AN EXPLORATION OF FITTING STARTUP INCUBATOR FOR UNIVERSITY STUDENTS IN BANDUNG

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Abstract- One of the issue that correlate with better better economy in a country is how they could develop startup founder from university students. In United States, one of the most developed startup country in the world, the push to create more and more high-tech startup from the youth has been rising. With the research that showded how high-tech startup could increace employment rate, new high-tech startup are expected to be produced from university students as the youth who have many potential. Apparently in India, the country with similar demographic to Indonesia, who will have mass population of young people, already in the move to follow the footstep of United States. They already implement student startup policy, a policy with ambitious vision of producing 100,000 tech startup from 10,000 university across the country by providing program such as incubator for students. This research try to explore how is the current condition in Indonesia, spesifically in the case of Bandung, which have more than 100 university in the cities. This research wanted to explore from the existing startup incubator in Bandung and how are the university students who are interested on becoming startup founder see them. By getting the insight on how is the perspective, challenges, and suggestion from both side, this research try to find a recommendation on creating fitting startup incubator for university students that could help development of future potential of university student founder just like othe countries. The findings of this reseach found out that currently it is unlikely to provide a startup incubator program that target univerasity student if the provider/incubator is not backed up by university/government/big corporate which could provide vast resource to face the uncertainty of incubating students. The big problem that made it hard is the commitments issue that is agreed by the incubators and the students themselves. Thus this research recommend that in current condition the better way is to provide program in a form that resemble pre-incubation phase, which focus on giving open experience to the students with the goal to
filter the one who is commited and then after that the incubation phase could started.

Keywords : Startup, Incubator, University Students, commitment

1. Introduction

On United States, creating high-tech companies to get high employment rate has become the improving factor of the nation's economy. To keep on doing that, many of the university across the country try to create program with the goal to develop student to become startup founder (Bay Area Council Economic Institute, 2016). In Australia, it has been proven that university with their graduates become the important factor that push the country startup ecosystem development (Universities Australia, 2017). According to Kauffman Foundation research, startup founder that come up with university background have advantage, as it is proven in the number of startup founder in the USA that have higher degree education consisting 92% of all startup founder in USA (Wadhwa, et al., 2008). India which is more similar country to Indonesia, already set a national student startup policy that launched in 10.000 university across India with goal of creating 100.000 student-owned startup to provide millions of work

opportunity in the county (AICTE, 2016). One kind of program that could push student as founder is incubator program. In California USA, twelve university across the state already supporting student startup developement by providing incubator programs (Bay Area Council Economic Institute, 2016).

With those founding, it is interesting to see how it goes in Indonesia. One of the city that is densely populated with university students is Bandung. With the total more than 100 universities, Bandung is populated with many young students that have higher educational background (Badan Pusat Statistik Kota Bandung, 2015). The city have the potential to be a great ecosystem for startup to grow. Bandung also have some active startup incubators. But, there haven't been scientific research that explore how are the existing program and events currently support university student as a startup founder. This research try to explore how a startup incubators could support university students as startup founder by finding the insight on what kind of incubator program that is fitting to support them. The findings of the research could provide insights for incubator in Bandung and possibly in Indonesia on how it could create a fitting program for university students.

Literature Review

A. Definition of Startup
What differ startup from normal business are the potential of scalability and repeatability (Blank, 2010). As in the normal business, it would take time to expand and serve new customers, but in startup in just short time it could serve out thousand people. Not also that, those customers would also using the product/service that the startup offer by often, which depict the repeatability potential.

Additional theory that help out differ startup and normal business is the extreme uncertainties that startup face (Ries, 2011). In his book "The Lean Startup" he theorize that if one business is only selling something that won't have extreme challenges, it won't be called as startup. It goes parallel the term of scalability and repeatability, as these two potential needed new innovation to test out not just like a normal business that capitalize on existing value and try to compete with other existing business. If a business use same business model and its detail from similar business without new innovation that is still have extreme uncertainty, it won't be count as a startup.

In the case of this research, the definition of startup will be defined with key factors from Steve Blank and Eric Ries theory :
- Scalability
- Repeatability
- Facing extreme uncertainties

B. Potential of University Student Startup Founder
In Australia, according to the survey of Startup Muster in 2016, every five startup founders in the Australia, four of them are university graduates. In some universities, up to 40% of the students and recent graduates have founder their startup or at least stated considering creating startup. In 2016, 84.4 percent of startup founders had a university qualification. More than 80 per cent of founders over the age of 20 had a bachelor degree or higher (Universities Australia, 2017).

As the case in India, the government has implemented national policy that try to push university student to become a startup founder. India, which is very similar to Indonesia in terms of

demographic realize to have high employment rate it need many work opportunities. Same like USA, to reach that it needed to push many new technology startup. With that background, the government implement student startup policy with goal of creating 100,000 new startup from 10,000 college across india by giving many support for the student such as incubators (AICTE, 2016).

One of the example is Kerala Technology University (KTU) that put their focus on developing startup in the students, the potential of student-initiated startup is very promising. The "Student Startup Policy" that KTU implement is based on the study of how USA startup ecosystem succeed is correlated with the active of their university. It foster startup ecosystem around the student, so they would start a startup when they are in the university, which have the potential to become promising startup just like USA (Kerala Technology University, 2015).

C. Definition of Startup Incubator

According to the research on studying seed accelerator to define their characteristics, business incubator is an insitution that give program to founder assistance in form of some facilities or funding untul they can be independent by developing their own product (Barrehag, et al., 2012). As the research try to explore on characteristics of accelerator, it state that accelerator and incubator has come into a definition that is quite similar as the terms incubator is the origin of accelerator terms. Thus, the definition of incubator and accelerator concluded as quite the same, as each terms share similar characteristics.

In the case of this research, to made it more clear and simpler, the term that will be used is Incubator. Which, incubator is defined as a program that helps new founder from their early stage untill they can develop themselves. The criteria of the program and the assistance that are given is varied according to each program standard and goals.

D. Lean Startup Methodology

Lean startup methodology is a cycle for fast iteration to challenge extreme uncertatinties that a startup face. It consist of three principle, build-measure-learn (Ries, 2011). This theory will be applied for recommendation on creating fitting program for university students. The theory is proper for the recommendation as to create a fitting program for university students is a very risky with many uncertainties. As it stated in the background, there have been no scientific research or proper benchmark on Indonesia in providing startup program suited for university students. Thus with those uncertainty, lean methodology will help for better recommendation on trying to create the program.

I.   METHODOLOGY

A.   Research Design

Figure 1. Research Design

B. Research Strategy

This research is an exploratory type. It focus on getting the insight of experience from people to a certain issue (Saunders, et al., 2008). It can find out intagible factors like perspective and expectaion which could really be an insight on this research who try to get to know from startup incubator side and university students.

C. Data Collection Method

The method to collect the data will be semi-structured interview. It make the research to pick particular theme or topics that need to covered on the interview. It could change accordingly from one interview to another (Saunders, et al., 2008).

D. Interview Respondents

Sampling technique that is used in this research will be purposive sampling method. This method is also known as judgement sampling. Judgment sampling is a non-probability sampling method which rely on the judgement of the researcher to reach the goal that is set. The sample size can be only one. To determine the number of the respondent, researcher needed to keep interviewing untill it reach point of saturation (Black, 2010).

College Student

The college student that we research are selected by their interest on creating startup, proven by their proof of works (business plan, pitch-decks, landing pages, apps, and websites). At least they match one of the criteria below:
- Active student in one of the universities in Bandung
- Have participated in startup workshop/events/program
- Have entered startup competition
- Have built pitch deck/business plan for their startup
- Have built the prototype of their startup
- Have an active prototype/product

Startup Incubator

The startup incubators that we research will be selected by:
- Based in Bandung
- Had at least one completed batch
- Have active batch this year
- Have at least pre-incubation and incubation phase
- Open for new founder (still idea or prototype) to apply

Data Analysis

Analysis of the data are conducted through 2 steps:
1. Startup Incubator Benchmarking (Non University and University-based)
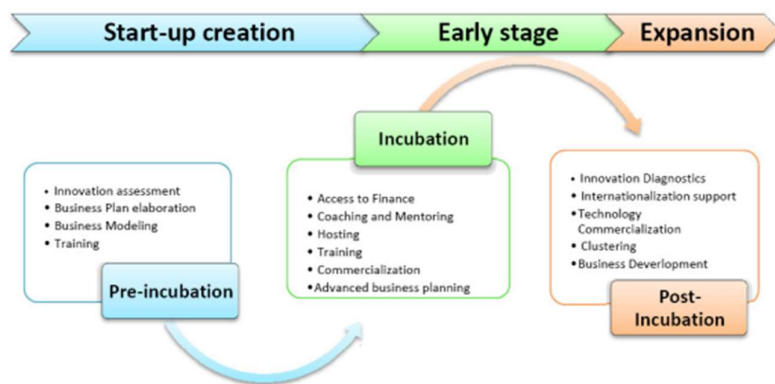This step will explain each how existing Incubators in Bandung works.

Figure 1: the incubation process

Figure 2 : Startup Incubation Process, source : http://ec.europa.eu/regional_policy/sources/docoffic/2007/working/innovation_incubator.pdf

This step also seek insights from them on how they see university students as their potential incubatee, their experience on incubating students and what are their suggestion of a fitting startup incubator for students.

2. Qualitative data from University Students
This step try to summarize the keywords of how university students who are interested in startup see current Incubators in Bandung. The variable that become key findings of the research are:
- Challenges on building or learning startup
- Expectation of startup incubator
- Awareness of existing startup incubator
- Challenges on applying to incubator
- Experience on applying to incubator
- Source of startup-related information

A. Startup Benchmarking
5.1.1. Non-university based Startup Incubators
Startup incubators that are owned by private founders not associated with university. They dont target university student as their incubatee nor they are obligated to incubate them.

CUBIC
CUBIC startup incubator program owned by CUBIC Business Highway. The startup incubator program already reach their third year. Their vision is to be the best ICT business ecosystem in Indonesia. They only focus on technology startup, specifically in software based startup. The program accommodate early stage founders, from founder who only have idea to the one that have stable startup. By design the incubator program is 3 years long.

CUBIC doesn't focus on selecting students as their potential incubatee. They focus on criteria that could make the potential incubatee suit their standard, whether it is a student or a employee of a corporation. The founder of CUBIC aware about rising potential of student startup founder around/outside country, but for current condition their consideration on taking students is mainly about commitment.

They already have accepting some students in their program and their performance is unsatisfying with the main cause of their lack of commitment. On fitting incubator for students, they suggest to create a program that focus on filter the students are committed in a form of tryouts before giving any other kind of workshop or access to funding.

Kolaborasi
Kolaborasi is startup incubator with the vision on unlocking human potential in Indonesia by giving equal entrepreneurship access throughout the country. They have been operating for 4 years. They accept all kind of startup not just tech-based but along the way all the startup in their care will be pushed to apply tech-startup framework to grow.

They accomodate incubatee that only have idea to mature one. By design their program duration is 1 years and 3 months but their method is splitting all the modules into flexible step that didn't need to be followed from the first one. As each module have their open entry, incubatee could be directly placed in incubation module without going through pre-incubation one.
Kolaborasi is aware of the student potential to become startup founder but their perspective is students doesn't need to be startup founder while they are still in the university. They believe that students are in the exploration phase which is hard to commit on one thing only. By that perpsective, they said that they don't prefer on taking them as incubatee.

They have tried accepting students before, but they have problem on lack of commitment. Kolaborasi suggest to give experience-based program that could give students chance to know themselves on do they want to commit or not thus filtering the good potential incubatee.

BEKUP
BEKUP is a starutp incubator program intiated by BEKRAF. They focus on giving development program for new founder to be more mature. It have been operating for 1 year with 2 completed batches and one current ongoing batch. They accept all level of startup from idea to mature and the focus is digital or technology startup.By design the program is 4 months long

As they focus on helping new founder, BEKUP welcome students as their potential incubatee. But, as a program with target of producing better startup, they choose students that only have commitment, preferably last year student as they have less activity in the campus.

They have experienced incubating some students and they the problem of commiment that made them can't focus on the program. On fitting program, they suggest to give an open program for students to to try and experienced startup so it will filter the that have commiment or not.

University-based Startup Incubators
These type of incubator are related formally to university. University give direction on how the incubator works. All of them intentionally target university student as their potential incubatee.

Startup Corner
Startup Corner is a incubator program under Bandung Techno Park (BTP). As BTP is intiated by Telkom University, the program is directed to help students in Telkom University to build startup. As the vision to commercialize research in the university, Startup corner act as the practical platform. With the relation with Telkom University, Startup corner have formal partnership with Bandung Digital Valley as incubation partner and KEMENRISTEKDIKTI as funding partner.

Startup Corner only accept technology-related startup, ranging from software to hardware. For the selection, they are open for all level of founder, from idea to mature. By design, the program duration is one year. With current format, they have completed one batch last year, as the program almost reach one years old. For facilities, aside from general offer like mentorship and vast network, they also provide working space in Bandung Techno Park. They also provide technical support, like university lecturer assistance to legal assistance by the BTP team.

Startup Corner openly accept students as their vision is to help students around campus to create startup. But, they see the commitment on each students who want to apply, as it is proven by their experience on incubating some students, only one or two that is now growing while others are stopping their startup. They have seen the rise of interest on the students so every batch is always met with good number of student applicants but they still lack of strong commitment to really focus on the program. They suggest a program that test the motivation out of the student to prove their commitment and find their true motivation on becoming startup founder.

LPIK
LPIK intiated by ITB to develop entrepreneurship spirit and mind-set for all the students in the campus. Current form of incubation program has been running for 3 years. It accepts all level of startup from idea to mature one. For the pre-incubation phase they accept all level of startup while the incubation only accepts startup with at least a prototype.

Their experience on incubating students is that many of them lost commitment in the middle of the program. In the start some of them have high motivation to apply, when in the middle of they start to missing out some session and finnaly quit. The number of application is already good always exceed their target, but they found out that they haven't reach all students who is interested or already run their startup because lack of coordination with each faculty or similar organization. For the fitting program, they suggest to make it more attractive to attract more of the students and the focus should give them experience on trying entrepreneurship with the end goal of filtering themselves who have find out they want to commit.

Greater Hub
Greater Hub is an intiative from SBM ITB to increase student-entrepreneur either while they are still active or alumni. The incubation program has completed one batch and currently entring the second one. It accept all level of startup, for pre incubation it accomodate students that only have idea while the incubation one accept students that have working prototype.

Greater Hub selection for students that apply focus on their commitment to participate. With their experience on the previous batch, many of students are moody and not consitent on attending the session, the current batch now try to improve on the policy to persuade them to commit or else their spot will be given to others. For the suggestion on fitting program, they suggest that it needed some policy that could make the student to be commited to the program thus filtering the one who wanted to commit or not.

University Students
1. Challenges on building or learning startup
All of the students mention they face commitment problem either from themselves or their team. They often have conflicted activity that made them can't focus many time on their startup. Either its for campus assignment or organization that they are participating.

Even for commited one, team commitment still affect their startup, many of them stiil not unsure wheteher they want fully commit in startup after they graduate. One of them, Mirsa, try to work on other startup to get the knowledge first before fully commit on his startup. Only Faruq, who only face commitment issue on the team not on himself. He prove that he won't stop even his teammate not commit like in his previous startup.

For the one who still trying in competition, three out of four mention they still need some help in the basic step on building startup while the other one, Umar, with more longer time of learning don't mention the problem of basic step.

2. Awareness of existing startup incubator
All of them doesn't know about the detail of the six incubator program that we asked. Some of them only know slight info or only participate in the competition that is organized by one of incubator, like appcelerate by LPIK. They don't know how to apply or what the program has to offer.

3. Experience on applying to incubator
With low awareness, none of them have applied to any of the incubator program. All of the students tend to apply to competition rather than incubator program.

4. Perspective on applying to incubator
Apparently, all of them haven't considsered to apply to any of startup incubator program. With many of them think that they are not ready either in commitment or their level of startup. They see that incubator program is fixed long term program so they think that they won't have enough time to participate. They also see that incubator program have very high requirement so they think that they won't have their startup to be accepted.

5. Ideal Expectation of startup incubator
They expect that startup incubator try to reach out more to them with more info about what their program and how to apply it. They are hoping for a startup program that doesn't set high standard and requirement at first, so they will be more confident to apply. They also hoping for a program that start from basic and give a chance to experience on building startup in a right way.

6. Source of startup-related information
All of them mention their source of info are mostly from their peers, friends and seniors around campus. They often get info from the recommendation from their friends who already interested in startup or their friend who knows them as startup enthusiast so they tell them. They also mention LINE as their source to get info about startup, the info come from LINE groups, official acount, or timeline. The other source is from campus event, they often come to an event that took place in or near campus with ease of acces to come to it.

Some of them like Umar and Fahmi mention web broswing and other spesific website like eventbrite or techinasia to get the source of info about startup. As they are quite active on finding info about startup not just from their peers or LINE, they would like get startup info by themselves.

For other channels, like email, facebook and instagram, they mention that they didn't use it for searching info on startup.

Conclusion and Eecommendation

A. Conclusion
Commitment as the main focus of incubator for students. Based on the insight of non-university startup incubator, all of them doesn't target student as their potential incubatee with main consideration of their lack of commitment. They are quite aware about the issue of student founder potential, but with current condition of their incubator, they haven't focused on targetting them. All of them mention that lacking of commitment from student will be risky for their own current agenda which try to produce decent startup founder. While the univerisity-based, which target students as their potential incubatee, also select student with main consideration of commitment. They have experienced that students often not commited through the program by having another priorities thus made them grow slower compared to the target they should have. The amount of the students that apply is already good meeting quota that each program expected but they are still lacking of the quality especally in commitment. All of them agree that main challenge to incubate students is their lack of commitment. With students still exploring options in their life and still very hard to commit on becoming startup founder. All of them suggest that fitting incubator for students should focus on testing the commitment on each student first, either by policies or a designed program that focus on topic of understand their reason on becoming startup founder. So before giving any facilities or advanced topics, crucial issue to address for an incubator for students is to shape each incubatee to find out whether they want to commit to become a startup founder or not.

Commitment as main challenge for students
All of the students also mention that the challenge they are facing is commitment, either from themselves or their team. They still have activities that is hard to be balanced while focusing on building their startup while becoming a student in the university. They also still quite in doubt about the future, whether after graduate they wanted to continue or seek job. With that consideration, all of them haven't thought about joining incubator program. They haven't seek out info or aware on the existing incubator program as they see that incubator program need long-term commitment and have high requirement. That's why they tend to apply to competition rather thatn incubator program.

For the expectation on desired incubator program, they want them to reach out more often to the students. Because they have very limited info about how is the incubation program works and how to apply. They also expect that the requirement would not be so high whether in a the minimum progress of startup or the duration of commitment as they could at least try and experience it first. For the program itself they hope that it could start from the basic so they will have early direaction on how to build startup in a right way. Some of them also mention that there are close relationship with the mentors so they could understand their needs not just giving general advice that didn't particularly help them.

B. Summary of key findings
Incubators:
-For the non-university incubators, accepting students who is not commit in the middle of the program would be a loss as they have invested resource and time to on them
-They also mention that commitment is very tricky issue, as it is quite personal problem.
-They suggest to made a program that have an early filter to get students that commit before giving any facilities or advanced topic

Students:
-Most of the students admit that they have commitment issue, only one who already said and proved to be startup founder.
-From the students side, hey hope for a program that could provide tryouts with minimum requirement to experience how is it to be a startup founder.
-From students who have
-They tend to choose competition as it have minimum criteria but they felt it still lacking in the assistance for the competition often only offer prize money.
-They hope a close relationship with mentor from the basic so they could be assisted in the early difficult process.
-They also hope to be reached out by the incubators as they are still lacking of startup info.
To conclude, in current condition, it is hard to provide fitting incubator for students unless it have the resource like the university-based incubators.

B. Recommendation
As the findings shows, student while having potential as startup founder, held high uncertainty for incubators. With that findings, the method that should be used by incubators is Lean Startup Methodology. The principal method is the build-measure-learn cycle. The cycle that focus on fast iteration to face that extreme uncertainties.

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