International Journal of Multidisciplinary Research and Publications
ISSN (Online): 2581-6187

Leveraging Technology to Enhance the Economic Opportunities and Posturing Career Growth of TLE Teachers

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Abstract*—This study examined the extent to which TLE/TVL teachers leverage technology in terms of access to educational technology, technological proficiency, integration of technology in the curriculum, and support systems for technological integration, as well as its relationship with economic opportunities and career growth. Economic opportunities include income or livelihood opportunities, entrepreneurial skills, and industry partnerships, while career growth indicators cover job stability, cross-disciplinary skills, and continuing education. A descriptive-correlational research design was employed, involving 72 TLE/TVL teachers from Pedro Guevara Memorial National High School, Santa Cruz Integrated National High School, and Gov. Felicisimo T. San Luis Senior High School. Data were gathered using a validated researcher-made questionnaire measured through a Likert scale. Frequency, mean, and standard deviation were used to determine the level of leveraging technology, while Pearson product-moment correlation was used to analyze the relationships between technology utilization and the identified economic and career growth variables. The findings revealed that TLE teachers demonstrate a very high level of leveraging technology across all dimensions, including access to digital tools, technological proficiency, curriculum integration, and support systems. Likewise, economic opportunities were found to be very high across all indicators, with technology strongly supporting income generation, entrepreneurial skills, and industry partnerships. Similarly, career growth was also very high across all indicators, showing strong outcomes in job stability, cross-disciplinary skills, and continuing education. Correlation analysis showed a significant positive relationship between leveraging technology and economic opportunities. However, no significant relationship was found between leveraging technology and career growth. There is a significant relationship between leveraging technology and economic opportunities, leading to the rejection of the first null hypothesis. This means that higher levels of access to educational technology, stronger technological proficiency, and effective integration of technology in instruction are associated with improved economic outcomes. However, there is no significant relationship between leveraging technology and career growth, resulting in the acceptance of the second null hypothesis. This concludes that while technology plays a crucial role in enhancing the economic empowerment of TLE teachers, its direct influence on career growth indicators remains limited in this study. It is recommended that teachers are encouraged to continuously engage in professional development activities such as trainings, workshops, and self-learning to further enhance their technological proficiency, maximize economic opportunities, and sustain their engagement in entrepreneurial and industry-related activities.*

***Keywords*—** *Technology Integration, TLE Teachers, Economic Opportunities, Career Growth, Technological Proficiency, Curriculum Integration, Entrepreneurial Skills, Industry Partnerships, Professional Development, Education Technology*

I. INTRODUCTION

The rapid advancement of technology has revolutionized various industries, including education, significantly influencing teaching methodologies, professional development, and career trajectories. In today's digital era, integrating technology into the classroom is no longer optional but essential, particularly for Technology and Livelihood Education (TLE) teachers whose mandate is to develop practical, industry-aligned skills among learners. As workplaces increasingly demand technologically competent and innovative workers, TLE educators are expected not only to teach technical skills but also to model adaptability, entrepreneurship, and continuous professional growth.

For TLE teachers, the effective use of technology extends beyond improving classroom instruction. Teachers can use digital technologies to improve their professional skills, increase their teaching toolkit, and boost their chances of career advancement, especially for people who wish to become Master Teachers. Technology-enabled teaching practices such as digital lesson design, online assessment tools, and virtual learning platforms contribute to improved teaching performance, which is a key criterion in promotion and professional recognition. At the same time, technology opens pathways for economic opportunities that complement teachers' career growth. Through digital platforms, TLE teachers can engage in entrepreneurial activities aligned with their field of expertise, such as online tutorials, skills-based training, digital content creation, and small-scale technology-supported enterprises. These technology-driven economic activities not only provide additional income but also enhance teachers' professional identity by reinforcing their role as skilled practitioners and innovators. Consequently, economic empowerment and career advancement become interconnected outcomes of effective technology utilization.

This study seeks to examine how leveraging technology can simultaneously support the economic opportunities and career growth of TLE teachers. Specifically, it explores how technology enhances instructional effectiveness, facilitates professional development, and enables income-generating activities that contribute to teachers' long-term career stability and advancement. Understanding this connection is essential

Florian Hibas Maas, "Leveraging Technology to Enhance the Economic Opportunities and Posturing Career Growth of TLE Teachers," *International Journal of Multidisciplinary Research and Publications (IJMRAP)*, Volume 9, Issue 2, pp. 864-872, July 2026.

in recognizing technology as a strategic tool not only for teaching and learning but also for strengthening the professional and economic well-being of TLE educators.

1.1 Statement of the Problem

Problem/s which were addressed by the research

This study aimed to examine the current state of leveraging technology to enhance the economic opportunities and career growth of TLE teachers, identify the factors affecting its effectiveness, and propose strategies to maximize its impact on teaching and learning. It sought to address the following research questions:

1. What is the level of evaluating the Leveraging Technology of TLE Teachers in terms of:
   1.1 Access to Educational Technology;
   1.2 technological proficiency of Teachers;
   1.3 integration of Technology in the Curriculum; and
   1.4 support Systems for Technological Integration?
2. What is the level of evaluating the Economic Opportunities of TLE Teachers in terms of:
   2.1 Income or Livelihood Opportunities;
   2.2 entrepreneurial Skills; and
   2.3 industry Partnership?
3. What is the level of evaluating the Career Growth of TLE Teachers in terms of:
   3.1 Job Stability;
   3.2 cross Disciplinary Skills;
   3.3 continuing Education?
4. Is there a significant relationship between Leveraging Technology and Economic Opportunities of TLE teachers?
5. Is there a significant relationship between Leveraging Technology and Career Growth of TLE teachers?

II. Methodology

A descriptive-correlational research design was employed, involving 72 TLE/TVL teachers from Pedro Guevara Memorial National High School, Santa Cruz Integrated National High School, and Gov. Felicisimo T. San Luis Senior High School. Data were gathered using a validated researcher-made questionnaire measured through a Likert scale. The degree of technology leveraging was evaluated using frequency, mean, and standard deviation, and Pearson product-moment correlation was utilized to examine the relationships between technology utilization and the specified economic and career growth factors.

III. Results and Discussion

This part discusses the results that were yielded from the treatment of the data that was gathered in this study. The following tabular presentations and discussions further characterize how leveraging technology enhance the economic opportunities and posturing career growth of TLE teachers.

Level of Evaluating the Leveraging Technology of TLE Teachers

In this study, the level of evaluating the leveraging technology of TLE teachers were describe in terms of access to educational technology, technological proficiency of teachers, integration of technology in the curriculum and support systems for technological integration and was determined through mean and standard deviation.

The following tables indicate TLE teachers' competence in utilizing digital tools for the improvement of teaching and learning.

Table 1 presents the level of evaluating the leveraging technology of TLE teachers in terms of access to educational technology. The findings show that teachers generally demonstrate a very high level of access to educational technologies used in instruction, reflecting favorable conditions for the integration of digital tools in TLE teaching and learning.

The results further indicate that TLE/TVL teachers possess very high access to and utilization of educational technology in support of effective instruction. The highest mean was obtained from the indicator on teachers' consistent access to updated technologies such as computers, laptops, tablets, projectors, and other digital tools, with a mean of 4.97 (SD = 0.16), interpreted as Strongly Agree, implying that schools sufficiently provide essential technological resources. This is followed by access to software programs, online platforms, and digital applications aligned with the TLE curriculum, which yielded a mean of 4.94 (SD = 0.23), also interpreted as Strongly Agree, indicating strong institutional support for technology integration. Likewise, teachers strongly agreed that technological infrastructure enhances instructional quality, as reflected in the mean of 4.89 (SD = 0.31), showing that digital tools contribute significantly to improved lesson delivery and learner engagement.

Table 1. Level of Evaluating the Leveraging Technology of TLE Teachers in terms of Access to Educational Technology

Statements	Mean	SD	Remarks
….The TLE/TVL teachers are consistent and have sufficient access to updated educational technologies such as computers, laptops, tablets, projectors, and other digital tools that support their teaching in TLE.	4.97	0.16	Strongly Agree
….The availability of internet connection and reliable devices in school environment allows TLE/TVL teachers to efficiently prepare lessons and deliver instruction to their students.	4.79	0.41	Strongly Agree
…The school provides TLE/TVL teachers with adequate access to software programs, online platforms, and digital applications that are directly relevant to the TLE curriculum.	4.94	0.23	Strongly Agree
…The TLE/TVL teachers believe that the presence of technological infrastructure in their teaching environment significantly enhances the quality of instruction I provide to learners.	4.89	0.31	Strongly Agree
…The limited access to educational technology in some instances hinders TLE/TVL teachers from fully integrating innovative teaching methods in their TLE classes.	4.89	0.31	Strongly Agree
Weighted Mean	4.90		
SD	0.30		
Verbal Interpretation	Very High		

Conversely, the availability of reliable internet connection and functional devices for instructional preparation and

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delivery obtained the lowest mean of 4.79 (SD = 0.41), though still interpreted as Strongly Agree, suggesting that occasional issues related to connectivity and device reliability are still experienced. Similarly, teachers strongly agreed that limited access to educational technology may hinder the full implementation of innovative teaching strategies, with a mean of 4.89 (SD = 0.31). Overall, the dimension obtained a weighted mean of 4.90 (SD = 0.30), verbally interpreted as Very High, indicating that TLE teachers are highly capable of accessing and utilizing educational technologies, with schools providing substantial support while still recognizing areas for improvement.

Overall, the level of evaluating the leveraging technology of TLE teachers in terms of access to educational technology obtained a weighted mean of 4.90 (SD = 0.30), interpreted as Very High. This suggests that respondents strongly perceive TLE teachers as highly proficient in accessing and using educational technologies in classroom instruction. The findings highlight that schools provide strong technological support, enabling effective integration of digital resources in teaching, while also acknowledging certain limitations that need continued attention.

Table 2. Level of Evaluating the Leveraging Technology of TLE Teachers in terms of Technological Proficiency of Teachers

Statements	Mean	SD	Remarks
…The TLE/TVL teachers are confident in their ability to operate computers, laptops, and other devices for instructional purposes their TLE classes.	4.93	0.25	Strongly Agree
…The TLE/TVL teachers possess adequate skills in using productivity tools such as Microsoft Office, Google Workspace, and other similar applications for lesson preparation.	4.89	0.31	Strongly Agree
…The TLE/TVL teachers' level of technological proficiency allows them to effectively utilize online learning platforms such as Google Classroom, Microsoft Teams, or Zoom in managing TLE instruction.	4.93	0.25	Strongly Agree
…The TLE/TVL teachers are continuously developing their skills in using modern digital tools and applications that are relevant to the TLE curriculum.	4.96	0.20	Strongly Agree
…The TLE/TVL teachers' confidence in using technology contributes positively to their effectiveness as a TLE/TVL teacher.	4.93	0.25	Strongly Agree
Weighted Mean	4.93		
SD	0.26		
Verbal Interpretation	Very High		

Table 2 presents the level of evaluating the leveraging technology of TLE teachers in terms of technological proficiency. The findings show that teachers demonstrate a very high level of technological proficiency, indicating strong confidence, competence, and continuous development in using digital tools for instructional purposes.

The results indicate that TLE/TVL teachers are highly confident in operating computers, laptops, and other digital devices for instruction, as reflected in the mean of 4.93 (SD = 0.25), interpreted as Strongly Agree, suggesting strong foundational ICT skills. Likewise, proficiency in using productivity tools such as Microsoft Office and Google Workspace obtained a mean of 4.89 (SD = 0.31), also Strongly Agree, indicating efficiency in lesson preparation and instructional tasks. Teachers also strongly agreed that their technological proficiency enables them to effectively use online platforms such as Google Classroom, Microsoft Teams, and Zoom, with a mean of 4.93 (SD = 0.25), reflecting strong capability in managing digital learning environments. In addition, continuous development of skills in modern digital tools relevant to the TLE curriculum obtained the highest mean of 4.96 (SD = 0.20), showing active engagement in upgrading technological competencies. Lastly, teachers strongly agreed that their confidence in using technology contributes positively to their teaching effectiveness, with a mean of 4.93 (SD = 0.25), emphasizing the role of confidence in instructional performance.

Overall, the dimension obtained a weighted mean of 4.93 (SD = 0.26), verbally interpreted as Very High, indicating that TLE teachers possess strong technological proficiency and confidence in integrating digital tools in instruction, resulting in more efficient and effective teaching and learning processes.

Table 3. Level of Evaluating the Leveraging Technology of TLE Teachers in terms of Integration of Technology in the Curriculum

Statements	Mean	SD	Remarks
…The TLE/TVL teachers regularly incorporate digital tools and online resources into their lesson plans and classroom activities in TLE.	4.86	0.35	Strongly Agree
…The use of multimedia presentations, simulations, and online applications enhances student engagement and understanding in the TLE classes of TLE/TVL teachers.	4.94	0.23	Strongly Agree
…The TLE/TVL teachers design learning activities that integrate technology in ways that are aligned with the objectives of the TLE curriculum.	5.00	0.00	Strongly Agree
…Integrating technology in the TLE curriculum helps the TLE/TVL teachers create more interactive and meaningful learning experiences for students.	4.88	0.33	Strongly Agree
…The TLE/TVL teachers believe that the integration of technology in teaching and learning makes students more competitive and prepared for real-world applications.	4.97	0.16	Strongly Agree
Weighted Mean	4.93		
SD	0.25		
Verbal Interpretation	Very High		

Table 3 presents the level of evaluating the leveraging technology of TLE teachers in terms of integration of technology in the curriculum. The findings show that TLE/TVL teachers demonstrate a very high level of competence in integrating technology into curriculum implementation, indicating purposeful and consistent use of digital tools to enhance teaching and learning.

The results reveal that teachers regularly incorporate digital tools and online resources into their lesson plans and classroom activities, as reflected in a mean of 4.86 (SD = 0.35), interpreted as Strongly Agree, indicating consistent integration of technology in instructional planning. The use of multimedia presentations, simulations, and online applications obtained a mean of 4.94 (SD = 0.23), also Strongly Agree,

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showing that these tools enhance student engagement and understanding in TLE lessons. Teachers likewise strongly agreed that they design learning activities aligned with TLE curriculum objectives, which obtained the highest mean of 5.00 (SD = 0.00), indicating full agreement on the purposeful alignment of technology with learning goals. In addition, integrating technology to create more interactive and meaningful learning experiences obtained a mean of 4.88 (SD = 0.33), while preparing students for real-world applications through technology integration obtained a mean of 4.97 (SD = 0.16), both interpreted as Strongly Agree, emphasizing the role of technology in improving learner engagement and readiness for practical applications.

Overall, the level of evaluating the leveraging technology of TLE teachers in terms of integration of technology in the curriculum obtained a weighted mean of 4.93 (SD = 0.25), verbally interpreted as Very High, indicating that teachers effectively and intentionally integrate technology in curriculum delivery. This suggests that technology use is not only frequent but also aligned with instructional objectives, resulting in more interactive, meaningful, and application-based learning experiences for students.

Table 4. Level of Evaluating the Leveraging Technology of TLE Teachers in terms of Support Systems for Technological Integration

Statements	Mean	SD	Remarks
…The school administration provides sufficient technical support and guidance for teachers in using educational technologies.	4.97	0.16	Strongly Agree
…The TLE/TVL teachers receive adequate training and seminars on how to integrate technology effectively into TLE teaching practices.	4.94	0.23	Strongly Agree
…Peer mentoring and collaboration with colleagues help the TLE/TVL teachers learn new technological strategies for teaching.	4.93	0.25	Strongly Agree
…The school's management prioritizes funding and resource allocation to strengthen the technological capacity of teachers.	4.97	0.16	Strongly Agree
…The TLE/TVL teachers feel supported by their school when it comes to exploring new technologies and incorporating them into the lessons.	4.93	0.25	Strongly Agree
Weighted Mean	4.95		
SD	0.22		
Verbal Interpretation	Very High		

Table 4 presents the level of evaluating the leveraging technology of TLE teachers in terms of support systems for technological integration. The findings show that teachers experience a very high level of institutional and collegial support, indicating that strong support mechanisms are in place to facilitate effective technology integration in TLE instruction.

The results indicate that school administration provides sufficient technical support and guidance to teachers in using educational technologies, as reflected in a mean of 4.97 (SD = 0.16), interpreted as Strongly Agree, suggesting strong administrative assistance in technology use. Likewise, teachers strongly agreed that they receive adequate training and seminars on technology integration, with a mean of 4.94 (SD = 0.23), indicating continuous professional development opportunities. Peer mentoring and collaboration with colleagues obtained a mean of 4.93 (SD = 0.25), also Strongly Agree, showing that collaborative learning supports the adoption of new technological strategies.

In addition, prioritization of funding and resource allocation by school management obtained a mean of 4.97 (SD = 0.16), reflecting strong institutional commitment to strengthening technological capacity. Lastly, teachers strongly agreed that they feel supported in exploring and integrating new technologies in their lessons, with a mean of 4.93 (SD = 0.25), emphasizing a supportive school environment for innovation.

Overall, the level of evaluating the leveraging technology of TLE teachers in terms of support systems for technological integration obtained a weighted mean of 4.95 (SD = 0.22), verbally interpreted as Very High, indicating that strong administrative, technical, and peer support systems are consistently available. This suggests that teachers are well-supported in developing their technological competencies and in effectively integrating technology into their teaching practices.

Level of Evaluating the Economic Opportunities of TLE Teachers

In this study, the level of evaluating the economic opportunities of TLE/TVL teachers was described in terms of income or livelihood opportunities, entrepreneurial skills, and industry partnerships, and was determined through mean and standard deviation. The following tables present TLE teachers' capacity to leverage technology in generating income, developing entrepreneurial competence, and establishing industry linkages that enhance career growth and professional development.

Table 5. Level of Evaluating the Economic Opportunities of TLE Teachers in terms of Income or Livelihood Opportunities

Statements	Mean	SD	Remarks
…Leveraging technology has opened opportunities for the TLE/TVL teachers to explore income-generating projects related to their TLE specialization.	4.89	0.31	Strongly Agree
…The TLE/TVL teachers have been able to use technology to market products or services connected to TLE, thereby improving their livelihood opportunities.	4.96	0.20	Strongly Agree
…Online platforms and digital tools enable the TLE/TVL teachers to showcase their TLE expertise beyond the classroom setting, creating additional financial opportunities.	4.96	0.20	Strongly Agree
…The TLE/TVL teachers believe that technology helps them maximize their potential to earn additional income through freelancing, online selling, or consultancy.	4.94	0.23	Strongly Agree
…The TLE/TVL teachers used digital platforms to collaborate with industries or private institutions that provide financial benefits.	5.00	0.00	Strongly Agree
Weighted Mean	4.95		
SD	0.22		
Verbal Interpretation	Very High		

Table 5 presents the level of evaluating the economic opportunities of TLE teachers in terms of income or livelihood

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opportunities. The findings show that teachers perceive a very high level of economic benefits from leveraging technology, indicating that digital tools significantly contribute to income-generating activities aligned with their specialization.

The results indicate that leveraging technology has opened opportunities for income-generating projects related to TLE specialization, as reflected in a mean of 4.89 (SD = 0.31), interpreted as Strongly Agree, suggesting that teachers recognize technology as a tool for livelihood development. Similarly, using technology to promote TLE-related products or services received a mean of 4.96 (SD = 0.20), also Strongly Agree, showing strong engagement in digital marketing for income generation. Similarly, the use of online platforms and digital tools to showcase TLE expertise beyond the classroom obtained a mean of 4.96 (SD = 0.20), indicating expanded professional visibility and additional financial opportunities. With an average of 4.94 (SD = 0.23), demonstrating a range of income streams, instructors also firmly believe that technology contributes to maximizing earning potential via freelancing, internet selling, or consulting. In addition, collaboration with industries and private institutions through digital platforms obtained the highest mean of 5.00 (SD = 0.00), indicating full agreement on the strong role of technology in establishing professional and financial linkages.

Overall, the level of evaluating the economic opportunities of TLE teachers in terms of income or livelihood opportunities obtained a weighted mean of 4.95 (SD = 0.22), verbally interpreted as Very High, indicating that technology significantly expands teachers' economic prospects. This suggests that digital platforms not only enhance instructional practices but also serve as viable avenues for financial growth and professional advancement.

Table 6. Level of Evaluating the Economic Opportunities of TLE Teachers in terms of Entrepreneurial Skills

Statements	Mean	SD	Remarks
…Technology has helped the TLE/TVL teachers enhance their entrepreneurial skills by giving them access to online business resources and training.	4.96	0.20	Strongly Agree
…The TLE/TVL teachers apply technological tools in managing small-scale business ventures or entrepreneurial projects related to TLE.	4.93	0.25	Strongly Agree
…Online platforms such as social media and e-commerce websites support the development of the TLE/TVL teachers' entrepreneurial skills.	5.00	0.00	Strongly Agree
…Leveraging technology enables the TLE/TVL teachers to practice innovative strategies in handling business-related tasks such as inventory, marketing, and customer service.	5.00	0.00	Strongly Agree
…The TLE/TVL teachers believe that digital entrepreneurship opportunities expand their capacity to use TLE skills for income generation.	4.93	0.25	Strongly Agree
Weighted Mean	4.96		
SD	0.19		
Verbal Interpretation	Very High		

Table 6 presents the level of evaluating the economic opportunities of TLE teachers in terms of entrepreneurial skills. The findings show that teachers demonstrate a very high level of entrepreneurial competence supported by technology, indicating that digital tools significantly contribute to the development and application of business-related skills in TLE.

The results indicate that technology has helped teachers enhance their entrepreneurial skills through access to online business resources and training, as reflected in a mean of 4.96 (SD = 0.20), interpreted as Strongly Agree, suggesting strong support for skill development. Likewise, teachers strongly agreed that they apply technological tools in managing small-scale business ventures or entrepreneurial projects related to TLE, with a mean of 4.93 (SD = 0.25), indicating practical use of digital tools in entrepreneurship. Online platforms such as social media and e-commerce websites obtained a mean of 5.00 (SD = 0.00), showing full agreement that these platforms strongly support entrepreneurial skill development. Similarly, leveraging technology for innovative business strategies such as inventory management, marketing, and customer service also obtained a mean of 5.00 (SD = 0.00), indicating maximum agreement on its effectiveness. Lastly, teachers strongly agreed that digital entrepreneurship opportunities expand their capacity to use TLE skills for income generation, with a mean of 4.93 (SD = 0.25), reflecting confidence in technology-driven entrepreneurship.

Overall, the level of evaluating the economic opportunities of TLE teachers in terms of entrepreneurial skills obtained a weighted mean of 4.96 (SD = 0.19), verbally interpreted as Very High, indicating that technology strongly fosters entrepreneurial competence among TLE teachers. This suggests that digital integration not only supports instruction but also enhances practical entrepreneurial abilities and income-generating potential.

Table 7. Level of Evaluating the Economic Opportunities of TLE Teachers in terms of Industry Partnership

Statements	Mean	SD	Remarks
…Technology has enabled the TLE/TVL teachers to establish linkages with industries that support TLE education and teacher development.	4.94	0.23	Strongly Agree
…The TLE/TVL teachers use digital platforms to connect with industry professionals for training, workshops, and collaborative projects.	4.90	0.30	Strongly Agree
…Industry partnerships established through technology provide the TLE/TVL teachers with better exposure to innovations relevant to their TLE specialization.	4.96	0.20	Strongly Agree
…Leveraging technology improves the TLE/TVL teachers access to industry-sponsored livelihood programs and other professional opportunities.	4.92	0.28	Strongly Agree
…The TLE/TVL teachers believe that collaborations with industries strengthen their capacity to provide real-world skills for students.	4.99	0.12	Strongly Agree
Weighted Mean	4.94		
SD	0.23		
Verbal Interpretation	Very High		

Table 7 presents the level of evaluating the economic opportunities of TLE teachers in terms of industry partnership.

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The findings show that teachers demonstrate a very high level of engagement in industry linkages through technology, indicating that digital platforms play a key role in strengthening collaboration between education and industry for professional growth and instructional enhancement.

The results indicate that technology has enabled teachers to establish linkages with industries that support TLE education and teacher development, as reflected in a mean of 4.94 (SD = 0.23), interpreted as Strongly Agree, suggesting strong connectivity with external partners. Likewise, teachers use digital platforms to connect with industry professionals for training, workshops, and collaborative projects, with a mean of 4.90 (SD = 0.30), also Strongly Agree, indicating active participation in professional networking. Industry partnerships established through technology obtained a mean of 4.96 (SD = 0.20), showing strong exposure to innovations relevant to their specialization. In addition, improved access to industry-sponsored livelihood programs and professional opportunities through technology obtained a mean of 4.92 (SD = 0.28), reflecting expanded economic and professional benefits. Lastly, teachers strongly agreed that collaborations with industries strengthen their capacity to provide real-world skills for students, with a mean of 4.99 (SD = 0.12), emphasizing the importance of industry engagement in enhancing instructional relevance.

Overall, the level of evaluating the economic opportunities of TLE teachers in terms of industry partnership obtained a weighted mean of 4.94 (SD = 0.23), verbally interpreted as Very High, indicating that technology effectively facilitates strong industry collaboration. This suggests that digital tools not only support professional development but also strengthen the alignment between education and industry needs, benefiting both teachers and students.

Level of Evaluating the Career Growth of TLE Teachers

In this study, the level of evaluating the career growth of TLE/TVL teachers was described in terms of job stability, cross-disciplinary skills, and continuing education, and was determined through mean and standard deviation. The following tables present TLE teachers' capacity to leverage technology to secure stable employment, develop versatile skills across disciplines, and pursue ongoing professional development, ultimately enhancing their career growth and long-term professional success.

Table 8 presents the level of evaluating the career growth of TLE teachers in terms of job stability. The findings show that teachers perceive a very high level of job stability associated with technological proficiency, indicating that the effective use of technology plays a significant role in strengthening their competence, employability, and long-term career security.

The results indicate that teachers' proficiency in using technology improves job security by enhancing their competence and relevance in the teaching profession, as reflected in a mean of 4.89 (SD = 0.31), interpreted as Strongly Agree, suggesting that technology use contributes to professional stability. Likewise, teachers strongly agreed that continuous adoption of technology increases the likelihood of retaining stable positions in the academic workforce, with a mean of 4.93 (SD = 0.25), indicating that adaptability to technological change supports career continuity. Leveraging technology to strengthen work performance obtained the highest mean of 5.00 (SD = 0.00), showing full agreement that technological competence enhances effectiveness and job stability. Similarly, the ability to integrate technology in teaching to remain competitive also obtained a mean of 5.00 (SD = 0.00), reflecting strong agreement that digital skills are essential for maintaining relevance in the education sector. Teachers further strongly agreed that technological adaptation is now an essential factor in securing and sustaining a teaching career, also with a mean of 5.00 (SD = 0.00), emphasizing its critical role in long-term employment security.

Table 8. Level of Evaluating the Career Growth of TLE Teachers in terms of Job Stability

Statements	Mean	SD	Remarks
The TLE/TVL teachers' proficiency in using technology improves their job security as it makes them more competent and relevant in the teaching profession.	4.89	0.31	Strongly Agree
The TLE/TVL teachers believe that teachers who continuously adopt technology in their practice are more likely to retain stable positions in the academic workforce.	4.93	0.25	Strongly Agree
Leveraging technology strengthens the TLE/TVL teachers' capacity to perform their duties effectively, which contributes to job stability.	5.00	0.00	Strongly Agree
The ability to integrate technology in the TLE/TVL teachers teaching helps me remain competitive in the education sector.	5.00	0.00	Strongly Agree
The TLE/TVL teachers believe that technological adaptation is now an essential factor for securing and sustaining a teaching career.	5.00	0.00	Strongly Agree
Weighted Mean	4.96		
SD	0.19		
Verbal Interpretation	Very High		

Overall, the level of evaluating the career growth of TLE teachers in terms of job stability obtained a weighted mean of 4.96 (SD = 0.19), verbally interpreted as Very High, indicating that technological proficiency strongly contributes to job security, competitiveness, and sustained professional growth among TLE teachers.

Table 9 presents the level of evaluating the career growth of TLE teachers in terms of cross-disciplinary skills. The findings show that teachers demonstrate a very high level of cross-disciplinary competence supported by technology, indicating that digital tools significantly contribute to their ability to integrate knowledge and skills across different learning areas.

Overall, the level of evaluating the career growth of TLE teachers in terms of cross-disciplinary skills obtained a weighted mean of 4.96 (SD = 0.21), verbally interpreted as Very High, indicating that technological proficiency strongly supports the development of cross-disciplinary competencies and career advancement among TLE teachers.

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Table 9. Level of Evaluating the Career Growth of TLE Teachers in terms of Cross Disciplinary Skills

Statements	Mean	SD	Remarks
…Technology allows the TLE/TVL teachers to develop cross-disciplinary skills that extend beyond TLE and into other subject areas.	4.90	0.30	Strongly Agree
…The TLE/TVL teachers believe that their exposure to technology makes them more versatile in applying knowledge across different disciplines.	4.94	0.23	Strongly Agree
…The use of technology enhances the TLE/TVL teachers' ability to collaborate with teachers from other fields to create interdisciplinary projects.	4.99	0.12	Strongly Agree
…Leveraging technology enables the TLE/TVL teachers to integrate skills from ICT, entrepreneurship, and other fields into their TLE teaching.	4.99	0.12	Strongly Agree
…The TLE/TVL teachers believe that teachers who are skilled in multiple disciplines have better career growth opportunities.	4.96	0.20	Strongly Agree
Weighted Mean	4.96		
SD	0.21		
Verbal Interpretation	Very High		

The results indicate that technology allows teachers to develop cross-disciplinary skills beyond TLE and into other subject areas, as reflected in a mean of 4.90 (SD = 0.30), interpreted as Strongly Agree, suggesting that technology supports broader skill application. Likewise, teachers strongly agreed that exposure to technology makes them more versatile in applying knowledge across disciplines, with a mean of 4.94 (SD = 0.23), indicating improved adaptability in teaching practices. The use of technology to enhance collaboration with teachers from other fields in creating interdisciplinary projects obtained a mean of 4.99 (SD = 0.12), showing strong agreement that technology promotes collaborative and integrative teaching approaches. Similarly, leveraging technology to integrate skills from ICT, entrepreneurship, and other fields into TLE instruction also obtained a mean of 4.99 (SD = 0.12), reflecting expanded instructional expertise. Lastly, teachers strongly agreed that multi-disciplinary competence contributes to better career growth opportunities, with a mean of 4.96 (SD = 0.20), emphasizing the value of diverse skill sets for professional advancement.

Table 10 presents the level of evaluating the career growth of TLE teachers in terms of continuing education. The findings show that teachers demonstrate a very high level of engagement in continuing education supported by technology, indicating that digital tools play a crucial role in promoting lifelong learning and professional development.

Overall, the level of evaluating the career growth of TLE teachers in terms of continuing education obtained a weighted mean of 4.97 (SD = 0.16), verbally interpreted as Very High, indicating that technology greatly enhances access to continuous learning opportunities and supports sustained professional growth among TLE teachers.

The results indicate that teachers actively use technology to access online courses, webinars, and certifications that enhance their teaching skills, as reflected in a mean of 4.94 (SD = 0.23), interpreted as Strongly Agree, suggesting strong participation in online professional development. Likewise, leveraging technology to pursue higher education and training opportunities obtained a mean of 4.96 (SD = 0.20), also Strongly Agree, indicating that digital tools make further studies more accessible. Online learning platforms that provide flexible options for continuing education obtained a mean of 4.99 (SD = 0.12), showing full agreement that technology supports work-study balance. Similarly, teachers strongly agreed that technology encourages lifelong learning by improving access to educational resources, with a mean of 4.99 (SD = 0.12), emphasizing its role in sustained professional growth. Lastly, the ability to pursue continuing education through technology contributing to professional growth also obtained a mean of 4.99 (SD = 0.12), reflecting the strong impact of technology on teacher development.

Table 10. Level of Evaluating the Career Growth of TLE Teachers in terms of Continuing Education

Statements	**Mean**	**SD**	**Remarks**
…The TLE/TVL teachers actively use technology to access online courses, webinars, and certifications that improve their teaching skills.	4.94	0.23	Strongly Agree
…Leveraging technology has made it easier for the TLE/TVL teachers to pursue higher education and professional development opportunities.	4.96	0.20	Strongly Agree
…Online learning platforms provide the TLE/TVL teachers with flexible options to continue their studies while fulfilling my teaching responsibilities.	4.99	0.12	Strongly Agree
…The TLE/TVL teachers believe that technology encourages lifelong learning among teachers by making resources more accessible.	4.99	0.12	Strongly Agree
…The ability to pursue continuing education through technology contributes to the TLE/TVL teachers' professional growth as a TLE teacher.	4.99	0.12	Strongly Agree
Weighted Mean	4.97		
SD	0.16		
Verbal Interpretation	Very High		

Significant Relationship Between Leveraging Technology and Economic Opportunities of TLE Teachers

In this study, the significant relationship between leveraging technology and economic opportunities of TLE teachers were analyzed applying Pearson Correlation Coefficient using Minitab 14.

Table 11 presents the correlation between leveraging technology and economic opportunities of TLE teachers in terms of income or livelihood opportunities, entrepreneurial skills, and industry partnership. The results include Pearson correlation coefficients (r-values), p-values, and sample size (N=72) for each relationship.

A moderate significant correlation between access to educational technology has a moderate positive and significant relationship with income or livelihood opportunities and industry partnership. This implies that greater access to educational technology contributes to increased income-generating opportunities and stronger industry linkages among TLE teachers. However, the relationship between access to educational technology and Entrepreneurial Skills was found to be not significant, indicating that access to technology alone

Florian Hibas Maas, "Leveraging Technology to Enhance the Economic Opportunities and Posturing Career Growth of TLE Teachers," *International Journal of Multidisciplinary Research and Publications (IJMRAP)*, Volume 9, Issue 2, pp. 864-872, July 2026.

does not significantly influence the development of entrepreneurial skills.

Table 11. Significant Relationship between Leveraging Technology and Economic Opportunities of TLE Teachers

Leveraging Technology		**Opportunities** Income or Livelihood Opportunities	**of TLE** Entrepreneurial Skills	**Teachers** Industry Partnership
Access to Educational Technology	Pearson Correlation	.433*	.087	.452*
	Sig. (2-tailed)	.000	.465	.000
	N	72	72	72
Technological Proficiency of Teachers	Pearson Correlation	.234*	.446*	.010
	Sig. (2-tailed)	.048	.000	.932
	N	72	72	72
Integration of Technology in the Curriculum	Pearson Correlation	.288*	.667*	.111
	Sig. (2-tailed)	.014	.000	.351
	N	72	72	72
Support Systems for Technological Integration	Pearson Correlation	.200	.093	.091
	Sig. (2-tailed)	.092	.439	.448
	N	72	72	72

Note * p < .05

In terms of technological proficiency of teachers, a significant moderate positive relationship was found with entrepreneurial skills implying that teachers with higher technological proficiency tend to possess stronger entrepreneurial skills. A weak but significant relationship was also observed with income or livelihood opportunities indicating that technological proficiency contributes to improved income opportunities. However, no significant relationship was found between technological proficiency and industry partnership showing that technological proficiency does not significantly influence industry partnership in this study.

Furthermore, integration of technology in the curriculum demonstrated a strong positive and highly significant relationship with entrepreneurial skills. This indicates that integrating technology into the curriculum greatly enhances the entrepreneurial competencies of TLE teachers. A significant positive relationship was also identified with income or livelihood opportunities. however, its relationship with industry partnership was not significant implying that inclusion of technology in the curriculum may not influence building partnership with industries.

Lastly, support systems for technological integration showed no significant relationship with income or livelihood opportunities, entrepreneurial skills, and industry partnership. This indicates that support systems, while beneficial for technology implementation, do not directly translate into measurable economic opportunities among TLE teachers in this study.

Overall, the findings reveal that technological proficiency and curriculum integration are more influential factors in enhancing economic opportunities compared to mere access to technology or institutional support.

Table 12 presents the correlation between leveraging technology and the career growth of TLE teachers in terms of job stability, cross-disciplinary skills, and continuing education. The results include Pearson correlation coefficients (r-values), p-values, and sample size (N = 72) for each relationship.

Table 12. Significant Relationship between Leveraging Technology and Career Growth of TLE teachers

Leveraging Technology		**Career** Job Stability	**Growth of** Cross Disciplinary Skills	**TLE Teachers** Continuing Education
Access to Educational Technology	Pearson Correlation	.073	.027	.159
	Sig. (2-tailed)	.544	.820	.182
	N	72	72	72
Technological Proficiency of Teachers	Pearson Correlation	.065	.071	.092
	Sig. (2-tailed)	.586	.556	.441
	N	72	72	72
Integration of Technology in the Curriculum	Pearson Correlation	.017	.230	.183
	Sig. (2-tailed)	.887	.052	.124
	N	72	72	72
Support Systems for Technological Integration	Pearson Correlation	.124	.031	.095
	Sig. (2-tailed)	.301	.794	.427
	N	72	72	72

Note * p < .05

The data indicate that access to educational technology has no significant relationship with job stability, cross-disciplinary skills, or continuing

The data indicate that access to educational technology has no significant relationship with job stability, cross-disciplinary skills, or continuing education, as all r-values are low and p-values are greater than 0.05. Similarly, the technological proficiency of teachers did not show significant relationships with any of the career growth indicators, suggesting that proficiency alone may not directly influence job stability, cross-disciplinary skills, or continuing education in this context.

Table 12 shows the level of cognitive skill of the learners as supervised by Integration of technology in the curriculum demonstrated no significant relationship with job stability, cross-disciplinary skills, or continuing education, implying that purposeful inclusion of technology in teaching may enhance teachers' ability to develop skills across multiple disciplines. Similarly, support systems for technological integration were also found to have no significant correlation with any of the career growth indicators, indicating that institutional support alone does not directly translate to measurable improvements in job stability, cross-disciplinary skills, or continuing education.

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Overall, the findings suggest that while leveraging technology through curriculum integration may support cross-disciplinary skill development, other forms of technology use including access, proficiency, and support systems do not show a statistically significant relationship with career growth indicators among TLE teachers.

The findings of the study are supported by the work of Forhad (2022), which emphasizes that meaningful educational outcomes depend not only on access to technology but on deep instructional transformation and system-wide change. Likewise, the study of Taylor et al. (2021) highlights that effective outcomes in professional growth and instructional improvement are driven more by pedagogical beliefs and meaningful integration practices than by access or technical proficiency alone, reinforcing the importance of instructional application over availability of resources.

IV. Conclusion and Recommendations

There is a significant positive relationship between leveraging technology and the economic opportunities of TLE teachers, leading to the rejection of the null hypothesis. This means that higher levels of access to educational technology, stronger technological proficiency, and effective integration of technology in instruction are associated with improved economic outcomes. The findings indicate that teachers who actively use technology tend to demonstrate enhanced entrepreneurial skills, increased income- generating activities, and stronger industry partnerships, highlighting the role of technology in expanding their economic opportunities.

There is no significant relationship between leveraging technology and the career growth of TLE teachers, resulting in the acceptance of the null hypothesis. This means that access to technology, technological proficiency, curriculum integration, and support systems do not have a statistically significant impact on job stability, cross-disciplinary skills, and continuing education. Although teachers utilize and integrate technology in instruction, these do not directly translate into measurable improvements in their career growth indicators.

Based on the findings and conclusions, the following recommendations are forwarded:

School administrators and school heads may continue to strengthen teachers' access to digital tools and technical support, as these contribute to their economic opportunities, particularly in enhancing entrepreneurial activities, income-generating initiatives, and industry partnerships among TLE/TVL teachers.

Teachers are encouraged to continuously engage in professional development activities such as trainings, workshops, and self-learning to further enhance their technological proficiency, maximize economic opportunities, and sustain their engagement in entrepreneurial and industry-related activities.

Professional development planners and curriculum implementers may design programs that, while strengthening economic applications of technology, also place greater emphasis on enhancing career growth outcomes such as job stability, cross-disciplinary skills, and continuing education through targeted professional learning interventions.

Future researchers may further explore the factors affecting the weak relationship between leveraging technology and career growth indicators and identify other variables or interventions that may better strengthen job stability, cross-disciplinary competence, and continuing education among TLE teachers.

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