

COMMENTARIES ON CRYPTOCURRENCIES FROM
MUSLIM SCHOLARS AND EXPERTS IN SOCIAL
MEDIA BASED ON AN INFORMATION
DISSEMINATION MODEL

BY

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HAMIN

INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA

2022

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A dissertation submitted in fulfilment of the requirement for
the degree of Master in Library and Information Science

Kulliyyah of Information & Communication Technology
International Islamic University Malaysia

JANUARY 2022

ABSTRACT

This dissertation reports on the commentaries on cryptocurrencies from Muslim scholars and experts in social media based on an information dissemination model. In recent years, cryptocurrencies, especially Bitcoin, have become increasingly popular since it was launched in 2009. People were attracted to know and understand this type of technology due to its unique characteristics. The research objectives were to identify commentaries on cryptocurrencies offered by Muslim scholars and experts in social media, to identify the themes of the commentaries made by Muslim scholars and experts related to cryptocurrencies extracted from the social media, and to explore the responses of social media users to the commentaries made by the Muslim scholars related to cryptocurrencies. The methods used in this research were content analysis to identify and analyse the commentaries from nine selected Muslim scholars and experts for producing topics and themes, and an online survey questionnaire completed by 115 respondents. This research found the themes extracted from the identified commentaries made by Muslim scholars on social media as follows: 1. Cryptocurrency, 2. Bitcoin, and 3. Blockchain. Social media users responded to the statements derived from the commentaries and themes are as follows; first, 74% of 115 respondents agreed with cryptocurrency as a currency in digital form that is intangible and not issued by a government but issued by a single community, and; second, 70% of 115 respondents agreed with the fact that cryptocurrency was built from specific code numbers. These findings indicated that 1. (64% of 85) respondents that agreed with cryptocurrency are a currency in digital form that is intangible and not issued by a government but issued by a single community were informed on cryptocurrencies, and 2. (62% of 81) respondents that agree with cryptocurrency are built from specific code numbers were informed on cryptocurrencies. In conclusion, the commentaries on cryptocurrencies made by the Muslim scholars and experts explained the issues related to cryptocurrencies and were well-responded by social media users. This research contributed to the extraction of the topic commentaries and themes of commentaries, and the social media user responses to the commentaries. The further research works included Muslim scholars and experts in other countries and extended to examine how social media influences user perceptions towards cryptocurrencies.

خلاصة البحث

تقدم هذه الأطروحة تقارير عن التعليقات على العملات المشفرة من علماء وخبراء مسلمين في وسائل التواصل الاجتماعي استنادا إلى نموذج نشر المعلومات. في السنوات الأخيرة، أصبحت العملات المشفرة، وخاصة البيتكوين، تحظى بشعبية متزايدة منذ إطلاقها في عام 2009. وقد جذب الناس لمعرفة وفهم هذا النوع من التكنولوجيا بسبب خصائصها الفريدة. كانت أهداف البحث هي تحديد التعليقات على العملات المشفرة التي يقدمها العلماء المسلمون والخبراء في وسائل التواصل الاجتماعي، واستكشاف ردود مستخدمي وسائل التواصل الاجتماعي على التعليقات التي أدلى بها العلماء المسلمون فيما يتعلق بالعملات المشفرة. كانت الأساليب المستخدمة في هذا البحث هي تحليل المحتوى لتحديد وتحليل التعليقات من تسعة علماء وخبراء مسلمين مختارين لإنتاج الموضوعات والمواضيع، واستبيان مسح عبر الإنترنت أكمله 115 مجيبا. وجد هذا البحث المواضيع المستخرجة من التعليقات المحددة التي أدلى بها علماء مسلمون على وسائل التواصل الاجتماعي على النحو التالي: 1. العملة المشفرة، 2. بيتكوين، و 3. بلوكشين. رد مستخدمو وسائل التواصل الاجتماعي على البيانات المستمدة من التعليقات والموضوعات على النحو التالي: أولاً، وافق 74٪ من 115 مجيب على العملة المشفرة كعملة في شكل رقمي غير ملموس ولا تصدرها حكومة ولكنها صادرة عن مجتمع واحد، و؛ ثانياً، وافق 70٪ من 115 من المشاركين على حقيقة أن العملة المشفرة بنيت من أرقام رموز محددة. وأشارت هذه النتائج إلى أن 1 (64٪ من 85) المجيبين الذين اتفقوا مع العملة المشفرة هي عملة في شكل رقمي غير ملموس ولم تصدرها حكومة ولكن صادرة عن مجتمع واحد تم إبلاغها بالعملات المشفرة، و (62٪ من 81) تم إبلاغ المجيبين الذين يوافقون على العملة المشفرة من أرقام رموز محددة على العملات المشفرة. في الختام، شرحت التعليقات على العملات المشفرة التي أدلى بها العلماء والخبراء المسلمون القضايا المتعلقة بالعملات المشفرة واستجاب لها مستخدمو وسائل التواصل الاجتماعي بشكل جيد. ساهم هذا البحث في استخراج تعليقات مواضيع التعليقات ومواضيعها، وردود مستخدمي وسائل التواصل الاجتماعي على التعليقات. وشملت أعمال البحث الأخرى علماء وخبراء مسلمين في بلدان أخرى وامتدت لدراسة كيفية تأثير وسائل التواصل الاجتماعي على تصورات المستخدمين تجاه العملات المشفرة.

APPROVAL PAGE

I certify that I have supervised and read this study and that in my opinion, it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Master of Library and Information Science

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Roslina Othman
Supervisor

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Master of Library and Information Science

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DECLARATION

I hereby declare that this dissertation is the result of my own investigations, except where otherwise stated. I also declare that it has not been previously or concurrently submitted as a whole for any other degrees at IIUM or other institutions.

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ACKNOWLEDGEMENTS

In the name of Allah, the Most Gracious and the Most Merciful. All praises to Allah and His blessing for the completion of this dissertation. My humblest gratitude to the holy Prophet Muhammad (Peace be upon him) whose way of life has been a continuous guidance for me.

Firstly, I would like to thank my family: my parents and sister for supporting me spiritually throughout writing this thesis and my life in general. I owe a lot to my parents, who encouraged and helped me at every stage of my personal and academic life, and longed to see this achievement come true. I deeply miss my father, who is not with me to share this joy.

I would like to express my sincere gratitude to my advisor Prof. Dr Roslina Othman for the continuous support of my Master study and related research, for her patience, motivation, and immense knowledge. Her guidance helped me in all the time of research and writing of this thesis.

Above all, I owe it all to Allah for granting me the wisdom, health and strength to undertake this research task and enabling me to its completion.

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CHAPTER ONE

INTRODUCTION

1.1 RESEARCH BACKGROUND

The revolution in computing and communications over the last few decades indicated that information technology's technological progress and use would continue rapidly. In 2020, information technology would develop and influence social interactions globally through social media. Aichner et al., (2020) described that social media had been generally used as a common term expressing various online platforms for videos and photos sharing, social games, activities in the virtual world, product reviews, blogs, business networks, collaboration projects, social networks (SN), forums, microblogs, and social bookmarks. Social media sites such as Facebook, Twitter, Instagram, Twitter, Snapchat, Tumblr, and YouTube have been commonly used to share and obtain information, and each of them provided exceptional features, distinct purposes, and attractiveness to different ages (Hogan, M., & Strasburger, 2018).

According to Statista (2021), as of January 2021, there were nearly 59.5% of the world population has already been online users, with social media as the most popular platform for online activity (Clement, 2020). In 2020, an estimated 3.6 billion people were using social media worldwide, and the average amount of time per day spent on social media varied significantly by country. This number is estimated to grow up to 4.41 billion users by the year 2025. Statistics released by the Malaysian Communications and Multimedia Commission (MCMC) for 2020 reported that of the total population in Malaysia, 88.7% were Internet users, with 28.6% of them spending

five to eight hours per day accessing the Internet. Furthermore, 93.3% of those Internet users were also active users of social media, with Facebook recorded the highest user activities, i.e., 91.7%, followed by YouTube (80.6%) and Instagram (63.1%). However, Facebook's user statistics in 2020 have fallen by 5.6% compared to 2018's report (MCMC, 2021). Despite numerous social media sites, Facebook was the first to surpass one billion registered accounts. As of 2021, Facebook has 3.51 billion active users monthly, making it the most popular social media reported by Walsh (2021).

According to Zhu et al. (2018), with the massive postings, shared messages, and uploaded items on social media, users faced information overload and were confused about which news they should believe because there was a lack of professional knowledge. Interactions on social media can either be one- or two-way communication. The information's recipient can decide whether to respond or not to respond to the news shared by a spreader. The sender of information can post and share a wide range of messages on social media explaining issues related to a domain. A caution stated in Surah al-Hujurat verse 6: "O you who have believed, if there comes to you a disobedient one with information, investigate, lest you harm a people out of ignorance and become, over what you have done, regretful" (Saheeh International). Thus, it was necessary to examine commentaries disseminated by senders in social media.

The dissemination of information would be more reliable when the scholars engage to provide their views. The scholar from different backgrounds fields such as Islamic Finance and economics, technology, as well as shariah Islam might have differed in opinion on the issues of cryptocurrencies. As a result, when an information dissemination model is in place, information propagation would be underhand. The epidemic models can describe the information spreading for scholars on

cryptocurrencies, and the SIER model correlated to disruptive technology communication.

Irresponsible parties were propagating false news and sensationalism for personal gains (Michaelson et al., 2019). Advertisements were promising easy money and massive profits. Users who invested in this scheme were unaware that it could be a scam (Xia et al., 2020). Examples of scams were Ponzi schemes (Bartoletti et al., 2020), fraudulent Initial Coin Offering, phishing scams, blockchain honeypots, and market manipulation of cryptocurrencies (Xia et al., 2020). The cryptocurrency was also thought to be a scam (Lacey et al., 2020). Google Trend showed that cryptocurrency was searched starting in May 2016, and it began to increase over time, with November 2017 recording the highest search numbers, then decreased until 2020 and increased again in 2021. This research was also motivated by the view that cryptocurrency could be a scam.

Senner & Sornette (2019) defined cryptocurrency as "electronic money intended to be used to alternative traditional fiat money." Cryptocurrency has facilitated transactions; however, as a money transaction tool, cryptocurrency has drawbacks. According to Korennaya & Tydykova (2019), cryptocurrency was not a regulated currency; thus, it was viewed as free from the monetary system. This view led to a volatile situation because the community decided the price, and the popularity of that currency influenced its value. Besides, this currency was highly exposed to activities such as robbery, fraud, and money laundry (Rustem et al., 2019), which were non-permissible in shariah. On the other hand, (Gil-Cordero et al., 2020) notes that cryptocurrency's purchaser involves high risks because most of the cryptocurrencies

market are frauds, and the nature of the cryptocurrencies themselves is like speculative bubbles.

Therefore, cryptocurrency was highly discussed in Muslim society. Muslim scholars and experts should use social media to disseminate explanations and knowledge on cryptocurrencies to ensure that society could understand to what extent was cryptocurrencies permissible. Thus, this research examined the commentaries shared by Muslim scholars and experts on social media with users and followers. The epidemic model was selected as the information dissemination model based on the findings of previous works. This dissertation paper was also one of the FRGS project's outcomes besides the journal articles, and conference papers that have been funded by the Ministry of Higher Education (MoHE).

1.2 PROBLEM STATEMENT

According to Bolotaeva et al., (2019), there were numerous viewpoints of cryptocurrencies, including whether it is a medium of exchange, commodity, electronic property, or financial instrument. Issues of cryptocurrency, particularly Bitcoin, have been on the rise started in March 2014, and statistics showed that in November 2017, the queries recorded with the most hits 100 times. Showed that the public was very concerned and conducted searches to understand the issues of cryptocurrencies because of the promises made, their availability in a digital form not regulated by any central authority, such as banks or financial institutions, and their security through cryptography techniques such as encryption protocol for identifying and verifying each transaction (Yatsyk & Shvets, 2020). Nevertheless, the problematic issues related to cryptocurrencies caused elaborations from the Shariah point of view. Cryptocurrency

transaction was not transparent, had values that were too uncertain due to their existence in a digital form, which led to high volatility, and had cases of illegal activities such as money laundering (Liu, Y., & Tsyvinski, 2021). The Muslim scholars and experts must play their role in the dissemination of true information (Gu & Widén-Wulff, 2011). Hence, this research examined the commentaries made by Muslim scholars and experts on cryptocurrency in social media with their expected role in an information dissemination model, i.e., epidemic model.

1.3 RESEARCH OBJECTIVES

This research was aimed to achieve the following objectives:

1. To identify commentaries on cryptocurrencies offered by Muslim scholars and experts in social media.
2. To identify the themes of the commentaries made by Muslim scholars and experts related to cryptocurrencies extracted from the social media.
3. To explore the responses of social media users to the commentaries made by the Muslim scholars related to cryptocurrencies.

1.4 RESEARCH QUESTION

The research questions were as follows:

Research Question 1

1a: How could their commentaries related to cryptocurrencies be found in social media using an information dissemination model?

1b: What were their commentaries related to cryptocurrencies?

Research Question 2

2a: How could their commentaries be extracted using an information dissemination model?

2b: What were the themes of their commentaries related to cryptocurrencies?

Research Question 3

3a: To what extent the social media users were interested in cryptocurrencies?

3b: What were the responses of social media users to information on cryptocurrencies?

1.5 OPERATIONAL DEFINITIONS

The terms were operationally defined as follows:

Commentaries

According to Berterö, C., (2016), a commentary may incorporate original information and express a personal view, and it draws attention to present advances and speculates on future trends of a particular topic. While, the commentator is expected to have comprehensive knowledge of the subject and is willing to give a new or unique perspective on existing issues, fundamental principles, and the consequences of a recently adopted innovation.

Cryptocurrencies

Cryptocurrencies are a type of digital money in which encryption methods are used to control the formation of units of money and to verify the transaction of payments, with no reliance on a central bank. Cryptocurrencies are a "medium of exchange, produced and stored digitally on the ledger, utilizing encryption techniques to regulate the creation of monetary units and to verify the movement of money, according to the expert (Khoo, 2017). Cryptocurrencies include Bitcoin, Ethereum, Ripple, Litecoin, Dogecoin, Dash, and others (CoinMarket).

Muslim scholars and experts

According to (Sule, 2020), Muslim scholars are considered those who are continuer of the Prophet Muhammad saw, in serving, teachings, spreading, and conveying all the authentic knowledge, messages, and news, related to Islam to the community.

According to Bourne et al. (2014) an expert is considered as an expert when they has a high level of knowledge and skills in particular field requires hard work, long-term training, experience, and practice. This research selected Muslim expert who were knowledgeable on the topic of cryptocurrencies. There were three selected fields; Islamic finance, Shariah Islam, and Information technology.

Social media

According to Manning, J., (2014), social media is a term used to refer to new forms of media that involve interactive participation in the form of digital platforms, either mobile or stationary e.g., Facebook, email, and blog and have two main features i.e., allowing some form of participation and involving interaction.

Information dissemination model

Information dissemination consists of several elements: communicator, audience, information, media, and feedback. Traditionally, the information dissemination model regards information dissemination as a persuasive process. The spreader of the information is thought to try to influence the receiver and always seeks specific purposes (Liu et al., 2019).

Epidemic model

This research selected one of the epidemic models of information dissemination, which SIER model. The components of the SIER model are, s is a spreader, I is ignorant, E is exposed, and R is a recovery (Zixian Wei et al., 2017). Notes by Zixian Wei et al., (2017) the most likely user who does not know much about information will spread it.

The spreader who is familiar with the information, may share or prefer not to share the information, then called a suppressor. Besides, super-spreaders are people who have followers and share information quickly. This process will continue and repeat until no user shares or triggers the information.