IV 2 Effort Expectancy)

Item Statistics			
	Mean	Std. Deviation	N
I agree that students will easily learn how to use the metaverse in learning	4.7154	.50441	123
I believe using the metaverse in teaching requires a lot of effort	4.6585	.68747	123
I agree there are many effective resources in using metaverse in teaching	4.7154	.55101	123
I agree that the metaverse in teaching is quite simple for understanding	4.6341	.66860	123
I believe that metaverse in teaching can speed up the online learning process	4.6829	.61826	123

The table above has shown the descriptive analysis for independent variable 1 (IV 2). The highest mean score is question 1 “I agree that students will easily learn how to use the metaverse in learning” and question 3 “I agree there are many effective resources in using metaverse in teaching”. These two questions share the same mean which is 4.7154. Second highest is question 5 “I believe that metaverse in teaching can speed up the online learning process” as much as 4.6829. The third is question 2 “I believe using the metaverse in teaching requires a lot of effort” the mean for the question is 4.6585. And the last mean is 4.6341 which is question 4 “I agree that the metaverse in teaching is quite simple for understanding.”

**4.2.5.3 INDEPENDENT VARIABLE 1 (IV 3 Facilitating Conditioning)**

<b>Item Statistics</b>			
	Mean	Std. Deviation	N
I believe that having access to reliable internet connection facilities intention to use metaverse in teaching	4.6829	.51720	123
I will increase my knowledge in handling using metaverse	4.6911	.60232	123
I will use the free time to explore how to teach using the metaverse	4.6992	.57167	123
I am willing to invest the metaverse in teaching	4.6260	.61934	123
I agree that the ease of navigation platforms facilities intention to use it in teaching	4.7154	.60761	123

The table above shows the descriptive analysis for independent variable (IV 3). The highest mean score for this table is “I agree that the ease of navigation platforms facilities intention to use it in teaching” which is 4.7154. The second highest is “I will use the free time to explore how to teach using the metaverse” as much as 4.6992. The third mean is 4.6911 as for the question “I will increase my knowledge in handling using metaverse”. The fourth mean is 4.6829 as for the question “I believe that having access to reliable internet connection facilities intention to use metaverse in teaching”. The lowest mean is 4.6260 for the question “I agree that the ease of navigation platforms facilities intention to use it in teaching”.

#### 4.2.5.4 DEPENDENT VARIABLE 1 (DV Intention to Use Metaverse)

	N	Minimum	Maximum	Mean	Std. Deviation
Intention to use metaverse	123	2.20	5.00	4.6163	.61222
Effort expectancy	123	2.60	5.00	4.6813	.50883
Valid N (listwise)	123				

The number of respondents, the mean, and the standard deviation for both independent variables (IV) and dependent variables (DV) were listed in the table. For independent variables (IV), the expected effort score is 4.6813, which is the mean score. The average number on the variable being measured is 4.6163.

### 4.3 RESULT OF RELIABILITY TEST

#### 4.3.1 INTERNAL RELIABILITY TEST

Before conducting correlation analysis, the collected data must be verified for dependability. The instrument internal consistency and content validity were assessed using a reliability test. As a result, the higher the reliability of a collection of scale items, the greater the confidence in the scores. Achieved with the administration of the scale. Also, the reliability test was calculated by the researcher using SPSS. The reliability result is provided in the table.

In this study, there were three variables that were not linked to each other and one variable that was. The independent variables are expected performance, expected effort, and the state of the facilities. The dependent variable is the teacher's plan to use metaverse in the classroom. The researcher has designed 16 questions for independent variables and 4 question for dependent variables.

Variables	Number of items	Cronbach's Alpha coefficient	Strength of associations
Performance expectancy	5	0.945	Good
Effort expectancy	5	0.891	Good
Facilities conditions	5	0.897	Good

**Table 4.3.1: Reliability Test**

The researcher has checked all of the independent and dependent variables based on the reliability result presented above. Cronbach's Alpha showed 0.945 for all independent and dependent variables of dependability but Cronbach's Alpha based on standardized items shows a value of 0.891. It was shown that coefficient value of the variables ranges as excellent in term of reliability level. The tables show below a general rule of thumb for describing internal consistency using Cronbach's Alpha is shown below.

**Table: rules of thumb about Cronbach's Alpha coefficients size**

Cronbach 's alpha	Internal consistency
$A > 0.9$	Excellent
$0.9 > a > 0.8$	Good
$0.8 > a > 0.7$	Acceptable
$0.7 > a > 0.6$	Questionable
$0.6 > a > 0.7$	Poor
$A > 0.5$	Unacceptable

The perfect estimate of the dependability coefficient is between 0.9 and 0.8. This is because estimations above 0.9 suggest items of duplicate or excessive scale length. According to the table, the Cronbach's alpha of the independent variable and the dependent variables were both greater than 0, 9. This could be considered as a good estimate because both the independent and variables are appropriate for this investigation. In conclusion, the questionnaire's reliability was appropriate and reliable.

#### 4.4 RESULTS OF INFERENCE ANALYSIS

In this section, the frequency distribution, mean, and standard deviation of the items for each variable show the results of the univariate analysis. All of the Independent Variables were judged on a five-point Likert scale with the following values: Strongly Disagree (SD), Disagree (D), Neutral (N), Agree (A), and Strongly Agree (AG). In this study, the mean and standard deviation were looked at for sections B and C of the surveys.

**Table 4.1.5: Strength Interval of Correlation Coefficient**

Size of correlation	Interpretation
0.90 to 1.0 (- 0.90 to 1.0)	Very high positive (negative) correlation
0.70 to 0.90 (- 0.70 to - 0.90)	High positive (negative) correlation
0.50 to 0.70 (- 0.50 to - 0.70)	Moderate positive (negative) correlation
- 0.30 to 0.50 (- 0.30 to - 0.50)	Low positive (negative) correlation

Table 4.1 shows the value of correlation. According to Piaw (2006) the absolute magnitude of the correlation coefficient can be used to quantify the strength of the relationship between variables.

The correlation coefficient, represented by the numeral r, runs between 1.0 and -0.01. If the value of r is 1.0, there is a perfect positive relationship and if the value of r is -0.01, there is a perfect

**Table: Result of Pearson Correlation**

		<b>Intention to use metaverse</b>	<b>Performance Expectancy</b>	<b>Effort Expectancy</b>	<b>Facility Condition</b>
<b>Intention to use metaverse</b>	Pearson Correlation Sig (2-tailed) n	1 123	0.877** < 001 123	0.826** < 001 123	0.748** < 001 123
<b>Performance Expectancy</b>	Pearson Correlation Sig (2-tailed) n	0.877** < 001 123	1 123	0.837** < 001 123	0.798** < 001 123
<b>Effort Expectancy</b>	Pearson correlation	0.826** < 001 123	0.837** < 001 123	1	0.869** < 001 123

	Sig (2-tailed)			123	
	n				
<b>Facility Condition</b>	Pearson correlation	0.748** < 001	0.798** < 001	0.869** < 001	1
	Sig (2-tailed)	123	123	123	123
	n				

negative relationship. There is no link between the variables if the value of r is 0.

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

The table shows below result of the Pearson correlation analysis which is the three independent variable and dependent variable. The correlation is significant at the 0.01 level (2 - tailed) for independent variables 1. Once that the researcher seen a variety of positive and negative relationships, let's check at how our Pearson correlation coefficient of 0.01 (2 - tailed) performed. It's is a positive relationship. The farther apart the data values are to the line, the stronger the link. The result is a positive correlation Pearson is significant of 0.01 level.



#### 4.5 DISCUSSION BASED ON RESEARCH OBJECTIVES

This study examines the research on lecturers' plans to implement metaverses into their classrooms at UMK. The results of this study revealed the need of looking at how UMK lecturers' expectations of their own performance, effort, and conducive environment all work together.

**Table 4.15: Shows the summary for hypothesis testing in this study**

Hypothesis	Pearson's Correlation results	
H1: To investigate the relationship between performance expectancy and intention to use metaverse in teaching among UMK Lecturer.	r = 0.877, p < 0.01	Strong
H2: To investigate the relationship between effort expectancy and intention to use metaverse in teaching among UMK Lecturer.	r = 0.826, p < 0.01	Strong
H3: To investigate the relationship between facilitating condition and intention to use metaverse and teaching among UMK lecturers	r = 0.748, p < 0.01	Strong

According to table 4.15, Pearson's Correlation analysis was used to evaluate the hypothesis on UMK Lecturer performance expectancy, effort expectancy, and facilitating condition. All hypotheses supplied were accepted at the 0.01 significance level. Furthermore, the end result demonstrated that independent variables such as performance expectancy, effort expectancy, and facilitating condition had a very strong and high positive association with the intention to utilize metaverse.

#### **4.6 SUMMARY**

The results of frequency analysis, descriptive analysis, reliability analysis, and Pearson Correlation Coefficient analysis are defined in Chapter 4. These characteristics were shown to be significant and strongly connected with UMK Lecturer loyalty. Furthermore, because the p-value is less than 0.05, all of these hypotheses are supported.

## CHAPTER 5

### 5.1 INTRODUCTION

This chapter talked about a summary of the study, the results, and a review of the link between UMK Lecturers' performance expectations and their plans to use the metaverse in their teaching. Researchers have also talked about the hypothesis test, which shows whether or not the study hypothesis was true. This part also talked about the problems with the research and made some suggestions for how it could be done better in the future.



## 5.2 RECAPITULATION OF THE FINDINGS

### 5.2.1 To investigate the relationship between performance expectancy and intention to use metaverse in teaching among UMK Lecturer.

Research query 1 of this look at requested approximately any courting between performance expectancy and intention to use metaverse in teaching among UMK Lecturers? This is also to answer the first objectives and hypothesis.

Table 5.1: Research Objective 1 & Research Question 1

Research Objectives (RO)	Research Question (RQ)
<p>To investigate the relationship between performance expectancy and intention to use metaverse in teaching among UMK Lecturers.</p>	<p>What are the relationship between performance expectancy with intention to use metaverse in teaching among UMK Lecturers?</p>

H1: There are a relationship between performance expectancy and intention to use metaverse in teaching among UMK Lecturers.

The end result of speculation H1 with inside the preceding bankruptcy reviewed to reply studies question 1. Apart from that, H1 said that there may be a courting between performance expectancy and intention to use metaverse in teaching among UMK Lecturers. From the findings, it suggest

that performance expectancy is positive and moderately related to intention to use metaverse in teaching among UMK Lecturers with correlation coefficient of .877. The p value of performance expectancy is .000 which is less than the highly significant level .0001. In addition, there is a relationship between performance expectancy and intention to use metaverse in teaching among UMK Lecturers. Therefore, H1 accepted.



**5.2.2 To investigate the relationship between effort expectancy and intention to use metaverse in teaching among UMK Lecturer.**

The second question of this study's research was whether UMK Lecturers thought they would have to put in a lot of work and whether they planned to use metaverse in their lessons. This helps answer the second goal and theory as well.

**Table 5.2: Research Objective 2 & Research Question 2**

Research Objectives (RO)	Research Question (RQ)
To investigate the relationship between effort expectancy and intention to use metaverse in teaching among UMK Lecturer.	What are the relationship between effort expectancy with intention to use metaverse in teaching among UMK Lecturers?

H1: There are relationship between effort expectancy and intention to use metaverse in Teaching among UMK Lecturer.

The end result of speculation H2 within side the preceding bankruptcy reviewed to reply studies query 2. Apart from that, H2 said that there's a courting among attempt expectancy and aim to apply metaverse in coaching amongst UMK Lecturers. From the findings, it indicates that

attempt expectancy is nice and reasonably associated with aim to apply metaverse in coaching amongst UMK Lecturers with correlation coefficient of .826. The p price of overall performance expectancy is .000 that's much less than the extraordinarily large level .0001. In addition, there's a courting among attempt expectancy and purpose to apply metaverse in coaching amongst UMK Lecturers. This finding can be supported by (Venkatesh et al. 2003). Effort expectancy pertains to the amount of work necessary to use the system, regardless of how simple or complex it is. Therefore, H2 accepted.



**5.2.3 To investigate the relationship between facilitating condition and intention to use metaverse in teaching among UMK Lecturers.**

Research question 3 of this study asked about any relationship between facilitating condition and intention to use metaverse in teaching among UMK Lecturers? This is also to answer the third objective and hypothesis.

**Table 5.3: Research Objective 1 & Research Question 1**

Research Objectives (RO)	Research Question (RQ)
To investigate the relationship between facilitating condition and intention to use metaverse in teaching among UMK Lecturers.	What are the relationship between facilitating condition and intention to use metaverse in teaching among UMK Lecturers?

H1: There are relationship between facilitating condition and intention to use metaverse in teaching among UMK Lecturers.

The end result of speculation H3 with inside the preceding bankruptcy reviewed to reply studies query 1. Apart from that, H1 said that there's a dating among facilitating situation and aim to apply metaverse in coaching amongst UMK Lecturers. From the findings, it suggests that the facilitating situation is tremendous and reasonably associated with purpose to apply metaverse in coaching amongst UMK Lecturers with correlation coefficient of .748. The p fee of facilitating



situation is .000 that's much less than the incredibly good size of level .0001. In addition, there's a dating among facilitating situation and purpose to apply metaverse in coaching amongst UMK Lecturers. This locating may be supported by researcher.

### 5.3 LIMITATIONS

Through the complete studies, a precious and signal can't system for finishing the studies has been experienced. Even so, there are a few unavoidable boundaries from letting studies run as expected. There are a few boundaries of the modern observe that want to be acknowledge. The first barriers of this examine changed into the time constraint over a duration of numerous months to finish for complete records collection. The researchers have attempted to get the respondent quick in a brief time.

In addition, respondent reluctance to cooperate in answering the web questionnaire. Due to the covid-19 that hit the nation and the different nations within side the world, the tourism enterprise has been seriously stricken by this pandemic. It's hard for researches to get and acquire the statistics face to face to get all information. On line questionnaires which have been dispensed thru google shape to get a statistic. Researchers needed to post time and again and appealed to them to fill out this survey with a purpose to get participation from the respondents.

## 5.4 RECOMMENDATION

### 5.4.1 Recommendation for UMK Lecturer's.

However, the intention to use metaverse in teaching among university lecturers in Malaysia Kelantan

Is with a high percentage. Metaverse have the ability to alter classroom instruction, connect instructors and student virtually in common area, improve career training and open up new options for lifelong learning.

Information technologies and artificial intelligence have spurred education innovation, altered traditional pedagogical concepts and practices, and laid the groundwork for smart education since the metaverse emerged. The metaverse has made smart education a hot topic in educational research. Smart education connects instructors, learners, resources, and the educational environment and analyses their intrinsic nature using information technologies like digital twins, 5 G, and metaverse artificial intelligence. It creates diverse education scenarios, forms a new smart education ecosystem, systematizes theoretical research, and provides new ideas for deeply integrating education and metaverse.

By using metaverse technology in education, a full, closed-loop system can be made for the whole process. Since there are no limits between online and offline settings, a "multidimensional" way of teaching can be used. This successfully makes up for the problems with traditional education, creates an intelligent and interactive learning environment, and makes possible intelligence-driven and customized education. This new pattern is very important for improving the quality and speed of education, giving students a personalized education, changing the way education is done, and giving teaching and learning a new boost.

### 5.4.2 Future Study

This study makes use of quantitative strategies for higher studies purposes. Nevertheless, for destiny studies, researchers may also use qualitative techniques to discover statistics because it makes use of a distinctive technique and can gain unique records than the use of quantitative strategies. The reason of the use of one of a kind strategies is to decide if there are exceptional outcomes from preceding studies. For example, while the use of quantitative techniques, researchers won't obtain unique records but, while the use of qualitative techniques, researchers are much more likely to obtain correct information.

## 5.5 SUMMARY

In conclusion, this study has completed to goal to apply metaverse in coaching amongst UMK lecturer. The influential factors (unbiased variable) which might be overall performance expectancy, attempt expectancy and facilitating circumstance are giving effect to the aim to apply metaverse (structured variable) amongst UMK lecturer. As cited in Chapter 3, researchers the usage of Google Form with 234 respondents had been administered amongst UMK lecturer to reply those questionnaires. The researchers use Google Form to get responses from all UMK. This is because this Google Form makes it much easier for respondents to fill out all surveys, which saves time and money for the researchers and saves time for the respondents. When figuring out the results of the questionnaire poll, different types of analysis, such as descriptive analysis, reliability analysis, and inferential analysis, are used. Next, the results from the previous chapter and all of the information from the poll were put through a programmer called the Statistical Package for the Social Sciences (SPSS) to see what they meant. The experts used this software

because it is easy to find all of the results. Lastly, more to sum up and finish the final result mainly based on information analysis. All of the theories (H1, H2, H3, and H4) for this study are accepted. Besides, barriers and suggestions additionally have been achieved for this studies and wish may be used for similarly studies. Thus, it's also was hoping that everyone the statistics supplied at some point of this studies will assist the subsequent studies.



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