

# Strengthening Public Value Through Reinforcing Entrepreneurial Orientation and Organization:

## Preliminary Step Toward Entrepreneurial Universities

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**Abstract**—Higher education institutions as public sectors are considered by some to be unable to provide optimal impact in meeting the needs of industries and businesses. This condition raises demands to operate entrepreneurially, leading to commercialization of research result to encourage the acceleration of innovation. Higher education institutions must be encouraged towards an entrepreneurial state of mind. In order to take a preliminary stage, this paper proposed model using 4 variables are: organization, learning organization, entrepreneurial orientation and public value. Respondents participate in this research 146 people from public and private universities. Almost all of hypotheses testing are proven to have significant influence using PLS (Partial Least Square). This study successfully proved that organizations can improve learning orientation and entrepreneurial orientation among middle manager in higher education institutions. This research also has succeeded in proving that entrepreneurial orientation and commitment to learning have been proven to improve public value (performance). In the future, this modelling can be used as a reference for conducting field studies, so that concrete facts in the field on the “possibility to achieve entrepreneurial university in Indonesia” can be obtained.

**Keywords:** *entrepreneurial universities, learning organization, public value, entrepreneurial orientation*

### I. INTRODUCTION

The demands of modern world which are coloured by a knowledge based economy encourage institutions to operate entrepreneurially. The development of a country utilized the superiority of knowledge economy is highly determined by how far the country can quickly adjust to capability and resources owned in accommodating changes in ICT [1,2]. Currently, particularly in Indonesia, institutions in private sector can be declared to have succeeded in developing strategies to utilizing opportunities of the knowledge based economy era. For example, the development of internet which is increasingly evenly distributed throughout Indonesia has encouraged the development of e-commerce. The development of e-commerce is marked by the proliferation of transportation services that utilize application such as “Gojek” and “Uber Taxi”. Other example, PT. Fujitso whose products are

computers (hardware and software) is highly concerned with the presence of IoT (Internet of Things) to accelerate product innovation based on Human Centric Intelligent/HCI.

Unlike private sector, institutions that are operated in public sector always face obstacles to be able to develop rapidly because they still maintain classical value, and traditional aspects. As stated by Kirby “*public sector often faces sort of barriers to entrepreneurial activity as there in the private sector*” [3]. Higher education institutions as public sectors are considered by some to be unable to provide optimal impact in meeting the needs of industries and businesses. This condition raises demands to operate entrepreneurially, leading to commercialization of research result to encourage the acceleration of innovation. Higher education institutions must be encouraged towards an entrepreneurial state of mind. According to Clark, cultural aspects such as ideas, beliefs, and values must be able to reflect high cultural intensity that can lead to confident self-image and strong reputation so as to encourage to be more developed [4]. Implicitly, higher education institutions in the era of knowledge economy must have a high public orientation. Outcome of an organization’s success in building public value can be measured with satisfaction, commitment, memory orientation, superior organization performance compared to other organizations [5,6].

The advantage of entrepreneurially university is that it can build public value. Public value is the value for the public, meaning the presence of the university can provide positive benefits for public. Wood et al stated that public value “reflects an organization’s department objective to create value in certain way” [5]. Higher education institution as public organization must have a high public value orientation. In the context of higher education institution in Indonesia, most of people consider that they still cannot implement their goals to improve the welfare of community optimally. This condition is marked by the quality of graduates that are not ready to enter the world of work and research results that are less qualified [7]. There are many higher education institutions which are in fact public sectors that still maintain the status quo because of concerns about failure. Traditional box that is still widely

adopted by the public sector namely “comfortable zone” that is not in accordance with the implementation of entrepreneurial aspects that always try to take advantage of the opportunity as optimally as possible by innovating, taking risks and being proactive.

Higher education institutions are considered by many to have not implemented entrepreneurship or have not shown entrepreneurial orientation. According to several experts [3,4,8], there are several reasons that cause this condition, namely: a) hierarchical structures, b) impersonal relationships, c) limited entrepreneurial talents, d) strict supervision to always comply with the procedures and regulations set by the government, and e) inadequate compensation methods. This situation causes higher education to always face different traditional problems in contrast with institutions/organizations in private sector. Kirby explained that “... *most academics see their role as teachers and researchers and not as entrepreneurs, and many university managers are concerned about the likely negative impact on their institution’s research performance if their leading academics become involved in entrepreneurial activity*” [3]. This means that almost all academics assess their role as teaching staff and researchers not as entrepreneurs, and the leaders are always concerned about negative impact toward institution’s research performance if involved in entrepreneurial activities because it can lead to aspect of commercialization.

This issue has caused complex problems and it that have not been able to be resolved so far. Levine argued that the success to apply entrepreneurial university by the commercialization of research result and technology transfer through patent, licensing and university based business start-ups can have a positive influence, namely “the false promises in selling academic commercialism” [9]. However, Zhou emphasized that entrepreneurship in higher education institutions will not always lead to commercialization by conducting activities such as: becoming supporting agency for the development of small and medium industries, providing scientific supports for public problems through various legal and expertise assistance (professional consultants) [8].

To be able to build corporate entrepreneurship, there are various obstacles faced by higher education institutions, as stated by Zhou, namely: 1) universities do not have adequate resources and research results that can provide advantageous knowledge for society, 2) collaboration between universities and industries that is still limited in solving problems related to the need of technology in companies, 3) most of research results are difficult to be transferred and applied to industries, particularly for small and medium level [8]. Several higher education institutions in European and American countries stated that they succeeded in transforming by conducting diversification of funding aspect. A research result by Kirby provides information on the transformation from government perspective that shifts to a perspective of utilization of alternative income sources sourcing from: a) profit patent, b) supports of large companies, c) public agency support, d) fund help from alumni, and e) professional associations [3].

In the context of Indonesia, higher education institutions should feel challenged to be able to implement entrepreneurship so as to provide more benefits for the world of business and society. Academic world cannot be underestimated, whereas faculties and departments in universities basically can be categorized as corporate. This means, principally the management can be applied corporately. As stated by Gibb et al, “*academics are perhaps more similar to entrepreneurs than might be first expected. Where they differ most is in their propensity to take risks, suggesting the need to create a secure environment in which is perceived to be minimized*” [10]. In short, academicians are probable to be compared to entrepreneur, where the main emphasize is to conduct beneficial things for environment and society. Until today, higher education institutions in Indonesia are considered by some has not yet to provide optimal benefits for the development of business and society. There are around 5.600 research results of higher education institutions that have been published internationally in 2015. This number was still minor considering that Indonesia has more than 4000 universities [7]. In addition, the role of higher education institutions in Indonesia as innovation agents is still limited. Universities need to be encouraged to increase their research to generate innovation that can be implemented.

In short, the creation of public value should be supported by organizations that have entrepreneurial orientation. Entrepreneurial orientation is a strategic orientation that reflects innovation, proactive, and quality of the courage in taking risks that affects the growth and performance of companies [11]. Next, Chen et al stated that entrepreneurial orientation is related to entrepreneurial process, whereas entrepreneurial orientation is a result of the shift in the stereotype of the old business practice and building something new, innovative, oriented to the courage to take risk as economic behaviour [12]. Triple Helix—building partnership between universities-industry-government—is a tool to grow entrepreneurship in higher education institutions.

The phenomenon that still appears in higher education institutions is learning orientation that is not yet optimal. The important values that shape learning orientation are: organizational commitment, togetherness in the vision of learning, and openness to accept new thinking. This learning orientation that is not yet optimal will cause difficulties for entrepreneurial universities to achieve their vision and mission. As Zhou stated, “*An entrepreneurial university must have three missions: teaching, research, and service the economy through entrepreneurship activity and continually participating in society’s technological innovation*” [8]. Facts on the ground show that the concept of Triple Helix, which is the collaboration of university-industry-government, has not been able to encourage new innovations.

Furthermore, to be able to encourage the transformation of entrepreneurship-oriented higher education institutions, it is necessary to support the existence of the organization, namely the availability of resources. According to some experts [5,13,14], institutional support in terms of funding, adequate compensation systems, and support from management can

encourage entrepreneurial behaviour in individuals within the organization. This paper presents a research model of entrepreneurial university. This modelling can be adopted by other universities so that it can play a strategic role in encouraging innovation, learning entrepreneurship, and applicable quality research which is an important key in the knowledge economy society especially facing industry 4.0. The conceptual framework is illustrated to the correlated dimension attributes are shown in Figure 1.

Following hypothesis were developed (H1 - H9) based on the previous study [11,15-23]:

- Hypothesis 1: Organization influences Entrepreneurial Orientation.
- Hypothesis 2: Organization influences Learning Organization.
- Hypothesis 3: Entrepreneurial Orientation Influences Public Value.
- Hypothesis 4: Learning Organization influences Public Value.

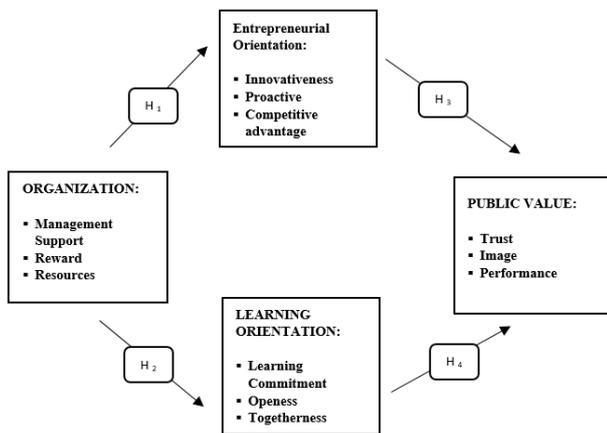


Fig. 1. Conceptual model.

**II. METHODS**

The method used in this study is verification [24,25]. To obtain research data, a survey method is used by taking a sample of the population, namely the middle managers of higher education institutions. For the purposes of this study, the unit of analysis is the heads of departments in higher education institutions (universities). To measure the research variables, the following indicators have been developed: 1) Organizational variables are used in three dimensions, namely management support (openness, mutual support and clear goal orientation); reward (performance, incentives, salary); and resources (human resources , professional and financial); 2) For entrepreneurial orientation, three dimensions are used, namely: innovativeness (new ideas, creativity, and development); proactive (market opportunity, competitive advantage); 3) Learning Orientation consists of 3 dimensions (learning commitment, Openness and Togetherness); and 4)

public value orientation uses two-dimensional images (impressions and beliefs) and trust (credibility, competence and benevolence). The sampling technique uses is convenience random sampling, namely the middle managers of universities in several regions in Indonesia.

**III. RESULTS AND DISCUSSION**

The number of sample participation in this research is 146 people. Respondents involved in this study came from public universities (47%) and private universities (53%). Data was collected from June-August 2016 using a questionnaire. The majority of respondents came from private universities (53%) followed by public universities (47%) where 58.3% are male and the rest are female. Respondents who were officials at the middle manager level at universities (Vice Dean, Heads of Departments and Heads of Study Programs) were from various regions including those dominated by Central Java (23.9%), followed by West Java and DKI Jakarta at 19.2% and other regions. It can be stated that this research respondent is quite representative on behalf of Indonesia. In terms of age, most are in the range of 30-44 years (84.9%).

After considering the profile of respondent, we are now in position to show the hypothesis results with the explanation see *Table 1*.

TABLE I. INFLUENCES BETWEEN VARIABLES

Path	Path Coefficient	t	t table	Conclusion
organization -> learning orientation (Hipotesis 2)	0,58	11,1	1.96	Significant (Hypothesis is accepted)
organization -> entrepreneurial orientation (Hipotesis 1)	0,34	4,7	1.96	Significant (Hypothesis is accepted)
learning orientation -> public value (Hipotesis 4)	0,27	3,9	1.96	Significant (Hypothesis is accepted)
entrepreneurial orientation -> public value (Hipotesis 3)	0,54	7,4	1.96	Significant (Hypothesis is accepted)

The first upshot from Table 1, clearly shows that all hypotheses examined were validated and positively substantiated by the analyses. Organization affected learning orientation (H2), Organization affected entrepreneurial orientation (H1). Moreover, learning organization and entrepreneurial orientation gives a significant affect toward public value (H3 and H4). This study successfully proved that organizations that are built from three important dimensions such as management support, reward and resources can improve learning orientation and entrepreneurial orientation among middle manager in higher education institutions in Indonesia. This research also has succeeded in proving that entrepreneurial orientation, which is built from three important dimensions, such as innovation, risk taking, and proactive, has

been proven to improve public value (performance) of middle manager in the higher education. This study has also succeeded in proving that commitment to learning, open to new thinking, and togetherness of vision are proven to increase public value (performance).

The essence of research result can be stated that the knowledge based economy era, triggered by, among other things like industrial revolution 4.0, the development of ICT, encourages higher education institutions (faculty manager) to be able to utilize their resources so that they can strengthen their role as an innovation agent. By becoming an entrepreneurial university, higher education institutions through their faculty's manager can utilize the results of research and technology transfer through patents, licensing and professional consultants for the advancement of industry and the business world. Actually it is not easy for higher education institutions to become entrepreneurial universities because they still face various obstacles to limited resources and collaboration with the industrial world that is not yet optimal. For this reason, it is necessary to develop a strategic step that can move all parties at the middle manager level (Faculties, Departments and Study Programs). The strength of the element of middle managers such as the Dean, Assistant Dean, Head of the Department and Head of the Study Program plays a strategic role in encouraging entrepreneurial behaviour and utilizing entrepreneurial opportunities. According to Diefenbach, middle managers are now seen at the locus of corporate entrepreneurship [26]. Their roles of championing, synthesizing, facilitating, and implementing make them a particularly interesting unit of analysis. Consequently, the model of how they are embedded in the corporate entrepreneurship process has been established. Similar opinion from Wooldridge et al, middle managers play a special role in the organization because of its position as mediation among various groups [27]. They can communicate initiatives to top management and are generally able to shape the organization's strategy in terms of facilitation, reporting and implementation. In the public sector, middle managers are rated as the most entrepreneurial.

The middle manager has potential role to encourage teaching staff / lecturers should feel challenged to be able to implement entrepreneurship in order to provide more benefits to the business world and society. The academic world cannot be under-estimated, where the lecturers can be categorized as corporate co-operations, meaning that the management can in principle be applied in a corporate manner. As stated by Zhou et al, that academician is perhaps more similar to entrepreneurs than might be first expected [8]. Where they differ most is in their propensity to take risks, suggesting the need to create a secure environment in which is perceived to be minimized. This means that academics are likely to be equated with entrepreneurs, where the main emphasis is on doing things that benefit the environment and society.

#### IV. CONCLUSION AND RECOMMENDATION

The model proposed can answer the research gaps resulted from research results of 2 experts, namely:

- Aracil et al, that needs and obstacles to make more entrepreneurial universities and the importance of measurement criteria [28].
- Farsi et al affirmed the need to focus on optimizing optimal organizational factor in order to build a strong entrepreneurial university [19]. Almost all of hypotheses testing are proven to have significant influence. In the future, this modelling can be used as a reference for conducting field studies, so that concrete facts in the field on the "possibility to achieve entrepreneurial university in Indonesia" can be obtained. Therefore, in the future, higher education institutions in Indonesia can build public value in providing satisfaction for stakeholders and more importantly as innovation agent for improving the welfare of the community.

For future scientific implications, the following matters need to be conducted by identifying another variable like collaborative network construct to develop more comprehensive model, 2) a research model is developed which is directed to find a more applicative (programs, activities), 3) identification of respondents' characteristics whether they have been distributed proportionally.

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