

INSTRUMENT DEVELOPMENT OF BUSINESS INCUBATION CENTER

Muh. Amsal Sahban¹, Dileep Kumar M² and Sahban Liba³

Abstract: *Relatively a few instruments are prevailing in the literature that to measure the adequacy of business incubation centers which groom young graduates to become an entrepreneur. Though several instruments are existing in the west, contextualizing the concept of business incubation centers, its suitability and the appropriateness are less observed in Asian countries. In this scenario, the present research has looked into the factors contributing to a good business incubation center. In order to identify the factors related to business incubation centers this study has initially followed content analysis and in-depth interviews with the students. Soon after identifying the factors, it has been subjected to the expert opinion based on Delphi technique. Assuring the rigorousness of qualitative research process this study further tested its reliability with quantitative research. Finally, an instrument has developed with seven sub-factors of business incubation centers having 55 items spread around, contextualizing the measurement among Indonesian business graduates.*

Keywords: *Instrument development, Business Incubation Centers, Validity, Reliability, Qualitative Research, Quantitative Research.*

1. INTRODUCTION

Business Incubation Centers have been facing an increasing attention as a tool to support entrepreneurship, both in the developed and developing nations. They have become an integral component of the business assistance framework, that to provide vital support to newly formed enterprises. Realizing its importance, all major stakeholders, including researchers are trying to define, name, measure, formulate and evaluate various aspects related to this plan.

Though such concept related to business incubation centers do widely exist in the literary world its applicability varies from region to region and country to country. In this context, it is necessary to identify the factors contributing to business incubation centers and its appropriateness in obtaining right research output with the use of the right instrument. Keeping that objective in mind, a study was conducted in Indonesian scenario integrating mixed mode of research. In the initial

^{1,2} Othman Yeop Abdullah Graduate School of Business, University of Utara Malaysia, Sintok, Kedah, Malaysia

³ Management College of Lasharan Jaya, Makassar, Indonesia

Correspondence: E-mail: amsal@student.uum.edu.my

face of the study, the research made use of qualitative research to identify majority factors related to business incubation centers. In the second face with the support of content validity and confirmatory factor analysis (CFA), the study fixed appropriate variables that to measure young graduate's perception on business incubation center. The details of the instrument development process are incorporated below.

2. REVIEW OF LITERATURE

Business Incubation center in Indonesia has been initiated since 1992 by Government, cooperative department as well as universities. Until now, most of the incubators are prepared by the Government and private universities. In 2005, the incubator databases in Indonesia have been established. Around 32 institutions, means 75% of them were established by the Government and private universities, while the rest (25%) were organized by Job Training House Service, Technology Business Center BPPT, BPPT incubator house and PT. Freeport Incubator Programme (Muafi, Wahyuningsih, Effendi, & Sriyono, 2012). From those 32 incubators, there are only about 69% are still active at this time.

Presidential decree no.27 2013 has asserted that incubation is a process of coaching, mentoring and development that provided by the incubator to tenants. Tenants are entrepreneurs or potential entrepreneurs who undergo the process of incubation. The incubation program aims to create and develop new businesses that have economic value and competitive and aims to optimize the utilization of human resources in driving the economy by utilizing science and technology. Further, in implementing the incubation program, the incubator facilitates and provides service as follows (Presidential decree No 27, 2013):

1. Provision of space (Space);
2. Office facility support (sharedness);
3. Guidance and consultancy (Service);
4. Research and development support as well as having access to technology (Support);
5. Training and development skill (Skill development);
6. Capital access (Seed capital);
7. Creation of business network and cooperation (Synergy); and
8. Intellectual property rights (Service).

The Cooperative Department and Small Medium Enterprise in Indonesia has conceptualized the business incubator as an organization that advances ambitious entrepreneurs to be self-determined entrepreneurs through a sequence of integrated development which includes the provision of workplace or office with its facilities, guidance and management consulting, research and development assistance,

training, funding assistance, and the creation of business networks in the scope of both local and international. This explanation is quite similar to Hon Peter Reith, he stated that business incubator usually offer 7s service (Reith, 2000). The 7s service is stated below:

1. Space to commence business;
2. Sharedness that constitute distributing simple business services and materials with other occupants such as receptionist, conference room, communication system, fax and computer with sharing security;
3. Service that contains management consulting, the market problem, financial aspect and law, evidence of commerce and technology;
4. Sustenance that can support access to research, professional networking, technology, and investment;
5. Skill development which includes training in making business plans and other required skills;
6. Seed capital such as supplying an internal revolving fund or rendering assistance in gaining financing from banking institutions; and
7. Synergy that stresses on coordination among tenants to build a networking with higher education, research institution, entrepreneur, professional and international community.

Agustina (2011) has argued that executing the incubation program, there are at least 5 “S” that need to provide, such as Service, Support, Skill, Seed Capital, and Synergy. Service implies providing an assistance and management consulting such as marketing, finance and technology production and other consultations which in line with management. Support denotes development support of the firm and supplying access to use technology. Skill development contains coaching the incubator tenants in making business plan and conducting management training. Seed capital refers to providing initial business funding in an effort to get financial access to the financial establishments. Synergy is known as creating a business network either locally or internationally.

The services provided by the business incubator may vary. A business incubator that has been established has facilities such as conference rooms, canteen, security, office supplies, telephone, internet, library, rental vehicles, cleanliness and maintenance and lodging accommodations. According to the types, the business incubator is distributed into 3 types (Campbell cited in Supangkat, 2005):

1. Industrial incubator explains the incubator that is maintained by government and nonprofit institution which plan to provide jobs and decreasing unemployment rate;
2. University-related incubator which purposes to relate science commercialization, technology and the right from the research finding.

University incubations provide new schemes to attain service concerning laboratory, computer, library and consulting with professionals. This development is absolutely supported by university and also united with stakeholders; and

3. For Profit Property Development Incubator, implies an incubation that offer physical space such as office, production space and service facility in one place. All the residents share the office facilities and they have to reimburse for the facilities to the incubator supplier.

2.1. Aims of Business Incubator Program/Center

The key aim of business incubation program is to start a successful business that will dispense the incubator not only financially worthwhile, but also viable and the graduates of the business will be capable of providing job establishment, technology transfer, commercialize new technology and construct welfare for economies. Furthermore, Panggabean (2006) has observed that the aim of the business incubator are (1) creating a potential new and small venture to be an independent venture in order to be successful in handling local or international competition, (2) mounting entrepreneurship promotion by containing private companies that can give to the market economy system, (3) location for transferring technology and commercialization procedure of the results of business expansion and technology from the experts and university college, (4) creating an opportunity through new business development, (5) technology enforcement in the industry commercially through learning and assessment, but not time overriding and moderately low cost.

Scillitoe and Chakrabarti(2010) emphasized the role of Business Incubation Centers (BIC) in entrepreneurial education, particularly in the improving business skills. By interacting with BIC management and engaging into its networking BICs may also contribute to improving technical skills of entrepreneurs and learning technological know-how from local universities via R&D transfer mechanisms (Löfsten & Lindelöf, 2002)

2.2. Factors Contributing to Business Incubation Center

2.2.1. Space

Space refers to the location provided by incubation centers for the new business start-up to develop business at early stage (Sanjaya, 2011). The start-up ventures cannot stay in an incubator forever, most incubators restrict initial leases to the maximum of three years with the possibility of one- or two-year renewals. Duff (2009) stated that the flexibility in space provided by incubators results from the incubators offering to lease small spaces (down to as little as ten square meters), commonly on short-term leases with as little as one month's notice required by

either party to vacate. In addition, incubator buildings usually contain spaces in a variety of sizes so that as a firm grows, there is the potential to relocate to a larger incubator unit. What is important is that the tenants have the right sized space in the right locality (Duff, 2009). However, the modern incubator places more stresses on the process of incubation, which means that (a) incubators can be virtual, utilizing the benefits of modern communications technology, and (b) equal, if not more, emphasis is placed on training, mentoring, and the creation of a learning environment (Kirby, 2004).

2.2.2. Sharedness

The main constraint encountered by the start-ups is the one regarding a high rate of renting fee particularly for renting location. To address this issue, the incubation center generally provides service that can be shared together including utilities and office equipment such as photocopy machine, faxing, telephone, computer, receptionist, mail handling, conference room, loading dock, security and the like (Duff, 2009; Masruri & Utomo, 2012; Sanjaya, 2011). According to Agustina(2011)Sharedness is a standard facility owned by office center and supported by the improvement of business resources. The facilities provided could be different.

2.2.3. Service

The term of service constitutes management consulting and market issues, financial and law aspect, trading information and technology(Irawan, 2012). Further, Agustina (2011) and CSES (2002) describes several kind of services provided by incubators as follows:

- pre-incubation services
- business planning and forming a company;
- training to develop business skills;
- accounting, legal and other related services;
- market research, sales and marketing;
- help with exporting and/or partner search abroad;
- help with e-business and other aspects of ICT;
- advice on development of new products and services;
- help with raising bank finance, grants, venture capital;
- incubator venture capital fund, business angel network;
- advice on recruitment of staff and personnel management;
- networking, e.g., with entrepreneurs, customers; and
- mentors, board members and other senior advisers.

2.2.4. Support

According to Dr. Susilo, SE., MS, business incubation manager of Brawijaya University, support refers to supporting the business development and access to technology usage (Susilo, 2014). Sanjaya(2011) stated that the support means to help access to research, professional networking, technology, international and investment.

2.2.5. Skill Development

Skill Development in an incubator business is to train business plans and other management training (Agustina, 2011). While, Suryana (2006) cited in Kadarsih *et al.* (2013) outlines that the capital should be owned by someone who wants to start a business not only in the matter of money, but also ideas and skills. By owning skill needed, one can start a business by selling their skill in order to obtain money.

2.2.6. Seed Capital

Seed capital is to provide initial capital to open business as well as efforts to gain capital access to financial institutions (Agustina, 2011). Seed capital can be done either through internal revolving loan or by assisting small business to obtain capital from financial resources or other financial institutions (Ambardi, 2012). Ambardi (2012) also stated that government should be more serious in financing business incubator where:

- (a) Support from local government in term of funding physical facilities and long-term soft credit for running the incubators.
- (b) Support from the financial institution either government or private institution in the form of credit for incubator tenants.

2.2.7. Synergy

According to Agustina(2011) synergy constitutes creating either local or international business networking.

Sanjaya (2011) stated that synergy refers to cooperation between tenants or competition between tenants and networking with universities, research institution, private institutions, professional or international community. Duff (2009) has explained that co-locating entrepreneurial firms provide the prospect of generating a symbiotic environment where the entrepreneurs share resources and experiences, learn from one another, exchange business contacts and establish collaborative business relationship. One other important contribution that co-location of entrepreneurs can make, is to overcome the loneliness of the entrepreneurial work environment.

3. METHODOLOGY

In order to gather enough information which support to answer this research question posed, this study has extensively explored related studies in this area to develop an instrument. This study particularly employed a mixed-method approach by utilizing both quantitative and qualitative research methods. Ivankova (2006) clearly pointed out that combining quantitative and qualitative methods can bring all issues together and provide extra dynamic analysis that will endow with strong benefits for research.

The theme of the research is related to business incubation center in several university. In a nutshell, the qualitative research method was to identify variables that influence business incubation center in the university, while the quantitative method was to support the generalization of these outcomes through the application of precise statistical analysis using appropriate tools.

3.1. Qualitative Research Inquiry

1. How do you define business incubation center?
2. *What are the factors that closely related to business incubation center in general?*

4. RESEARCH METHODOLOGY: QUALITATIVE

Creswell (1998) asserted that the qualitative research aims to understand the investigation process by developing a comprehensive and composite picture about what is being studied, analyzing informants' point of views, texts and reports, and implementing naturally the study on a particular setting. The data collection of qualitative research is submerged into the everyday life based on the situation in order to frame a research. The data analysis was based on the perceived values of the informants for their world. Finally, Miller (2000) contended that data analysis creates an understanding about problems which are located on various contextual factors.

In particular, this study follows different qualitative research techniques to look at the topic of study. The study employed a discussion of related literature, case studies and Delphi technique in formulating the variables which influence business incubation center in universities in Indonesia.

4.1. Triangulation

Triangulation is defined as the use of 2 or more methods to investigate the research questions in order to heighten confidence in obtaining findings. Since a lot of social researches is founded on the usage of a single research method and as such may suffer from limitations associated with that method or from the specific application of it, triangulation offers the prospect of enhanced confidence.

Methodological triangulation is defined as the utilization of two or more methodologies in examining the same phenomenon under investigation (Mitchell, 1986). This type of triangulation may take part at the level of research design or data collection (Burns & Grove, 1993). This particular study followed grounded theory, case studies and Delphi technique as the triangulation methods that to identify and fix the variable and categories in relation to business incubation center in universities.

4.2. Grounded Theory

Martin & Turner (1986) stated that Grounded Theory “is an inductive, the methodology of theory discovery that allows the researcher to advance a theoretical account of the common features of an issue or topic while simultaneously grounding the account in empirical observations or data.” Grounded Theory offers a complete, rigorous, and systematic method of analysis, which can accommodate the need for the researcher to comprehend initial hypotheses. It, therefore, provides the greater freedom of the researcher to explore the research area and allow issues to emerge (Briant, 2002; Glaser, 1978, 1992, 1998, 2001). The process of Grounded Theory covers and acknowledges the researcher bias, the selection of a data collection site, the data collection process, the process of coding and analysis, and the compilation of results. Coding and analysis consist of three phases: open coding, selective coding, and theoretical coding. Open coding employs constant comparison, memoing and results in themes, sub-categories, and core categories. These results guide the subsequent sampling of participants through theoretical sampling. The second stage of coding - selective coding - also uses a constant comparison and memoing. This stage generates dense and saturated main categories. The main categories are then sorted, written, theorized and cross-referenced with literature, during theoretical coding. The outcome of this last stage of coding provides a basic understanding the on concepts under study and a theoretical model. With the support of grounded theory methodology, this particular study identified the factors and the themes related to business incubation center.

4.3. Case Study

In the initial stage, the researcher has conducted preliminary three case studies that explore factors related to business incubation. These case studies have supported the research to get a grip on the topic under study with the content. Thus, the first criteria used by the researchers include the short interviews with the students from different business incubation center in Indonesian universities. Based on the number of students the study considered 3 students incorporating the representation from all. Through the interviews, short-cases have been developed. Case study interviews are frequently used as part of the initial

assessment and arriving at explicit and implicit variables based on the topic under study. Some of the case study content, which supported the researcher to get some insight into the business incubation factors, has come up from case studies among students in business schools.

Students 1

- ◎ “I have been running a food business for a year. I started up this business with the assistance of business incubation centers. However, I did not have enough coaching and get any mentoring because the incubation management does not have a qualified human resources who capable of giving training and development skill regarding food and beverage business. Moreover, the incubation management in this campus only work part-time. Most of them are lectures and they only come to this incubation 2 or 3 times a week whenever needed. So that, it is very difficult for them to understand our needs and wants. I feel that my skill will never improve without the assistance of the experts.”

Students 2

- ◎ “There is an incubation center in my campus. This institution is available not only for students but also for the community outside campus. The incubation center frequently conducts socialization to introduce the existence of business incubation program and the services we will obtain once we join to this program. However, the incubation management does not provide a place to start up a business. The incubation management only focuses on the tenants who already have a space outside incubation. They simply give a long distance coaching and mentoring to the tenants and that are not running effectively because of the distance reason. The lack of space available made me doubt to join to this program.

Students 3

- ◎ “I have been in this incubation center for almost 3 years. I tried to survive with all my capacities and effort to develop my software business. As you know that my business really need a good internet connection and other facilities like faxing and phone line. However, the incubation management does not provide those facilities, I have to afford all by myself. And I also find it difficult to have a loan from one of financial institutions because the incubation management does not have good networking with whom that can support my business.

4.4. Delphi Technique

This particular study followed Delphi method as it design of the method to explore categories and factors related to business incubation centers issues in

various universities. As it is known, the Delphi method is one of the methods, which started its usage in 1950, in order to get consensus, which is linked to real world knowledge coming through experiences on the area related to research topics. It is pointed out by Dalkey (1963) that the consensus on decisions which is coming from heads is better than one, or... n heads are better than one. Delphi technique is considered as one of the effective communication process with the objective of making deep analysis base on deliberation on a specific problem in order to set a goal, undertake a probe into the policy or to make effective prediction on the occurrence of future events (Kumar, 2013). Basically, the Delphi technique is conducted in the form of semi-structure interaction and interview. High concentration on the process is envisaged to ensure the rigorous. During mid of march to the middle of November 2013 Delphi process organized among the resources people carefully selected based on the expertise knit with business incubation center and interviews thereby.

Telephonic interview is conducted to gather information from the respondents. 42 experts from the industry and academia were identified and approached by email or telephone and were invited to take part in the study. All the clarifications related to the objective of the study were made by the researcher. However, 31 respondents were being interacted and communicated, only 20 respondents shown their willingness to participate in the discussion. Finally, 20 participants were interviewed by telephone and through email. The researcher use tape recorder for the conversations and manually analysed. The procedural steps in adopting the Delphi technique were as follows:

4.5. Identification of Expert Panel

The group of professional was made from specialists having high knowledge and expertise in business incubation centers. They are closely associated with industries, as Consultants, Owners of industries, Top level Managers, Entrepreneurs, Professors, Researchers and Academicians. The specialized areas of these expert members include 15 male members (75%) and 5 female members (25%). These dynamic groups of panel of experts are knowledgeable and familiar to give relevant opinions and a reasonable understanding of the business incubation centers.

4.6. Rounds of Delphi Technique

Round 1

In the first round, the Delphi process conventionally started up with an open-ended questionnaire. Custer, Scarcella, and Stewart (1999) stated that this type of questionnaire can establish a cornerstone of requested particular information from the Delphi subjects on a content area.

The questions

1. How do you define business incubation centers?
3. Which are the major factors, in general closely related to business incubation centers?

Round 2

The second round concentrates on categories and the items which were interconnected with the concept business incubation centers. By following the procedure the Delphi, members were given a second questionnaire and they were accordingly required to rate or rank the order of items to establish the first level of preferences amongst items incorporated in the topic. In this stage, based on the decision and consideration of members, agreement and disagreement on the items were made by them regarding the business incubation centers. Care should be taken that, the number on Delphi iteration should be based on how far consensuses have been arrived at effectively on the concept of business incubation centers in the study.

Round 3

Pfeiffer (1968) contended that during the third round, Delphi panelists were given questionnaires comprising of categories, items and ratings which were summed up by the researchers in the previous round and they were requested to revise their decisions and also to identify reasons for their disagreement. This round gave Delphi panelists an opportunity to additionally clarify the information and their decisions about the relative significance of categories and items. There were 161 categories were screened in the second level which have a high and low influence on business incubation centers identified with corresponding items. Further process of identification has found that 89 categories had high and low proximity on business incubation centers. Classification of the items in 89 categories was made into 7 factors using appropriate loaded items. The final stage was to create a thematic arrangement and the item's categorization.

Round 4

This round is often the last round in which the researchers tried to eliminate the minority opinion in order to capture the maximum level of consensus based on their ratings on the categories and items related to business incubation centers. Cross checking of these categories and items were thoroughly made and the suitability was clearly ascertained for fixing up the categories and items related to the factor of business incubation centers. During the third level, the 82 categories screened into 7 factors were having items with high and moderately high proximity of business incubation centers identified. This study has selected appropriateness of core factors based on experts' opinion.

5. RESULTS OF QUALITATIVE

Table 1
Business Incubation Centers: Delphi application

<i>BIP S/N</i>	<i>Factors</i>	<i>Categories</i>	<i>No. Items</i>	<i>No of Experts (N=20)</i>	<i>% of Experts</i>
1	Space	Secure	2	15	75%
		Wellequipped	2	15	75%
		Affordable	2	14	70%
		Flexible	1	16	80%
		Laboratory	2	16	80%
		Workspace	2	15	75%
		Varietyofsizes	1	15	75%
		Rightlocality	1	14	70%
2	Shared	Environmentalpermitting	1	15	75%
		Receptionist	1	14	70%
		Conferenceroom	2	15	75%
		Communicationsystem	3	16	80%
		Security	2	15	75%
		Utilities	3	16	80%
		Pooledequipment	2	16	80%
		Laboratories	2	17	85%
		Loadingdock	2	15	75%
		Internet	3	14	70%
		Rentingtransportation	2	14	70%
		Accommodation	3	14	70%
		Maintenance	2	14	70%
		Marketproblem	2	16	80%
		Financialaspect	3	17	85%
		Receptionistarea	2	15	75%
3	Service	Laboratoryandlibrary	3	17	85%
		Researchanddevelopment	2	16	80%
		Companylegality	2	17	85%
		Opportunityanalysis	2	16	80%
		Administrativeassistance	3	16	80%
		Businessissues	2	16	80%
		Technical assistance	3	15	75%
		Offering opportunities	2	15	75%
		Assistance in obtaining financing	2	16	80%
		Mentoring the new business	2	17	85%
		Businessdevelopment	2	18	90%
		Technologyaccess	2	16	80%
4	Support	AcademicSupport	2	17	85%
		Environmentalsupport	1	15	75%
		Socialsupport	2	16	80%
		Governmentsupport-policies	2	16	80%

contd. table 1

		Financialsectorssupport	1	16	80%
		EmotionalSupport	2	15	75%
		Esteemssupport	2	15	75%
		Tangible/instrumental support	2	14	70%
		Informationalsupport	1	16	80%
		Networkingsupport	2	17	85%
		Accesstoresearch	2	15	75%
		Technologysupport	1	14	70%
5	Skill development	Businessplan	2	17	85%
		Transformingcharacter	2	16	80%
		Transformingbeliefs	2	16	80%
		Changemanagement	2	15	75%
		Stressmanagement	2	16	80%
		Timemanagement	2	16	80%
		Creativethinkingprocess	3	18	90%
		Learningtechniques	3	15	75%
		Communicationskills	2	17	85%
		Networkingskills	2	15	75%
		Motivationskills	2	16	80%
		Leadershipskills	3	17	85%
		Self-marketingskills	2	15	75%
		Negotiationskills	2	15	75%
		Presentationskills	2	17	85%
6	Seedcapital	Presentationtoventure	2	15	75%
		Capitalist	2	16	80%
		Applyingforloan	2	16	80%
		Gettingrevolvingloans	3	16	80%
		Initialfunding	3	16	80%
		Capitalaccess	3	17	85%
		Longtermsoftcredit	2	17	85%
		Revenuefortenants	2	15	75%
		Relationship with capital providers	2	17	85%
		Businessplan	2	16	80%
		Combining provision of capital (grants, loans and equity			
7	Synergy	Business network	2	16	80%
		Cooperation between tenants and -stake holder	2	17	85%
		Competition between tenants and -stake holder	3	15	75%
		Sharing resources	3	15	75%
		Sharing experience	2	17	85%
		Learn from one another	2	16	80%
		Exchanging business contacts	3	16	80%
		Establish collaborative business	3	16	80%
		Synergy between University, Government and Industry	3	17	85%

The first factor considered for the study is the *Space* availability of business incubation centers that to provide entrepreneurial grooming through business incubation centers. The experts acknowledged 14 items. The major factor space availability consists of 9 categories. Laboratory (80%) and flexible (80%) space availability are the major categories business incubation centers, identified by the experts in relation to imparting appropriate entrepreneurial learning development program in universities and business schools. Further categories like secure space (75%), well-equipped workspace (75%), variety of size (75%) and environmental permitting (75%) are considered as equally responsible factors that to be there for effective transference of entrepreneurial learning. In addition to all these factors experts also have given importance to affordable space (70%) and right locality (70%).

The second factor considered for the study is the *Shared*. Within the second factor, the experts identified 27 items that are closely related to entrepreneurial grooming through business incubation centers. The major factor of shared consists of 12 categories. The table showed that sharedness of laboratories (85%), as the prominent factor which closely knit with entrepreneurial grooming through business incubation centers. Further, the study pointed out the categories like communication system (80%), utility (80%) and pooled equipment (80%) as the next key subcategories that explain the properties of business incubation centers. Conference room (75%), security (75%), and, loading dock (75%), categories also get moderately high opinion from experts. The observation also pointed out the importance of thereceptionist (70%) and internet (70%) renting transportation (70%), accommodation and maintenance (70%) in relation to shared factor of incubation centers.

The third dimension that influence business incubation centers is the *Service*. The experts identified 30 items under 13 categories that closely link to the perception of business incubation centers. Expert observed Financial aspect (85%), the Laboratory and the library (85%), Company legality (85%), and Mentoring new business (85%), as a prominent business incubation centers. The result also indicates aspects like Market problem (80%), Research and development (80%), Opportunity analyses (80%), Administrative assistance (80%), and Assistance in obtaining financing (80%) and business issue (80%) as the second influential sub-category in this study. Further other factors like Receptionist area (75%), Technical assistance (75%) and Offering opportunities (75%) also knit with a service factor of business incubation centers.

The fourth dimension that influence business incubation centers is the *Support*. The experts identified 24 items under 14 sub-categories of support. The result indicates that the Business development (90%) as the prominent sub category which influence entrepreneurial grooming with the support of business incubation centers. Further, the result also pointed out Academic support (85%) and

Networking support (85%) as the second prominent factors in relation to business incubation centers. Some of the factors like Technology access (80%), Social support (80%), Informational support (80%), Financial sector support (80%), and Government support/ policy (80%) are also identified by the experts in relation to grooming students through business incubation centers. Minor factors like environmental support (75%), Emotional support (75%), Esteem support (75%), Access to research (75%), Technology support (70%), and Instrumental support (70%) also contributes well to the business incubation centers.

The fifth factor considered for the study is the Development of Skill. The result indicates that the experts identified 33 items which come under 15 categories of Skill development factor. The table showed that Creative thinking process (90%), as the prominent factor which closely knit with entrepreneurial training through business incubation centers. The experts also identified Business plan (85%), Communication skill (85%), Leadership skills (85%), and Presentation skills (85%) as the second prominent factors in relation to business incubation centers. Moreover the result also shows the importance of categories like Transforming character (80%), Transforming beliefs (80%), Stress management (80%), Time management (80%), and Motivation skill (80%) that are knit with preparing students through business incubation centers. Though much difference in the scoring is further observed, the experts have given minor scoring to categories like Change Management (75%), Learning techniques (75%), Networking Skills (75%) and Negotiation skills (75%) and Self-marketing skills (75%).

The sixth factor that linked to business incubation centers is the *Seed capital*. The experts acknowledged 26 items under 10 categories for explaining the business incubation centers. The major categories identified by the experts are the Long-term soft credit (85%), Revenue for tenants (85%), and Business plan (85%). Expert further Applying for loan (80%), Getting revolving loans (80%), Initial funding (80%), Capital access (80%) and Combining provision of Capital – grants, loans and equity (80%). Though much difference in the scoring is further observed, the experts have given minor scoring two categories like Presentation to venture capitalist (75%) and Relationship with capital providers (75%) which are closely knit with entrepreneurial training through business incubation centers.

The last factor that correlated to business incubation centers is the *Synergy*. The experts identified 23 items under 9 the categories that are closely related to business incubation centers. The experts pointed out major influential categories like Cooperation between tenants and stakeholders (85%), Sharing experience (85%), and Synergy between government, university and industry (85%) that are closely coupled to students effective learning and development through incubation centers. Further, the study also pointed out categories like Business network (80%), Learn from one another (80%), Exchanging business contacts (80%), and Establish collaborative business (80%), as categories in closely knit with incubation centers.

The experts have given minor scoring two categories like Competition between Tenants (75%) and Sharing resources (75%) also have a close affinity with incubation centers learning and development activities.

6. QUANTITATIVE RESEARCH METHOD

For the purpose of data analyses and hypotheses testing, several statistical tools and methods were employed using SPSS software version 20. These include reliability and factor analyses to test the goodness of measures. Descriptive statistics was included to describe the characteristics of respondents. Test of differences will be conducted to test non-response bias and to compare the extent of attitudes towards dietary supplements consumption between different demographic profiles. Correlation analyses were performed to examine the association between the main variables of interest. Lastly, regression analyses were conducted to test the effects of all independent variables on dependent variables, as well as the test the mediating role of attitudes toward dietary supplements consumption.

6.1. Factor Analysis and Reliability Test

Prior to any validity and reliability tests, the tests of assumptions for multivariate analysis will be conducted to ensure that the data met the normality, linearity, multicollinearity, and homoscedasticity assumptions. The next important step in data analysis is to understand the dimension of the variables in the proposed framework or relationships posited in empirical research (Hair, Black, Babin, & Anderson, 2010). In other words, factor analysis should be performed to identify the structure of interrelationship among a large number of items in the study. This may be done by defining common underlying dimensions, commonly known as factor (Hair *et al.*, 2010). Another purpose for performing factor analysis is to determine whether the data could be condensed or summarized into a smaller set of factors (Malhotra, 2010). The dimensions of the scale were examined by factor analyzing the items using the principal components analysis with Varimax rotation. Minimum eigenvalues of 1.0 helped determine the number of factors or dimensions for each scale (Hair *et al.*, 2010). Although factor loadings of .30 to 0.40 are considered acceptable, however, factor loadings greater than 0.50 are generally necessary for the practical significance (Hair *et al.*, 2010). Hence, the items for a factor will be retained only when the absolute size of their factor loading is above 0.50. To test the internal consistency of the measurement, reliability analysis is performed on the factors extracted using the benchmark suggested by Nunnally (1978). Generally, the closer reliability score gets to 1.0, the more reliable the scale would be. According to Nunnally (1978), the reliability score of .70 and above is acceptable and those above .80 are considered good. As noted by Peter (1979), reliability scores that less than .60 are still considered acceptable for social science studies. Following the literature, a reliability score of .70 is used as a benchmark for this study. It should

be noted that all the negatively worded items in the questionnaire were first being reversed coded prior to the reliability test. In the case of coefficient alpha value is smaller than .70, the item with the lowest corrected item-to-total correlation is removed until then.70 levels are met (Pallant, 2001).

6.2. Ethical Considerations

In both the phases, the ethical considerations are well followed by the researchers due to the sensitive issues related to the topic. This sensitivity is perceived from an incubation management angle as well as university student's angle. Both parties aspired to ensure their anonymity during all stages of research. The students were assured that the summary data will be disseminated to the incubation management and further in no way the responses of them can be identified. It is also assured that the data will be destroyed keeping the documents after a reasonable period of time. Instead of the names of the students the data coded with numerical figures to ensure the anonymity both in case studies, as well as quantitative data collection procedures.

6.3. Validity and Reliability

Validity is the instrument's ability to measure what is supposed to measure. The validity of the instrument is the degree to which an instrument measures what is intended to be measured (Polit & Hungler, 1993). Validity tests then compare and measure the concept that a researcher supposed measure with its accuracy. Precisely the degree to which an instrument used by the researcher measures what he/she intended to measure. It is expected that the instrument should ensure the content, construct and face validity.

6.4. Dealing the Content Validity

The objective of this phase was to get the agreements of experts on the concept, constructs and content of the items selected in the draft Business Incubation Centre. To get the content validity, in addition to the literature review, the study was incorporated triangulation method of qualitative research in which expert identification of the variables that selected under organizational and individual factors related to business incubation centers variable were made. The Delphi technique, content analysis, and short case study method followed thorough interviews and discussion techniques supported the researchers to ensure content validity of the variables considered for the study. Especially, the Delphi Technique followed in the research was supported to get the right content of each item that incorporated in the each factor. Thus, in general, the constructs and the content of the items were agreed upon with the correction and consent from the experts. Based on their comments on each parameter and items rewording of the items were made which was further fine-tuned for development of the instrument.

6.5. Dealing the Face Validity

The study further confirmed face validity by examining the instrument whether it actually measures what it was supposed to measure. Benson and Clark (1983) asserted that the process of instrument development should be necessarily validated through face validity. In implementing the face validity, experts in the field of management and human resources areas, statisticians, and academicians were identified. Thus, these experts were asked to cross verify the face validity of the instrument. To end with, the construction of items based on the concepts of the constructs, sub-constructs that developed out of the literature review and case interviews was made. The experts stated that in order to develop these items into an instrument mode, factor analysis should be conducted in the later stage. The experts also suggested that the item's length, which was observed during the Delphi technique to be shortened before conducting factor analysis to ensure a better understanding of the respondents..

6.6. Dealing the Construct Validity

To test the construct validity, the instrument is well-correlated to the underpinning theory of Reith(2000) which was closely knit with the concept in relation to business incubation centers in university. Validation of the instrument and the concept were conducted on factors related to business incubation centers. The theory of Reith (2000) was confirmed by the researcher and experts that closely knit with the variables and items incorporated in the study.

7. RELIABILITY

Table 2
Items for the Variables, Theoretical Range and Cronbach Alpha- Business Incubation Centers Effectiveness Instrument

<i>No</i>	<i>Factors</i>	<i>No of Items</i>	<i>Theoretical Range</i>	<i>Standardized Alpha</i>
1	Space	8	8-80	.795
2	Shared	9	9-90	.822
3	Service	9	9-90	.830
4	Support	9	9-90	.892
5	Skill Development	7	7-70	.812
6	Seed Capital	8	8-80	.868
7	Synergy	5	5-50	.836

Reliability means the consistency or repeatability of the measure and the confidence we can place on the measuring instrument to give the same numeric value when the measurement will be repeated on the same subject. Creswell (2008) and Gall & Gall (1998) stated that the purpose of reliability is to keep reliable items

to drop unreliable items against the Cronbach Alpha values. A reliable instrument is one that would provide the identical results if used recurrently by the same group.

When the researcher started qualitative research through interviews, case studies and field observation, the researchers developed good acquaintances with the students in business schools. By ensuring adequate privacy to the business students in the business schools, the researchers were assured of better physical and psychological environment for data collection.

7.1. Dealing the Item's Reliability

The study follows three stages. In the initial stage, the study considered 86 items under 7 factors and subjected to pilot testing with thirty respondents from the university. A bipolar scale was used representing with 1 as Strongly Disagree and 10 representing Strongly Agree. The instrument retained the same order of response categories to minimize confusion amongst respondents. Later, considering the values of Cronbach Alpha of every item in the draft instrument, some of the items, which were having less than 0.5, were dropped and others were gathered into. A 10-point interval scale with 55 items was finally considered.

8. MANAGING THE STANDARDIZATION PROCESS

In order to establish the standardization process, five incubators in various universities identified. To make a comparative analysis five groups of students was selected with a size of 30 members from each incubator. These incubators are located far from each other to ensure the representation from different places with different products and locations. Further, a draft instrument of 55 items and 10 points Likert scales were administered into these five groups. It was observed that the Cronbach Alpha values of the items were almost the same. Based on the inference it is further inferred that this instrument is highly reliable to be used on any group belong to business incubation centers in higher education institution. Table 3 shows that the values of the Cronbach alpha of the constructs for the five different groups, when compared, were more or less the same.

9. FACTOR ANALYSIS PROCEDURE

The study intended to measure business incubation centers. Henceforth, the ultimate stage of the process of instrument development was to compute the factorial analysis on this draft instrument and 10-point scales. The objective of conducting factorial analysis was to ascertain if the items for every construct actually fit in the constructs. The procedure provides information about items which should be excluded or included within a construct. This was done by measuring the values of correlation among the items in the investigated constructs.

Table 3
Business Incubation Centers among Five Groups: Factor Analysis Procedure (N=30)

No	Constructs	Cronbach Alpha % point Likert Scale	Indonesian University (30)	Brawijaya University (30)	Lambung Mangkurat University (30)	Multimedia Nusantara University (30)	UNM University (30)
1	Space	.795	.822	.708	.810	.724	.804
2	Shared	.822	.802	.798	.846	.855	.788
3	Service	.830	.785	.835	.804	.832	.792
4	Support	.892	.833	.896	.891	.811	.843
5	Skill development	.812	.801	.795	.844	.809	.866
6	Seed capital	.868	.879	.809	.890	.798	.833
7	Synergy	.836	.890	.796	.835	.896	.801

10. FACTORIAL ANALYSIS RESULTS FOR ITEMS REJECTED IN EACH CONSTRUCT

Further, during the factor analysis, those items that scored 0.5 and below were automatically rejected. Initially, the draft questionnaire consisted of 86 items. The total number of items rejected based on the draft instrument with 86 items and 10-point interval scales were 31 questions. The total variance explained for all the factors under consideration in the study is 0.683. The final instrument after rejecting the items which scored more than 0.5 consists of 55 items under 7 major factors of the theme of business incubation centers which will be further mentioned below.

Table 4
Items for the Variables and Factor Analysis – Business Incubation Centers Factors

Factors and Item No	Factor Loading	α	Eigen Value	Explain Variance (%)	Total Explain Variance (%)
Space					
X21a	0.789	.795	2.372	18.372	68.328
X21b	0.701				
X21c	0.718				
X21d	0.724	.750	2.372	18.372	68.328
X21e	0.726				
X21f	0.711				
X21g	0.702				
X21h	0.748				
		Shared			
X22a	0.7	.822	2.261	12.265	
X22b	0.762				
X22c	0.714				
X22d	0.753				

contd. table 4

Factors and Item No	Factor Loading	α	Eigine Value	Explain Variance (%)	Total Explain Variance (%)
X22e	0.782	Service .830	1.869	9.022	
X22f	0.711				
X22g	0.826				
X22h	0.728				
X22i	0.716				
X23a	0.877	Support .892	1.468	8.943	
X23b	0.847				
X23c	0.875				
X23d	0.712				
X23e	0.735				
X23f	0.656				
X23g	0.801				
X23h	0.721				
X23i	0.808				
X24a	0.857	Skill Development .812	1.401	8.323	68.328
X24b	0.737				
X24c	0.831				
X24d	0.886				
X24e	0.761				
X24f	0.812				
X24g	0.739				
X24h	0.852				
X24i	0.704				
X25a	0.715	Seed Capital .868	1.272	6.061	
X25b	0.834				
X25c	0.909				
X25d	0.713				
X25e	0.708				
X25f	0.789				
X25g	0.694				
X26a	0.701	Synergy .836	1.169	5.342	
X26b	0.766				
X26c	0.818				
X26d	0.72				
X26e	0.732				
X26f	0.709				
X26g	0.702				
X26h	0.712				
X27a	0.856				
X27b	0.826				
X27c	0.876				
X27d	0.814				
X27e	0.877				

10. INTERPRETATION OF THE INDEX LEVEL OF BUSINESS INCUBATION ASSESSMENT

10.1. High Scores: At the Highest Level

Theself-rating scores between this range indicates that the business incubation centers in the academic institutions are highly effective. This further provide us an idea that the incubation centers working in the academic institutions have adequate space, better shared, services, better support system, opportunities for skill development, making provision of better seed capital and there is well synergy between incubation center and business.

10.1.1. Suggestion Proposed

This type of incubation centers has the characteristic features of better incubator facilities and support system that ensure young entrepreneur's appropriate development process. It ensures the best form of synergy between incubation centers and industries by ensuring services and seed capital. There is a better incubator environment that will motivate young graduates to become future entrepreneurs.

10.2. Moderate Scores: At the Moderate Level

Theself-rating scores between this range indicates that the business incubation centers in the academic institutions aremoderately effective. This further provide us an idea that the incubation centers working in an academic institution have amoderate level of space, shared, services, support system, opportunities for skill development, making provision of seed capital and there is amoderate level of synergy between incubation center and business.

10.2.1. Suggestion Proposed

This type of incubation centers has the characteristic features of moderate incubator facilities and support system that ensure young entrepreneur's appropriate development process. It ensures only average level of synergy between incubation centers and industries in making provision of services and seed capital. There is a moderate level of an incubator environment that will moderately motivate young graduates to become future entrepreneurs.

10.3. Low scores: At the Low Level

Theself-rating scores between this range indicates that the business incubation centers in the academic institutions areless effective. This further provide us an idea that the incubation centers working in an academic institution have inadequate space, shared, services, support system, opportunities for skill development, not

making provision of seed capital and there is less synergy between incubation center and business.

10.3.1. Suggestion Proposed

This type of incubation centers has the characteristic features of poor incubator facilities and support system that ensure young entrepreneur's appropriate development process. It seldom ensures the synergy between incubation centers and industries in making provision of services and seed capital. There is a poor incubator environment that will rarely motivate young graduates to become future entrepreneurs.

11. CONCLUSION

This particular study was conducted to develop an instrument which measures the effectiveness of BIC in academic institutions. Customizing the variables to Indonesian academic institutions, especially into graduate school of businesses, the factors correlated to the effectiveness of business incubation centers were researched into. The study initially followed with qualitative research. Soon after identifying and fixing the variables, the study ensured the construct validity through factor analysis. Finally, an instrument that to measure business incubation centers effectiveness was developed, considering a 10-point scale which measure perception of young graduates. An extensive study on this instrument across Asian countries needs to be further conducted in order to ensure better reliability on BIC instrument. The instrument proved to be a good tool in measuring deep perception of young graduates on BIC among Indonesian business graduates.

References

- Agustina, T. S. (2011), Peran Inkubator Bisnis Perguruan Tinggi Dalam Meminimalkan Resiko Kegagalan Bagi Wirausaha Baru Pada Tahap Awal (Start-Up). *Majalah Ekonomi*, (1), 64-74. Retrieved from <http://journal.lib.unair.ac.id/index.php/ME/article/view/834/829>
- Ambardi, U. M. (2012), *Inkubator Bisnis Indonesia "Pemerintah harus lebih serius."* Retrieved May 30, 2014, from http://www.i-tech.or.id/index.php?option=com_content&view=article&id=68:inkubator-bisnis-indonesia-pemerintah-harus-lebih-serius&catid=56:suarainkubator&Itemid=461
- Benson, J., & Clark, F. (1983), A Guide for Instrument Development and Validation. *American Journal of Occupational Therapy*, 36(12), 789-800.
- Briant, A. (2002), Re-Grounding Grounded Theory. *Journal of Information Technology Theory and Application (JITTA)*, 4(1), 25-42. Retrieved from <http://aisel.aisnet.org/cgi/viewcontent.cgi?article=1186&context=jitta>
- Burns, N., & Grove, S. K. (1993), *The Practice of Nursing Research: Conduct, Critique & Utilization* (2nd ed.). Philadelphia: Saunders.
- Centre for Strategy & Evaluation Services (CSES). (2002), *Benchmarking of Business Incubator*. Sevenoaks. Retrieved from <http://www.cses.co.uk/upl/File/Benchmarking-Business-Incubators-appendices.pdf>

- Creswell, J. W. (1998), *Qualitative Inquiry and Research Design: Choosing among Five Traditions* (p. 403). SAGE Publications, Inc.
- Creswell, J. W. (2008), Editorial: Mapping the Field of Mixed Methods Research. *Journal of Mixed Methods Research*, 3(2), 95–108. doi:10.1177/1558689808330883
- Custer, R. L., Scarcella, J. A., & Stewart, B. R. (1999), The Modified Delphi Technique: A Rotational Modification. *Journal of Vocational and Technical Education*, 5(2), 1–10.
- Dalkey, N., & Helmer, O. (1963), An Experimental Application of The Delphi Method to The Use of Experts. *Management Science*, 9(3), 458–467.
- Duff, A. (2009), *Best Practice in Business Incubator Management*. Booragon, Australia. Retrieved from www.eifn.ipacv.ro/include/documentations_files/bestpracprt.pdf
- Gall, J. P., & Gall, M. D. (1998), *Instructor's Manual to Accompany* (4rd ed.). New York: Longman.
- Glaser, B. G. (1978), *Theoretical Sensitivity: Advances in the Methodology of Grounded Theory* (1st ed.). Mill Valley, CA: Sociology Press.
- Glaser, B. G. (1992), *Basic of Grounded theory Analysis*. Mill Valley, CA: Sociology Press.
- Glaser, B. G. (1998), *Doing Grouded Theory. Issues and Discussions*. Mill Valley, CA: Sociology Press.
- Glaser, B. G. (2001), *The Grounded theory Prespective: Conceptualization Contrasted with Description*. Mill Valley, CA: Sociology Press.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010), *Multivariate Data Analysis* (7th ed.).
- Irawan, D. (2012), *Pembentukan Inkubator Bisnis*. PIBI IKOPIN. Retrieved August 13, 2014, from <http://www.pibi-ikopin.com/index.php/artikel-bisnis/85-pembentukan-inkubator-bisnis>
- Ivankova, N. V. (2006), Using Mixed-Methods Sequential Explanatory Design: From Theory to Practice. *Field Methods*, 18(1), 3–20. doi:10.1177/1525822X05282260.
- Kadarsih, R., Susilaningsih, & Sumaryati, S. (2013), Faktor-Faktor Yang Memengaruhi Minat Berwirausaha Pada Mahasiswa Program Studi Pendidikan Ekonomi FKIP UNS, 2(1), 95–106.
- Kirby, D. A. (2004), Entrepreneurship Education and Incubators/ : Pre-incubators , Incubators and Science Parks as Enterprise Laboratories, 44(July), 4–7.
- Kumar, D. K. (2013), *Ways and Means of Research Method* (1st ed.). Research India Publications, New Delhi.
- Löfsten, H., & Lindelöf, P. (2002), Science Parks and the growth of new technology-based firms – academic-industry links, innovation and markets. *Research Policy*, 31(6), 859–876. doi:10.1016/S0048-7333(01)00153-6.
- Malhotra, N. K. (2010), *Marketing Research: An Applied Orientation*. New Jersey: Pearson Education.
- Martin, P. Y., & Turner, B. A. (1986), Grounded Theory and Organizational Research. *The Journal of Applied Behavioral Science*, 22(2), 141–157. doi:10.1177/002188638602200207.
- Masruri, M., & Utomo, J. (2012), *Inkubator Wirausaha Baru di Universitas Muria Kudus*.
- Miller, D. (2000), *Qualitative Research Course Packet*. University of Nebraska-Lincoln.
- Mitchell, E. S. (1986), Multiple Triangulation: A Methodology for Nursing Science. *Advances in Nursing Science*, 8(3), 18–26.

- Muafi, Wahyuningsih, T., Effendi, M. I., & Sriyono. (2012), Creating Entrepreneurs through Business Incubator. *International Journal of Research in Management & Technology*, 2(4), 463–468.
- Nunnally, J. C. (1978), *Psychometric Theory* (2nd ed.). New York: McGraw-Hill.
- Pallant, J. (2001), *The SPSS Survival Manual: A Step-by-step Guide to Data Analysis using SPSS for Windows (Version 10)*. St Leonards, NSW: Allen & Unwin, Palo Alto, CA: Consulting Psychologist Press.
- Panggabean, R. (2006), *Profil Inkubator Dalam Penciptaan Wirausaha Baru*. Retrieved from www.smecca.com/kajian/files/.../1_Jurnal_profil_inkubator.pdf
- Peter, J. P. (1979), Reliability: A Review of Psychometric Basics and Recent Marketing Practices. *Journal of Marketing Research*, 16(1), 6. doi:10.2307/3150868.
- Pfeiffer, J. (1968), *New look at Education*. Poughkeepsie, NY: Odyssey Press.
- Polit, D., & Hungler, B. (1993), *Essentials of Nursing Research Methods: Appraisal and Utilization* (3rd ed., p. 479). Philadelphia: J.B Lippincott. Prentice Hall, Upper.
- Presidential decree No 27. (2013), *Pengembangan Inkubator Wirausaha*. Retrieved August 13, 2014, from <http://www.inkubatorwirausaha.com/kebijakan/perpres-nomor-27-tahun-2013-tentang-inkubator-wirausaha>.
- Reith, H. P. (2000), *The Planning and Development of Small business Incubator: A Guide for Small Business Incubator Proponents*.
- Sanjaya, B. A. (2011), *Inkubator Bisnis Sebagai Penggerak Roda Perekonomian Alumni*. Retrieved from <http://yayatadi.students.uin.ac.id/2011/04/23/inkubator-bisnis-sebagai-penggerak-roda-perekonomian-alumni/>
- Scillitoe, J. L., & Chakrabarti, A. K. (2010), The Role of Incubator Interactions in Assisting New Ventures. *Technovation*, 30(3), 155–167. doi:10.1016/j.technovation.2009.12.002
- Supangkat, S. H. (2005), *Tahapan Pembentukan Inkubator Bisnis*. Makalah, dipresentasikan pada Seminar Nasional Promoting Local Economy Through Business Incubation, Institut Teknologi Bandung, 22 Desember, Bandung. Retrieved June 07, 2014, from <http://digilib.itb.ac.id/gdl.php?mod=browse&op=read&id=jbptitbtp-gdl-grey-2005-suhonohars-1815>
- Susilo. (2014). *Inkubator Bisnis*. Retrieved May 30, 2014, from http://lsetyobudi.lecture.ub.ac.id/files/2014/01/INKUBATOR-BISNIS____FIXXXX.pdf

Appendix A Business Incubation Centers Instrument

In the following pages, there are number of questions that may reflect your thoughts in association with business incubation center. By using a scale ranging from strongly disagree to strongly agree, please choose the degree of agreement with your current circumstances by ticking (✓) on the square provided in every question that most accurately reflects your perceptions. If you have trouble in understanding a question, answer to the best of your ability. You are required to answer these questions which trully describe yourself. Your answers are very important to the accuracy of this study. (Please return the completed questionnaire in the enclosed self-addressed envelope at your earliest convenience).

Appendix A1.

Questions

Strongly Disagree	I believe that the space that offered by the incubation center is safe and free from any hazard.	1	2	3	4	5	6	7	8	9	10	Strongly Agree
	The space that offered by incubation center provides basic equipment for the new startups in running a business.	1	2	3	4	5	6	7	8	9	10	
	This incubation center provides options for maximum use of resources.	1	2	3	4	5	6	7	8	9	10	
	This incubation center has a huge laboratory to support business activities of the students.	1	2	3	4	5	6	7	8	9	10	
	I believe that the working space is quite comfortable and huge.	1	2	3	4	5	6	7	8	9	10	
Questions												
Strongly Disagree	I believe that the space offered by the incubation center has a variety of sizes based on students' business requirements.	1	2	3	4	5	6	7	8	9	10	Strongly Agree
	I believe that the place offered by the business incubation center is quite close to the target market.	1	2	3	4	5	6	7	8	9	10	
	I believe that the space offered by the incubation center is environmental friendly.	1	2	3	4	5	6	7	8	9	10	
	I believe that this program has a central receptionist service that can be used for all students.	1	2	3	4	5	6	7	8	9	10	
	I believe that this incubation center has a conference room that can be used for multi-purpose.	1	2	3	4	5	6	7	8	9	10	
	The telephone and faxing in this incubation center can be used together.	1	2	3	4	5	6	7	8	9	10	

	I believe that this incubation center provides security services for students to start up new business.	1	2	3	4	5	6	7	8	9	10	
	I believe that the incubation center provides equipment and utilities for all students.	1	2	3	4	5	6	7	8	9	10	
	I believe that the incubation center provides laboratories that can be utilized together.	1	2	3	4	5	6	7	8	9	10	
	I believe that the internet connection in this incubation center can be used together.	1	2	3	4	5	6	7	8	9	10	
	I believe that renting transportation is available for all students.	1	2	3	4	5	6	7	8	9	10	
	I believe that rooms, building and equipment in this incubation center are well maintained.	1	2	3	4	5	6	7	8	9	10	
	This incubation center provides financial assistance for the selected students who have made a good business plan.	1	2	3	4	5	6	7	8	9	10	
	This Incubation center provides education and training as well as research and development to enhance my potency in business.	1	2	3	4	5	6	7	8	9	10	
	Incubation center in this campus provide assistance to process various company legal services.	1	2	3	4	5	6	7	8	9	10	
Questions												
Strongly Disagree	This incubation center provides assistance to do market opportunity analysis.	1	2	3	4	5	6	7	8	9	10	Strongly Agree
	This incubation center provides administrative service such as secretarial, word processing, desktop publishing, telephone answering, photocopy, fax system, etc.	1	2	3	4	5	6	7	8	9	10	
	This incubation center is very much informative regarding current business issues that need to be avoided.	1	2	3	4	5	6	7	8	9	10	
	Incubation center provides technical guidance during the start up	1	2	3	4	5	6	7	8	9	10	
	Incubation center provide guidance on how to seek the potential investor or capitalist.	1	2	3	4	5	6	7	8	9	10	
	This incubation center will provides effective mentorship for early stage businesses.	1	2	3	4	5	6	7	8	9	10	

Questions	Strongly Disagree	This incubation center assist students in identifying business advisers and professionals who suit my business expertise.	1	2	3	4	5	6	7	8	9	10	Strongly Agree
		This incubation center will provides access to the updated technology to orient my work to become an entrepreneur.	1	2	3	4	5	6	7	8	9	10	
		This incubation center provides education and training for the students regularly.	1	2	3	4	5	6	7	8	9	10	
		I believe that this incubation center has created social contact with banking institutions and government institutions to obtain capital and technology.	1	2	3	4	5	6	7	8	9	10	
		I believe that the government regulation really support business incubator activities.	1	2	3	4	5	6	7	8	9	10	
		I believe that the incubation management always give emotional support I need.	1	2	3	4	5	6	7	8	9	10	
		This incubation program provides useful information regarding the business I will run.	1	2	3	4	5	6	7	8	9	10	
		I believe that this incubation center has many connection to business industries that can support business activities.	1	2	3	4	5	6	7	8	9	10	
		I believe many students have made a number of products from research finding in this incubation center.	1	2	3	4	5	6	7	8	9	10	
		Incubation center helps students with strategic planning, business plan development, financial planning, management team development etc.	1	2	3	4	5	6	7	8	9	10	
		Education and training provided by the incubation center can build my character/personality.	1	2	3	4	5	6	7	8	9	10	
		This incubation center provides a number of techniques for students to address difficult situation.	1	2	3	4	5	6	7	8	9	10	
		I believe this incubation center provides training to make the students to be more creative.	1	2	3	4	5	6	7	8	9	10	
		This incubation center held workshops / training with the theme "how to develop communication and presentation skills for the students.	1	2	3	4	5	6	7	8	9	10	
		This incubation center regularly helda training on "how to maintain a relationship with stake holders.	1	2	3	4	5	6	7	8	9	10	

	1	2	3	4	5	6	7	8	9	10	
	The incubation center provides training to the students which improve their negotiation ability.										
	1	2	3	4	5	6	7	8	9	10	
	Before meeting the venture capitalist, the incubation staff assist the students in effective preparation.										
	1	2	3	4	5	6	7	8	9	10	
	This incubation center helps students in raising bank finance, grants, venture capital, etc.										
	1	2	3	4	5	6	7	8	9	10	
	I believe this incubation center itself provides initial funding for the startups.										
	1	2	3	4	5	6	7	8	9	10	
	This incubation center has capital access to banks or other financial institutions.										
	1	2	3	4	5	6	7	8	9	10	
	This incubation center provides a long term soft credit for the students.										
	1	2	3	4	5	6	7	8	9	10	
	This incubation center implements profit sharing system between incubation management and the students.										
	1	2	3	4	5	6	7	8	9	10	
	I believe that this incubation center maintains good relationship with all financial institutions to support students.										
	1	2	3	4	5	6	7	8	9	10	
	The incubation staff assist <i>students</i> to allocate the funds according to the business needs.										
	1	2	3	4	5	6	7	8	9	10	
Questions											
Strongly Disagree	I believe there is a coordination among students and incubation center to build a networking with higher educations, research institutions, entrepreneurs, professionals and international community.										
	1	2	3	4	5	6	7	8	9	10	Strongly Agree
	I believe the students here are also sharing their business experience with other entrepreneurs or freelancers.										
	1	2	3	4	5	6	7	8	9	10	
	I believe this incubation center has many business contacts from the stakeholders to support business activities.										
	1	2	3	4	5	6	7	8	9	10	
	In this incubation center, there is a group of students who has commitment to establish new business together.										
	1	2	3	4	5	6	7	8	9	10	
	I believe this incubation center works with local government and industries, shoulder by shoulder to accelerate economic activities.										
	1	2	3	4	5	6	7	8	9	10	