

Future Application of Block chain Technology in Verification for Recruitment

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Abstract: Conventional verification in recruitment processes are demanding, especially when there are many candidates. Failure in this process can lead to wrong hiring for the job. The blockchain technology can solve most of these issues. However the uses of blockchain in verification for recruitment among Malaysia companies are not known. Therefore, this study is aim to determine the future blockchain technology for recruitment verification in Malaysia. By using STEEPV analysis, drivers of blockchain in verification for recruitment were identified. It is found that social driver is the highest which refer to trust and transparency issues of the system. Distribution of questionnaire was used to identify the top two drivers of future blockchain technology in verification for recruitment. The second phase would include impact-uncertainty analysis where cost and time effectiveness as well as data transparency and trust are the top two drivers. Based on these two drivers, four future scenarios have been developed which are impressive technology, overpriced technology, low adoption of technology and cost based technology.

Keywords: Blockchain Technology, Human Resource Management, Recruitment Verification, Technology Foresight

I. INTRODUCTION

Recruitment and selection of workers in an organization are very important functions to ensure the success of HRM. The main objective for recruitment and selection process is to choose and pick the right person for the right job (Makhbul & Hasun, 2007). In the recruitment process, verification is one of the steps that an organization needs to do when hire a person for a position in the company. Verification becomes the main problem when an organization need to verify the candidates' qualification of academic and skill for the job offer as well as the background check.

Academic qualification is one of the most common aspects that candidates falsify in their resume. The survey in 2015 by HireRight Employment Screening Benchmark Report found that 86% of employers claimed that candidates falsify information on their resume during screening process. Moreover, past academic record verification and skill verification is a burdensome process (Chen, 2018). Employers also need to spend huge amount of resources for looking the right candidates and verify their academic and skill certification. Moreover, many of the company depend too much on the resume that candidates provide and most of the time company hiring the candidates without much

verification of the resume (Hegadekatti, 2018).

In addition, based on literature scan using the key term of "blockchain" and "verification", there is a lack of research on the verification for recruitment. The use of blockchain technology may help the organization to verify the candidates' qualification faster, accurately, traceable and cost-effective (Onik et al., 2018). Currently, the company such as Hays and NRG is in the initial phases on blockchain movement and it would not be long until Human Resources (HR) is growing and it will impact the HR function. Thus, this paper explores descriptively the future drivers of blockchain technology in recruitment for verification process and their future scenarios.

The scope of this study is multinational companies (MNC) in Malaysia. MNCs were chosen as the scope of research as they have enough capital and more likely to use blockchain technology for verification in recruitment in their organization. The respondents were HR manager of MNCs (Lindman, Chalmers, & Rossi, 2017).

II. METHODOLOGY

This study is exploratory in nature where descriptive design was employed. Foresight tools in form of STEEPV analysis and impact-uncertainty analysis were used concurrently to yield the future scenarios. Descriptive survey data from thirty multinational companies were used. In essence, the flow chart of the research process is as follows;

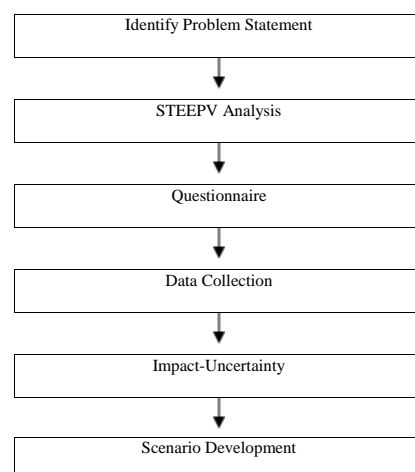


Fig. 1. Research Flow Chart

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A. STEEPV Analysis

STEPPV analysis is a tool that help researcher to identify and classify future drivers (Nazarko & Kuźmicz, 2017). This type of analysis is based on secondary data. Secondary data is past research data that been gathered and can be accessed by other researchers. It contrasts with primary data, which the data was collect directly from its sources. In this research, the secondary data that used is to collect information about drivers of blockchain technology for verification in recruitment from journals, website articles, news and blogs.

The journals and articles that were used as the secondary data were published within five years from 2014 to 2019. In addition, the future-oriented information has been collected from other website as additional information for this research.

Social, Technology, Economy, Environment, Politics and Values are an acronym for STEEPV (Nazarko & Kuźmicz, 2017). This method was used to collect the required information. All drivers emerged from the secondary data were tabulated in the STEEPV categories as in Table- I.

Table- I: Area of STEEPV in the Research

Drivers	Related Area
Social	Awareness of knowledge
Technology	Effects of the technology usage
Economies	Impacts and factor of the implementation in an organization
Environment	Sustainability of environment while implementing
Politics	Government’s acceptance and involvement
Values	Positive elements

B. Descriptive Survey

Based on the drivers that have been identified, the researcher then developed a questionnaire that was divided into four sections which as shown in Table- II. The sample was chosen based on purposive sampling (Crossman, 2018). The targeted respondents were Human Resource (HR) managers among MNCs in Johor. Total population of MNCs in Malaysia was 796 as listed in Bursa Malaysia. However, only 59 MNCs were located in Johor which was sampling frame of this study. Moreover, the level of technology readiness was determined using calculation of mean.

Table- II: Contents of questionnaire

Section A	Demographic (Company Profile)
Section B Part 1	The impact of implementing blockchain technology for verification in recruitment among MNCs
Section B Part 2	The uncertainty of implementing blockchain technology for verification in recruitment among MNCs
Section C	The readiness to use blockchain technology for verification in recruitment among MNCs

C. Impact-Uncertainty Analysis

Based on the descriptive result, impact-uncertainty analysis was done. This investigates the uncertainty in determining the readiness to use blockchain technology for verification in recruitment in Malaysia. From the STEEPV analysis, list of factors could be derived. The factors with the highest impact and uncertainty are the key drivers in the impact-uncertainty

analysis.

D. Scenario Building

The purpose of constructing a scenario was to identify the future implications such as future trends, strategy, issues, events and future-related development. This tool normally used during the brainstorming of the impact-uncertainty analysis stage. The axes of uncertainty use to describe the possible outcomes in the future as well as to describe the range of the uncertainties. At this stage, it is involved a conceptual thinking, especially the recognition that combine two factors in complex way to anticipate future outcomes.

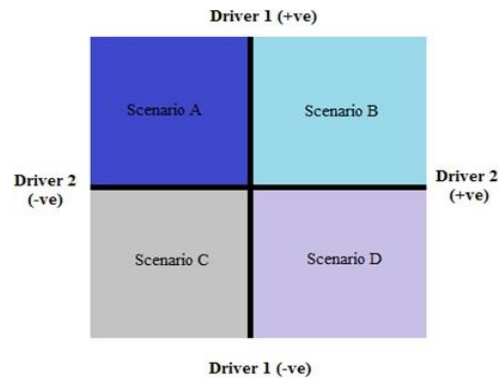


Fig. 2.Scenario Building

III. LITERATURE REVIEW

Block chain is a technology that helps creating transparent and secure distributed ledger. It is a new technology of software for digital information based on cryptography and it is better understood as a social technology that can be used for coordinating people (Davidson, Filippi, & Potts, 2016). “Blocks” in the blockchain specifically have three parts. Firstly, all information of the transactions can be stored in the blocks. Secondly, the block can store information about the participant in the transactions. Thirdly, the blocks can store all the information that can distinguish them from other blocks.

Blockchain has its name on how it works and how it can stores data or information that packaged into blocks which link with other blocks of similar information (Lisk, 2019). This chain that stores the information on a blockchain can be trustworthy. In addition, blockchain is the first technology that will change the way an individual or party makes the decisions and exchange value by lower the uncertainty to know more about one another and providing opportunity to trust each other.

A. Application of Block chain

Blockchain is not something new in the innovative technology era but instead it is revolutionizing for almost every industry. The technology is not restricted to just financial sector but other sectors are making tremendous strides in adoption the technology such as logistics, real estate, digital ID management, corporation and others (Blockchain Council, 2018). There are several industries that will be disrupted soon by the blockchain technology (White, 2019).

First industry is banking. As the blockchain has a secure system that provide permanent data of transaction without been able to alter or change, it has the potential to solve problem that faced by the banking industry today.

Second industry is real estate industry. Blockchain can help to change the way to record the paperwork involved in real estate transaction (Blockchain Council, 2018). It also has a potential to eliminate the escrow process. Other than that, blockchain technology can disrupt areas of legal industry. The technology also able to store and records the data including wills quickly and securely verified. Moreover, blockchain can change the HR practices, where employer can verify candidates' data faster and it make hiring process more efficient.

B. Blockchain in Human Resource for Verification

HR practices could use blockchain technology that focuses on transforming process in HR value chain. Verification for recruitment is one of the most important function in HR (IntelligentHQ, 2018). Blockchain technology could offer a quick and efficient way to verify candidates' experience and competence makes it easier and simpler for employers to choose according to the needs of an organization.

By using blockchain technology for verification in recruitment process, candidates will be able to centralize their work-related information such as certification, academic qualification, employment history and work performance into one digital block (IntelligentHQ, 2018). Moreover, blockchain technology can address cost, transparency and accuracy issues that clogging employers' verification process.

The blockchain technology might also help an organization to no longer go through an extended screening process to verify information that provided by the candidates. An organization merely needs the access to an applicant's public blockchain to make a one-click verification process (Hays, 2019).

C. Table of Drivers

Table- III shows the top 10 drivers that been merged from STEEPV analysis.

Table- III: Table of Drivers

Theme	Drivers	Frequency
Social	Trust and transparency issue	13
Technology	Increase security	12
Technology	Distributed and decentralized network	11
Economical	Reduce cost and time	10
Economical	Economy power shift	9
Technology	Eliminated third party	7
Technology	Verified information	6
Political	Comply with regulation	6
Environmental	Sustainability	4
Value	Reduce discrimination and bias	2

From the table, it shown that social driver has the highest frequencies in issues related to trust and transparency of the

system.

D. STEEPV Analysis

Social, Technology, Economy, Environment, Politics and Values are an acronym for STEEPV (Nazarko & Kuźmicz, 2017). This method was used to collect the required information about the readiness to use blockchain technology for verification in recruitment.

A.Social

The major social impact is in terms of transparency issue in verification. Akbari (2018) already stated that blockchain can provide reliable and transparent platform for sending and receiving transaction (Akbari, 2018). Wang also stated that blockchain is an open-source concept; thus, the entire system is highly transparent for the user (Wang et al., 2017). However, trust issue also can be a factor in social element. Trusts plays an important role in any transaction and it can be achieve using the blockchain technology (Hasan & Salah, 2018).

B. Technological

Blockchain is the fundamental technology that seen as distributed ledger that can be access by anyone to verify data and content with high integrity and credibility (Nizamuddin, Hasan, & Salah, 2018). In addition, Forbes (2018) stated that blockchain can provide the independent verification of data without controlling party.

C.Economy

According to Worlds Economic Forum (2015), 10% of the world GDP may on the blockchain technology. Other than that, blockchain technology might be a new business model that can help increase the economy. In recent study, more than 1,500 start build their business models based on blockchain technology and more than 1.5 billion US dollar were invested in these start up (Tumasjan & Beutel, 2018). Moreover, the blockchain can saved cost and time in HRM. It is support with the study made by Chen (2018) which he stated that the blockchain system saves businesses time and financial resources of verification and cost of hiring.

Environmental

Blockchain creates an environmental benefit by reducing collusion and corruption that causes damages due to unnecessary intervention of third party (Forbes, 2018). Blockchain also could enable next-generation sustainability reporting, verification potential and monitoring (Kite-Powell, 2018). In addition, it can stores job related information in unalterable to ease the work of looking at physical resumes and certificates (Chen, 2018) and it also can help better work environment due to less paper and better talent mapping (Hegadekatti, 2018).

D.Political

Blockchain might transform the current legal regime about contractual enforcement (Science, 2017). Deloitte (2019) stated that blockchain briefly addressed data protection law that may create certain boundaries.

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As millions of people could gain benefits from cross-border technology, so it also impact the cross-border government (Inverse, 2018). However, blockchain technology will be global in reach and can extend without bound in future (Davidson et al., 2016).

E. Value

The blockchain technology adoption in HR can lessen the gap between technology and human (Onik, Miraz, & Kim, 2018). Based on the regulation and agreements, all nodes can safely exchange the data in the system without any human intervention and it reduce the discrimination of validity of HR information (Wang et al., 2017). In addition, the blockchain technology can reduce the bias in HRM systems. Other than that, blockchain might be tempered with full consideration of the human side of business dealings (Science, 2017).

IV. DATA ANALYSIS AND FINDINGS

The participants for this study were Human Resource Managers of MNCs in Johor. There are 45 sets of questionnaire that had been distributed. However, only 30 of the respondents giving their feedback with the returned rate percentage of 66.67%.

Table- IV: Respondents' demographic profile

		Frequency	Percentage (%)
Gender	Male	20	66.67
	Female	10	33.33
Age	20 - 29 Years	18	60.00
	30 - 39 Years	9	30.00
	40 - 49 Years	3	10.00
	Above 50 Years	0	0.00
Nationality	Malaysian	30	100.00
	Non-Malaysian	0	0.00
Level of Education	SPM	1	3.33
	Diploma	1	3.33
	Degree	21	70.00
	Master	7	23.33
	Phd	0	0.00
	Others	0	0.00
Work Experiences	Less than 3 Years	11	36.67
	3 - 6 Years	7	23.33
	6 - 9 Years	11	36.67
	Above 9 Years	1	3.33
Sector	Electronics	0	0.00
	Telecommunications	2	6.67
	Finance and Insurance	7	23.33
	Health Care	0	0.00
	Manufacturing	6	20.00
	Construction and Mining	0	0.00
	Hotel and Food Services	12	40.00

	Others	3	10.00
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Based on Table- IV, 66.67% of the respondents are male and 33.33% are female respondents. Most of the respondents (60%) are aged between 20-29 years old, respondents aged between 30-39 years old were 30% and the least is 40-49 years old with 10%. All of the respondents are Malaysian citizen. Majority of the respondents' had degree (70%), followed by master holder (23.33%) and remaining 3.33% are SPM and Diploma holder respectively. Most of the respondents had working experience less than 3 years and 6-9 years experiences which is 36.67% respectively, followed by 23.33% of the respondents had 3-6 years experiences and only 3.33% of the respondents had work experiences above 9 years. Majority of the respondents' sector are Hotel and Food services which is 40%, 23.33% of the respondents are in the Finance and Insurance sector, followed by sector in Manufacturing which is 20%, respondents in others sector and Telecommunications sector are 10% and 6.67% respectively.

A. Intention to Use Blockchain Technology

Table- V: Intention to use blockchain technology

		Frequency	Percentage (%)
Know about blockchain technology	Yes	22	73.33
	No	8	26.67
Ever heard about blockchain technology	Yes	22	73.33
	No	8	26.67
Intention to implement blockchain technology in Human Resource system	Yes	27	90.00
	No	3	10.00
Plan to implement blockchain technology	Immediately	8	26.67
	1-3 Years	14	46.67
	5-8 Years	5	16.67
	Never	3	10.00

Table- V shows the intention of respondents to implement blockchain technology in verification for recruitment in Human Resource Management. 73.33% of the respondents know or ever heard about blockchain technology and 26.67% do not know or never heard about it. However, 90% of the respondents were intent to implement blockchain technology in their HR system. Majority of the respondents intent to implement the technology in 1-3 years which is 46.67%, other 26.67% of the respondents plan to implement the technology immediately, 16.67% of the respondent think to implement the blockchain technology in 5-8 years and another 10% of the respondents think that they were never implement the technology on their company.

10% of respondent might not implement blockchain technology due to an expensive platform to storage data (Nizamuddin, Hasan, & Salah, 2018).

B. Impact-Uncertainty of Key Drivers

Table- VII: Mean score impact/uncertainty of key drivers

Code	Drivers	Mean	
		Impact	Uncertainty
D1	Blockchain technology in HR can make data more transparent and reduce trust issue.	4.00	3.60
D2	Blockchain technology in HR can increase security.	4.07	3.47
D3	Blockchain technology in HR is distributed and can decentralize network.	3.93	3.57
D4	Blockchain technology in HR can reduce cost and time to verify data.	3.93	3.93
D5	Blockchain technology in HR can make economy power shift.	3.73	3.70
D6	Blockchain technology in HR can help HR to eliminate third parties.	3.70	3.57
D7	Blockchain technology in HR can help verify information for recruitment.	3.63	3.37
D8	Blockchain technology in HR needs to comply with regulation.	3.33	3.43
D9	Blockchain technology in HR can increase sustainability.	3.90	3.33
D10	Blockchain technology in HR can reduce discrimination and bias.	4.00	3.33

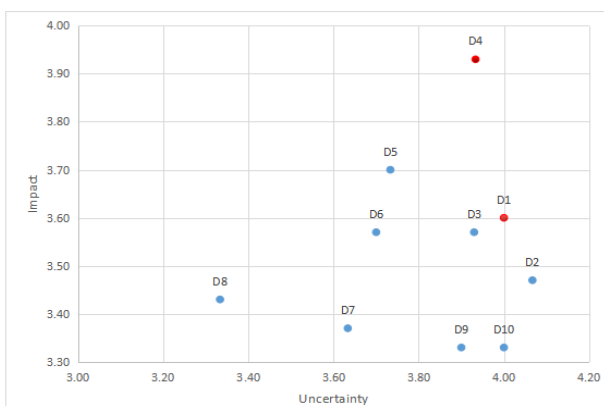


Fig. 3. Impact-Uncertainty analysis

Table- VII shows the mean score of impact and uncertainty of the drivers studied, which were used to analyze impact-uncertainty. The result of the analysis is shown in Figure 3. The two top drivers that have high impact and uncertainty are highlighted in red font which are D1 (3.60, 4.00) and D4 (3.93, 3.93). These two points were actually the mean contributed for two drivers respectively, “Blockchain technology in HR can make data more transparent and reduce trust issue” and “Blockchain technology in HR can reduce cost and time to verify data”. According to Akbari (2018), the blockchain provides platform that are transparent and reliable for sending and receiving transaction. By using the

technology it can solved trust issue problem between node to node while the transaction can be anonymous (Lin & Liao, 2017). Blockchain technology also can achieve low cost and high efficiency in transfer of information in human resource management (Wang et al., 2017) and most likely to change the business in next decade (Science, 2017).

C. Scenario Building

Figure 4 shows the four possible scenarios based on selected impact-uncertainty analysis. Four alternative scenarios were developed based on top two drivers which are “Blockchain technology in HR can make data more transparent and reduce trust issue” and “Blockchain technology in HR can reduce cost and time to verify data”.

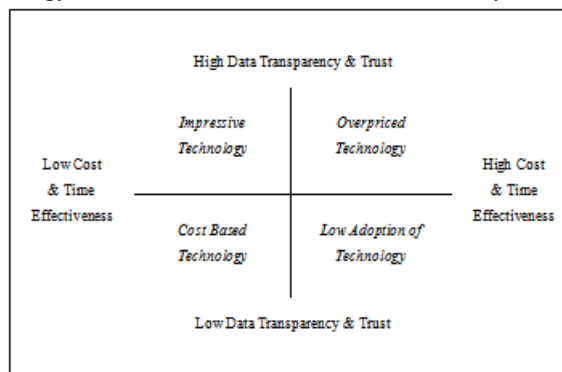


Fig. 4. Scenario Building

A. Scenario 1: Impressive Technology

This is the best scenario where there will be low cost and time effectiveness and high data transparency and trust. Basically, it will increase the potential to use blockchain technology in HR. They can implement the technology with affordable price and result in data transparency and trust it.

To obtain this scenario, the developer must consider what HR management in Malaysia requires for recruitment especially in verification process. As companies play the roles as customer to the technology developer, this scenario developer must make some research to know what their customer want. To fit the demand of the customer, the developer must develop a technology that have an affordable price with high transparency of data and trust.

Besides, to store large and digital data content requires an expensive medium (Nizamuddin, Hasan, & Salah, 2018). So, when companies implement blockchain technology in their company, it can help to reduce the transaction cost (InsideEcology, 2018). Moreover, when transparency of data and trust is high in the technology itself, customers will feel more convinced to use blockchain technology.

B. Scenario 2: Overpriced Technology

This scenario discussed about high data transparency and trust with high cost and time effectiveness. This could lead to uneconomical situation to the companies when they would like to implement the technology.

Although the technology will result in transparency of data and trust, it will cost a lot of money and time to the companies in other word called secured and overpriced technology.

The term of overpriced technology seem not economical to the companies when they want to implement the technology in their organization. Furthermore, to maintain the inefficient maintenance of network that store and manage HR information, companies always spend too much money on it (Onik, Miraz & Kim, 2018). so, it is impossible to an organization to implement the technology even though the technology has a high data transparency and trust.

This scenario only brings benefit to the companies that have a good financial position and give pressure to the companies that have unstable financial position. If only a good financial companies that implement the technology, it will not reflect the good of the technology in HR in Malaysia. The pace of the technology revolution will slow down and will affect the development of technology in Malaysia if the price of the technology is high (World Bank, 2008). The world perspective towards Malaysia will fall because not able to implement new technology.

C.Scenario 3: Low Adoption of Technology

In scenario 3, low adoption of the technology will occur when there is low data transparency and trust with high cost and time effectiveness. This scenario shows that the costumers are not convinced to use blockchain technology in HR management especially for verification in recruitment process because of these issues.

Low transparency of data and trust can lead to the wrong hiring when the job seekers lie or dishonest about their training, certificates and reward (Onik, Miraz & Kim, 2018). Companies that want to use the technology will feel unsafe when there is low data and trust transparency and become disinterested to the implementation of the technology.

With high cost and time effectiveness not data transparency and trust, it could give pressure to HR manager and disturb the organization's strategies to reduce cost of the company. According to Hasan & Salah (2018), trust plays an important role in all the transaction and blockchain technology can solve the problem of trust issue (Lin & Liao, 2017). If the technology itself has low data transparency and trust, it can lead to the low adoption of the technology.

D.Scenario 4: Cost Based Technology

Cost based technology is when there is low data transparency and trust with low cost and time effectiveness in verification for recruitment process. This scenario is not much different with current approach which is companies need to spend more time and resources to verified candidates' qualification. The conventional approach also will result in low transparency of data and trust with low cost and time effectiveness. In this scenario the use of the technology is not focus on data transparency and trust, however it contributes to the low of cost and time effectiveness.

This scenario happens when the developers of technology focus on cost and time effectiveness only. It can be low cost to implement blockchain technology because of there are many companies in Malaysia might change to use the technology for verification in recruitment process. If this happen in future, it will show that Malaysia always up to date and able to absorb new technology, it may lead to economic growth upturn. Malaysia economic growth will increase due to a good

impression of the number of MNCs in Malaysia (Alifah, 2018).

Besides, when transparency of data and trust is low, customers cannot verify the data itself and required another party in the transaction. Due to this problem, consumer may not be convinced to use the technology because it offers no added benefits compared to the conventional approach.

V. DISCUSSION

Blockchain is a new technology for HRM and recruitment (Hays, 2019). This research might provide some insight on implication of blockchain technology in verification for recruitment processes in Malaysia. Since there are limited studies on readiness to use blockchain technology for verification in Malaysia, this study can contribute in terms of knowledge gap and anticipant future trends that affect HR practices. This research also identifies MNC's readiness of blockchain technology for verification in recruitment processes. It could help HR manager to verify academic qualification, skills as well as individuals' background check. The implementation of blockchain technology in verification for recruitment make HR department more efficient. In addition, researcher can knows the future drivers of blockchain technology for verification in recruitment in order to develop future scenario for Malaysia to get ready to use the blockchain technology for MNC.

Blockchain technology is still not familiar for HR in Malaysia, but in other countries this technology is developing quickly (Azahar, 2018).

The result of the STEEPV analysis found that there are 22 key trends, issues and challenge. The key trends, issues and challenge were merged to become 10 drivers. The drivers are the pushing forces for future development of blockchain technology in verification for recruitment process among MNCs. From the results, it can be summarized that the pushing forces that drive the application of blockchain technology in recruitment for verification are security, data transparency and trust, discrimination and bias, economic power shift, decentralized network, sustainability, cost and time effectiveness are the factors that may influence the future use of blockchain technology in verification for recruitment process.

There are two top drivers that been identified in impact-uncertainty analysis which are "data transparency and trust" and "cost and time effectiveness". From these drivers, four alternative scenarios were developed. The four possible scenarios are impressive situation, secured and overpriced technology, low adoption of technology and cost based technology. These four scenarios can be occurring in time horizon of 10 to 15 years, specifically year 2029 to 2034. From these possible scenarios, the best scenario is scenario 1 which is impressive technology. This scenario will be low cost and time effectiveness while having a high data transparency and trust. It basically will increase the potential of companies in Malaysia to use or implement blockchain technology in future.

Second scenario is overpriced technology. This scenario has a high data transparency and trust with high cost and time effectiveness. This kind of scenario is suitable for companies that have a stable financial position and not suitable for companies that have unstable financial position. Third scenario is low adoption of technology, this scenario occur when there is high cost and time effectiveness with low data transparency and trust. Companies that want to implement the technology will feel unsafe because the technology have a low transparency and trust issue but they need to pay a high amount of money for the technology. Lastly, cost based technology is a fourth scenario that been developed. This scenario happens when there is low data transparency and trust with low cost and time effectiveness. If this scenario happens in future, there will be no companies that want to use the technology because of no added benefits that they gain compared to conventional approach.

VI. LIMITATION AND RECOMMENDATION

A. Limitations of Study

This research study has several limitations. The result of this study only applicable for Malaysia and might not be applicable to other country due to different culture and demographic factors. This research also might not be applicable for small and medium enterprise as the research only related to multinational companies in Malaysia. Other than that, the lack of prior research studies on the topics that focus in Malaysia. Many of the data are based on other industries or based on HR from other country and not specific to the topic. Even though the respondents are located in various locations in Malaysia, the size of the population is small to represent MNCs in Malaysia. It was difficult for the researcher to approach respondents for data collection due to the limitation of time spent for procedures and difficult to get the cooperation.

B. Recommendation

This study was carried out to identify the extent to which drivers can influence the MNCs to implement blockchain technology in verification for recruitment process. This study might help government, MNCs and software developer to look into improving recruitment system toward efficiency of management. Moreover, this might aware HR manager about blockchain technology. In addition, this research is made to increase our understanding of the drivers that bring the intention to implement blockchain technology in verification for recruitment. Besides, future researchers could use the findings of this study to explore further about this topic. Next, there are several recommendations that could be used by the government agencies such as Ministry of Finance (MOF) and Ministry of International Trade and Industry (MITI). The government could encourage the transfer of technology by formulate policies as part of strategy toward implementation of new technology in verification for recruitment. In addition, government can give tax incentive or tax exception to encouraged technology transfer in Malaysia. Other than that, government can encourage local IT specialist to develop blockchain technology.

VII. CONCLUSION

In conclusion, this research study entitled “Future Application of Blockchain Technology in Verification for Recruitment in Malaysia” has been carried out and was dedicated to identify the technological readiness of implementing blockchain in verification for recruitment, to identify the future driver blockchain technology in verification for recruitment among MNCs and to identify the future trend of blockchain technology among MNCs. From the research, found that MNCs in Malaysia is ready to use blockchain technology in verification for recruitment process in their company as in recent years, the use of blockchain technology has spread among developed country in various industries due to their concern of benefits in implementing it. The research methodology used such as STEEPV analysis, Microsoft Excel and impact-uncertainty analysis have been executed in order to identify which drivers can influence MNCs to implement blockchain technology in verification for recruitment to achieve the objectives of this research.

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REFERENCES

1. Akbari, E. (2018). From Blockchain To Internet-based Voting, 1–69. Retrieved from https://etd.ohiolink.edu/!etd.send_file?accession=csu1537541901444046&disposition=inline.
2. Azahar, W. (2018). How-to: Use blockchain technology for recruitment | Human Resources Online. Retrieved March 20, 2019, from <https://www.humanresourcesonline.net/how-to-use-blockchain-technology-for-recruitment/>.
3. BCcampus. (2018). Principles of Economics. Retrieved April 19, 2019, from <https://opentextbc.ca/principlesofeconomics/chapter/1-2-microeconomics-and-macroeconomics/>.
4. Benefits, S. (2018). HR Brief Human Resources tips brought to you. Retrieved from <https://www.sullivan-benefits.com/wp-content/uploads/Feb18-HR-Brief1.pdf>.
5. Chen, S. X. (2018). EchoLink - EKO – Blockchain Based Professional Networking and Recruiting Platform. Icos.Icobox.Io, 1–22. Retrieved from https://github.com/EchoLinkTech/EchoLinkService/blob/master/EchoLink_github.pdf.
6. Crossman, A. (2018). Purposive Sampling Definition and Types. Retrieved March 22, 2019, from <https://www.thoughtco.com/purposive-sampling-3026727>.
7. Dahlan, R. (2018). Political stability important for further economic growth. Retrieved April 19, 2019, from <https://www.nst.com.my/news/politics/2018/01/328697/political-stability-important-further-economic-growth-rahman-dahlan>.
8. Forbes. (2018). How Blockchain Will Transform Business And The Law. Retrieved March 28, 2019, from <https://www.forbes.com/sites/ianaltman/2018/06/29/blockchain-changes-business-law/#38964f315cb9>.
9. Hasan, H. R., & Salah, K. (2018). Proof of Delivery of Digital Assets Using Blockchain and Smart Contracts. IEEE Access, 6, 65439–65448. <https://doi.org/10.1109/ACCESS.2018.2876971>.
10. Hegadekatti, K. (2018). Blockchain and Human Resources Management. SSRN Electronic Journal, 1–9. <https://doi.org/10.2139/ssrn.3232203>.

11. IntelligentHQ. (2018). Using Blockchain In Human Resources. Retrieved April 12, 2019, from <https://www.intelligenthq.com/using-blockchain-human-resources>.
12. Kite-Powell, J. (2018). Can Blockchain Technology Save The Environment? Retrieved March 25, 2019, from <https://www.forbes.com/sites/jenniferhicks/2018/12/01/can-blockchain-technology-save-the-environment/#4daf848c233b>.
13. Lindman, J., Chalmers, G., & Rossi, M. (2017). Opportunities and risks of Blockchain Technologies in payments – a research agenda.
14. Mohamed Makhbul, Z., & Mohamad Hasun, F. (2007). Amalan pengambilan dan pemilihan pekerja: Tinjauan ke atas firma terpilih di sektor perkilangan. *Ijms* 14, 14(2), 143–162. Retrieved from <http://ijms.uum.edu.my/images/pdf/14no2ijms/ijms1429.pdf>
15. Nazarko, J., & Kuźmicz, K. A. (2017). Introduction to the STEEPVL Analysis of the New Silk Road Initiative. *Procedia Engineering*, 182, 497–503. <https://doi.org/10.1016/j.proeng.2017.03.143>
16. Onik, M. M. H., Miraz, M. H., & Kim, C.-S. (2018). A recruitment and human resource management technique using Blockchain technology for Industry 4.0. *Proceedings of the Smart Cities Symposium (SCS-2018), Manama, Bahrain*, 11–16.
17. TrustLogics. (2018). Blockchain: The New Step in Identity Verification. Retrieved April 12, 2019, from <https://medium.com/@TrustLogics/blockchain-the-new-step-in-identity-verification-ae4a41a4e321>
18. Wang, X., Feng, L., Zhang, H., Lyu, C., Wang, L., & You, Y. (2017). Human Resource Information Management Model based on Blockchain Technology. *Proceedings - 11th IEEE International Symposium on Service-Oriented System Engineering, SOSE 2017*, 168–173. <https://doi.org/10.1109/SOSE.2017.34>

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