

# *The Productivity of Teaching-Learning Process During COVID-19 Pandemic With the Administrator's Production Function Approach*

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## ABSTRACT

This research aims to know the value or productivity performance of the teaching learning process lecturers in the Faculty of Economic Undiksha environment, using the size of the checklist indicator reviewed from the administrator's production function approach. This research was represented by a sample of 288 students spread into two majors in Faculty of Economic Undiksha. The results show that the productivity of learning is reviewed from the dimensions of time, cost, quality service, and moral already in the good category. But when viewed more specifically, judging by the percentage gap, it is known that the quality service has the largest gap of 24.60 percent which is above the average productivity gap. This identifies that learning productivity has not fully met student expectations. In this era of increasingly sophisticated technology disruption, students are required to have the ability in the field of online learning technology. Therefore, lecturers can improve the quality service by paying attention to quality service elements consisting of two integral dimensions, namely procedural dimensions and personal dimensions.

**Keywords:** Administrator's production function approach, Productivity, Teaching learning process

## 1. INTRODUCTION

Universities are one part of higher education institutions in which their main concern is to produce qualified graduates through academic activities that have been programmed. Academic activities that must be followed, including tasks stated in various programs such as lectures, seminars, practicum, field work, writing scientific (thesis, final assignments and or papers), and real work lectures. In order to meet the demands, universities through their study programs need to gain public trust with quality assurance, quality control, and quality improvement.

The main strength of universities in life in the free market era is characterized by high and paradoxical uncertainty, in order to realize quality assurance, quality control and quality improvement one of which lies in the resources of lecturers. The role of lecturer is in the most strategic position. Lecturers as professionals must have independence in the overall educational activities both in the course of universities and outside universities, lecturers hold the most strategic positions. In the

operational level, lecturers are determinants of educational success through their performance at the institutional, instructional, and experiential levels [1]. Lecturers are human resources that are able to use other factors so that the creation of quality PBM and become the main factor that determines the quality of education. Therefore in an effort to improve the quality of higher education, lecturers should be the centre of attention together.

Efforts to improve the curriculum, improvement of facilities and infrastructure, management of universities are important, but in the absence of quality and prosperous lecturers, all of them become less meaningful. One of the important factors that affects the quality of higher education is qualified lecturers. Whatever form of college management, the main goal is to improve the quality of sustainable productivity, because the final stage of the quality of college performance is highly determined by the quality of the collective performance in each member of the academic cavities, including, namely lecturers. Thus, the management of lecturers must have the main goal, namely improving the quality

of productivity through improving the efficiency of the workforce as an educator or teachers. The productivity of the lecturer's work is the ability of a lecturer to use their power and realize all the potential that exists in them. The productivity of lecturers in education relates to the whole process of planning, structuring, and utilizing resources to realize educational goals effectively and efficiently.

Working synergistically demonstrates the productivity of each person's work by showing the expected/desired level of excellence and especially excellence to meet customers' wishes. Reference [2] states that productivity starts with customer needs and ends in customer perception. In the naked eye, we can identify a learning productivity if students can say this learning service is productive with the characteristics that arise that lecturers are quick to respond to needs or complaints, are sympathetic and can provide solutions. Referring to the student's expectations, it can be implemented interactions between personnel (leaders, lecturers, and other educational personnel) and customers (students) that include (a) a quick and precise response, relating to rapid response to customer needs and complaints; (b) performance, relating to physical appearance ranging from how to dress and body hygiene; (c) communication; with respectable manners but does not diminish the chemistry in communicating in solving problems raised by students.

Judging from the lecturer's duties above, which is always a problem today is the productivity of the quality teaching learning process, because carrying out a quality teaching learning process in practice is not an easy thing. The learning process on campus is the best public policy tool in an effort to improve knowledge and skills. In addition many students consider that campus is a very fun activity, they can interact with each other. Campus can improve the social skills and awareness of social classes' students. The campus as a whole is a medium of interaction between students and lecturers to improve the ability of integrity, skill and compassion between them. But now the so-called campus activity stopped abruptly due to COVID-19 disruption. What extent does it have an impact on the learning process on campus? There is a very serious complication of the COVID-19 outbreak, so Indonesian education needs to adopt a flow that can assist the state of education in an emergency. Campuses need to impose themselves on online media. But the use of technology is not a problem, many variance problems that hinder the implementation of the effectiveness of learning with online methods such as internet networks that are really still uneven in the corners of the country.

To create learning productivity in times of pandemic this depends heavily on technology and the role of human resources in this case is lecturer. The quality teaching learning process will be carried out well if supported by quality human resources and adequate physical resources.

## **2. LITERATURE REVIEW**

### ***2.1 The Basic of Teaching Learning Process***

One of the skills that lecturers must have is the element of educators, in order to be able to carry out their professional duties is to understand how students learn and how to organize the learning process that is able to develop the ability and shape the disposition of students, as well as understand about how students learn [3]. In line with that, [4] state that in teaching learning activities, students are the subject and as the object of teaching activities. Therefore, the essence of the teaching process is none other than the learning activities of students in achieving a teaching goal. In order to achieve the purpose of teaching is required arrangements, where the process of arrangement is the right of teaching learning. In contrast, [5] states that teaching learning in fact is the process of interaction between students and their environment, resulting in a change in behaviour. In these interactions there are many factors that affect it, both internal factors that come from within the individual, as well as external factors that come from the environment.

As a process of arrangement, teaching and learning activities are inseparable from certain characteristics, namely: (a) have a purpose; (b) there is a procedure; (c) marked by the work of the material; (d) marked with the activities of students; (e) the lecturer acts as a mentor; (f) requires discipline; (g) there is a time limit; (h) evaluation. In line with that [4] said that the teaching learning process is an instructional system referring to understanding as a set of components that depend on each other to achieve the goal. As a system, learning to teach includes components, including goals, materials, students, lecturers, methods, situations and evaluations. In order for this purpose to be accomplished, all current components must be coordinated so that collaboration within components takes place. Therefore, the lecturer should not only pay attention to certain components such as methods, materials, and evaluations only but he should consider the components as a whole so that the implementation of the teaching learning process runs productively.

### ***2.2 Online Learning during the COVID-19 Pandemic***

Online provides effective learning methods, such as practicing with related feedback, combining activity collaboration with self-learning, personalizing learning based on student needs and using simulations and games. Furthermore, all students receive the same quality of instruction as there is no reliance on certain instructors [6].

Gagne suggests that learning is a set of external events designed to support several internal learning processes [7]. Furthermore, Gagne put forward his theory that learning is intended to produce learning, external

situations should be designed in such a way as to enable, support, and maintain the internal processes contained in each learning event [7].

The online learning system is an implementation of distance education. This learning system also aims to increase equal access for to better and quality learning. Through the online learning system, opportunities for students to be able to participate in a particular subject will be provided.

The positive and negative impacts of online learning during the COVID-19 pandemic on children are as follows.

### *2.2.1. Positive Impact*

- 1) During online learning the material can be accessed by children anywhere and anytime. By using a smartphone, PC, or laptop the child can easily access the material anywhere, as long as during the COVID-19 pandemic there are still children required to learn and access in an enclosed room.
- 2) Online learning activities can be done while doing casual activities. Children can read materials while eating snacks, listening to music, and other relaxing activities, which is important that children feel comfortable doing online learning activities.
- 3) Safe from the ongoing spread of corona virus. Through online methods, children do learning activities only at home, no need to go to school and do face-to-face learning. Surely this online learning helps one of the government's efforts in addressing the COVID-19 pandemic so as not to transmit it to people who are at home.
- 4) In this era of increasingly sophisticated technology disruption, children are required to have the ability in this field of online learning technology. Mastery of highly varied learning technologies becomes a challenge for children. Various distance learning media are also tried and used. Facilities that can be used as online learning media include e-learning, zoom application, Google classroom, YouTube, and what Sapp social media. These facilities can be used to the maximum, as a medium in the performance of learning such as in the classroom. By using these online media, the indirect ability to use and access technology is increasingly controlled by students and teachers.

### *2.2.1. Negative Impact*

- 1) Teaching and learning activities are not as effective as face-to-face learning. Not a few children are objecting to ineffective online learning, much of the material is poorly understood by the child due to the

lack of material explanation from the teacher. So this negatively impacts the child in their study time.

- 2) Stacked school work can make the child feel saturated. However, this is because teachers cannot ensure students attending the classroom such as face-to-face learning. Thus, the assignments given by the teacher at each meeting are proof that the student is present in online class.
- 3) Cybercrime that can attack online learning apps. Given the rapid development of technology today, it does not close the possibility of a loophole in the system in an app to bring about cybercrime that results in data sales and fraud.
- 4) Another problem with online learning systems is the access of information constrained by signals that cause slow access to information. Children are sometimes left with information as a result of inadequate signals. As a result they were late in collecting a task given by the teacher.

Thus, online learning of children during the COVID-19 pandemic can have a positive and negative impact. The perceived impact can occur depending on how the child responds to or adapts to the online learning. The current momentum of COVID-19 prevention is a good time for governments, educational institutions, and foundations to improve their ability to ensure online learning, and keep being innovative. Studies state that online learning is more useful for learning on the aspect of knowledge (cognitive) and cannot or is difficult for aspects of skill (psychomotor) and attitude (affective). However, previous researches and some observations of common implementation symptoms show that by studying well-guided online, the abilities achieved in skills and attitudes are the same (not significantly different) as those who study face-to-face. This opinion explains how a person's skills can be gained from online learning, and how attitudes, including likes and dislikes of something can be transmitted from one person to another through online interaction.

## **2.3 Basic Concepts of Productivity**

In the world of education, productivity means how to use manageable inputs in the form of man, money, materials, methods in carrying out the educational process especially in managing meaningful learning so as to achieve the desired increase in output effectively and efficiently [2]. Productivity can be expressed in quantity or quality. Quantity is expressed as a greater output result than the input, whereas in the measure of quality cannot be measured by material / money, this productivity is described from accuracy using methods or ways of working and tools available so that volume and workload can be completed according to the time available and get positive responses even praise from others for the work.

Formally, productivity is a concise measure of quantity and quality of performance with the use of established resources. Productivity can be measured at the individual, group or organization level. From its perspective, productivity in all issues reveals success or failure to produce goods or services in quantity or quality, and with the use of resources well.

The simple formulation has provided an understanding that the main components of productivity include: (1) input and (2) output. But in the world of education the simple formulation does not necessarily concretely represent the rise of others, such as manufacture or production. This is due to differences in assumptions about the input and output variables used. In other words, each person will define according to its importance and relevance. So the measurement of productivity becomes very relative.

#### **2.4 Factors That Affect Productivity**

Working synergistically demonstrates the productivity of each person's work by showing the expected/desired level of excellence and especially excellence to meet customers' wishes. Gaspersz in Engkoswara, states that productivity starts with customer needs and ends in customer perception [2]. In the naked eye, we can identify a learning productivity if students can say this learning service is productive with the characteristics that arise that lecturers are quick to respond to needs or complaints, are sympathetic and can provide solutions. Referring to the student's expectations, it can be implemented interactions between personnel (leaders, lecturers, and other educational personnel) and customers (students) that include (a) a quick and precise response, relating to rapid response to customer needs and complaints; (b) performance, relating to physical appearance ranging from how to dress and body hygiene; (c) communication; with respectable manners but does not diminish the chemistry in communicating in resolving the problems raised by customers in this case students.

So many factors that affect the productivity of learning and human factors are the leading sectors that have extraordinary strengths whose movement is influenced by factors that come from within (internal) or factors that come from outside the individual itself (external). In man there is a stored extraordinary power that drives his desire to do the best work. The human being, in their mind, accepts many ideas, desires, hopes and demands that are all processed by the heart, digested, analysed both badly and after obtaining the determination begins human being moves to do something with great seriousness with motivation and high commitment to do his best. Productive human beings are equipped with relevant educational backgrounds, extensive work and training experience and support the career record of the profession, the ability and expertise gained from relevant

disciplines, attitudes, interests, motivations, disciplines, work ethic, morals, commitments, and excellent physical conditions. Extrinsically human beings can work productively when triggered by supportive environmental conditions namely the vision and mission of institutions, management, and leadership that are good governance, with a good level of transparency and empowerment and implemented with the principles of share, care, and fair

#### **2.5 The Administrator Production Function (PFI) As a Productivity Assessment Approach Teaching Learning Process**

Productivity is an activity related to the process of planning, structuring and utilizing resources to realize educational objectives effectively and efficiently reviewed from three administrative, psychological, and economic angles. Aspects of school productivity developed by [2]. The Administrator Production Function (PFI); managerial (administrative) function that gives attention to customer satisfaction related to various services for the needs of students seen from the dimensions of time, cost dimension, quality dimension of service, and moral dimension.

From the above understanding, productivity can be measured by two main standards: physical productivity and value productivity. Productivity is physically measured on the basis of values of ability, attitude, behaviour, discipline, motivation, and commitment to work/duty. Therefore, measuring productivity levels is not easy, in addition to the number of variables, also the size used varies greatly. Reference [8] states in measuring productivity based on a combination of effectiveness and efficiency. Effectiveness is associated with performance and efficiency associated with the use of allocated sources. In other words, the sense of productivity has two dimensions, namely effectiveness and efficiency. The first dimension relates to achieving maximum work, in the sense of achieving targets related to quality, quantity and time. While the second dimension refers to the efforts comparing the input with the reality of its use or how the work is carried out.

### **3. METHOD**

Judging from the approach, this study uses an empirical (ex-post facto) approach which is a study conducted to examine the events that have occurred and then according to the back to find out the factors that can cause the event [9]. Reference [10] said the researcher's ex-post facto approach relates to variables that have occurred and researchers do not need to provide treatment of the variables studied.

In principle this research is a descriptive research that aims to know the value or performance productivity of the teaching learning process lecturers in environment of Faculty of Economic Undiksha, using the size of the

checklist indicator reviewed from the approach of the administrator's production function that focuses attention on the function of managerial services (administration) that SMART relates to various services for the needs of students judging from the time dimensions, cost dimensions, service quality dimensions, and moral dimension. Productivity measurement is expressed in an indirect qualitative way. With the filled items checklist linked to the total expected items. Based on this approach, the formula P applies equal to or greater than 1 ( $P \geq 1$ ), so the teaching learning process is productive, but if P is smaller or equal to 1 ( $P \leq 1$ ), then the teaching learning process is not productive.

The research sample is part of the number and characteristics possessed by the population [9]. If the population is large then researchers can use samples taken from the population, but the samples taken must be representative. The sampling technique used in this study is proportional random sampling, with the determination of the proportion of each major. Reference [9] in the sample determination formula states that from a large number of populations, with tolerance error rate in sampling of 1%, 5%, 10% can be represented with a certain number of samples [9]. This research was represented by a sample of 288 students spread into two majors in the Faculty of Economic Undiksha.

Researchers used methods: 1) questionnaires, to draw data on the productivity of the teaching learning process lecturers in the Faculty of Economic Undiksha environment, with the administrator's production function approach focusing attention on the functions of managerial services (administration) that SMART deals with various services for the needs of students judging from the time dimensions, cost dimensions, service quality dimensions, and moral dimensions. 2) The

documentation in this study is an internal official document of Faculty of Economic that can be data on the number of students and other supporting documents, in the form of memos, announcements, instructions, and rules of a community institution used in its own environment.

#### 4. RESULT AND DISCUSSION

The productivity of teaching can be measured by comparing two main factors, namely students' perception of the real productivity they receive (perceived service) with the actual productivity expected/desired (expected service). The results of research on the productivity of learning implementation can be seen in the table below.

The facts in Table II state that learning productivity is reviewed from the dimensions of time, cost, quality of service, and moral already in the good category. But when viewed more specifically, judging by the percentage gap, it is known that the quality of service has the largest gap which is 24.60% which is above the average productivity gap. This identifies that learning productivity has not fully met student expectations.

Theoretically according to [11] describing the gap shows that the quality of service is at gap 5 and gap 1. Gap 5 is the gap in the delivery of perceived services, where there is a difference in perception between the perceived service and the service expected by students in the learning process. Judging by the findings, the gap shows that the services provided especially towards students' expectations about the learning process are seen from indicators of technical quality related to outcomes are still not good. This fact is demonstrated by access to information constrained by signals that cause slow access to information.

**Table 1.** Operational research variables

No.	Dimensions	Indicators
1.	Time	<i>Specific</i> , what form of service and service to expect
		<i>Measureable</i> , criteria and limits for customer demand fulfillment
		<i>Achievable</i> , how can customer desire be achieved, whether in accordance with the standard stipulated
		<i>Relevant</i> , efforts made relevant to existing policies
		<i>Time bound</i> , on time, even if there is a possibility of service less than expected
2.	Cost Dimentions	Openness/transparency
3.	Quality of Service	Technical quality related to outcomes
		Functional quality related to the service delivery process
		Customer service provider's reputation meets the specified requirements
4.	Moral Dimentions	Sincere service delivery
		Service provision does not discriminate

**Table 1.** Productivity of teaching learning process during COVID-19 pandemic with the administrator's production function approach

Dimensions	Hope		Feelings		Productivity		Gap	
	Score	Category	Score	Category	%	Category	Score	%
Time	1179	Very important	786	Good enough	67	Good	393	17.67
Cost	1126	Very important	643	Good enough	57	Enough	483	21.72
Service Quality	1525	Very important	978	Good enough	64	Good	547	24.60
Moral	1444	Very important	1083	Good enough	75	Good	361	16.23
	5274	Very important	3490	Good enough	263	Good	1784	20,05

Children are sometimes left with information as a result of inadequate signals. In addition, there is also a lot of material that is not understood by students because of the lack of material explanation from lecturers. Poorly understood materials can be accessed independently through the internet.

The COVID-19 pandemic also provides other wisdom. Learning is done at home, it can make parents easier to monitor their child. This will lead to more intensive communication and will lead to a closer relationship between the child and the parent. Where parents are actually the first institution in a child's education. In online learning activities provided by lecturers, parents can monitor the extent of their child's competencies and abilities.

As a process of arrangement, teaching and learning activities are inseparable from certain characteristics, namely: (a) have a purpose; (b) there is a procedure; (c) marked by the work of the material; (d) marked with the activities of students; (e) the lecturer acts as a mentor; (f) requires discipline; (g) there is a time limit; (h) evaluation. Therefore, lecturers can improve the quality of their service by paying attention to the elements of quality service consisting of two integral dimensions, namely as follows.

1) The procedural dimensions are systematic and relate to the service presentation system which includes how the service should be designed and how the procedure is conducted. These dimensions consists of several standards that need to be considered in providing quality service, namely: (1) timing; (2) flexibility; (3) anticipation; (4) communication; (5) customer feedback; (6) organization and supervision.

2) The personal dimension is more interpersonal and includes patterns of attitude, behaviour and verbal skills that exist in each personal service interaction. In this dimension consists of several standards that need to be considered in providing quality service, namely: (1) body language and tone of voice; (2) attention; (3)

guidance; (4) selling skills; and (7) friendly troubleshooting.

In this era of increasingly sophisticated technology disruption, students are required to have the ability in this field of online learning technology. Mastery of highly varied learning technologies becomes a challenge for students. Various distance learning media are also tried and used. Facilities that can be used as online learning media include e-learning, zoom application, Google classroom, YouTube, and what Sapp social media. The means can be used to the maximum, as a medium in the performance of learning such as in the classroom. On the other hand, the negative impact of online learning on students can also occur, as students feel that online learning is ineffective, in contrast to face-to-face learning such as on campus. Students tend to lack understanding of the material that is less clearly conveyed by their lecturers. Campus assignments are piling up, making students also feel saturated because they have to deal with their tasks that have to be completed. In addition, another problem with online learning systems is the access of information constrained by signals that cause slow access to information. Students are sometimes left with information as a result of inadequate signals. As a result they are late in collecting a task given by the lecturer.

From each student and with their learning style that must be different, make it cannot be likened to each other. Cooperation between students and parents must remain established in both normal and abnormal conditions as it was during the COVID-19 pandemic.

## 5. CONCLUSION

The results stated that the productivity quality of learning implementation provided by lecturers is reviewed from the dimensions of time, cost, quality of service, and moral already in the good category. But when viewed more specifically, judging by the percentage gap that exists, it is known that the quality of

service has the largest gap. This identifies that learning productivity has not fully met student expectations.

From the research, the findings can be used as a reference to formulate a number of suggestions to achieve the goal of improving learning productivity. Based on the findings in the evaluation that has been done on the productivity of learning, researchers suggest to the learning manager in this case is a lecturer. There is still a gap, there is a gap in perceived productivity, where there is a difference in perception between perceived productivity and productivity expected by students in receiving learning. Students expect them to carry out academic activities supported by adequate facilities and infrastructure but in reality the facilities and infrastructure that support learning activities during this pandemic are inadequate. Therefore, it is expected that lecturers and students always coordinate with each other in the framework of learning.

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