

THE IMPACT OF AN ACCELERATOR PROGRAM FOR STARTUP TO DEVELOP THE BUSINESS IN CIRCULAR ECONOMY

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ABSTRACT

The economic transition from a linear to a circular economy is considered very important, especially to reduce the environmental impact that has been generated due to waste. One way to accelerate the transition is through the opening of new jobs through startups. Startups that are starting to grow their business need to get a variety of support. Therefore, the acceleration program is here to help business development while fostering innovation in the circular economy sector. The purpose of this study is to analyze the influence of modules and learning, mentorship and mentoring, access to funding, and the network of cooperation provided by the Circular Jumpstart acceleration program to startups in the circular economy. This research uses a qualitative method by analyzing data obtained from questionnaires and the process of *in-depth interviews*. The results obtained in the research of the Circular Jumpstart acceleration program have a positive and significant effect on the business development of startups in the circular economy.

Developments resulting from the provision of modules and learning, mentors and mentoring, access to capitalization, and cooperation networks to Circular Jumpstart participants. From the results obtained, it is known that modules and learning, mentors and mentoring, access to capital, and cooperation networks provided in the Circular Jumpstart program have a positive effect on the development of start-up businesses in the circular economy sector. As for being able to have a positive impact, the Circular Jumpstart acceleration program needs to develop access to government agencies, as well as provide a one-on-one mentoring method to better adapt to the needs of startups.

Keywords: *Business, Circular Economy, Acceleration Program, Start-up*

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INTRODUCTION

The emerging issue of waste management has demanded the transition from a linear economy, *take-make-dispose* into a circular economy (Asgari & Asgari, 2021; Prendeville et al., 2014). The circular economy is the active involvement of a company to take advantage of the resources rationally and recover waste into other raw materials, the circular economy can improve economic value and decrease natural resource consumption (Herrador et al., 2022; Lakatos et al., 2021). According to Green & McCann (2011), the circular economy is defined as the concept of an economy that is close to the new opportunity for creative and innovative activities. It means anything related to circular economy activity leads to more opportunity, and the future of the world (Hassanli et al., 2020).

Adopting Japanese philosophy another terminology in the business, and industry rises which is called a *lean startup*, the concept that suggests a flow of processes in systemizing entrepreneurship and development (Silva et al., 2020). It is a company that has just been established and is still in the developing phase of finding the market and product development (Mulachela, 2021). The new and adaptive characteristics that brought circular economy and startup come together in this research (Lieder et al., 2018). It is the process to answer the problems in the society and environment while creating more opportunities to gain more benefits (Jenkins, 2009). It can be concluded that startup development in the circular economy

will give an impact directly on green job development (Sulich & Sołoducho-Pelc, 2022). The rising of a startup along with the emergence of the support organization which used to be called a Startup Assistance Organization (SAO), can be formed as an incubator and accelerator (Tripathi et al., 2019). Differing from an incubator, an accelerator used to be a periodical program, based on the cohort that gives knowledge, monitoring, and guidance to the early-stage team and connects them to experienced entrepreneurs, venture capitalists, angel investors, and executives of corporates (Hausberg & Korreck, 2021).

In 2021, a program accelerator focused on the circular economy was conducted aligned with the 4th Indonesia Circular Economy Forum (ICEF) named Circular Jumpstart. ICEF itself is part of the World Circular Economy Forum (WCEF) network which is the biggest forum that gives circular economy solutions to the participation of business leaders, policymakers, and experts around the world. The program received high enthusiasm from 76 startups that focus on creating a solution in reuse, reduce, recycle, and aggregator in waste management. With most of the participants in the early-stage level, Circular Jumpstart finally selected 15 finalists to be able to benefit from the support in form of modules and learning, mentor and mentorship, access to capital, and a collaboration network.

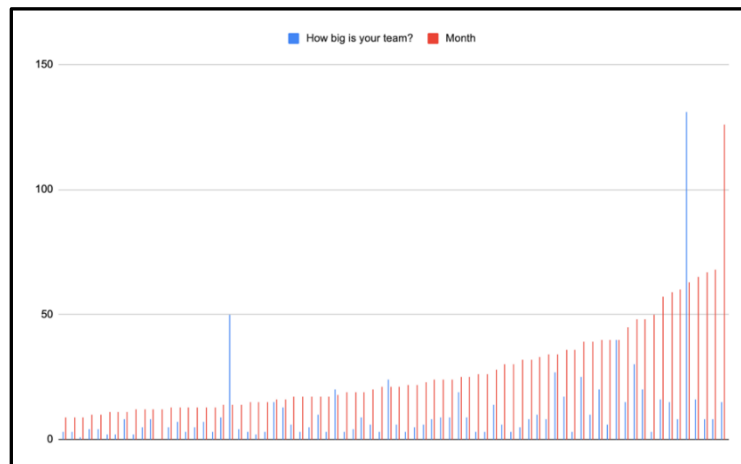


Figure 1 Graphic of 76 Startups Circular Jumpstart Applicants

In this research, the author would like to analyze the impact of the accelerator program to help startups in the circular economy grow their business. Having a literature review from the previous research with the title “Is Joining a Business Incubator or Accelerator Always a Good Thing? By Lukosiute et al (2019), this research will analyze the data that has been collected from 11 startups by filling out the list of questionnaires and conducting in-depth interviews with 3 representative startups. Hopefully, from this research, the impact of an accelerator program which in this case is Circular Jumpstart can be more elaborated and analyzed.

METHOD

This research is a qualitative study with a normality test from primary and secondary data (Gachanja et al., 2020). Primary data is collected from the questionnaire and in-depth interviews with the participant of Circular Jumpstart, in total there are 11 startups willing to input their data and scoring. The 11 startups actually have passed the selection process over the 76 applicants whose data will be elaborated shortly. The secondary data are collected from

previous research on accelerator programs and the circular economy. The data sampling is organized by validity and reliability test to connect the data from the primary source to the existing research.

RESULTS AND DISCUSSION

As an accelerator program, Circular Jumpstart was conducted to be able to enable early-stage startups in the circular economy to grow both economically and environmentally. It was a three months program that involved modules, mentors, and investors and ended with a demo day to connect startups with potential partners. However, according to the previous research by Lukoisute et al., (2019) “Is Joining a Business Incubator or Accelerator Always a Good Thing” it is found that not many startup founders are comfortable joining an accelerator program. Most of the most innovative entrepreneurs saw that most of the programs are less effective to address their needs, so they try other methods to grow their business. In the research, the critics are defined into 12 factors which this research tries to simplify into four categories, which are module and learnings, mentor and assistance, access to capital, and collaboration network. Table 1 will elaborate on the 12 factors and the grouping into 4 categories.

Table 1 The Category of Supports from the Accelerator Program

No	The Critics from Lukoisute	Category
1	Incubation programs did not perform due diligence and assessment to ensure startup quality	Module and Learnings
2	General workshops, courses, and lectures about entrepreneurship were not found to be valuable	
3	Startups received low commitment from program mentors and advisors	Mentor and Mentorship
4	Tangible services such as access to manufacturing capabilities were not provided or were limited	Access to Capital
5	Business incubation programs did not provide direct or indirect access to investment	
6	Equity taken by the business incubation program made startups unattractive to potential investors	
7	Startups did not efficiently use the office space provided by the incubation program	
8	Participation in a business incubation program puts intellectual property at risk	
9	The incubation program's network was not aligned to the startup's product	Collaboration network
10	Startups were unaware of the business incubation program's ecosystem	
11	Following incubation, startups looked to join another business incubation program or sought business angels	
12	The incubation program did not meet the company's initial expectations	

Table 1 The Category of Supports from the Accelerator Program

The research analyzes the critics that addressed the accelerator program by asking several questions to the Circular Jumpstart participants. This aims to get the response regarding the impact that accelerator programs can give on startups in the circular economy sector. Before that, the accelerator program needs to address the same issue, in this case, a circular economy solution through reuse, reduce, recycle, and aggregator for waste management. These are the profile of startups that have responded to the research in Table 2.

Table 2 Profile of Startup Finalists Circular Jumpstart

No	Name of Startup	Description	Category of Solution
1	Bell Society	A startup that produces biomaterial	Reduce, reuse, and recycle
2	EcoplastID	Startup to develop the alternative replacement of styrofoam and bubble wrap which is more environmentally friendly	Raising awareness, creating technology as an aggregator, and alternative materials
3	Koinpack	Packaging system provider which returnable and reusable for FMCG products to replace single-use	Create technology/ system to manage waste (aggregator)
4	Litecon	Waste to Product (Building materials with autoclave)	Recycle
5	PlusTreat	The student-based startup, focuses on plastic bottle waste management through Reverse Vending Machine (RVM) to achieve sustainable consumption and production	Raising awareness, creating technology as an aggregator
6	QYOS	Technology refill provider for FMCG product	Reuse
7	Ravelware	Manufacture automation provider and logistic with RFID based from plastic waste as raw materials	Recycle, Create technology/ system to manage waste (aggregator)

8	Rifilo	Application provider to find bottle refill station for drinkable water	Reduce
9	Robries	Startup for recycle plastic product manufacture such as furniture home décor, and architecture material element	Recycle, and rising awareness of people
10	SolusiBanjir.id	Socio-enterprise that focus on education and providing solution for water management and conservation through a responsible water management and water infiltration	Reuse
11	TWFT (Turn Waste into Fine Taste)	Sustainable fashion brand that focus on creating one-of-one apparel through upcycling	Recycle

Each startup was given a list of questions regarding the impact of accelerator program support from Circular Jumpstart including module and learning, mentor and assistance, access to capital, and collaboration network. They were given a range of scores from 1 to 5, the less number means less impactful, and more score means more impactful. After the score was calculated the average score can be determined by being divided into eleven and resulted in the score to the initial conclusion from the participant's responses

Table 2 Profile of Startup Finalists Circular Jumpstart

Question	Total Score	Average (/11)	Conclusion
Module and Learning			
Are the topics in the modules and learning in the Circular Jumpstart program useful for startups to develop a circular economy business?	46	4.18	Very useful
Is the content of the material in the modules and learning in the Circular Jumpstart program useful for startups to develop a circular economy business?	46	4.18	Very useful
Overall, how do startups evaluate the quality of the modules and learning provided during the Circular Jumpstart program?	42	3.82	Good

Question	Total Score	Average (/11)	Conclusion
Overall, can the modules and lessons provided during the Circular Jumpstart program affect startups in developing their business in the circular economy sector?	45	4.09	Very impactful
Are the modules and lessons provided during the Circular Jumpstart program in line with startup expectations?	47	4.27	Very relevant
Mentor and Mentorship			
Circular Jumpstart's mentor profile is in accordance with the needs of startups to develop a circular economy business	46	4.18	Very relevant
How is the mentorship or assistance method provided by the mentors during the Circular Jumpstart program?	41	3.73	Good
Can the experiences shared by the mentors in the Circular Jumpstart program be of benefit to startups in developing circular economy businesses?	46	4.18	Very useful
Are the mentors and mentoring methods in the Circular Jumpstart program in line with startup expectations?	43	3.91	Relevant
Access of Capital			
Is the Circular Jumpstart program useful for startups in getting access to capital?	43	3.91	Useful
Can the Demo Day session of the Circular Jumpstart program be useful for startups to gain access to capital?	39	3.55	Useful
Has the access to capital obtained in the Circular Jumpstart program met the expectations of startups?	38	3.45	Relevant
Collaboration Network			
Is the cooperation network obtained during the Circular Jumpstart program useful for startups to develop a circular economy business?	43	3.91	Useful
How is the network of cooperation established with the organizers of the Circular Jumpstart program?	46	4.18	Very good
How is the cooperation network established with fellow startups participating in the Circular Jumpstart program?	43	3.91	Good

Question	Total Score	Average (/11)	Conclusion
Does the collaboration network obtained from the Circular Jumpstart program meet the expectations of startups?	45	4.09	Very relevant

Table 2 Profile of Startup Finalists Circular Jumpstart

From the questionnaire that has been filled out by 11 startups, we can see some indication of how the accelerator program can impact startups in the circular economy to grow their business. In order to emphasize what the research has found in the questionnaire, there is also the result of an in-depth interview represented by 3 startups which are Ravelware, QYOS, and Turn Waste into Fine Taste (TWFT) which will be elaborated completing some findings from the survey. These are some of the findings:

a. The Impact of Modul and Learning of Circular Jumpstart to Help Startups in Circular Economy Grow Business

From the result of the survey on the questionnaire, we have got five answers which are very useful, very useful, good, very impactful, and very relevant. It indicates that modules and learnings delivered during the program have brought a positive impact on the startup growing the business. In the in-depth interview, TWFT was quite satisfied with the learning materials provided during the program, including material on Intellectual Property Rights (IPR), North Star Metric, and also business models. *“The module and network were very influential because at that time we were required OKR and the financial arrangements which were eventually given during the program. Circular Jumpstart can at least make startups survive amid the COVID-19 pandemic with all the assistance offered.”* Darina Maulana, Cofounder of QYOS. Adding to what has been said by other startups, Ravelware feels that the lessons learned have helped them connect the dots and change the way of thinking from a contractor company into a startup business model.

b. The Impact of Mentors and Mentorship of Circular Jumpstart to Help Startups in Circular Economy Grow Business

Mentors and mentorship are considered to have a good impact on startups to develop businesses in the circular economy sector. Because from the questionnaire result, the research finds four positive answers, which are very relevant, good, very useful, and relevant. Ravelware is very much in line with the results of the questionnaire because, with the responses given by the mentors, they get what they have been looking for, namely a correction or knowing where the error lies. Prior to participating in Circular Jumpstart, Ravelware has pitched to various investors but no one has been able to provide in-depth feedback than what they found during the mentoring session in Circular Jumpstart.

c. The Impact of Access to Capital of Circular Jumpstart to Help Startups in Circular Economy Grow Business

Having three positive results from the questionnaire with two useful scores and relevant, access to capital provided by Circular Jumpstart is considered impactful for the participants. In his statement through in-depth interviews, Ravelware was quite helped by the access to capital provided both during and after the program took place. They are motivated enough to be able to carry out business development through the Go Austria program which even though indirectly, Ravelware recognizes the benefit of joining the accelerator program in Indonesia before expanding the business abroad. However, there is an input from QYOS, that there needs to be a bit of clarity between startups and investors in terms of the deal of investment, which sometimes has not been built strong enough before they meet one another. It leads the long journey of exploration, matching the investment thesis and potential that should be prevented so it would not be inefficient.

d. The Impact of Collaboration Network of Circular Jumpstart to Help Startups in Circular Economy Grow Business

The last category is the collaboration network which also received positive feedback from Circular Jumpstart participants. The four questions given to them resulted in useful, very good, good, and very relevant. The collaboration network obtained through the Circular Jumpstart program has a good influence on the development of startup businesses in the circular economy sector. Ravelware through in-depth interviews said the collaboration network provided was like what Ravelware expected to get endorsements from the circular economy community. There were also several opportunities to become speakers, and source persons as experts after the Circular Jumpstart program which was very helpful, especially to raise the brand. On the other hand, TWFT is quite grateful because through the network they get quite a lot of invitations to collaborate, at least until early 2022 before TWFT decides to go on hiatus.

DISCUSSION

By definition accelerators are usually fixed-term, cohort-based programs that provide education, monitoring, and mentoring to teams of startups (usually not single entrepreneurs) and connect them with experienced entrepreneurs, venture capitalists, angel investors, and corporate executives and prepare them for pitches where graduates offer innovation to potential investors (Hausberg & Korreck, 2018). Therefore, the Circular Jumpstart program was conducted to provide tailored support including modules, mentorship, and access to investment for early-stage startups specifically in the circular economy sector. However, the previous research by Lukoisute et al., (2019) in *"Is Joining a Business Incubator or Accelerator Always a Good Thing?"* who conducted research on several startups found that one out of eight startups stated that general workshops, courses, and learning about entrepreneurship were not useful. One startup explained that taking part in training when they needed financial resources to develop a Minimum Viable Product (MVP) was a waste of time. It brought curiosity to see is beneficial or impactful for a startup to join Circular Jumpstart to grow the business by referring to the previous research by Lukoisute et al., (2019).

It turns oppositely what the research finds from the participant of Circular Jumpstart to the previous research. Even though not all positive impacts were received by startups right after

the event, all the feedback and comment said that the program brought many benefits to them. According to Bhardwaj and Ruslim (2018) “*the Startup Assistance Organization in Indonesia: Taxonomy and Landscape*” shows that the majority of accelerator programs provide funding guarantees to program participants. In contrast to accelerators, incubators and ecosystem builders do not usually offer investment guarantees but have invested in their participants and alumni. Circular Jumpstart is an accelerator program, it provided grants only for the winner, and the rest only provided access and collaboration opportunities. But that is what they are looking for, the opportunities, the network, the feedback, and the methodology that they difficult to find in other generic pitching programs.

CONCLUSION

From the results that have been obtained, it is known that modules and learnings, mentors and assistance, access to capital, and collaboration network from acceleration programs could bring a positive impact on the business development of startups. In this case, the program accelerator Circular Jumpstart has shown how it can bring a positive impact compared to the previous research by Lukoisute et al., (2019). The curated program, specific topics, and specific experts have been tailored nicely so the startup participants could comfortable enough to follow the process. The direct benefits can be a form of module, or framework that could be adopted right after the class, then the indirect benefits can be a form of the collaboration network, endorsement, and sharing of opportunities even after the program is finished. Hopefully, with more business startups growing with the help of the accelerator program, more impact is created to solve waste management problems.

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