ABSTRACT: This paper analyzed the academic crowdfunding initiatives of public universities in Malaysia. It investigated the effectiveness of academic crowdfunding initiative, focusing on two important issues namely the most critical hurdle that might challenge the crowdfunding initiative, and an overview of the crowdfunding model which could be the strategy to support the academic research funding. A case study of qualitative research method, including semi-structured interview sessions were conducted. The finding yielded that there were five potential challenges and the fraud in crowdfunding was the most critical challenge. Besides, the most suitable crowdfunding model for researchers from public universities of Malaysia was the donation crowdfunding for this model does not include the claim of ownership and it is more suitable for the public universities in Malaysia. This study provides guidelines to academic researchers in the implementation of crowdfunding for their research project and some innovative suggestions to creating the successful crowdfunding campaigns.

KEYWORDS: Crowdfunding; Academic Research Funding; Malaysia

1.0 INTRODUCTION

Nowadays, many universities in Malaysia prioritize in developing their academic research to be more competitive. ‘Research is of prime importance in academics’ value systems and university reward and value systems are premised on achievement in research [1]. This situation also causes fund raising for academic research become more competitive in Malaysia. The landscape in which funding for research is applied for and won has become increasingly competitive and global in nature [2]. In the past, the research funding was always
insufficient due to the traditional funding sources were only made available through allocated funds by academic, governmental or any funding institutions, resulting in the slowing down of the process in getting promising innovations into the market, and these typical funding sources did not support the development of prototyping and product creation. Because of this, crowdfunding emerges as a new alternative for academic research funding. Crowdfunding is where a large number of people (a crowd) financially support a product or project by giving a relatively small amount of money either in return for a reward, as a donation, or potentially in return for equity [3]. It is a form of social networking and uses the power of the internet and online communities to spread words about a product or project. Therefore, the crowdfunding initiative should be viewed as an alternative research funding which may solve the current problem. The objectives for this study were:

i. To investigate the most critical hurdle that challenges the crowdfunding initiative.

ii. To assess the crowdfunding strategies for the public universities in Malaysia on innovation and scientific research.

iii. To propose the innovative suggestions to overcome these hurdles and enhance the crowdfunding initiative.

2.0 LITERATURE REVIEW
Crowdfunding has its origin in the concept of crowdsourcing. Its concept is also closely related to the crowdsourcing [4]. Crowdfunding is a new a novel method for funding, allowing an individual founder of for-profit, cultural, or social projects to request funding from many individuals (public crowd), often in return for a reward, as a donation, or potentially in return for equity. It is a form of social networking and uses the power of the internet and online communities to spread words about products or projects [3, 5-6].

2.1 Defining the Process and Roles in Crowdfunding
All crowdfunding transactions are facilitated through the internet-based crowdfunding platforms which also provide a convenient means for all exchanges of funds [7]. Besides, crowdfunding is the
process of one party requesting and receiving money and other resources from many individuals for financing a product or project, in exchange for a monetary or non-monetary return on investment [8].

There must be parties or roles involved in fulfilling the crowdfunding effort [7–8]. Moreover, there are three roles to fulfil in any crowdfunding effort [9]. From Burkett’s research, there is the intermediary who serves as a matchmaker between project owners and funders. The central role of the intermediary is also known as the crowdfunding platform operator. Next, there are project owners, project owners raising the fund through the crowdfunding platforms. Lastly, there are funders, it is also defined as the ‘crowd’ from the term crowdfunding, crowd is a group of people who support the project of project owners financially, bearing the risk together and expecting a certain payoff.

2.2 Challenges of Crowdfunding

There are five challenges of crowdfunding practice; (1) fraud, (2) setting valuations, (3) post investment communication, (4) data, analysis and risk mitigation and also (5) the conflict of interest and operational risk. [10]. Fraud is the most widely debated issue for critics of crowdfunding practice [10]. Critics point out the potential for funders to fund scams through crowdfunding platform. The risk for fraud increases in crowdfunding because the pool of funders has no personal contact or real business idea beyond what is presented on the crowdfunding platform. A study [11] showed that fraud is increasing when the project owner reveals more information of the firm to the public.

Another challenge for the project owner of crowdfunding is setting valuations. It is normally related with the equity crowdfunding [10]. The project owner needs to decide the equity to offer for the amount of capital they want to raise. This is often problematic, particularly as there are often parts of the business, such as intellectual property or estimations on market size and scale that are difficult to estimate or quantify. This situation may cause undervalue or overvalue of the business, creating significant problems for the funders.
Project owner rely heavily upon the networks, mainly brought together by the social media such as internet [12]. However, it is not easy to manage a huge number of stakeholders, particularly as they may not all be in the same geographical region which can be incredibly difficult to manage [10]. For the equity crowdfunding, an issue arises on liquidity in the secondary markets, as access to capital, especially equity.

One of the main hurdles that is associated with crowdfunding initiative is its open nature, insofar as individual investors often have no formal training and may not be equipped to assess the financial risk involved [10].

Conflicts of interest occur when owners or specific funding providers use privy information to generate systematic superior returns compared to its crowd financing [10]. Moreover, crowdfunding is too new and there is only few guarantee or laws that prevent additional deals to be carried out offline, beyond the crowdfunding platforms [10]. These kinds of situations must be strictly avoided, and rules should be enforced for raising money online (via crowdfunding platform) vs. raising money offline (in private deals). The last challenge is the operational risks [10]. Operational risks involve losses that are not due to the market risk or credit risk, but to human error, both internal and external failed processes, unlinked systems, and inadequate environments [13]. In crowdfunding, the operational risk that might happen is often because of the unpredictability number of investor. The limited size of many crowdfunding platforms starting-up supposes a high concentration of ownership within the operating companies. Hence, an actual operations and development of the project depend on the limited set of resources of its shareholders. Size and shareholder capability are therefore a significant issue for many growing crowdfunding platforms.

2.3 Various Models of Crowdfunding

There are several models of crowdfunding strategies in literature. A comparison has been made among various studies on crowdfunding strategies. A study comes up with models of crowdfunding as below [14]:

i. The Donation Model
   - The Donation Model refers to individuals who make the financial contribution to a project without any expectation of a financial return. Projects and platforms that employ the donation model also use a typical reward or incentive system to help stimulate contributions where contributors are thanked for their support with a small reward.

ii. The Lending Model
   - The Lending Model refers to individuals who lend money to a project with the expectation that it will be repaid. Meanwhile the investment Model resembles a standard equity investment, where an individual receives equity in an entity in return for financing.
i. The Donation Model
ii. The Lending Model
iii. The Investment Model

The Donation Model refers to individuals who make the financial contribution to a project without any expectation of a financial return. Projects and platforms that employ the donation model also use a typical reward or incentive system to help stimulate contributions where contributors are thanked for their support with a small reward. The Lending Model refers to individuals who lend money to a project with the expectation that it will be repaid. Meanwhile the investment Model resembles a standard equity investment, where an individual receives equity in an entity in return for financing.

Crowdfunding has a potential to become an alternative for academic research in Research Management Centre in Malaysia. It is important for universities to gain external funding for research, to supplement and, in some countries, influence the amount of unrestricted funding that they get from government and other sources [2]. Moreover, at present, funding is also not enough to support the range of research activities that universities want, and need, to conduct. Hence, crowdfunding can be an option for the Research Management Centre in Malaysia as a strategy for academic fundraising.

Although Canada Media Fund is well defined, these models are unable to provide the complete view for an effective crowdfunding strategy as the models should include other secondary data to support the study. Another study shows support to Canada Media Fund [15]. However, Mitra focuses more in examining different platforms that are adopted by the crowdfunding models [17]. The study focuses on four types of crowdfunding platforms:

i. Crowdfunding
ii. Reward and Pre-purchase Crowdfunding
iii. Lending Crowdfunding
iv. Equity Crowdfunding

Donation crowdfunding sites are not only the platforms for charities and other non-profit fundraising, but also for profits as well. The reward and pre-purchase crowdfunding sites do not typically involve
direct revenue sharing [15]. For the lending crowdfunding, there are two categories of lending sites; those not offering interest and those that do offer interest. For those crowdfunding sites that do not offer interest, lenders only receive their principle back, the field partners use any interest received to cover their operating costs. For the sites that offer the interest, lenders get paid if borrowers pay back. In this respect, they function more like investors than lenders. The transaction fees and interest on loans depend on the borrowers ‘credit risk’. Loans that charge interest are typically viewed as ‘securities’ and, therefore, for regulatory purposes fall within the domain of security regulation. As for the equity crowdfunding, the project owners will offer investors a share of the profit of the business they are funding.

3.0 RESEARCH METHODS

Public universities in Malaysia were chosen as a case due to its potential capability for the implementation of academic crowdfunding for the academic research project. The main purpose of using case study as the research strategy was because a clear framework needed to be provided along the research process which focused on the public universities of Malaysia only. Moreover, the case study strategy will gain more insights and rich understanding of the context of the research and the processes being enacted [16]. An exploratory research design was chosen for this study because a depth understanding needed to be gained and public universities needed to implement the academic crowdfunding and how the crowdfunding initiative could succeed. In addition, point of view from the management of research management center about their view on crowdfunding would be gained. Besides, this study also interviewed academic researchers who used crowdfunding initiative in Malaysia. Therefore, information and different views from each respondent which cannot be found in secondary data would help to answer the most critical hurdle that may challenge the academic crowdfunding initiative and the most suitable strategy for academic crowdfunding. A qualitative method through semi-structured interview was used to collect data in public universities in Malaysia.
4.0 RESULTS AND DISCUSSION

4.1 Respondents’ Background

The case study is conducted by using the qualitative method to conduct an in-depth and semi-structured interview for ten respondents that are working in Research and the academic researcher. The ten respondents were qualified to be the subject for investigation.

Table 1: Background of Respondents

<table>
<thead>
<tr>
<th>No</th>
<th>Respondents’ Position</th>
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<tbody>
<tr>
<td>1</td>
<td>Director of Research Management Centre</td>
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<tr>
<td>2</td>
<td>Deputy Director of Research Management Centre</td>
</tr>
<tr>
<td>3</td>
<td>Senior Assistant Registrar of Research Management Centre</td>
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<tr>
<td>4</td>
<td>Officer of Research Management Centre I</td>
</tr>
<tr>
<td>5</td>
<td>Officer of Research Management Centre II</td>
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<tr>
<td>6</td>
<td>Officer of Research Management Centre III</td>
</tr>
<tr>
<td>7</td>
<td>Crowdfunding Platform Operator</td>
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<tr>
<td>8</td>
<td>Crowdfunding Platform Operator</td>
</tr>
<tr>
<td>9</td>
<td>Academic Researcher</td>
</tr>
<tr>
<td>10</td>
<td>Academic Researcher</td>
</tr>
</tbody>
</table>

4.2 Strategies in Overcoming Critical Hurdles in Crowdfunding and Innovative Suggestions in Enhance the Effectiveness of Crowdfunding

Throughout the interview sessions, the most critical challenge in an implementation of crowdfunding initiative in public universities was fraud. It was confirmed by 80% of the respondents. The strategy to overcome fraud was through legal manner. It was agreed by the Respondents 1 and 10 that patenting a research idea is the most strategic way to overcome this challenge. Patent is the best legal means to protect an invention from being sold or used by another person or business, and provides a remedy if an idea is stolen [17].

Besides, respondent 2, 3 and 10 suggest that the management of crowdfunding platform should also screen through the basic information of all potential funders to prevent the fraudsters from taking opportunity to steal the research idea. Next, the crowdfunding platform should also conduct mandatory auditing, proper financial disclosures and continuous business reviews to prevent leakage of
sensitive information to fraudsters. Most importantly, respondent 1, 8 and 9 strongly admit that the Research Management Centre should also require all crowdfunding to take place on portals that are registered with a national regulatory body that oversees security realms such as Securities Commission of Malaysia. Moreover, the Research Management Centre should always restrict and monitored the social media communication about the offering. The Research Management Centre was encouraged the researchers to engage with local regulatory and policy constituents to build a securities crowdfunding campaign [18].

Moreover, some strategies would help to strengthen the crowdfunding initiative of researchers from public universities. First, the Research Management Centre should raise the concern on the post investment communication in crowdfunding. It was agreed by respondent 2, 3, 6 and 7. However, not all the community of Research Management Centre were clear about how the crowdfunding work, and what the research projects under their organization and the organization’s rule and regulation. Consequently, this lack of understanding would hamper the promotion of products to potential funders. Therefore, researchers can consider preparing a non-disclosure agreement and be signed by the public funders [19]. This is a quite strong barrier that would make stealing the idea very difficult and expensive.

For the crowdfunding to be successful, few strategies must be adhered to. First, know how to use the network as extensively as possible to communicate with people that have faith in our research project is way more effective than formal communication [19]. Second, know how to efficiently communicate with Web 2.0 about our research projects. Last, know the laws we are working under. Make sure that crowdfunding usage will not make us an outlaw. This is the reason why the Research Management Centre must work on the post investment communication. Therefore, Research Management Centre can always organize training courses to enhance the knowledge of staff on crowdfunding matters.

A good understanding of how crowdfunding works, what it can deliver and what the risks might be are keys to establishing trust with
both contributors and campaigners [19]. Therefore, the Research Management Centre should raise awareness among the community about the importance of post investment communication in crowdfunding. All the community of Research Management Centre should be clear about the project and planning of Research Management Centre, so if the investors have any problem, the staff can help them by answering their questions and in turn gaining trust from the investors.

5.0 CONCLUSION

In conclusion, the critical challenges that influence the use of crowdfunding for academic research funding have been analyzed. Framed within the socio-technical perspectives, there are five potential challenges and the fraud in crowdfunding is the most critical challenge. Besides, the most suitable crowdfunding model for Malaysia’s public universities is the donation crowdfunding for this model does not include the claim of ownership and it is more suitable for the research projects. In addition, this study also proposes some innovative suggestions with the purpose to enhance the effectiveness of crowdfunding initiative for the Malaysia public universities' researchers. This study is a great help for the academic researchers in their fundraising purposes. This study provides guidelines for researchers on how to get research funding through crowdfunding and the innovative suggestions in creating the successful crowdfunding campaigns.

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REFERENCES


