STRATEGIC PLANNING AND QUALITY EDUCATION IN THE FRAMEWORK OF THE SDG’s IN A PERUVIAN PUBLIC TECHNOLOGICAL INSTITUTE

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ABSTRACT

Objective: The objective of this study was to determine the influence of strategic planning on educational quality in a Peruvian public technological institute. This is associated with the Sustainable Development Goal (SDG) “Quality Education”.

Theoretical framework: Strategic planning is a systematic process of formulating, implementing and evaluating strategies to achieve objectives, using resources and making appropriate decisions to optimize results. Educational quality is a fundamental right characterized by being equitable, relevant, pertinent, effective and efficient.

Method: This was a basic study with a quantitative approach and a non-experimental cross-sectional design. The sample consisted of 74 teachers, the technique used was the survey and a questionnaire was used for each variable. The ordinal logistic regression test was used for inferential analysis, considering a significance level < 0.05.

Results and Discussion: A p-value < 0.001 was found, which shows that there is a significant influence of strategic planning on educational quality, showing an influence of 41.8%.

Implications of the research: Better strategic planning in the institution translates into better performance to achieve quality education in the Peruvian public higher technological institute, with an impact on the educational sector.

Originality/value: Strategic planning in educational quality in Peruvian public higher technological institutes has not been widely explored, so this study is an original contribution, since most research has focused on other educational levels.

Keywords: strategic planning, education, educational quality, technological institute, sustainable development goals (SDGs).

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PLANIFICACIÓN ESTRATÉGICA Y EDUCACIÓN DE CALIDAD EN EL MARCO DE LOS ODS EN UN INSTITUTO TECNOLÓGICO PÚBLICO PERUANO

RESUMEN

Objetivo: el objetivo de este estudio fue determinar la influencia de la planificación estratégica en la calidad educativa en un instituto tecnológico público peruano. Esto está asociado al objetivo de desarrollo sostenible (ods) “educación de calidad”.

Marco teórico: la planificación estratégica es un proceso sistemático de formulación, implementación y evaluación de estrategias para alcanzar objetivos, utilizando recursos y tomando decisiones adecuadas para optimizar resultados. La calidad educativa es un derecho fundamental que se caracteriza por ser equitativo, pertinente, eficaz y eficiente.

Método: se trata de un estudio básico con enfoque cuantitativo y diseño transversal no experimental. La muestra estuvo compuesta por 74 docentes, la técnica utilizada fue la encuesta y se utilizó un cuestionario para cada variable. Para el análisis inferencial se utilizó la prueba de regresión logística ordinal, considerando un nivel de significancia < 0,05.

Resultados y discusión: se encontró un valor de p < 0,001, lo que demuestra que existe una influencia significativa de la planificación estratégica en la calidad educativa, mostrando una influencia del 41,8%.

Implicaciones de la investigación: una mejor planificación estratégica en la institución se traduce en un mejor desempeño para lograr una educación de calidad en el instituto tecnológico superior público peruano, con impacto en el sector educativo.

Originalidad/valor: la planificación estratégica en calidad educativa en los institutos tecnológicos superiores públicos peruanos no ha sido ampliamente explorada, por lo que este estudio es un aporte original, ya que la mayoría de las investigaciones se han centrado en otros niveles educativos.

Palabras clave: planificación estratégica, educación, calidad educativa, instituto tecnológico, objetivos de desarrollo sostenible (SDGs).

1 INTRODUCTION

In recent decades, academic institutions have faced several changes, on the one hand, they must improve their educational quality, on the other hand they must adapt to the social, economic, political and health context of each country; That is why educational systems have implemented different forms of alternative education to provide continuity to their institutional policies so that students continue their educational process (Bozkurt & Sharma, 2020; García
et al., 2018). In this sense, various investigations have demonstrated the multiple benefits of strategic planning in educational institutions, that is, those institutions that implement strategic planning have superior performance and are more competitive, which allows them to respond to society with quality and academic excellence (Díaz and Villafuerte, 2022, García et al., 2018, Suárez et al., 2020).

In the international context, technical and vocational training must face the challenges of globalization, technological progress, demographic transition and climate change; however, its quality is fundamentally affected by lack of accessibility and equity (International Labor Organization [ILO], 2023), because although access to higher education increased from 19% to 38%, gender gaps still persist (Perilla, 2024), since access grew to 36% for men and for women reached 41% (United Nations Educational, Scientific and Cultural Organization [UNESCO], 2023); This shows that there are still large differences between the regions since many of these institutions focus on offering technical skills, but they do not offer what students or companies need, such as cognitive, digital or business skills, and students do not receive good services. due to poor teacher preparation, poor infrastructure and obsolete equipment (ILO, 2023).

In Latin America, public and private institutions formulate their strategic plans according to their internal functioning and the achievement of goals, however they do not analyze the external factors that impact strategies and activities, which plays a vital role in aligning resources. to the objectives of an institution and make strategic decisions (Diaz and Villafuerte, 2022). That is why in underdeveloped countries, the implementation of educational strategic plans faces important challenges, such as organizational bureaucracy, deficient State policies and the lack of qualified personnel to properly execute them, which limits the adequate conclusion of these planning processes. (Díaz and Villafuerte, 2022). This situation denotes that the application of strategic planning is complex for some institutions since it depends on the environment, resources, culture, organizational environment and the actors involved; as well as the lack of knowledge and poor management of management tools (George et al., 2019), which limits institutional progress and therefore educational quality (Suárez et al., 2020).
Higher and technical-productive education (ESTP) in Peru has a low valuation and little social recognition, especially in the productive sector, this is mainly due to the fact that said education lacks a broad education that develops solid skills in students to adapt to the demands of the work context, on the other hand there is low access to this type of education, since 65.78% of enrollment is at the university level, while 20.57% is in technological institutes; However, the labor market only needs 31.9% professionals, of which 6.5% correspond to university students and 25.4% to graduates of technological higher education, this results in 22.5% of graduates between 25 and 35 years old are underemployed (Ministry of Education [MINEDU], 2020). This situation shows a weak articulation between the demand of the productive sphere and the educational offer, which makes it difficult to develop skills in accordance with the demands of the labor market (MINEDU, 2020).

One of the purposes of the MINEDU is to ensure that technical-productive education institutions have quality training, which must be carried out in an articulated manner with the decentralized educational management entities (MINEDU, 2022). However, to date Only 105 institutes of higher technological education have licensing at the national level, of which 94% are private and 6% are public; likewise 23 institutes of higher technological education are located in Metropolitan Lima, however none of them have licensing, that is to say that They do not have the basic conditions to offer a quality educational service (MINEDU, 2023).

On the other hand, the care coverage of public technical education institutions in Peru is low, because only 30% of these institutions are public (MINEDU, 2020), on the one hand this is due to the belief that in public institutions the educational quality in is precarious compared to that offered by the private sector; On the other hand, it is due to the limited labor supply that graduates have to obtain employment in public or private organizations, since the educational and labor skills obtained are not ideal to perform according to the technological advances of the current labor market; This is mainly due to poor educational management and high turnover of managers, which causes a lack of continuity in management; This situation leads to inadequate planning, management and budget execution, therefore, poor
educational quality (Kevans, 2022). This situation is framed in the opinion of young technical professionals, since more than 40% of them affirm that, if they could choose again, they would choose to study at a university, this indicates that graduates from technological institutes did not cover the professional expectations, which questions the educational quality of these institutions (Kevans, 2022).

In the public technological higher education institute subject to research, there is a deterioration in the infrastructure, the equipment and teaching modules are insufficient, there is also an inadequate implementation of the virtual library, there are no virtual classrooms, in addition there is a lack of training and evaluation of administrative staff and teachers, the agreements for the development of their practices are not approved, there is also student dropout and students with deficiencies in their basic training. On the other hand, there are low-quality research projects, as well as study plans not appropriate to current regulations and insufficient institutional planning, all of which could influence the educational quality of said institution (public technological higher education institute “José Pardo” [IESTP “JP”], 2019).

On the other hand, Sustainable Development Goal (SDG) 4 towards 2030 indicates that it is essential to ensure fair, comprehensive and quality education to promote lifelong learning for all (Stefani et al., 2024), which contributes to sustainable development, since it is a powerful tool to transform people and contribute to the achievement of a more equitable world, in addition, it is important to end poverty, reduce inequality and achieve gender equality (United Nations Organization[ UN], 2023). Strategic planning is essential for educational institutions to improve the quality of their educational offering since through this process they can establish clear goals and objectives, as well as adapt to the changing context, optimize the use of resources, be more competitive and achieve long-term sustainability (Carriazo et al., 2020). That is why the purpose of the study was to determine the influence of strategic planning on the educational quality of a Peruvian public technological higher institute.
2 THEORETICAL FRAMEWORK

Strategic planning is a systematic process that allows the formulation, execution and evaluation of strategies to achieve the stated objectives, correctly using resources and making the right decisions to optimize results (García et al., 2017). In this sense, strategy formulation encompasses the establishment of a vision and mission, as well as the description of weaknesses and strengths, external threats and opportunities, formulating long-term objectives, analyzing and choosing strategies to implement, the execution of strategies helps to institutions to focus on results and performance, articulating the budget, objectives, strategies, strategic actions and information systems, which contribute to the vision and mission of the entity as well as its performance and the Strategy evaluation is the final stage in which managers need to know when strategies are not being developed adequately and need to be evaluated to obtain information, which is why all strategies are prone to future changes since internal and external factors They are constantly changing (García et al., 2017), therefore, the evaluation procedures must be carried out constantly and not at the end of the deadlines or after problems occur, in this way the institution can take advantage of its strengths and opportunities, as well as recognizing their threats and overcoming their weaknesses, which will allow them to have a vision for the future, as well as measure the results of the development and operation of strategic plans (Miranda-Ullón et al., 2017).

Educational quality is a fundamental right of all people based on principles of free, compulsory and non-discrimination, which is characterized by being equitable, relevant, pertinent, effective and efficient (UNESCO, 2008). Equity consists of providing quality education for all, taking into account the cultural, geographical and personal characteristics of the students (Menacho-Vargas et al., 2021. The relevance of educational quality indicates that education must be meaningful for students. with different social conditions, cultures, skills and interests, so that they can develop as citizens with autonomy, freedom and identity, that is, relevance ensures the integration of students into the educational system to achieve meaningful learning (Caro and Kárpava, 2020). On the other hand, education will be relevant as long as it
promotes meaningful learning to satisfy the social demand of students that allows them to achieve personal and social development, this means improving their cognitive and socio-emotional development, which promotes freedom, respect for rights, and human dignity (Gamage, et al., 2021; Menacho-Vargas et al., 2021). The effectiveness of educational quality is the proportion of achievement of educational objectives, with respect to equity, relevance and educational relevance; In this sense, an effective educational institution is one that achieves comprehensive development of students, considering their academic performance, social, economic and cultural environment (Menacho-Vargas et al., 2021). Likewise, the efficiency of educational quality is the association between the desired educational purposes and the learning achieved, through the optimal use of the means intended for it (Menacho-Vargas et al., 2021).

3 METHODOLOGY

A basic, quantitative study was carried out with a non-experimental cross-sectional design and an explanatory level. The study population was made up of 92 teachers from a Peruvian public technological higher institute, whose sample was made up of 74 teachers with a simple random sampling. Teachers who had an academic load at the higher technological institute that was the subject of study were included, and teachers who were not working at the institution at the time of conducting the survey were excluded.

The technique used for data collection was the survey and the instrument used was a questionnaire to evaluate both variables. For the strategic planning variable, a 22-question questionnaire adapted from Quispe (2018) was used, divided into 3 dimensions (strategy formulation, strategy execution, and strategy evaluation). For the educational quality variable, a 20-question questionnaire adapted from Quispe (2018) was used. Anchundia (2019) divided into 4 dimensions (equity, relevance, relevance, efficacy-effectiveness). Each response was evaluated using a Likert scale (1=never, 2=almost never, 3=sometimes, 4=almost always, 5=always). Likewise, the alpha coefficient was used to find the reliability of the instruments. of Cronbach through a pilot study.
with 15 respondents, the value of this coefficient for the strategic planning variable was 0.973 and the value for the educational quality variable was 0.977 which indicates high reliability of the instruments.

The data obtained were transferred to an Excel database and then imported into the SPSS v.28 software to perform the respective data analysis. To carry out the analysis of the data, descriptive statistics were used, through absolute and relative frequencies, inferential analysis was also used to know the influence of the independent variable with respect to the dependent variable, for this the logistic regression test was used. ordinal taking into account a significance level <0.05.

The research was carried out according to the Code of Ethics of the César Vallejo University, and received approval from the Ethics Committee (code No. 001331). Likewise, each teacher was voluntarily invited to participate in the research for which they signed a signed consent and the ethical principles of beneficence, non-maleficence, justice and autonomy were respected. In addition, the data obtained was not modified or altered; once processed, they were eliminated.

4 RESULTS AND DISCUSSION

Strategic planning is fundamental in institutions, since it allows identifying strengths and weaknesses, establishing clear and measurable objectives, in addition, the execution of strategies and the evaluation of said strategies ensure that the actions implemented are aligned with the established objectives, which guarantees a coherent and effective approach to improve educational quality Diaz and Villafuerte,2022;Menacho Vargas et al.,2021). Therefore, the objective of this research was to determine the influence of strategic planning on educational quality in a public technological higher education institute in Metropolitan Lima.

The results show that 60.8% of teachers perceive that strategic planning is at an achieved level, 28.4% indicate that it is in process and 10.8% report that it is at an initial level. 67.6% perceive that educational quality has a high level.
25.7% indicate that it is at a medium level and 6.8% indicate that it is at a low level (Table 1).

Table 1

Descriptive analysis of the variable strategic planning and educational quality

<table>
<thead>
<tr>
<th>Strategic planning</th>
<th>Frequency</th>
<th>Percentage</th>
<th>Educational quality</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inicio</td>
<td></td>
<td></td>
<td>Bajo</td>
<td>5</td>
<td>6.8</td>
</tr>
<tr>
<td>Proceso</td>
<td>21</td>
<td>28.4</td>
<td>Medio</td>
<td>19</td>
<td>25.7</td>
</tr>
<tr>
<td>Logrado</td>
<td>45</td>
<td>60.8</td>
<td>Alto</td>
<td>50</td>
<td>67.6</td>
</tr>
<tr>
<td>Total</td>
<td>74</td>
<td>100.0</td>
<td>Total</td>
<td>74</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The results indicate that the Chi square value is 30.000 and p-value is <0.001, which is lower than the statistical significance (p <0.05), that is, the variable data are not independent, which implies a influence of strategic planning on educational quality (Table 2). On the other hand, it was found that the value of Pseudo R squared, through Nagelkerke, is 0.418, this means that there is a 41.8% influence of strategic planning on educational quality. These findings are similar to the research of Galarraga-Tobar et al. (2022) who point out that there is a significant and positive association between strategic planning and educational quality in a university. It also agrees with the study by García (2020) who found that there is a significant association between strategic planning and educational quality in educational entities. Likewise, these findings are similar to the study by Mallqui and Escudero (2022) who found a significant influence of strategic planning on educational quality in educational entities. This means that it is essential to establish adequate strategic planning to guarantee efficient and effective education, since the better structured the strategic planning of the institution is, the better its performance will be to achieve quality education at the Peruvian public technological higher institute Carriazo. et al. (2020)
Likewise, it is observed that the Chi square value is 21.727 and p-value is < 0.001, which is less than the statistical significance (p < 0.05), therefore, the variable data are not independent, that is which implies an influence of the formulation of strategies with educational quality (Table 3). Likewise, the value of Pseudo R square, through Nagelkerke, is 0.319, this means that there is an influence of 31.9% of the formulation of strategies on educational quality. These results agree with what was reported by Ruiz (2021), who points out that the formulation of strategies has a positive and significant relationship with educational quality in a Peruvian educational network. They are also similar to the study by Galarraga-Tobar et al. (2022) who point out that fundamental components of strategy formulation such as mission, vision, and SWOT analysis were positively and significantly correlated with educational quality. This means that strategy formulation is a key element of strategic planning because it establishes clear objectives, guides decision making, improves educational management, promotes innovation and helps improve the quality of education (Díaz and Villafuerte, 2022). Therefore, by improving the formulation of the strategy, the performance of the institution will be improved to ensure quality education in the higher technological institute subject of study.

On the other hand, it can be seen that the Chi square value is 28.498 and p-value is < 0.001, which is lower than the statistical significance (α<0.05), that is, the variable data are not independent, which implies an influence of the
execution of strategies on educational quality (Table 4). In addition, it is observed that the value of Pseudo R squared, through Nagelkerke, is 0.401, that is, there is an influence of 40.1% of the execution of strategies on educational quality. These results agree with what was reported by Ruiz (2021) who points out that the execution of strategies is positively and significantly associated with educational quality in an educational network in Lima. This means that good execution of planning strategies allows educational institutions to act proactively and effectively to achieve their vision and mission and thus provide quality education (Díaz and Villafuerte, 2022), and also favors the effective implementation of actions. that are designed to improve various educational aspects, this allows the educational institution to systematically and organizedly address critical areas and processes in the institution which contributes to directly raising educational quality, for this reason it can be noted that by improving the Execution of strategies will improve the performance of the institution to provide quality education (Díaz and Villafuerte, 2022).

Table 4

<table>
<thead>
<tr>
<th>Model</th>
<th>Logarithm of the plausibility -2</th>
<th>Chi square</th>
<th>gl</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intersection only</td>
<td>48,983</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Final</td>
<td>20,485</td>
<td>28,498</td>
<td>2</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

Link function: Logit

Furthermore, the results indicate that the Chi square value is 30,000 and p value is < 0.001, which is lower than the statistical significance (α<0.05), that is, the data of the variables are not independent, which implies an influence of the evaluation of strategies in educational quality (Table 5), it can also be seen that the value of Pseudo R square, through Nagelkerke, is 0.418, this means that there is influence in 41.8% of the formulation of strategies in educational quality. These results agree with what was reported by Ruiz (2021) who points out that the evaluation of strategies is positively and significantly associated with educational quality in a Peruvian educational network. In turn, Priyambodo and Hasanah (2021) indicate that strategy evaluation allows
evaluating the strategic planning process, that is, it allows determining whether the strategic actions implemented by the institution are in accordance with the strategic formulation that has been carried out, it can help to improve educational quality in an institution. For their part, Vélez et al. (2022) state that if evaluation indicators are included in each administrative area, the strategies will be implemented appropriately, which promotes high-quality education. This means that the evaluation of strategies provides feedback on the effectiveness of the implemented actions, allowing areas for improvement to be identified, adapting educational methods and establishing changes to improve educational quality, therefore, improving the evaluation of strategies will improve the performance of the institution to achieve quality education in the institution (Díaz and Villafuerte, 2022; García, 2017).

Table 5

Model adjustment information: evaluation of strategies and educational quality

<table>
<thead>
<tr>
<th>Model</th>
<th>Logarithm of the plausibility -2</th>
<th>Chi square</th>
<th>gl</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intersection only</td>
<td>50,585</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Final</td>
<td>20,585</td>
<td>30,000</td>
<td>2</td>
<td>&lt;0,001</td>
</tr>
</tbody>
</table>

Link function: Logit

This research is important since strategic planning is fundamental for educational institutions because it allows establishing clear goals and objectives, as well as adapting to the context, optimizing the use of resources, and strategic planning plays an important role in aligning the resources of the institution. around strategic objectives, as well as improving management to make strategic decisions, being more competitive and achieving sustainability, all of which contributes to improving the quality of its educational offer (Díaz and Villafuerte, 2022).

Within the limitations of this research, it is worth mentioning that it was not possible to carry out a comparative study with other technological higher education institutes, both public and private, in Peru. Therefore, the results obtained cannot be extrapolated in a generalized manner to the entire technological higher education system of the country.
According to the results obtained, it is recommended that the director of the institute continue strengthening and prioritizing strategic planning, maintaining a solid focus and implementing actions based on careful planning to maintain educational quality. It is also recommended to involve the community in the formulation of strategies and plans in order to ensure their commitment. In addition, it is recommended to manage the necessary economic, human and material resources, including qualified personnel, adequate infrastructure and equipment, as well as financial management that guarantees their availability. Finally, it is recommended to implement surveillance and evaluation methods to verify compliance with objectives and the effectiveness of the strategies.

5 CONCLUSION

Strategic planning significantly influences educational quality, Peruvian public technological higher education institute, showing an influence of 41.8%, which demonstrates its importance as a determining factor of educational quality. Therefore, it is recommended to implement a comprehensive strategic planning process that involves all key actors, manage the necessary resources, as well as monitoring and evaluation mechanisms in order to guarantee quality education that responds to the needs of the current context.
REFERENCES


George, B., Walker, R.M. &Monster, J. (2019), Does Strategic Planning Improve


Organización de las Naciones Unidas para la Educación, la Ciencia y la Cultura [UNESCO]. (2020).*Informe de la UNESCO IESALC revela que el acceso a la
educación superior pasó de 19% a 38% en las últimas dos décadas. 


