TACKLING JOINT RESEARCH SYSTEM AS THE RESPONSE TO THE GLOBALISATION ISSUE IN INDONESIAN HIGHER EDUCATION

Hayatur Rahmi[1][*]

[1]University of Bristol, Bristol BS8 1TH, United Kingdom

[*]E-mail: hr17230@my.bristol.ac.uk

Abstract

This report exhibits how Indonesian policymakers internationalise their Higher Education Institutions (HEIs) to answer the "global openness" in education. Joint Research (JR) has been implemented by Indonesian policymakers to do so. This research scrutinise such implemented JR by proposing an adopted European framework system in Higher Education Institutions (HEIs). This framework is the transversal dimensions of successful European countries in practising OpenEdu (dos Santos, Punie & Munoz, 2016), namely, strategy, technology, quality and leadership. As the intention of Ministry of Research, Technology and Higher Education (MoRTHE) towards JR is to increase the number of international journal publication, this research favourably recommend the implementation of JR by reforming and upgrading four categories adopted from EU OpenEdu: strategy, technology, quality and leadership. Those categories need to be adopted officially into the JR implementation to produce more international journal and be ready to compete with other institutions globally.

Keywords: globalisation, joint research, Higher Education Institutions (HEIs), internationalization, open education.

SISTEM *JOINT RESEARCH* SEBAGAI RESPON TERHADAP GLOBALISASI PENDIDIKAN DI PERGURUAN TINGGI INDONESIA

Abstrak

Jurnal ini menggambarkan bagaimana para pembuat kebijakan Indonesia menginternasionalkan Institusi Pendidikan Tinggi (PT) mereka untuk menjawab "keterbukaan global/globalisasi" dalam pendidikan. Joint Research (JR) telah dilaksanakan oleh para pembuat kebijakan Indonesia untuk mendukung internasionalisasi tersebut. Penelitian ini mengkaji JR yang diterapkan tersebut dengan mengusulkan sistem kerangka kerja yang diadopsi di Perguruan Tinggi (PT) Eropa. Kerangka kerja ini merupakan dimensi transversal negara-negara Eropa yang berhasil dalam mempraktikkan OpenEdu (dos Santos, Punie & Munoz, 2016), yaitu strategi, teknologi, kualitas dan kepemimpinan. Dikarenakan maksud Kementerian Riset, Teknologi, dan Pendidikan Tinggi (Kemenristekdikti) terhadap JR adalah untuk meningkatkan jumlah publikasi jurnal internasional, penelitian ini merekomendasikan penerapan JR dengan mereformasi dan meningkatkan empat kategori yang diadopsi dari EU OpenEdu: strategi, teknologi, kualitas dan kepemimpinan. Kategori tersebut perlu diadopsi secara resmi ke dalam implementasi JR untuk menghasilkan lebih banyak jurnal internasional dan siap bersaing dengan institusi lain secara global.

Kata kunci: globalisasi, internasionalisasi, *joint research,* pendidikan terbuka, perguruan tinggi,

INTRODUCTION

Joint Research (JR) is a process of working together between connected researchers to investigate particular issue (de Wit, *et al.*, 2015; Yoo, Kwon & Jeong, 2017). This process is considered as a response to open education catered by globalisation in terms of the advancement of transportation and Information and Communication Technology (ICT) – particularly internet (Bird & Thomlinson, 2012; de Wit, *et al.*, 2015). For instance, the transportation removes the distance barrier for researchers from all around the world to work together in particular country (Homayounnejad, 2012). Furthermore, the growth of internet gives the access to share the knowledge worldwide or to build communication between researchers (Ibid., 2012). Those advancements which catered the 'openness' in education, yield the appearance of JR either in developed or developing country (Atherton, *et al.* (2016).

As a developing country, Indonesia has collaborated in research with various countries such as Netherlands (Scientific Programme Indonesia, n.d.), Japan (Open Partnership Joint Research Projects/Seminars, 2017), the United Kingdom (UK Research and Innovation, n.d.), and Australia (Ristekdikti, n.d.). Those collaborations have been practiced as consequence of the awareness of Directorate General of Higher Education (DGHE) towards the benefits of joining the research between overseas' and Indonesian HEs (Syaputra, 2018). A report shown that the JR is mostly implemented to prestigious Universities in Indonesia such as University of Indonesia (UI) – 131 HEs around the world and Bandung Technological Institute – 33 international HEs (Collaborative Research Centre 990: Ecological and Socioeconomic Functions of Tropical Lowland Rainforest Transformation Systems (Sumatra, Indonesia) (Phase 3: 2020 – 2023), n.d.) to mention few. I have observed that the total number of HEIs in Indonesia is 417 (Ibid.). Ironically, only 125 are considered as qualified HEs (Tribunnews, 2018). Furthermore, based on my observation through the university website, only 27 HEs or 22% of qualified HEs are implementing the JR (Op.cit.). Consequently, it is worth noting that Indonesian policymakers need to consider the urgency of implementing JR in all qualified HEs as responding to the open education that Indonesia practiced. Implementing this JR could train and prepare Indonesian researchers to be able to produce their knowledge by publishing it to the world and turn their HEs to be known by international students (Salmi, 2009). Besides, the publication of the research and numbers of citation will be able to increase the reputation of Indonesian HEs to gain better ranking in global table league as argued by (Robertson, 2010).

Nevertheless, the fact that is found in the field regarding the publication might be considered as disappointing. The report shows that only 10 Indonesian Higher Education Institutions published international Journal in 2012 (see table 1).

Table 1. Number of papers published by the top 10 institutions of Indonesia recorded in Scopus in 2012

Institutions	Documents
Bandung Institute of Technology	398
University of Indonesia	250
Gadjah Mada University	168
Bogor Agricultural University	108
Indonesian Institute of Sciences	94
Sepuluh Nopember Institute of Technology	63
Center for International Forestry Research	74
Diponegoro University	59
Airlangga University	52
Pajajaran University	48
Total	1,314

Source: Indonesian Scientific Journal Database; 2013, cited in Wiryawan (2014)

The table shows that 1,314 papers were published in international-class journals out of 145,000 papers from top ten Indonesian HEIs (Wiryawan, 2014). The percentage indicates less than 1% the journals were published as international-class journal. It is such a low 'ratio' as Atherton, *et al.* (2016) claim that the recognition of research in Indonesia is considered 'low' in ASEAN country.

Among the Southeast Asian countries, Indonesia still depicts the lower publication than by Singapore, Malaysia and Thailand, and slightly higher than Philippines (see figure 1). As can be seen in the graph, Indonesian journal publication was significantly raised in the middle of 2007 resulting nearly 4,000 publications in 2013. As JR has been mushrooming in the late 1999 (Harjono, 2008) (It raises questions upon the JR, did the implementation of JR yield the increasing number of publications within less than a decade, in the middle of 2007? If so, how Indonesian governments need to integrate this fact and increase more numbers of publication as the response to global 'openness' higher education? However, it cannot be judged that the graph shows JR journal product since the graph did not mention that eitherthe publication is JR product or not. Nevertheless, as JR can be utilised to prepare eitherjoint publication or personal publication, this study will investigate the JR implementation to increase the number of publications in this globalised era. It is in line with the recent initiatives on the State Ministry of Research Technology of Indonesia website (Build Indonesian Research Capacity Aust-Universities, n.d.) to support research capacity buildingin publishing international journals to compete and collaborate with other ASEAN countries and worldwide universities if possible (Atherton, *et al.,* 2016). The analysis will exhibit fourkey categories in JR in response to European Union Open Education (EU OpenEdu) to increase the number of publications proposed by dos Santos, Punie & Munoz (2016) which are comprised of strategy, technology, quality and leadership. Ultimately, Indonesian Universities' policymakers might significantly adopt and implement this analysis into their practices to increase the the number of international publications.
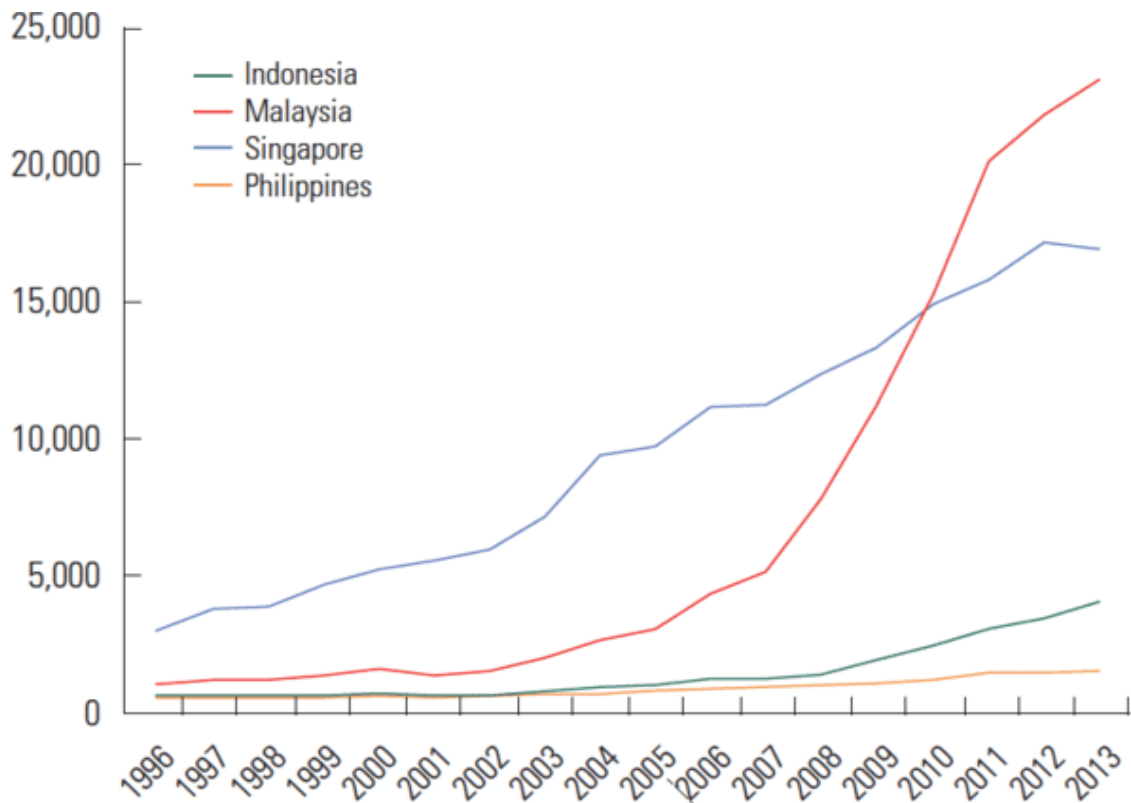
Fig.1. Number of Publication of Indonesia, Malaysia, Singapore, and Philippines
Source: Indonesian Scientific Journal Database; 2013, cited in Wiryawan (2014)

METHODS

Desk research (academic and grey literature) approach is used to construct this research. The external desk research method is used as it involves collecting relevant information from outside organizational boundaries. Those resources are carried out from online desk research and government published data (Juneja, 2015) by searching the keywords needed. Then, narrative analysis has been used to analyse the data thematically, particularly, towards the dimensions of EU OpenEdu to be taken into consideratioin to be embedded in Indonesian Higher Education Institutions.

RESULTS AND DISCUSSION

The Rationale of Joint Research Emergence

As mentioned earlier, JR is one of responses to globalisation issue. It is worth starting to give globalisation the definition before discussing about JR. Thus, this subheading will elucidate the definition of globalisation, then followed by its connection to OpenEdu resulting JR to be taken into account in reforming and upgrading Indonesian HEs.

Globalisation is "*a phenomenon of increasing worldwide connectedness that combines economic, cultural and social changes*" (OECD, 2009, p.1). As it is worldwide connectedness, globalisation is closely connected to the global cooperation and competition phenomena (Ibid.). Globalisation is also described as a process by which national and regional societies, cultures and economies that have become integrated through the global network of communication, trade, immigration and transportation (Economist, n.d.; Lexicon, n.d.; BBC, n.d.). To sum up, globalisation is global connection assisted by Information and Communication technology (ICT) and transportation that ease one country to cooperate and compete each other.

The phenomena of cooperating and competing could affect countries, systems, cultures and all sectors of society, including HE (Knight, 2006). In response to this, it is believed that internationalisation is one of five developments suggested by Rust & Kim (2012) towards the global cooperation and competition of HE. This internationalisation triggers the countries around

the world to internationalise their HEs by widening access and participation to learning byopening up their education (dos Santos, Punie & Munoz, 2016). To do so, the countries built academic partnerships for cooperation and competition with other countries (de Wit, *et al.*, 2015). The partnerships are likely to cover research co- collaboration/joint research, benchmarking, joint or double degree, etc. (Stockley and de Wit, 2011), but this paper will merely focus on joint research. The summary of the emergence of JR is in the following figure:
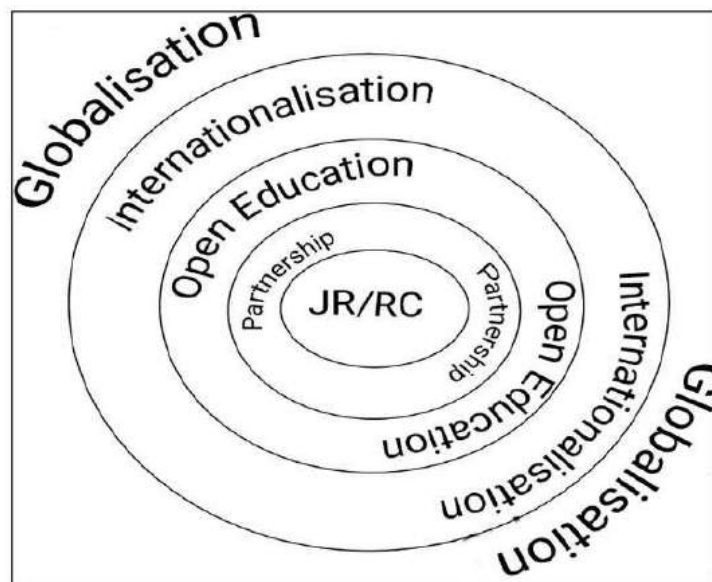

Fig. 2. The Emergence of JR

The figure shows that globalisation surrounds the circle of practising the internationalisation. It is agreed that this internationalisation is a response to globalisation to integrate the HEs' quality as Knight (2005, p.11) defines Internationalisation as "the process of integrating inter-national and cultural dimensions of learning, research and service functions of the institution" to response the demands and challenges associated with globalisation (Van der Wende, 1997). Through this internationalisation, the education of one country or HE will be opened to others, particularly to its collaborated partner. Having collaborated with others means there is an expectation to be gained. As such, this essay mentioned that JR which is implemented by most of countries is believed to be a bridge to widen researchers' network and knowledge to be able to produce insight and compete with others.

In response to aforementioned emergence of JR, Indonesian policymakers have also opened their education to call for cooperation and competition globally. It is in line with the vision of the Ministry of Research, Technology and Higher Education (MoRTHE) to support the open education in term of cooperation and competitiveness through creation of higher quality education combined with science, technology and innovation capability (MoRTHE, 2018). Henceforth, the awareness of Indonesian policymakers to integrate the quality of HEs has been started by opening the education to call for cooperation and competition (Widodo, 2017 cited in Mulyadi, 2018). However, dealing with the 'quality' of Indonesian HEs (Mulyadi, 2018), the researcher believes it might be better for Indonesian policymakers to pay attention more on cooperation than competition. In other word, this research would suggest that Indonesian HE to upgrade the quality first by cooperating with others, then when the quality of Indonesian HE has been ready to compete, it is worth trying to do so. Consequently, Indonesian policymakers' attempt to open education is a solution that is needed to be utilised as good as possible.

One of the open education concerns that is needed to be systemised by Indonesia is Joint Research (JR). I wrote the word systemised because the lack of Indonesian policymakers to make the JR to be a 'system' that is taken into account the skill upgrading of the researchers. It is aligned with (Vincent-Lancrin, 2004) to consider the upgrading HEs skill for professional development. As mentioned previously in the introduction, JR has been implemented in Indonesia more than a decade ago. However, there was a slight improvement in research publication/knowledge production in the result (Wiryawan, 2014). The researcher believes if JR was systemised and officially considered by Indonesian policymakers to prepare their young

researchers, a rocket improvement in knowledge production or journal publication could be witnessed by Indonesian people in next decade.

Definition of Joint Research in Higher Education

Joint Research (JR), or also called Research Collaboration (RC) (Borjesson, 2011), is one of the terms refers to the 'openness' education in higher education (dos Santos, Punie & Munoz, 2016; de Wit, *et al.*, 2015). The concept of JR itself has been argued by many scholars as process of communication or collaboration between connected researchers (de Wit, *et al.*, 2015; Yoo, Kwon & Jeong, 2017). This collaboration is not merely joining the research between the HE and HE, but also join the research of HE and private companies or other research institution within regional, national or international (Enri, 2006; dos Santos, Punie & Munoz, 2016) that aims to create knowledge (Borjesson, 2011). Given this, the production of knowledge is the goal that must be achieved in this collaboration. In a nutshell, JR is a partnership action practised by HE, private companies or research institutions to collaborate in research by producing the knowledge.

The trend of JR increased progressively with average degree of collaboration was 1.98 out of the total 1097 authors and institutions that have contributed to the 758-journal publication from 2000 to 2014 (Aleixandre-Benavent, *et. al.,* 2014). Prior to that, Enri (2006) also exhibited the upsurge trend of JR implementation which increased 8 collaborations of research from 2001 to 2004; from 17 to 25 research collaboration on air traffic control support. Through the trends, it can be concluded that JR significantly increases its popularity among researchers to collaborate and produce the knowledge as the result. It was reported that the result achieved from JR also showed relevant outcome that is not only in knowledge production (Aleixandre-Benavent, *et. al.,* 2014), but also in the relationship between the institutions who collaborate (Förg, *et al.,* 2009; Boeren, 2012; European Union, 2015;). It is undeniable that joint research caters positive effects in maintaining the relationship between the actors (Institutions who practice JR) and producing knowledge in publication form.

Regardless positive outcome of JR that has been shown in European countries, it is crucial tonote that the implementation of JR system in HE should be taken into consideration. It is aligned with dos Santos, Punie & Munoz (2016) who provide framework to deal with open education system in this globalised era. The following section will explain the reason why I chose this framework to be considered as system in dealing with JR to prepare Indonesian HEs' researchers to integrate their knowledge production and quality to compete in the next decade. Then, as JR has been implemented in Indonesia, the analysis of what is happening regarding JR and what is supposed to be in the future will be delineated by scrutinising the JR phenomena within national and international.

Analysis Of Joint Research System As The Response To Collaboration To The Globalisation Issue In Indonesian Higher Education

As previously mentioned, the government of Indonesia has taken into account the implementation of JR in HEs. Many cooperation has been made to support the Indonesian researchers to research on issues they are expert in. Those collaboration not only join specific discipline, but also multidisciplinary or interdisciplinary as the respect to the emergence of knowledge production. Nonetheless, as few of study regarding the outcome of JR implementation, particularly towards knowledge production has been conducted in Indonesia, this reearch will scrutinise the global research upon the issue as well as the data taken from Indonesia to support the foundation of this essay.

There are 27 HEs out of 125 qualified HEs are implementing the JR claimed by MoRTHE (Tribunnews, 2018). Nevertheless, based on the observation, it is found that Indonesian HE policymakers did not have the specific system to prepare the researchers to collaborate with overseas'/national researchers. Once the researchers are considered to be competent to collaborate with others, the policymakers will simply point them to do so by calling them to apply for the application (Harjono, 2008). The researcher believes the level of competence is blurred. Thus, it is a 'questionable' way to decide the 'appropriate' researchers to collaborate with partner.

Thus, this study proposes four categories to be put into consideration in preparing Indonesian researchers to collaborate with other researchers. Also, if possible, Indonesian researchers might be able to compete to be the first author in producing the journal based on the research rather than being the second author as can be witnessed at the moment (MoRTHE, cited in Tribunnews 2018). The proposed categories that will be inspected in this study are adopted from the EU OpenEdu framework proposed by (dos Santos, Punie & Munoz (2016). The framework is the main findings of their research of open education project funded by JR Centre in which consists of 10 dimensions (Ibid.). those dimensions are divided into two categories: core dimensions and transversal dimensions (see figure 3).
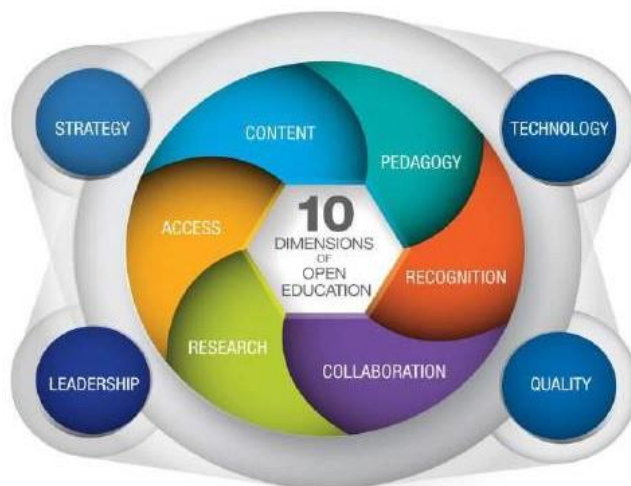

Fig. 3. the 10 dimensions as framework of EU OpenEdu
Source: dos Santos, Punie & Munoz (2016)

There are six core dimensions (access, content, pedagogy, recognition, collaboration and research) and four transversal dimensions (strategy, technology, quality and leadership). The core dimensions represent 'what are included' in OpenEdu, whilst transversal dimensions delineate 'how they are provided' in regard to OpenEdu (dos Santos, Punie & Munoz, 2016). In their findings, they exhibit an example of how technology could be used to share the research and content as core dimensions, to communicate between researchers and to support the research in term of technology infrastructure. Then, in using the technology itself, the HEIs should be supported by strategy to either widen the access to learners or increase HEIs' reputation, etc. The process could be led by how leader of HEIs are supposed to seek and provide high standard of education quality to be achieved or to be transferred. As dos Santos, Punie & Munoz (2016) claims that those dimensions are interrelated each other, this study will be analysing on JR that is framed by strategy, technology, quality and leadership (figure 4).
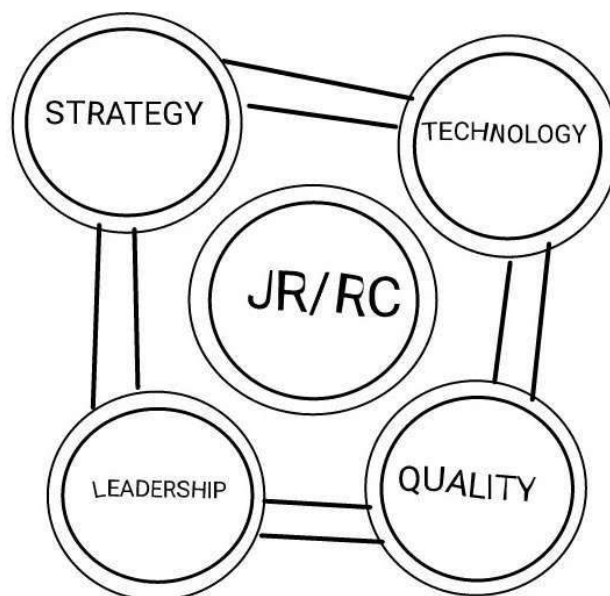
Fig. 4. JR/RC's framework of open education
Source: adopted from dos Santos, Punie & Munoz (2016)

The researcher adopts this framework because this framework is the main finding of successful European countries in practicing OpenEdu (dos Santos, Punie & Munoz, 2016). The writer hopes that Indonesian HEI's policymakers can learn to reform Indonesian HEIs by imitating how those European countries 'frame' their OpenEdu. As dos Santos, Punie & Munoz (2016) argue that framework is a need to guide those who are "involved in the strategic planning of HEIs in thinking critical questions and common practices". They also add that framework can be a foundation to develop insight and inspiring visions of HEIs. Moreover, framework can also be a tool to developa position on open education by adapting the frameworks' propositions whenever needed. Like in this study, JR and four transversal dimensions are taken into account due to their proliferated implementation which is needed to be systemized in Indonesian HEIs.

Before starting analyzing the four categories of aforementioned framework and JR in this essay, it is worth noting to justify why the researcher chose the framework from European countries. Why din't the researcher choose the framework from Asian countries as the it is recognised that the culture of Indonesia is much more similar to Asian countries than European countries (Atherton, *et al.*, 2016)? To mention some reason: firstly, the researcher did not find any specific and clear framework regarding Asian HEs JR system. Then, as the aim of JR that instructed in State Ministry of Research Technology of Indonesia website to increase the number of journal publication by collaborating with other institutions either national or international (Atherton, *et al.*, 2016), the writer decided to recommend this EU OpenEdu framework to be adopted by Indonesia. It is also based on UNESCO report (UNESCO, n.d.) "as a group, the 28 member states of the European Union are the most productive worldwide" in term of publication. Thus, by adopting the EU OpenEdu framework, the researcher hope Indonesia could increase the number of publication in the future.

Considering how proliferating the implementation of JR in Indonesian HEs, it might be recognisedthat Indonesian HEs are potential to adopt JR system officially. This potential is also supported byhow the governments of Indonesia contribute to the JR implementation even though there is no the official system upon that administrates JR particularly in Indonesian HE (Tribunnews, 2018). Thus, this study suggests the transversal dimension of open education regarding JR proposed by (dos Santos, Punie & Munoz, 2016) to be adopted and taken into consideration in preparing HEs researchers. If it is possible, all students of HEs are prepared to become researchers in the future by having chance to collaborate with overseas' or national researchers. The following are the analysis of Indonesian HEs that will be scrutinised by four proposed categories in open education as the response to globalisation in term of JR issue. The category- analyses will be embarked by strategy, technology, quality and leadership, as follows:

a. Strategy

Strategy is a plan. It is set of actions intended to achieve specific objective (Bell, 2002). In open education, strategy defines as the commitments, values, opportunities, resources and capabilities of HEIs with respect to opening up education (dos Santos, Punie & Munoz, 2016). Overall, strategy is a set of commitments, values, chances, resources and capabilities that are planned to achieve open education goals. Indonesian HEIs are urged to regulate the strategy before implementing JR to harvest the successful implementation. The strategy that are constructed must be in line with the institution's vision and mission (dos Santos, Punie & Munoz, 2016). It is also important to clearly articulate the policy in every aspects to be developed by the HEI's strategy (Ibid.). As this journal focus on JR, the writer will elucidate the JR target need by Indonesian HEs, particularly in producing knowledge aspect in term of publishing journal (Atherton, *et al.*, 2016).

Before collaborating with other institution, Indonesian HE policymakers need to know the policies of the candidate partner either knowing its reputation, competent researchers, costs and requirements to be able to collaborate (dos Santos, Punie & Munoz, 2016). As previously mentioned, competency and reputation of the partnered collaboration is matter in preparing the Indonesian HEIs to be recognized internationally. For instance, if Indonesian researchers could learn from the competent researchers and produce some innovative publication, the world might recognize the Indonesian HEIs. By here the researcher means, Indonesian HEIs can "take it for granted" to introduce their existence to the world. In addition, the costs and requirements needed to be paid attention before collaborating with other institutions. (dos Santos, Punie & Munoz, 2016). Those considerations are crucial since Indonesian HEIs' budget witness a decline national budget for research, technology, and higher education from 2016 to 1017 by minus 3% from 40.6 Rupiah trillion (Ishak, 2016). The writer believes it might be more declining budget in the future considering how the Indonesian national state fluctuated each year. Thus, considering the cost offered in the partnership might be able to minimize the undesirable issue in the future. Eventually, Indonesian HEIs needs to determine the strategy before practicing/while JR in order to achieve the main objective of JR itself. By determining the strategy, it is undeniable that Indonesian HEIs will be able to collaborate with other institutions and propose mutualism, interaction that benefits both parties.

b. Technology

Technology is a crucial part of OpenEdu as it is the main driver that drives the 'openness' in education. This technology proposes the ICT investment and literacy (dos Santos, Punie & Munoz, 2016) of Indonesian researchers. As it is known that digital literacy plays big role in operating the tech-facility. Thus, before/while practising JR, Indonesian HEs policymakers need to negotiate with the technology investment and tech-literacy to back up the Indonesian researchers.

c. Quality

Quality in open education refers to standards of competent and also the environment and condition of the HEIs are built in (dos Santos, Punie & Munoz, 2016). In JR, the quality is often examined by sharing code of practice on quality to mutually check and per-review their outputs (Ibid.). Thus, it is worth mentioning that Indonesian HEs policymakers are urged to propose the high-quality of researchers and environment while collaborating with partnered institutions.

d. Leadership

Leadership in OpenEdu is the campaign of sustainable initiatives and activities through a transparent approach from both the top-down and the bottom-up. This category covers the way to generating more openness by inspiring and empowering people (dos Santos, Punie & Munoz, 2016). The aforementioned people mean all of personal who participate in JR; staff, learners, researchers, policymakers, and Institutional leader. Through this category concern, it is crucial to propose who will lead the JR and how it will be led. As Indonesian HEs are focusing in increasing number of publications, the leadership skill to be able to promote and empower the Indonesian researchers to be ready to collaborate and compete 'if possible' are the wise solution as proposed by (dos Santos, Punie & Munoz, 2016). By having a wise leader either for group or for personal need, the researcher believes everything would be managed wisely. As this leadership

category must have the ability to inspire and empower all actors of JR.

By preparing the actors of JR (researcher, staff, policymakers, etc.), Indonesia will be able to increase the number of publications. Not only to be co-author as what can be witnessed in Indonesia at the moment, but also to be lead author (Atherton, *et al.*, 2016). It is aligned with the intention of Ministry of Research Technology and Higher Education and staff to empower and increase the Indonesian 'lead-author' for international journal publication in order to attract other oversea students and to inform the world that Indonesia is ready enough to compete with others (Tribunnews, 2018).

However, the researcher believes such intention will be a long-term endeavour for Indonesia as Moeliodiharjo, *et. al.,* (2013) claim in their report. Through their investigation, they found that Indonesia HEs still lack of understanding and mutual trust (Etzkowitz, 2002, cited in Moeliodiharjo, *et. al.,* 2013) even to the national institutional partnership. Furthermore, Moeliodiharjo, *et. al.,* (2013) also find that Indonesian HEs still lack of financial and technological management to support JR implementation. Last, lack of leadership skill is also claimed regarding this JR implementation (ibid.). Thus, to implement JR based on EU OpenEdu framework will be challenging and time consuming. However, it is worth trying as there is no instant success in this world. Henceforth, the reasearcher recommends the transversal dimensions as four categories adopted from EU OpenEdu could be taken into account by Indonesian HE policymakers in reforming the 'way' how they prepare the 'JR' in Indonesia at the moment. I would say that the suggested categories are the framework in which it will frame Indonesian HEs to be better, particularly in practising JR by reflecting to what have been done and achieved by EU countries. The greater the framework are polished, the greater the outcome will be achieved.

CONCLUSIONS AND SUGGESTIONS

Globalization has challenged the Indonesian policymakers to internationalize their Higher Education Institutions by opening up education. One of the practices that Indonesian policymakers have implemented is joint research. As the intention of MoRTHE towards JR is to increase the number of international journal publication, the researcher favourably recommend the implementation of JR by reforming and upgrading four categories adopted from EU OpenEdu: strategy, technology, quality and leadership. Those categories need to be adopted officially into the JR implementation. By so doing, the writer believes that Indonesian researchers will be able to produce more international journal and be ready to compete with other institutions globally. Nevertheless, this journal merely discusses the surface of the JR implementation in Indonesian HEs. Henceforth, the future research with depth-analyses in each proposed four categories is needed to be undertaken.

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