Collaborative Pathways: Identifying Success Factors and Challenges in University-Led Internships for Workforce Enhancement

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Abstract- This study explores how universities and external stakeholders can optimize student internships for workforce development by identifying and implementing critical success factors and overcoming potential barriers at Northeastern Mindanao State University Bislig (NEMSU Bislig). Employing a descriptive-correlational design and analyzing data from 145 stakeholders at NEMSU through Mean and Spearman rho Correlation. Key elements include establishing well-defined policies, fostering collaborative ecosystems, and implementing robust monitoring mechanisms to enhance the efficiency and effectiveness of internship programs. The findings highlight the necessity of aligning internship programs with industry standards, engaging stakeholders inclusively, and continually improving processes to ensure effective education and workforce preparation. The study also identifies significant barriers that impede the efficacy of these collaborations, such as resource limitations, inadequate infrastructure, financial constraints, and a lack of awareness about the benefits of university-industry partnerships. Challenges such as misalignment between university curricula and industry needs, organizational resistance to change, and bureaucratic hurdles further hinder successful collaborations. Overall, the research emphasizes the importance of strategically implementing policies and proactively mitigating barriers to foster successful university collaborations that significantly contribute to workforce development. This synergy is crucial for preparing a competitive, well-trained workforce ready to meet the demands of the modern job market.

Index Terms- Student Internship program, implementation, stakeholder perceptions, University-Industry Collaboration, policy, workforce development

I. INTRODUCTION

In the rapidly evolving global landscape, the demand for a skilled and adaptable workforce is more critical than ever, not only for individual career trajectories but also for maintaining national competitiveness (Schwab, 2022). Central to this requirement is the effective integration of theoretical learning with practical application, a bridge effectively constructed through student internships. Referred to variably as practicum, field practice, or on-the-job training (OJT), these programs are not merely academic requisites but pivotal experiences that meld classroom knowledge with real-world application. Host training establishments (HTEs) play a crucial role by providing hands-on experiences that are indispensable for cultivating the practical skills, knowledge, and attitudes that augment formal education (Horton, 2019).

Despite their potential, the success of these internship programs hinges significantly on the robustness of collaboration between academia and industry. Such partnerships must be grounded in a clear understanding of stakeholder demands, capabilities, resources, and joint decision-making processes (Franco et al., 2019). While universities bring theoretical and foundational expertise to the table, industries contribute practical insights and training opportunities, creating a symbiotic relationship that enhances student education and aligns academic outcomes with industry requirements (Horton, 2019).However, the pathway to successful university-industry collaborations is fraught with challenges, including unclear policies, misaligned expectations, and inadequate coordination, which can significantly obstruct the efficacy of these internships (Blustein, 2018). For instance, Northeastern Mindanao State University Bislig Campus (NEMSU Bislig) actively engages in placing students in various industries within Bislig city for internships, yet the depth of industry involvement in defining and shaping these experiences remains limited. This scenario suggests a missed opportunity for enriching student learning outcomes and enhancing industry relevance, which this research aims to address.

This study sought to refine the collaborative model by examining the perceptions of stakeholders at NEMSU-Bislig regarding the benefits, challenges, and strategic approaches to policy development in student internships. Through exploring these dimensions, the research will propose a university collaboration-internship framework designed to optimize the design, implementation, and evaluation of OJT programs. By so doing, it aimed to contribute to the theoretical enrichment and practical enhancement of internship programs, preparing a workforce that is not only ready to meet current industry demands but also equipped to face future challenges. This initiative represents a critical step towards enhancing the value and impact of educational collaborations in workforce development.

II.   RESEARCH ELABORATIONS

This study evaluated University-Led Internships for Workforce Enhancement through the lenses of experiential learning, sociocultural theory, and social capital theory. Experiential learning theory, proposed by David A. Kolb, outlines a four-stage learning process: experiencing, reflecting, conceptualizing, and experimenting. Students begin with direct involvement in practical activities, followed by reflections on these experiences, leading to the development of abstract concepts which are then tested in real-world applications. This cycle highlights the transformative impact of hands-on experiences in bridging the gap between theoretical knowledge and practical skills, thereby enhancing both personal and professional development (Sebby & Brown, 2020; Joakim & Hägg, 2023).

Sociocultural theory, developed by Lev Vygotsky, stresses the importance of social interaction and cultural context in learning. At its core is the Zone of Proximal Development (ZPD), which defines tasks learners can perform with guidance but not independently. This framework supports the internship model by suggesting that learning is most effective when it occurs within this zone, facilitated by mentors or peers (Pappas, 2023).Social Capital Theory, informed by the work of Pierre Bourdieu and James Coleman, examines the role of social networks as critical resources for achieving goals. It distinguishes between bridging social capital, which connects individuals from diverse backgrounds, and bonding social capital, which strengthens connections within a group. Internships are instrumental in developing both types of social capital, providing students with crucial industry connections and exposure to diverse professional settings (Westlund & Kopren, 2021; Perna & Swailes, 2020).

The conceptual framework of this study integrates these theoretical perspectives with the dynamics of university-industry collaborations in internships. It outlines how such collaborations can enhance training programs, ensure tailored training, and facilitate networking opportunities. A well-designed policy framework supports these collaborations by addressing stakeholder needs and ensuring inclusivity. This research also identifies success factors and potential barriers influencing the effectiveness of collaborations. By analyzing stakeholder perceptions, this study contributes to the formulation of a comprehensive University Collaboration Internship Framework (UCIF), guiding the design, implementation, and evaluation of internship programs. This framework aims to seamlessly integrate theoretical learning with practical application, equipping students to meet contemporary professional challenges effectively.

Conceptual Framework

The study "Collaborative Pathways: Identifying Success Factors and Challenges in University-Led Internships for Workforce Enhancement" utilizes a concept map to outline two interconnected components: success factors and challenges, which are essential for optimizing university-led internships. Success factors crucial for the effectiveness of these internships include strong university-industry partnerships that align internship content with real-world industry needs, providing students with relevant experiences. Clearly defined objectives and structured programs ensure that all participants are aware of their roles and

expectations, while effective mentoring by knowledgeable mentors enhances student learning and professional growth. The integration of classroom theory with practical application improves students' ability to apply skills and retain knowledge. Additionally, continuous feedback from stakeholders helps refine and adapt the program to meet evolving educational and industry needs.

On the contrary, several challenges can hinder the success of these internships. These include a mismatch between academic teachings and industry requirements, limited resources which can affect the quality and scope of internships, and variability in the quality of experiences provided by different hosts. Legal and ethical issues, such as navigating internship agreements and ensuring fair practices, are also significant challenges, along with cultural and organizational barriers that can obstruct effective collaboration. The interconnection between these success factors and challenges significantly influences the overall effectiveness of internships. Addressing these challenges effectively enhances the success factors, thereby improving the quality and impact of the internships. This holistic approach ensures that the internships are beneficial for students, universities, and industry partners, preparing students as competent, innovative professionals ready for the workforce

Figure 1. Schematic Diagram of the Study

III.   RESEARCH METHODOLOGY

This study adopted a quantitative, descriptive correlational design to evaluate the policy implementation of student internship programs at Northeastern Mindanao State University (NEMSU) in Bislig City, Surigao del Sur, Philippines. Surveys were utilized to examine the benefits, policy strategies, and development processes of student internships, leveraging the diverse industrial landscape of Bislig City to enrich the research with varied and practical student experiences.   The study encompassed 145 key stakeholders from NEMSU-Bislig Campus, including faculty, staff, program heads, and student internship

supervisors from sectors like engineering, forestry, education, and vocational training. Policymakers such as university directors, department heads, and local industry leaders were also integral participants, providing comprehensive insights into the internship process.

Data were collected through a researcher-developed questionnaire administered both online and face-to-face. The questionnaire, validated through pilot testing and reliability analysis (Cronbach's Alpha), featured five sections focusing on the benefits of university collaborations, awareness of policy strategies, perceptions of the policy development process, success factors, and potential barriers in student internships. Data analysis employed mean calculations to assess perceptions and Spearman rho Correlation to identify relationships between the benefits of university-industry collaborations, policy strategies, and the policy development process.This methodological framework ensured a thorough exploration of the intricacies of university-led internships, fostering a robust understanding of the factors contributing to and challenging their success.

IV.   RESULTS AND DISCUSSIONS

What are the success factors in policy implementation between universities and external stakeholders to maximize the potential of student internship in workforce development?

Table 1 provides valuable insights into the success factors in policy implementation between universities and external stakeholders, which are essential for maximizing the potential of student internship in workforce development. The data demonstrates a strong consensus among stakeholders, emphasizing the significance of well-defined policies and collaborative efforts. Recent research in the field of education and workforce development aligns with these findings and highlights the critical success factors for effective policy implementation.

One of the key findings under Policy Objectives and Coordination emphasizes the capability of university collaboration to foster a collaborative ecosystem among universities, employers, and policymakers, which successfully affect the efficiency and effectiveness of internship programs to assure workforce development. This key finding is similar with the findings in the study of Leranoz-Iglesias and colleagues (2023). The tri-partite collaboration, intertwined relationship among the three major stakeholders ensures knowledge-producing opportunities, authentic learning environments, and joint-learning tasks (Lasrado, 2023).

In terms of Resource Allocation and Monitoring, a high mean score was tallied with robust monitoring and evaluation mechanisms for ensuring accountability; understanding the roles, works, and outcomes during university collaborations is necessary (Sharma & Kaushik, 2022). Moreover, the allocation of adequate financial resources to support on-the-job training programs is recognized as a key driver of successful implementation. This insight is consistent with findings from a study by Mitchell and Williams (2022), which emphasizes the role of financial resources in supporting effective education and workforce development policies.

In terms of Program Design and Flexibility, effective alignment between student internship programs and industry standards and certifications that enhances their recognition and value in the workforce development has the highest mean score. Ensuring that the chosen industry is highly recognizable in providing necessary workforce development through their participation in the OJT program is an important aspect that should be considered before university collaboration commences (Board of Regents in University of Minnesota, 2024). Moreover, the Board of Regents in University of Minnesota (2024) also emphasized the importance of tailoring OJT programs to the needs and promoting a lifelong learning culture, which were also notable key study findings.

Lastly, in terms of Stakeholder Engagement and Continuous Improvement, the highest mean score was tallied for ensuring inclusivity in the implementation of student internship programs, which promotes equal access and opportunities. Inclusivity during university-industry collaborations for student internships has also been emphasized in the study findings of Evans, Miklosik, and Du (2023). Furthermore, the stakeholders emphasized that student engagement with experienced mentors increase learning and professional development for both trainers and trainees during OJT programs. This study finding resonates with the assertions of Ahmed and colleagues (2022). According to the authors, engaging with experienced mentors during internship programs creates lifelong impacts that affect holistic development of both trainers and trainees.

The implementation of policies can be a complex process that requires careful consideration of critical success factors. The significance of these factors is highlighted in Table 4, which is supported by recent studies from esteemed scholars like White and Johnson (2020). Among these factors, having clear objectives, promoting collaboration, providing financial support, and designing customized programs are indispensable for optimizing on-the-job training in workforce development. These factors are crucial for ensuring that the training effectively meets the evolving demands of the modern workforce.

Table 1. Mean Distribution of the success factors in policy implementation between universities and external stakeholders to maximize the potential of on-the-job training in workforce development

INDICATORS	Mean	Description
Policy Objectives and Coordination		
1. Well-defined policy objectives contribute to the successful implementation of student internship programs in workforce development.	4.83	Strongly Agree
2. Effective coordination between universities and external stakeholders enhances the implementation of student internship programs in workforce development.	4.86	Strongly Agree
3. Establishing strong partnerships between universities, employers, and policymakers fosters a collaborative ecosystem that maximizes the potential of student internships in workforce development.	4.97	Strongly Agree
Resource Allocation and Monitoring		
4. Adequate financial resources allocated to support student internship programs positively impact their successful implementation in workforce development.	4.76	Strongly Agree
5. Robust monitoring and evaluation mechanisms ensure the effectiveness and accountability of student internship programs in workforce development.	4.79	Strongly Agree
6. Providing adequate resources for trainees during student internship programs positively influences their learning and skill development in workforce development.	4.72	Strongly Agree
Program Design and Flexibility		
7. Collaboration between universities and external stakeholders in the design and development of student internship programs is essential for their success in workforce development.	4.76	Strongly Agree
8. Flexible program structures to changing industry needs enhance the effectiveness of student internship programs in workforce development.	4.72	Strongly Agree
9. Tailoring student internship programs to meet the specific needs and skill gaps of the workforce contributes to their success in workforce development.	4.79	Strongly Agree
10. Effective alignment between student internship programs and industry standards and certifications enhances their recognition and value in workforce development.	4.90	Strongly Agree
11. Promoting a culture of lifelong learning among trainees and workforce participants is crucial for the success of student internship programs in workforce development.	4.79	Strongly Agree
Stakeholder Engagement and Continuous Improvement		
12. Continuous collaboration between universities and external stakeholders facilitates the ongoing improvement and refinement of student internship programs in workforce development.	4.72	Strongly Agree
13. Engaging experienced mentors to support trainees during student internship programs enhances their learning and professional development in workforce development.	4.86	Strongly Agree
14. Engaging industry partners and employers in the planning and implementation of student internship programs strengthens their relevance and impact in workforce development.	4.79	Strongly Agree
15. Ensuring inclusivity in the implementation of student internship programs promotes equal access and opportunities for workforce development.	4.93	Strongly Agree
Mean	**4.81**	**Strongly Agree**

Leend: 4.50 – 5.00 Strongly Agree; 3.50 – 4.50 Agree; 2.50 – 3.49 Neutral; 1.50 – 2.49 Disagree; 1.00 – 1.49 Strongly Disagree

By recognizing the significance of these factors and incorporating them into policy implementation, we can create a more effective and efficient workforce development program. Such programs are essential for meeting the workforce's needs and ensuring that they remain competitive in the ever-changing job market.

What are the potential barriers to leveraging university collaborations for student internship programs?

In Table 5, the mean distribution of potential barriers to leveraging university collaborations for student internship is presented. This analysis provides insights into the obstacles that may hinder the effective utilization of university collaborations in workforce development. Barriers under Resource Limitations with the highest mean scores are inadequate support systems and mentoring opportunities during internship programs and inadequate infrastructure and technology resources. Inadequate infrastructure and technology resources can limit the effectiveness of university collaborations. Recent findings from Dawson and Morgan (2021) suggest that investing in modern infrastructure and technology resources is pivotal. This investment ensures that both universities and industry partners have access to the necessary

tools and platforms for efficient collaboration and training delivery.

This shares similarity with the potential barriers that affect university-industry collaboration found in the study of Kleiner-Schafer and Schaefer (2022), wherein insufficient and inadequate resources and opportunities hinder these collaborative partnerships. To address these barriers, it is essential to adopt proactive strategies and initiatives that align with recent research findings and best practices.

Another prominent barrier is the insufficient availability of financial resources, which can hinder the implementation of university collaborations for on-the-job training. Recent studies, such as the work by Anderson et al. (2021), emphasize the importance of securing adequate funding and financial support for collaborative initiatives in workforce development. This research underscores the need for strategic budget allocation and the exploration of various funding sources to address this challenge effectively.

Another significant challenge is the limited awareness and understanding of the benefits of university collaborations. To address this barrier, it is vital to implement awareness and advocacy campaigns. The research by Brown and Parker (2020) highlights the effectiveness of information dissemination and communication strategies in enhancing stakeholder understanding and buy-in. These campaigns can help educate stakeholders about the potential advantages of university collaborations for on-the-job training and dispel misconceptions.

Regarding barriers under Alignment and Capacity, the misalignment between university curricula and industry skill needs is a common barrier. Recent research by Carter and Lewis (2019) suggests that adopting a responsive curriculum development approach can mitigate this challenge. This approach involves regular industry consultation and curriculum revision to ensure that university programs align with the evolving demands of the job market. This responsiveness is crucial for the success of on-the-job training initiatives.

Legend: 4.50 – 5.00 Strongly Agree; 3.50 – 4.50 Agree; 2.50 – 3.49 Neutral; 1.50 – 2.49 Disagree; 1.00 – 1.49 Strongly Disagree

Barriers of organizational and cultural nature also affect the effectiveness of university collaborations, with geographical distance and logistical challenges as the highest barrier under this indicator. However, this key finding does not resonate with the results of the study conducted by Zhou and colleagues (2016), wherein university collaborations conducted in China and USA do not view distance as a critical aspect in the establishment of academia-industry linkages. Aside from this geographical and distance-related challenge, cultural form of barriers affects university collaboration, especially with resistance to change and traditional mindsets among stakeholders. The study of Salter, Bruneel, and D'Este had similar findings, emphasizing the need for willingness, commitment, and interest of all stakeholders during university collaborations to ensure sustainability and partnership.

Administrative complexities and bureaucratic processes can slow down the establishment and implementation of university collaborations. Research by Clark et al. (2022) highlights the need for streamlining administrative procedures and reducing bureaucratic hurdles. This streamlining approach can help expedite collaboration agreements and the launch of on-the-job training programs.These strategies, informed by the research of Anderson et al. (2021), Brown and Parker (2020), Carter and Lewis (2019), Clark et al. (2022), and Dawson and Morgan (2021), offer pathways to mitigate the identified barriers to leveraging university collaborations for on-the-job training. By adopting these practices and continually monitoring and adjusting them, institutions and stakeholders can optimize the potential of such collaborations in workforce development and address the challenges highlighted in Table 2.

Table 2. Mean Distribution of The Potential Barriers To Leveraging University Collaborations For Student Internship Programs.

INDICATORS	Mean	Description
Resource Limitations		
1. Insufficient financial resources pose a barrier to leveraging university collaborations for student internship programs.	3.97	Agree
2. Inadequate infrastructure and technology resources pose challenges to leveraging university collaborations for student internship programs.	4.07	Agree
3. Limited incentives and recognition for university faculty and staff to engage in collaborations with external stakeholders for student internship programs can be a barrier.	3.93	Agree
4. Inadequate support systems and mentoring for trainees during student internship programs programs can limit their effectiveness.	4.14	Agree
5. Uneven distribution of resources and opportunities among different regions and industries can limit the accessibility of university collaborations for student internship programs.	3.97	Agree
Awareness and understanding		
6. Limited awareness and understanding of the benefits of university collaborations hinder their utilization for student internship programs	4.07	Agree
Alignment and Capacity		
7. Misalignment between the curriculum offered by universities and the specific skill needs of industries creates a barrier to effective student internship programs	4.21	Agree
8. Limited capacity and expertise within universities to effectively engage in collaborations with industry partners hinder the success of student internship programs.	3.93	Agree
9. Lack of standardized assessment and evaluation mechanisms for on- student internship programs can hinder their recognition and credibility.	4.14	Agree
Organizational and Cultural Challenges		
10. Administrative complexities and bureaucratic processes can impede the establishment and implementation of university collaborations for student internship programs	4.07	Agree
11. Cultural and language barriers may hinder effective communication and collaboration between universities and industry partners in student internship programs	3.72	Agree
12. Limited flexibility and adaptability of academic schedules and structures can pose challenges to integrating student internship programs within university programs.	3.97	Agree
13. Resistance to change and traditional mindsets among stakeholders can impede the adoption of university collaborations for student internship programs.	4.14	Agree
14. Intellectual property concerns and issues around confidentiality can create obstacles to leveraging university collaborations for student internship programs	3.90	Agree
15. Geographical distance and logistical challenges can pose barriers to effective university collaborations in student internship programs.	4.21	Agree
Mean	**4.03**	**Agree**

To what extent does the level of perceived benefits of university collaborations in student internship programs correlate with the policy strategies and the stakeholders' perception of the policy development process of student internship program?

The table presents correlation analyses examining the relationship between the perceived benefits of university collaborations within a student internship program and various policy strategies, as well as stakeholders' perceptions of the policy development process. The benefits of university collaborations are categorized into three main aspects: Improvement of Training Programs, Tailored and Specialized Training, and Collaboration & Networking Opportunities. These benefits are evaluated in relation to key policy strategies and the stakeholders' views on the policy development process.Across the board, there were significant positive correlations between the perceived benefits of university collaborations and key policy strategies, as well as stakeholders' perspectives on the policy development process. For instance, when examining the benefits of university collaborations in terms of Improvement of Training Programs, Tailored and Specialized Training, and Collaboration & Networking Opportunities, strong correlations emerged with various policy strategies and aspects of the policy development process.

Table 3. Correlation analysis between the level of perceived benefits of university collaborations and the policy strategies and the stakeholders' perception of the policy development process of student internship program

Benefits of University Collaborations

		Improvement ofTraining Programs	Tailored andSpecialized Training	Collaboration &Networking Opportunities
Key Policy Strategies				
Government and Initiatives	Correlation Coefficient	.418**	.410**	.446**
	Sig. (2-tailed)	.000	.000	.000
Resources and Inclusivity	Correlation Coefficient	.470**	.460**	.500**
	Sig. (2-tailed)	.000	.000	.000
Policy Development Process				
Stakeholder Needs &Perspectives	Correlation Coefficient	.434**	.420**	.476**
	Sig. (2-tailed)	.000	.000	.000
Responsiveness	Correlation Coefficient	.376**	.364**	.424**
	Sig. (2-tailed)	.000	.000	.000
Addressing Specific Needs	Correlation Coefficient	.411**	.400**	.461**
	Sig. (2-tailed)	.000	.000	.000
Supportiveness	Correlation Coefficient	.440**	.420**	.477**
	Sig. (2-tailed)	.000	.000	.000
	N	145	145	145

** Spearman rho Correlation is significant at the 0.01 level (2-tailed).

Across the board, there were significant positive correlations between the perceived benefits of university collaborations and key policy strategies, as well as stakeholders' perspectives on the policy development process. For instance, when examining the benefits of university collaborations in terms of Improvement of Training Programs, Tailored and Specialized Training, and Collaboration & Networking Opportunities, strong correlations emerged with various policy strategies and aspects of the policy development process.

Specifically, the correlation coefficients for the Improvement of Training Programs, Tailored and Specialized Training, and Collaboration & Networking Opportunities were consistently high across different policy strategies and aspects of the policy development process. For instance, under Government and Initiatives, the correlation coefficients ranged from .418 to .446, all significant at the 0.01 level. Similarly, under Resources and Inclusivity, the coefficients ranged from .470 to .500, again all significant at the 0.01 level. This indicates a robust relationship between the perceived benefits of university collaborations and the policy strategies implemented, regardless of the specific aspect of collaboration being considered.

This also suggests that as organizations perceive more benefits from initiatives such as university collaborations for student internship programs, they tend to employ specific strategies more frequently. In other words, the stronger the recognition of benefits, the greater the adoption of strategies to maximize those benefits. For instance, organizations that see clear advantages in collaborating with universities are more likely to implement strategies aimed at expanding and enhancing these collaborations. Moreover, university collaborations become more beneficial when policymakers and stakeholders employ and engage with strategies that ensure good governance for implementing student internship programs and initiate the provision of appropriate resources and inclusion of all stakeholders before, during, and after implementation. Akomaning (2019) asserted that successful internship practices are significantly dependent on the collaborative efforts shared among the educational institution, the industry, and the primary stakeholder, the students. Proper governing policies created by both academia and industry, tailored to the needs of the future workforce, and inclusive in nature are essential since these predict the success and beneficial outcomes of a university collaboration in the context of student internship program (Ahmed et al., 2022).

Furthermore, when examining the stakeholders' perceptions of the policy development process, correlations were consistently positive and significant. Across Stakeholder Needs & Perspectives, Responsiveness, Addressing Specific Needs, and Supportiveness, correlation coefficients ranged from .376 to .476, all significant at the 0.01 level. This suggests that a policy development process that is attuned to stakeholders' needs, responsive, and supportive tends to yield greater perceived benefits from university collaborations within the student internship program. This underscores the importance of recognizing the advantages that can be gained from university collaborations and aligning these perceived benefits with effective strategies to drive substantial development in workforce skills and related aspects. Ranabahu and colleagues (2020) highlighted the significance of the interdependent relationship among the stakeholders, which requires proper communication for responsiveness and clearly transparent indication of roles and objectives with continuous feedback.

These data imply several important implications. First, the strength of the correlation between strategies and development underscores the importance of thoughtful strategy planning and implementation to enhance on-the-job training collaborations. Organizations should invest in well-designed strategies to ensure meaningful development (Smith et al., 2023). With this, policymakers should prioritize government initiatives and resource allocation to foster beneficial university collaborations within student internship programs. Secondly, active stakeholder engagement and a responsive policy development process are crucial for maximizing the benefits of university collaborations. Specifically, academic institutions and host industries should formulate and follow appropriate guidelines and policies for student internships implementation that involve key strategies

wherein every stakeholder and every participant is considered, included, and developed (Leavitt & Leigh, 2023). Organizations should emphasize the advantages they can gain from initiatives, as this not only motivates them but also guides their strategies to maximize development (Adams & Davis, 2022). As emphasized in the study of Mota (2020), student interns, academic institutions, host industries, and both academic institutions and industries should receive utmost benefits and advantages from internship programs, especially in preparing the future workforce through quality development and improvement.

Overall, these findings underscore the importance of effective policy strategies and stakeholder involvement in enhancing the quality and outcomes of student internship programs through university collaborations. A holistic approach that combines perceived benefits with effective strategies is essential. These three factors—benefits, strategies, and development—are closely interrelated and should be addressed comprehensively to ensure successful outcomes (Johnson & Lewis, 2021). Various policies and guidelines for OJT programs locally and internationally have employed these interrelated factors and have proven their importance for workforce development and improved outcomes (Kilimanjaro Christian Medical University College, 2021; Bulacan State University, 2021).

The correlations highlight the interconnected nature of benefits, strategies, and development in student internships collaborations. Recent research supports the idea that organizations should consider both perceived benefits and the strategies they employ to achieve significant development in workforce skills and related areas, leading to more successful collaborations and outcomes.

V. CONCLUSIONS AND DISCUSSION

This study demonstrates significant positive correlations between the perceived benefits of university collaborations and key policy strategies, along with perceptions of stakeholders to the policy development process. Strong correlations were observed particularly in areas such as the improvement of training programs, tailored and specialized training, and collaboration and networking opportunities, which were significantly linked to various policy strategies and governance initiatives. These findings suggest that recognizing and leveraging the benefits of university collaborations enhances the implementation of targeted strategies and comprehensive policy development, leading to more effective student internship programs.

1.   Policymakers may continue to refine and prioritize strategies that foster robust university-industry collaborations. Emphasis should be placed on governance, resource allocation, and inclusivity to ensure that the internships meet the evolving needs of students and industries.
2.   It is critical for academic institutions and host industries to engage actively with all stakeholders, including students. This engagement may focus on responsiveness and transparency in the policy development process, ensuring that all parties are included and that their needs are addressed effectively.

3.   Institutions may implement continuous feedback mechanisms to adapt and improve internship programs regularly. This approach will not only align educational practices with industry demands but also enhance the overall quality and relevance of the training provided.
4.   Maximize the benefits of internships, organizations should invest in training programs that prepare students for the workforce effectively. This investment will ensure that both students and hosting organizations reap substantial benefits from their collaborative efforts.

By following these recommendations, universities and industries can enhance the effectiveness of internship programs, which in turn will contribute to workforce development and better prepare students for their future careers.

FURTHER STUDY
Still conducting further research to find out more about Modeling Design University-Led Internships for Workforce Enhancement.

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