



Students' Innovativeness in Developing Business: An Empirical Study of Kolb's Experiential Learning on Entrepreneurship Course

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Abstract: This study investigates the efficacy and effects of Kolb's experiential learning (EL) model and students' scientific field groups on their innovativeness in business development. (1) Humanities and Social Science, and (2) Science and Technology are the scientific field groups. A quasi-experimental quantitative approach with a 2 x 2 factorial design was used in this study. This study's sample encompassed active Faculty of Teacher Training and Education of the University of Mataram enrolling for entrepreneurship courses which were taken using random sampling after commensuration processes. The data collection instrument used to collect data on students' innovativeness is a project-based assessment based on indicators of innovativeness in developing products and digital marketing. The results of the instrument test fulfilled the validity and reliability requirement. All data were analyzed statistically by descriptive statistics and comparative analysis using the ANOVA test, which was preceded by an analysis requirement test. The study results showed an interaction effect of the EL model and students' scientific field on students' innovativeness. In addition, Kolb's EL model also directly affects students' innovativeness, while the scientific field group does not. Nevertheless, the data showed that the Science and Technology group innovates better than the others. The theoretical implication of this study was that EL has a strong theoretical framework for entrepreneurial learning, so it needs to be expanded through further studies.

Article History

Received: 12-01-2023

Revised: 14-02-2023

Accepted: 25-02-2023

Published: 16-03-2023

Key Words:

Experiential Learning;
Students' Innovativeness;
Business; Entrepreneur
Course.

How to Cite: Sukardi, S., Astini, B., & Nursaptini, N. (2023). Students' Innovativeness in Developing Business: An Empirical Study of Kolb's Experiential Learning on Entrepreneurship Course. *Jurnal Kependidikan: Jurnal Hasil Penelitian dan Kajian Kepustakaan di Bidang Pendidikan, Pengajaran dan Pembelajaran*, 9(1), 24-39. doi:<https://doi.org/10.33394/jk.v9i1.7088>



<https://doi.org/10.33394/jk.v9i1.7088>

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Introduction

An entrepreneur or an aspiring entrepreneur needs to have innovativeness as one of the essential characteristics in developing a business (Rauch & Frese, 2007; Zimmerer et al., 2008). Besides, an entrepreneur has to own the needs for achievement, risk-taking propensity, internal locus of control, and proactiveness (Murwani, 2016). According to Rauch and Frese (2007), the characteristics of being innovative in entrepreneurship are the ability to make a new product and production process, find a new target market, and apply new technology to the company or business. An entrepreneur who wants to start a business will only survive if he does not only imitate the popular business (business as usual) but also thinks about an innovation to make the business competitive (Moedjiono, 2021). An important parameter to see whether the business has the element of innovation is that the products/services offered are well-liked by the consumers/customers (Nirwan & Dwanto, 2015). Such innovativeness can provide solutions for business development through new ideas that have never existed before (Sudaryat et al., 2020).



Entrepreneurs who already have some businesses and aspiring entrepreneurs (in this case, college students) need to consider innovativeness. However, college students' innovativeness in developing business products still exhibits many problems affecting their ability to develop start-ups. In entrepreneurship courses, most of the products: are snacks with little to no innovation; have no broad target market; and do not support the economic supremacy in their area (Sukardi et al., 2022a). It impacts the high rate of unemployment among university graduates, which is more than 1 million people (Central Bureau of Statistics, 2022). University graduates tend to get their current job instead of becoming an employer or an entrepreneur (Sukardi et al., 2022a; 2022b).

College students need the experience of running a business to invest an innovative mindset in developing business products in their minds. According to Eriksson et al. (Karami & Tang, 2019), Experiential Learning (EL) can be an alternative because it combines learning based on experience, trust or confidence, and speculation. Moreover, Peterson, DeCato, & Kolb (Torres & Augusto, 2017) state that EL has a learning cycle that can support the process of making innovation; it starts from conducting studies/observations, reflecting on learning experiences, developing new ideas, and taking action in realizing ideas through direct experience. Empirical evidence based on a Brookfield study (Mills & Quinn, 2012) found that EL effectively boosts cognitive abilities and knowledge according to the context of learner needs. Another finding states that EL influences communication skills, responsibility, and social skills (Fede et al., 2018); clinical communication skills of medical students with their clients (Barron et al., 2018); problem-solving ability, tolerance for ambiguity, ability to analyze college students (Murphy et al., 2017).

Students' innovativeness in developing business cannot be done only through EL intervention but also through the entrepreneurial environment in the form of an entrepreneurial university (Schultem, 2004; Wang et al., 2004; Etzkowitz & Zhou, 2008). One of the characteristics of the entrepreneurial university is the existence of business development based on the university's strength and the collaboration of the competitive supremacy economy of the area (Lazzeroni & Piccaluga, 2003). The form of collaboration can be the business development with local economy potency or the collaboration with local industry. The two bases of strength are strategic resources for universities to drive the quality and competitiveness of graduates with innovativeness and creativity in developing business products (Bollinger & Smith, 2001).

On this basis, the novelty of this research is the implementation of EL which focuses on developing business products based on regional economic and competitive supremacy by the source of student innovativeness in developing business. The innovativeness referred to is related to making products/services and the marketing innovation achieved by digital marketing platforms. Furthermore, the studies of Sukardi et al. (2021) showed that the characteristics of being innovative, proactive, and competitive were more prominent in Science and Technology group, whereas the courage to take the risk and internal locus of control were more prominent in the Humanities and Social Science group. Altogether, the scientific field group variable needs to be considered in analyzing students' innovativeness in developing business in EL implementation. The objectives of the study are: (1) to analyze the effectiveness of the EL model on students' innovativeness in developing business; (2) to analyze the effect of scientific field group on students' innovativeness in developing business; (3) to analyze the interaction effect of EL model and the scientific field on students' innovativeness in developing business. Compared to the international level, the competitive sense of university graduates in Indonesia is still low. This fact contributes significantly to increased social problems such as unemployment and poverty. The lack of this competitive

sense causes a gap between the need and the availability of jobs for graduates. Consequently, it is a part of the universities' role to prepare competitive graduates. Indeed, there will be learning interventions based on various theoretical approaches, which become a reference to improve the quality and competitiveness of graduates. The novelty of this study towards entrepreneurship is the students' innovativeness in developing business based on the renewed Kolb's EL theories in the Indonesian context.

The Overview of Student Innovativeness in Developing Business

Drucker (1996) defines innovativeness as the instrument for an entrepreneur to use change as an opportunity. Wes (2002) explains that the innovation process requires two things, namely: (1) creativity, developing new ideas and ideas with values; and (2) innovation, the implementation of those ideas to become a new product or service, developed product and service and new developing ways to execute the job. In the economic context, innovativeness is divided into two dimensions based on its perspective: innovativeness from the company's perspective and innovativeness from the customer's perspective (Danneels & Kleinschmidt, 2001). According to Shafira and Ferdinand (2017), innovativeness from the customer's perspective is applied to see how big the success of the innovation done by the company is from the customer's perspective. Furthermore, customer innovativeness depends on the attributes of the innovation, which are the risks and changes in behavior when using the innovation.

However, innovativeness in the current context is no longer only reflected from whose perspective it is viewed (entrepreneur versus consumer) but also from its novelty for entrepreneurs (in other words, technology versus market). As a result, innovativeness is divided into two dimensions from the perspective of the company or entrepreneur: (1) the discontinuity of new technologies or how to adapt to new technologies; and (2) the discontinuity of the market in the form of how to run new marketing strategies with new and unfamiliar product categories, competitors, distribution channels, and consumers (McNally et al., 2010).

From that perspective, student innovativeness in developing business includes product innovation, marketing, and business management. Developing businesses commonly followed the innovation of technology trend. Pateli and Giaglis (2005) state that the advent of digital technology has changed the trend for traditional business models or encouraged new businesses to take advantage of technology to grow. Developing a digital-based business grows or creates new opportunities for the younger generation (including college students), who are willing to adapt and change the traditional market model to a virtual market (Nugraha & Wahyuastuti, 2017). The old business model started to transform into the online business model, where information replaces inventory and digital products replace supplies. According to this theoretical framework, student innovativeness is the innovativeness of students in developing business, particularly in creating new business products/services and developing digital-based marketing.

An Overview of Experiential Learning

EL model is derived from Kolb's theory (1984; 2014). EL is a conceptual learning model through the construction of knowledge based on the experience gained by students (Kolb & Kolb, 2005; 2012). The constructions based on experience are then reflected and applied to behavior (Matey & Fickell, 2014). It happens because students actively engage in discussions and interactions and build self-efficacy, including critical and analytical thinking (Nilson, 2016). Learning experiences are obtained through direct learning in the classroom, environment/society, laboratory, and even directly through internships in the industry/job world (Huisman et al., 2019). EL is also currently a trend used both at the level of schools

and at the university level (Oliver et al., 2018), although some of the results of studies by Sukardi et al. (2022a; 2022b) have not been appropriately implemented.

Kolb's EL (1984) model has a cycle with four stages, as also quoted by Sukardi et al. (2022a; 2022b), which include: (1) concrete experience, which is a real experience to understand concrete reality; (2) reflective observation, where students reflect on the experience; (3) abstract conceptualization, where students construct knowledge based on existing theories including designing experiments; and (4) active experiments, where students do direct research/practices. For example, field trips provide an immersive experience to activate learners' affective and cognitive dimensions (Boyle et al. (2007). Ferguson et al. (2016) provide examples of implementation; it begins with identifying problems and potential solutions (abstract conceptualization), choosing the best alternative while simultaneously testing it in an artificial situation (active experimentation), gaining substantial experience by determining how the best alternative can work in real situations and conducting reflective observation in real situations, and repeating the experiential stage. Then it has a good effect on the learning outcomes, not only on the practical and cognitive dimensions but also on the behavioral/action dimensions (Passarelli, 2016).

Observing the theoretical framework above, applying aspects of education or courses that lead to business/entrepreneurship is very relevant. The association to Advance Collegiate Schools of Business (AACSB), as quoted by Munoz et al. (2016), recommends that business schools carry out experiential learning/lectures so that students have experience in the business world. Learning based on experience provides space for students to think entrepreneurially and empirically, and it can help students exist in the business world (Lackéus et al., 2016). Thus, it becomes clear that Kolb's EL provides a framework for strengthening learners into aspiring entrepreneurs. Despite their importance, previous studies did not include many measures of learner innovativeness, despite innovation being the primary source of learning entrepreneurship/business (Zimmerer et al., 2008). In addition, Coleman (2000) suggests that it is essential to pay attention to the different characteristics of each learner, both biographical and scientifically focused. Sukri et al. (2022) found how vital these variables are because they will affect the quality of learning implementation.

Hypothesis of the Study

As elaborated, Kolb's EL describes ideas, experiences, and practices that will actively direct students to construct ideas and innovations, especially in creating business products. Of course, innovation can be different, depending on the experience of the students and the field they study. Based on these notions, the hypotheses proposed in this study are:

H1: The EL model is effective on student innovativeness in developing business

H2: The student's scientific field group impacts student innovativeness in developing business

H3: The EL model and the scientific field interact with student innovativeness in developing business.

Research Method

This study used a quasi-experimental quantitative approach. In this study, the design used was 2 x 2 factorial (Ary et al., 2010). This design considered the possibility of moderating variables that affect the treatment (independent variable) on the results (dependent variable). The disaggregating factor is the moderator variable, the students' scientific field, because the results of the study by Sukardi et al. (2021) show differences in the strength of student characteristics based on the scientific field preferred. The details are visualized in Table 1 below.

Table 1. Factorial Design 2 x2

Scientific field	Learning Method	
	Model <i>Experiential Learning</i> (EL)	Conventional Method
Humanities and Social Science (SS)	EL SS	Conventional SS
Science and Technology (SI)	EL SI	Conventional SS

In Table1, the experimental group was treated using the EL model, while the control group used the learning model used by the lecturer (conventional model). In each class there is a group of students of Humanities and Social science and students of Science and Technology. Furthermore, the experimental procedure uses the stages as visualized in Table 2.

Table 2. The Procedure of the Study

Q1	X1	Y1	Q2
Q3	X1	Y2	O4
Q5	X2	Y1	O6
Q7	X2	Y2	O8

Description:

- Q1, 3, 5, 7 : pre-test result observation
- Q2, 4, 6, 8 : post test result observation
- X1 : experiential learning model
- X2 : conventional model
- Y1 : Humanities and Social Science
- Y2 : Science and Technology

The population of this study was all active regular students of the Faculty of Teacher Training and Education of the University of Mataram who enroll in entrepreneurship courses. Based on the academic data of the Faculty of Teacher Training and Education of the University of Mataram (2022), there were 1,841 new students from the University of Mataram from 17 study groups within the Science and Technology discipline and 41 study groups within the Humanities and Social Science discipline. From those numbers, several departments regulate entrepreneurship courses in the even semester of 2021/2022. With those populations in this study, there will be four classes selected by random sampling system as the sample of this study. Here, all of the classes had gone through a commensuration process. All classes included groups of students with the same academic achievement in the odd semester 2021/2022, number of students, period of learning, facilities, and the same innovation instrument provided by the researcher.

Students' innovativeness in business development refers to the findings of the study conducted by McNally et al. (2010), namely the discontinuity of new technology and the market. Hence, innovativeness refers to students' innovativeness in making new products/services and conducting digital marketing. The instrument in this study was the project-based assessment. The project-based assessment requires students' groups to create a product/service within a certain period. The accomplishment of this task consisted of four stages/elements (Bergh et al., 2006; Puskur Balitbang, 2006), namely planning, implementing, results/products, and reporting. The assessment was carried out in four stages using an assessment rubric prepared by the researcher and the research subject. The scoring rubric consists of 3 (three) options, namely: good (score 3), sufficient (score 2), and insufficient (score 1). The validity test of the project-based assessment was carried out through an expert test. In addition, to guarantee the instrument's reliability, it was assessed by two assessors, as suggested by Gronlund & Waugh (2009). In this study, the lecturers at the

University of Mataram were involved as assessors of student entrepreneurs. The assessment scores of the two assessors were correlated to determine the consistency of the assessment instrument.

The data from the study were analyzed using a method developed based on a quantitative research study: comparative analysis test using the ANOVA formula. It is followed by the Levene test for homogeneity of the groups and the Duncan post hoc test to determine which groups are distinguished. Moreover, the Kolmogorov-Smirnov test was performed to determine whether the score distribution was normal. The standard is that if the P for the 2-tailed test is more significant than 0.025, it is usually distributed. However, if Levene's test results are not homogeneous, and Kolmogorov-Smirnov shows that they are not normally distributed, then non-parametric analysis techniques are used. The whole calculation of the comparative analysis test, including homogeneity and normality tests, will use the assistance of the SPSS computer program, version 23.00, for Windows.

Results and Discussion

The Result of Validity and Reliability Test

Students' innovativeness instrument was obtained by using a project-based assessment. Therefore, the validity test was carried out through the assessment of economic education experts and educational evaluation experts to determine the validity of the content and the construct of the instrument. The assessment ranges from a score of 1 (very bad) to a score of 5 (very good). The results of the validity test by economics experts showed an average rating of 4.62, which falls into the very good category, while for education evaluation experts, an average of 4.72, also in the very good category. Thus, the students' innovativeness instrument meets the validity requirement. A correlation test was conducted on the results of the 2 (two) assessors' assessments to ensure the fulfillment of the reliability requirement, as suggested by Gronlund and Waugh (2009). The correlation test results on the assessment of two observers/assessors showed a correlation coefficient of 0.925 with a significance of 0.000 in the experimental group and 0.665 with a significance of 0.000 in the control group (Table 3). With said correlation coefficient, the instrument for students' innovativeness in creating entrepreneurial products/services is deemed reliable.

Table 3. Summary of Instrument Reliability Test Results

Variable	Class	Assessor	Average	Sd.	Score r	Sig.	Conclusion
Students' Innovativeness	Experimental	1	87.55	4.953	.925	.000	Reliable
		2	88.11	4.214			
	Control	1	72.91	4.867	.665	.000	Reliable
		2	68.55	6.386			

The Products of Students' Innovativeness

The description of students' innovativeness in developing business after EL intervention is presented in Table 4 below. In this presentation, only four examples of student product innovation were presented.

Table 4. Students' Business Development Product Innovation

No	Owner	Student Group	Product	Output	Impact	Description
1	Group	Sociology Education	Trendy Tote Bag	Product	Broaden Market and Product	Serving consumers digitally
2	Group	Elementary	Bessek	Product	Improved skill	Starting the

		School Teacher	Craft		and experience.	business, broadening market
3	Group	Mathematics Education	Bamboo Craft	Product	Profit, Broaden Market and Product	Serving customers through digital interaction
4	Group	Chemistry Education	Dora (Donat Dorayaki/ Dorayaki Doughnut)	Product	Improved skill	Serving customers directly, products are ready

Trendy Tote Bag

This product is a sling bag made of high-quality canvas. It is developed considering the current youth trend because it is simple, light, up-to-date, and eco-friendly. Compared to a plastic bag, the tote bag can be used repeatedly and quickly maintained (i.e., it only needs washing when it becomes dirty). Since the tote bag is a non-segmented product, it has a broad market (students and the public). The marketing of this product was done through social media such as WhatsApp, Facebook, and Instagram. Some of the innovations added to the product encompass cloth of good quality and customizable patterns, colors, and design. The students can produce 11 tote bags of various designs in one day. One tote bag costs Rp 30.000, and they sell for Rp 35.000. Overall, the tote bag business has good profit and the opportunity to be a business trend.

Bessek Craft

This product is a small basket made of bamboo. It was chosen because it has been used as food containers and hampers. Bessek craft is a potential business because it has good economic value and already has its target market, homemakers, who use it daily, and tourists, who use it for hampers or souvenirs. In the tourism aspect, the potency of this product is promising because Lombok is hosting a MotoGP event in Mandalika Circuit. The marketing was done through social media and a marketplace like Shopee. The main innovation of this product is that it comes with customized pictures and colors. On average, the students can produce four products in one day, with a capital of Rp 11.500 and a turnover of Rp 80.000.

Dora (Donat Dorayaki/Dorayaki Doughnut)

This product is made of a local ingredient, sweet casava, named Dora (Donat Dorayaki/Dorayaki Doughnut). Sweet cassava contains a lot of protein, carbohydrates, calories, fiber, calcium, phosphor, iron, carotene, vitamins B1, B2, and C, and nicotinic acid, with many benefits. It can be an option for people who want to snack because it is practical, nutritious, and affordable. This product is marketed and distributed through some food stalls and social media. Its marketing strategy also includes offering different prices for more than one piece of doughnut. In one day, the students produce 500 boxes, which cost Rp 1.500 each. They then sell each box for Rp 2.500 and get a profit of Rp 500.000

Bamboo Lantern Craft

This product is a homemade lantern made of bamboo. This product was developed because of the high demand for decorative bamboo lanterns, with the target market of students, the general public, and tourists. Bamboo lanterns can be aesthetic souvenirs. The innovation of this product is that it is creative. This bamboo craft is made of good quality bamboo sticks that are unbreakable. This product can be costumed by customers with various designs and shapes such as square, rectangular, triangle, bar, and many more. The students use strong boxes for packaging, so it is safe to bring them everywhere. They sell the products in online

and offline stores and in art shops. A bamboo lantern costs Rp 50.000 and sells for Rp 75.000. In a day, the students can produce and sell three bamboo lanterns. This product certainly has a potential market, particularly if accompanied by good business management.

Analysis Requirements Test

Analysis requirements test in this study encompass tests of normality and homogeneity. The normality test on students' innovativeness data was carried out using the Kolmogorov-Smirnov test, while the homogeneity test used the homogeneity test of variance. The results of the Kolmogorov-Smirnov test showed that the probability value for the experimental class data is 0.83 (greater than 0.05), while that of the control group is 0.77 (also greater than 0.05). With these results, the data for students' innovativeness in the two groups are normally distributed. Furthermore, the results of the homogeneity test, which used the homogeneity test of variance, revealed a Levene statistic of 1.171 with a probability value of $0.281 > 0.05$. The outcome of this test indicates that the variance of students' innovativeness data is homogeneous. As a result, the hypothesis testing for the study can be continued using parametric statistical tests.

Hypothesis Testing

The results of the calculations related to the hypothesis testing are summarized in Table 5 below.

Table 5. Summary of Research Hypothesis Testing Results

Variable	Group	N	Mean	F Value	Sig
Student Innovativeness	Experimental	66	88.21	673.796	0.000
	Control	65	70.50		
Student Innovativeness	Humanities and Social Science	70	79.30	.022	0.882
	Science and Technology	61	79.40		
Student Innovativeness	EL Model – Department / Field of Study Interaction	-	-	11.075	0.001

Table 5 can be interpreted as follows.

The first hypothesis is that there is an effect of the EL model on students' innovativeness in developing businesses. Based on the test results, the research's F value was 673,796, with a probability value of $0.000 < 0.05$. Based on the analysis results, it can be concluded that there are differences in students' innovativeness in developing a business between the experimental class, which used Kolb's EL model, and the control class, which did not use the model. By analyzing the higher average value of the experimental class compared to the control class, it can be concluded that Kolb's EL model significantly affects students' innovativeness in developing business.

The second hypothesis is that the student's major or scientific field groups affect their innovativeness in business development. According to the analysis results, the research obtained an F value of 0.22 with a probability value of $0.882 > 0.05$. This result also shows no difference in students' innovativeness in business development between students from the Humanities and Social science and Science and Technology groups. Thus, students' majors or scientific fields do not affect their innovativeness in business development.

The third hypothesis is that Kolb's EL model and the students' majors/scientific field groups interact with their innovativeness in developing businesses. Considering the results of the analysis as summarized in Table 3 above, an F value of 11,075 with a probability value of $0.001 < 0.05$ was obtained, meaning that there are differences in students' innovativeness in developing business, which is caused by an interaction between Kolb's EL model and

students' majors/scientific field groups. Thus, it is concluded that Kolb's EL model and majors/scientific field groups have a significant interaction effect on students' innovativeness in developing their businesses. To find out which major/scientific field has the best experience in implementing EL in entrepreneurship learning in universities, a post hoc analysis test was conducted. The results of the analysis are shown in Table 6 below.

Table 6. Post Hoc Analysis of Major/Scientific Field Group Variable

Methods and Scientific Field Groups		N	Subset for alpha = 0.05			
			1	2	3	4
Duncan ^{a,,b}	Control-Humanities and Social Science	31	69.419			
	Control-Science & Technology	34		71.586		
	Experimental-Humanities and Social Science	36			87.027	
	Experimental-Science & Technology	30				89.400

The analysis results, as shown in Table 6 above, show differences in the implementation of Kolb's EL in entrepreneurship courses in each group of scientific fields. The results of the post hoc analysis showed that the Science and Technology (Saintek) experimental group had the best innovativeness in developing business compared to the Humanities and Social Science one and the control groups (be it that of the Science and Technology group or the Humanities and Social Science one). The high innovativeness is probably because Science and Technology students have stronger entrepreneurial characteristics.

Discussion

Entrepreneurship innovation is shown through many aspects, such as product innovation, innovation of the products' marketing innovation, packaging innovation, and other innovations. In addition, business innovativeness, according to Yokuş and Yelken (Erdogan & Ayanoglu, 2021), is seen as something tangible and as the process of students creating new ideas and seeking answers to unfulfilled needs. Thus, innovativeness in developing a business includes new products, processes, technology, or better idea creation, all of which are accepted by the market, government, and society.

In this research, there were at least two critical points of students' innovativeness in developing a business that was impacted by Kolb's EL's intervention: product and product marketing novelty. In the aspect of the product, the study's results discovered that students' business groups could produce new products, such as tote bags, bessek crafts, lantern crafts, pottery, and other products. Tote bags already exist in the market, but the innovations produced by students have several advantages, such as the material used is a high-quality canvas and chiffon, the bag's shape varies according to customers' requests, and the design and colors are custom-made. Considering these innovations, the business products have thus expanded beyond the market demand expectations, though their target market is still limited. Business products the students create possess extra value and serve as solutions to market demand. Those product innovations proved that students had developed new businesses for market demand.

The second innovativeness is related to the dimension of novelty in product marketing. As one feature of new business start-ups, digital-based marketing reflects innovation in product marketing (Nugraha & Wahyuastuti, 2017). Transformation into a new online business is an essential part of innovativeness. The tote bags have been sold on digital media platforms such as social media (e.g., WhatsApp, Facebook, and Instagram). In addition, several handicraft products produced by the students were also sold through a



marketplace such as Shopee. Another marketing model is to take advantage of significant events, such as the MotoGP event at Mandalika Circuit, Lombok, Indonesia. In several studies, this digital-based marketing model has also been proven effective in improving business performance, increasing profits, and reducing costs (Eller et al., 2020), as well as increasing the competitiveness of business products for entrepreneurs (Kraus et al., 2019). In Indonesia itself, digital marketing has reached wider platforms, which includes not only Shopee but also Lazada and Bukalapak.

The two forms of innovativeness above cannot be separated from the implementation of EL in entrepreneurship learning in the Experimental class. Students gain substantial experience researching existing products, identifying the target market, analyzing the weaknesses of similar products, modifying the strength of similar products, and others. This process reflects substantial experience in EL (Svinicki & Dixon, 1987). Researching and analyzing in concrete experience led students to grab a chance to develop businesses from the best entrepreneurship experience. Students in classes that use EL gain skills to capture business opportunities which are, in turn, actualized when starting entrepreneurship. According to Aflatoony and Wakkary (2015), this process is the starting point of beginning entrepreneurship and an essential indicator of creative thinking. Creativity is vital in entrepreneurship because it generates innovative actions, such as producing new or different business products (Hu et al., 2018).

The results of the analysis and opportunity seizing serve as a bridge for students to reflect on their learning experiences (reflective observation). Students reflect on their learning experiences from the environment surrounding ongoing business in the market (Svinicki & Dixon, 1987). Students express their intention to develop innovative products and the marketing system. Students have also determined their initial commitments, such as commitment to learning about business, commitment to set up a dream business, building networking with successful entrepreneurs, and marketing products through the digital market, among others. Business commitment is essential in starting a business because it builds and pushes its existence (Rauf, 2020). According to Parente and Feola (2013), business commitment is an emotional attachment to creating start-ups and leads to bigger success. A study by Tasnim and Singh (2016) discovered that more than 400 start-ups were successful because of the effect of business commitment.

In its implementation, EL helped students to have experiences in doing analysis, taking opportunities, and building business commitments. Moreover, EL helped students strengthen their experiences by testing the results of fieldwork construction with business theory (abstract conceptualization). As groups, the students obtained some critical experiences in the learning process, such as designing business models and products to be developed, discussing the investment, and investigating various challenges and opportunities for the business products. They have also started designing digital marketing. These activities are parts of the strategy before starting a business. The performance of a business is primarily determined by business strategy. It includes questions such as the marketing strategy, how to recognize and control the target market, and profitability (Wheelen et al., 2017; Piñeros, 2020). Empirical evidence shows that business strategy positively affects a company's performance (Huang et al., 2014) and the competitive advantage of the tourism sector (Dewatmoko, 2018). Thus, abstract conceptualization as one of the components of EL has led students to learn how to determine competitive strategies (e.g., differentiation strategies and focus strategies) before starting a business product.

The end and the culmination of EL implementation are students' trying out new concepts by doing active experimentation (Svinicki & Dixon, 1987). The results of

constructing the learning experiences in the three initial components above are completed with an actualization: creating innovativeness through business products and marketing. The final products are unique and can attract the market/customers. Likewise, the option of digital marketing is one of the results of implementing EL. In practical classes, students sell products through various social media platforms, including by collaborating with several marketing networks. This experimental activity is a form of entrepreneurial action (Hisrich & Ramadani, 2017; Sukardi, 2016). This is because students conduct production processes and digital marketing. This process has given the students experience in developing and actualizing innovative ideas in developing the business into real business practices (Stirling et al., 2017).

This explanation proves that the EL model is effective on students' innovativeness in developing business. This finding also confirms the findings of previous studies, though they differ regarding the parameters of entrepreneurial characteristics they focused upon. The findings of Knight et al. (2020), for example, discovered that EL was influential in building learners' confidence and communication skills. Several other studies have also found that EL: has effects on the strengthening of entrepreneurial competence (Castaldi et al., 2020) and self-reflection skills, including critical thinking skills (Cheng et al., 2020); effectively improves problem-solving abilities (Hulaikah et al., 2020), and; strengthens the learning experience of students (Li et al., 2019). Some of these aspects reflect entrepreneurial characteristics and competencies (Murwarni, 2016), which students must possess to become entrepreneurs.

Conclusion

Based on the data analysis above, the EL model in entrepreneurship learning is effective in student innovativeness in developing business. This innovativeness was shown through business products that can compete with similar products in the market and digital marketing systems. It can be seen from the scientific field group that the innovativeness of students within the Science and Technology group and the Humanities and Social Science major/scientific field is the same. However, if we look at the average score of the students, the Science and Technology students in the experimental class have better innovativeness than the Humanities and Social science experimental group students.

Recommendation

Hence, to prepare competitive graduates who can develop a business, it is recommended that EL is implemented in entrepreneurship courses at universities. Due to the limitations of the research, it is highly recommended for further research to expand the research scope in terms of samples, other courses related to strengthening entrepreneurial competencies and characteristics, and even entrepreneurial and intrapreneur behavior.

Acknowledgments

We would like to thank the Universitas Mataram for all the support during the research process up to the publication of this article.

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