

## The Integration of Business Model, Curriculum and Core Business Operation For Commerce Laboratory

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### Abstract

Laboratories in vocational higher education have an important role in complementing the learning process for students to gain an optimum learning experience, especially in Vocational Colleges, where the students are expected to possess skills and expertise that are applicable in the workplace. Laboratories in vocational higher education have many important roles in students' learning experiences, especially in the area where students can sharpen their practical skills by directly applying all the theories they have learned. This provides students with the opportunity to optimize and even master various skills relevant to their chosen field of study or profession. The optimization of student learning includes making laboratories function as real business entities, so that students can gain learning experiences in conditions that closely resemble those in the industry. One of the efforts to develop the potential of resources owned by a laboratory is to maximize the business potential of each laboratory, especially Commerce Laboratories. Integration between the business process and the learning process in commerce laboratories is necessary to ensure that both aspects run smoothly, rather than being misaligned. When the laboratory functions as a business entity, it can achieve maximum profit while simultaneously providing practical learning experiences to students.

### Keywords

*Commerce Laboratory; Business Model, Core Business Operation, Learning Integration*

## INTRODUCTION

The role of laboratories in vocational higher education is undoubtedly crucial in complementing the learning process for students to achieve maximum educational quality, especially in Vocational Colleges, where the quality of students is expected to possess skills and expertise that can be directly applied in the industrial world. Laboratories in vocational higher education play a significant role in students' learning experiences, as they allow students to sharpen their practical skills by directly applying the knowledge learned in the classroom. This provides students with the opportunity to optimize and even master various skills relevant to their chosen field of study or profession.

Laboratories serve as essential facilities for students to engage in practical learning experiences that are directly transferable to the industrial world. Therefore, the utilization of laboratories should be maximized. One effective approach involves optimizing the integration of student learning with these higher education laboratory facilities. Integration, in this context, refers to the relevance and connection between all subjects covered in each semester's coursework and active student participation in practical applications within laboratory settings. To ensure optimal integration, specific strategies are required to design the flow of student learning between classrooms and laboratories. This involves efficient management of time, enabling practical processes to run smoothly without compromising effective outcomes. The available systems should aid students in balancing their time for theoretical learning in classrooms and hands-on application of that theory in laboratories. Efficient learning in laboratories must be accompanied by effective teaching methodologies. Moreover, the effectiveness of student learning in laboratories should be governed by a well-structured system that maintains the relevance and connection between classroom subjects and laboratory-based learning. Every laboratory associated with vocational colleges should be capable of preparing valuable learning materials and concepts. These materials facilitate the honing of students' theoretical skills through practical applications, allowing the theory taught to be put into practice. Consequently, by the end of each semester, students can optimize and even master practical skills directly applicable in the industrial world.

For systems to operate effectively, there must be concurrent efforts to improve the quality of laboratory facilities. This ensures that systems function sustainably and consistently enhance their quality.

A well-functioning and sustainable system presents both opportunities and challenges for institutions, as it allows them to leverage their potential, ultimately generating significant and wide-reaching impacts. One approach to harness the potential of laboratories with established systems is to maximize their business potential. This potential can take the form of profits generated from laboratory capabilities in real business processes. One way to maximize this business potential is by creating a business model. Implementing this business model should be closely integrated with the curriculum and effective learning models to explore business potential fully. This approach should also yield expected profits and broader impacts, making it suitable for academic environments. Thus, the quality of laboratories as educational facilities remains uncompromising. The integration of business models, learning models, and curriculum into a

unified system is a novel development to realize the goal of creating a learning facility that operates as a genuine business. This approach aims to provide students with learning experiences closely resembling those they will encounter in the industrial world. Without overlooking the educational impact, a fully operational business laboratory enhances students' learning experiences, as they not only study within the laboratory but also actively participate in a functioning business. Consequently, the learning experience remains relevant to their future experiences in the industrial sector.

An integrated business model, learning model, and curriculum serve as a reference for laboratory management institutions, particularly the Entrepreneurship Laboratory at Politeknik Negeri Manado. This reference guides institutions in channeling their potential to develop profitable businesses with broad-reaching impacts. These impacts on institutions include the ability to meet laboratory needs independently, thanks to generated profits. Additionally, these businesses contribute to the overall development of the institution, influencing the quality of education provided to students, the development of facilities, and enhancing the institution's overall image. Moreover, the broader impacts resulting from business processes in entrepreneurship laboratories can encompass potential profits for external stakeholders who collaborate directly with these businesses. Such stakeholders may include Small and Medium-sized Enterprises (UMKM), relevant government agencies, and even the general public. This approach, while not neglecting its educational aspects, positions the laboratory as a genuine business, enriching students' learning experiences. Students engage in learning within a fully operational business, ensuring that the learning experience aligns with their future encounters in the industrial world.

## **LITERATURE REVIEW**

### ***Business Model***

Osterwalder and Pigneur (2010): Business model serves as a tool to illustrate the fundamental concept of how organizations create, deliver, and capture value.

Wheelen and Hunger (2010): Business model serves as the methodology employed by a company to generate profits within the business environment in which it operates.

Rappa (2002): Business model serves as the method utilized by a company to sustain its operations and ensure the longevity of the business.

### ***Innovative Business Model***

Tribabeni L & De Benardi P (2019) expound that, in general, business models are no longer static, and technological solutions can provide a foundation for continuously pursuing strategic opportunities within a business environment. Moreover, in recent years, various novel approaches to adapting business models through technological disruption have been elucidated and applied. Tribabeni L & De Benardi P (2019) assert that the analysis from a training and education perspective focuses on a specific educational approach to propose Enterprise 4.0. Despite numerous studies concentrating, for instance, on Learning Factories, there is limited scholarly attention given to the significance of other academic disciplines such as economics, law, labor psychology, and sociology. Within the context of Enterprise 4.0, the relationship between

Integration, Decomposed Hierarchy, Flexibility, and Autonomy is elucidated in a proposed framework.

### ***Business Model Pattern***

In their book "Business Model Generation," Osterwalder and Pigneur (2010) have delineated a summary of five business model patterns constructed upon pivotal concepts in the business literature, namely Unbundling, Long Tail, Multi-sided, Free, and Open Business Model. However, it is essential to recognize that new patterns rooted in other business concepts may emerge at any given time.

### ***Business Model Canvas***

In the context of business planning, the formulation of a business model is deemed imperative, as it serves as a blueprint that provides guidance and facilitates the comprehensive design and planning of the entire business process. According to Osterwalder and Pigneur (2010), this business model transforms the initially intricate concept of a business into a more straightforward and executable framework. Osterwalder and Pigneur (2010) further delineate the business model canvas into nine constituent elements, namely: Customer Segments, Value Propositions, Channels, Customer Relationships, Revenue Streams, Key Resources, Key Activities, Key Partnerships, and Cost Structure.

### ***Core Operation of Business***

R David (2011) in his book, Strategic Management Concept and Cases stated that there are six components that represent the core operation of most business, those are: management, marketing, finance, operations, research & Development, and management information system.

## **METHODS**

The method used is Qualitative Descriptive, intended for studying the characteristics of a phenomenon and generating insights from the subjects under investigation or experimental subjects. According to Bogdan and Taylor as cited in Moleong (2010:04), qualitative research is a procedure that yields descriptive data in the form of written words or narratives from individuals and observed behaviors.

The data were acquired from the research object, which is the Entrepreneurship Laboratory at Politeknik Negeri Manado. The general objective was to design and implement a business model that monetizes the laboratory, making it a profitable, competitive, sustainable, and integrated component of the students' learning system. Data collection was carried out through processes involving interviews, observations, and experiments conducted within the research setting.

## **RESULT AND DISCUSSION**

### ***The Implementation of Business Models in the Laboratory***

In its capacity as a business entity, the Entrepreneurship Laboratory at Politeknik Negeri Manado, the object of research in this study, has undertaken the implementation of all nine elements of the Business Model Canvas framework within its operational structure.

According to Osterwalder and Pigneur (2010), the business model is subdivided into nine essential elements, namely: Customer Segmentation, Value Propositions, Channels, Customer Relationships, Revenue Streams, Key Resources, Key Activities, Key Partnerships, and Cost Structure.

The implementation of the nine elements within the Business Model Canvas serves as a reference framework for the laboratory in conducting a business process, allowing the business to operate as an entity that contributes to revenue enhancement and value addition in the form of profits. In its implementation, this business model is designed by the laboratory's management and subsequently executed as a strategic approach to fulfill the business objectives. Every detail within the nine components of the Business Model Canvas has been meticulously planned from the outset by the laboratory's administrators, elaborating into a strategy for operating the laboratory as a business entity. The role of students in this design process is not maximized, as their contributions and thinking primarily revolve around the execution of the pre-established strategies, without actively participating in the formulation of these strategies.

Students' roles within the elements of the Business Model Canvas predominantly impact the Key Resources element. In this context, students directly function as one of the key resources, serving as human resources responsible for executing the core operations of the business in management, marketing, operations, and finance. Students engaged in practical activities fulfill the role of manpower within this business process, where their responsibility lies in executing the established strategies as part of their managerial duties.

### ***The Implementation of Core Operations of Business***

In the implementation of the laboratory's operational processes, the six core operations of business, namely management, marketing, finance, operations, research & development, and Management Information System (as delineated by F. David in 2011), have been executed. During the practical exercises within the laboratory, each class is subdivided into three divisions: Operation, Finance, and Marketing. Within the laboratory, three manpower components are responsible for carrying out these core operations of business:

1. **Laboratory Management Team:** In this context, they predominantly oversee all six core operations of business in a control function as directors, supervisors, and strategic planners. The management function is entirely held by the laboratory's management team concerning the assignment of roles for students in each core operation of business and the formulation of business strategies. Various crucial business decisions are made by the Laboratory Management Team, including product curation, financial management, supplier payments, equipment purchases, standard operating procedure (SOP) establishment, and other critical decisions. While fulfilling their role as a learning facility, the Laboratory Management Team also acts as educators, providing guidance to students on relevant learning processes within their respective fields or divisions.
2. **Students:** Students' roles are prominently felt in the core operations of marketing, finance, and operations as executors, essentially functioning as employees who carry out these core operations on a daily basis. During their internship period at the laboratory, students are assigned to the marketing, finance, and operational core operation components, performing their roles in line with the division or department to which they are assigned. This role is executed by implementing the pre-designed business strategies, and the

control function involves providing regular reports on the achieved results. As previously explained, students' roles are prominently felt in the core operations of marketing, finance, and operations in accordance with the divisions established within the laboratory management. Students' involvement in the research and development process tends to be minimal due to the relatively short duration of their learning experience within the laboratory, while their role in the Management Information System is an integral part of the operational activities within their respective divisions. For instance, the Management Information System activities are carried out in the reporting process, operations, transaction processes, and so on.

3. Teaching Faculty: The role of teaching faculty in the laboratory is an indirect one, where they conduct teaching processes within their respective subject areas. The role of teaching faculty in the laboratory is that of a control function, ensuring that students engaged in laboratory practices have applied the knowledge acquired in their classroom instruction.

### ***Integration of Business and Curriculum***

#### ***Duration of Internship***

The internship process in the laboratory spans one semester and is conducted by fifth-semester students. All fifth-semester students are divided into several class groups, and the entire semester period is allocated among these groups, ensuring that each class group has a two-week practical internship duration in the laboratory. The two-week internship process is carried out by students within the division where they are placed, under the guidance of the Laboratory Management Team. The implementation of this duration allocation is tailored to the specific requirements of the departments utilizing this laboratory facility. The allocation of learning duration is essential to ensure that each student gains a consistent learning experience. However, it also means that the time spent by students in the laboratory is relatively short, resulting in limited lessons and experiences in line with the predetermined schedule.

#### ***Learning Process***

Throughout the internship period within the laboratory, the learning process commences when students are placed in their respective divisions. Students are taught the business processes relevant to their assigned areas, and simultaneously, they immediately apply the knowledge they have acquired in real-world business processes. Many aspects of the learning process that occur during this period are not guided by a standardized teaching model because the learning process within a laboratory, in the context of real business operations, tends to be dynamic and adaptable to the actual conditions encountered. The advantage is that students learn practical skills; however, the drawback is that the content taught is not constant and tends to vary among different class groups. As for the limitations in the laboratory's learning process as a business operation, it lies in the restricted role of students in the execution and day-to-day job description, while the role of students as conceptualizers involved in the design and strategic planning of processes is also necessary to maximize practical learning experiences.

The learning process of students within the laboratory as a business operation mutually influences each other. Certainly, the business process runs smoothly when the manpower possesses adequate qualifications. If the learning process does not proceed effectively, students,

as part of the manpower in this business process, will not have the necessary capabilities to achieve the desired goals in a business operation.

## CONCLUSION

Optimizing Student Learning in the Laboratory Learning Process, which operates as a real business entity, is undoubtedly crucial to enable students to explore various fields of knowledge and skills that are pertinent to the industrial context to their fullest potential. This optimization needs to occur through the integration of teaching models and instructional methods with the ongoing business processes. Both of these aspects must function cohesively to minimize any weaknesses inherent in the integration process and reinforce the numerous advantages of the learning process within the laboratory functioning as a business entity. This study highlights the potential for bridging the gap between the learning process and the business operations within the laboratory, functioning as a business entity, in order to create a business model that unifies business and education.

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