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Enhanced Employee Engagement Through Generative AI Assistance: A Combined Technology Acceptance and Organizational Support Model

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Abstract

With AI becoming an integral part of the Philippine industry, it is evident that monitoring and determining the acceptance of such technology is a need. However, the models exclude the perspective of organizational support that utilized AI as a primary tool for improving employee engagement. This shortcoming hinders the ability of organizations to fully assess the benefits of generative AI and their readiness towards full AI integration. In light of this, the study pursued its objective by identifying a model instrument that would fit for organizational use and determine its reliability in the Philippine context. By adopting and combining Technology Acceptance Model and Organizational Support Theory, the study will be able to identify the benefits of generative AI assistance in the Philippine industry and serve as a tool for future organizational use wishing to determine the impact of AI in their workplace. The study was able to identify the positive relationship between the use of generative AI assistance and employee engagement and that it is one of the factors that improves workplace productivity. The findings suggest the adequacy of combined Technology Acceptance Model and Organizational Support Theory. As such, the model can be used by Philippine Organizations in the future for assessing AI implementation in their workplace.

Keywords

Artificial Intelligence, Confirmatory Factor Analysis, Organizational Support Theory, Structural Equation Modelling, and Technology Acceptance Model.

1. Introduction

Philippine Digital Companies is gradually navigating its path toward improved digital transformation. Interest in the benefits of Artificial Intelligence (AI) has become a recurring theme in discussions aimed at enhancing employee engagement. Numerous claims outlining both the advantages and disadvantages of AI now serve as key reference points for its potential integration. However, these arguments can only be meaningfully addressed through the development and use of reliable assessment tools and models that accurately represent the concept of AI adoption—tools can also be attuned to specific contextual realities such as country-specific factors, industry or sector representation, and distinct organizational profiles. The works of Davis (1989) emphasized that the acceptance model for any technological information within an organization can only be meaningfully applied if its reliability and validity are firmly established. This ensures that the constructs embedded in the model closely reflect actual conditions or organizational realities. While the Philippine industrial sector is gradually carving a niche in AI integration, many

digital companies continue to struggle to assess the effects of AI in the workplace due to the lack of context-specific models tailored to the local setting. This gap limits a clear understanding of how generative AI assistance improves employee engagement that could otherwise be reinforced through targeted organizational support. The creation of validated and reliable constructs that are suitable to the Philippine context directly contributes to academic studies aimed at deepening the understanding of issues and concerns surrounding technology and AI adoption. The establishment of well-structured constructs can assist organizations in the Philippines in successfully jump-starting their digital transformation, as these metrics and measures are grounded in the actual perceptions and experiences of employees. Such context-driven frameworks can lay a strong foundation for companies seeking to achieve digital advantages and navigate technological transitions effectively. The works of Campued (2023), for instance, identified various perspectives surrounding AI adoption. The perspectives contribute to the increasing complexity of determining what variables need to be associated with adoption of AI in organizations to determine its effectiveness. As such, initiating the first step in determining what variables may fit in Technology Acceptance Model (TAM) under the impression of being suitable in the Philippine context is needed.

The study aims to develop and validate reliable assessment tools and conceptual models for understanding generative AI adoption in the workplace, specifically within the Philippine context. By identifying constructs that reflect the actual perceptions, experiences, and organizational realities of local industries, the study seeks to address the gap in context-specific evaluation frameworks. This initiative ultimately supports Philippine organizations in navigating digital transformation more effectively and enables informed decision-making on workforce readiness, employee engagement development, and AI integration.

1.1 Objectives

The objective of the study is to identify a reliable model for organizational use in fully adopting technology into their system. This model can be used to assess the impact of generative AI in determining employee acceptance as well as provide a continuous usage that emphasizes on machine reliability in the lens of organizational support theory (OST). The specific objectives can be identified by breaking down the general objective;

- To confirm the reliability of each identified construct to the general idea of the study;
- To assess the relationship of constructs between each other;
- To determine the reliability of the model through model fit indices.

2. Literature Review

One of the key reasons why improving workplace productivity in digital companies is built by Philippine Statistics Authority (PSA), IT companies where digital companies are under its composition currently have the highest employee turnover with a rate of 3.2% with 32.7% of its reasons being due to personal matters (PSA, 2022). A study by Al-dalameh et. al. (2020) elabores the constitution of the employee's personal reason for leaving companies. Among the reasons, there are some related to employee engagement which are organizational commitment - 12.7%, Satisfaction with work - 6.8%, and Organizational Reasons - 13.9%. The relationship of employee engagement and these variables was explained by Albdour and Altarawneh (2014).

According to Lakshmi et. al. (2024), improving an employee's skill level increases the ability of the employees to be engaged towards his work, as such, having an upskilling and reskilling program creates more opportunities in ensuring employees having good workplace interaction and employee engagement (Patil and Rana, 2021). As the study revolves around digital companies, preference towards digital skills has been seen in major industries (Tee et. al., 2024). Feijao et. al. (2021) explains the different digital skills demanded by the employers. However, as favorability towards digital skills grows, the more evident the skill gaps are being noticed. A strategy stated by Zizic et. al. (2022) in tackling digital skill gaps is upskilling through the implementation of technology, though it was also noted in the same study about the numerous challenges that arise in the implementation of technology such as having an assessment tool that pertains to the effectiveness of the technology. Shokilah and Sutirman (2020) utilized the TAM model in identifying the factors that influence satisfaction of utilization of the technology which can be correlated in bridging skill gaps. While a study conducted by Al-adwan et. al. (2023) used TAM model to predict the intentions of its student, it was also used to conclude as a tool for aiding organizations in deciding about the direction of the implementation but at the same time similar to another study, the lack of clear discussion and representation how interactions towards their work may result unforeseen reactions towards the implementation of technology (Heo et. al., 2023). According to the prior study, Heo et. al. (2023) viewed that organizational competence should have the direct relationship towards

perceived usefulness and perceived ease of use, but such is not the case in representing organizational competence as depicted by Ridwan et. al. (2020) that it is more likely to be linked with satisfaction.

As discussed from previous studies, a conclusion rises on how models should be created to represent its idea. According to Santos and Jocson's study (2024), the study dictated that one of the challenges faced in adopting AI is the accuracy and adaptability of models. This would mean that different projects would lead to diverse or unique criteria for adopting AI. It would likely contribute to the variations of questionnaires and models representing the impact of AI towards its intended users or category. Epstein (2014) concluded that the variations of questionnaires were likely brought out by the preferences of the company and claims that there was no specific methodology in adapting a questionnaire but he indicated that qualitative measures was sometimes used as a foothold for adapting a questionnaire.

The study conducted by Witte et. al. (2024) dictates the inadequacy of technology acceptance models in the Philippines particularly UTAUT2. Unique characteristics in culture and perspective becomes a key consideration for applying and ensuring the effectiveness of UTAUT2. The study utilized a modified model that would fit the context of the Philippine medical system. In the same way, this can provide the same criterion and need for a modified model fit for Philippine digital companies. This idea was first concluded by Straub (1997) stating that the technology acceptance model does not propose an absolute prediction towards the use of technology across various cultures.

Additionally, Berube et. al. (2021) stated numerous barriers that resists the implementation of AI in the organizations. As such, the study can be used to determine whether the technology acceptance model takes into consideration this barrier. One of the barriers that was identified was ambiguous strategic vision, if the company tries to imply that the implementation of the AI was for the benefit of the company, then the perspective of its employee should also be the same, failing to clarify this argument early on will result the company to ineffectively adopt AI as the employees were not prepared on accepting the technology strategically. This was also taken into consideration by Blake (2020) that an efficient organizational culture will support adoption of AI. With this, we can infer that it is not only the capabilities of the employee alone that should be determined on the ability of the organization to adopt the AI but as well as how they perceive the technology itself being strategically aligned to the improvement of the company.

In summary, the studies indicate and lean towards the modifications of models in assessing technologies and their acceptance. However, such studies had dominantly ruled out the perspective of adopting AI through the lens of organization support strategy. This variable may indicate that there might be a relationship towards the full integration of AI in the workplace and can serve as a niche perspective in the Philippine context. Additionally, focusing on upskilling employees through the usage of the technology can be related to employee engagement.

3. Methods

The study utilized a quantitative method sufficient to determine the effectiveness of the model. Through a quantitative approach, the study will be able to provide a solid foundation for identifying a reliable model and determine the relationship of each construct with each other. The model fit where it includes multiple criterions of fit indices was used which served as the basis for numerical analysis and determining the applicability of the model to the objectives of the study (Yasliogu, 2020).

3.1 Participants

The participants of the study included 168 employees from digital companies in Metro Manila and CALABARZON. The participants of the study were classified into 3 categories composed of top managers (35%), middle managers (42%), and bottom managers (22%). The age division for these participants was identified to be 21-25 yrs old (14%), 26 – 30 yrs old (30%), 31-35 yrs old (37%), 36-40 yrs old (13%), 41-45 yrs old (1%), 46-50 yrs old (1%). The distribution of the participants for each place was 25% in Metro Manila, 20% in Cavite, 30% in Laguna, 14% on Batangas, 6% in Rizal and 5% in Quezon.

3.2 Research Model

The research model combines TAM which was introduced by Davis (1989) and organizational support theory founded by Eisenberger (1990). The combination of the two models came from the idea that the technology acceptance model is a common tool to utilize the acceptability of a technology towards its end user while the perceived organizational support is commonly seen in improving the employees outlook towards their organization in a positive manner. This

improves employee engagement which is a common recipe for an improved organizational performance. A study by Bhattacherjee and Hikmet (2016) stated that technology usage may have a relationship with organizational support. This served as another perspective that variables residing in OST can be connected to TAM. Utomo et. al. (2023) defines how organizational support can improve the readiness of organizations when implementing change. As such, by highlighting the importance of perceived organizational support through perceived satisfaction, the ability of organizations to adopt generative AI becomes easier.

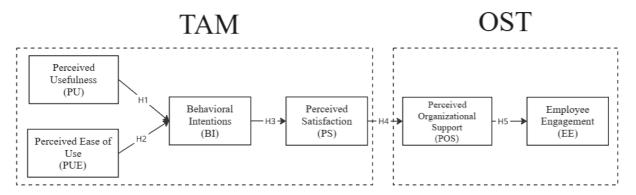


Figure 1. Hypothesized model for TAM integrating OST

Figure 1 shows the hypothesized model in combining TAM and OST. There are 5 hypotheses as defined by the model.

- H₁: PU positively affects BI
- H₂: PUE positively affects BI
- H₃: BI positively affects PS
- H₄: PS positively affects POS
- H₅: POS positively affects EE

3.2 Measures

In the dispersed 200 online surveys from the digital companies, 168 were returned from different locations. There were 6 constructs that the surveys contained in representing the idea of organizational readiness in AI adoption. The following data will be subjected to Structural Equation Modelling through the help of Statistical Process for Social Science (SPSS) and AMOS (Table 1).

Table 1. Identified Constructs

Constructs	Definition	Code		Items
Behavioral	The intention of	BI1	1.	I would use the AI at work.
Intentions	the employees	BI2	2.	I would use AI to be productive at work
(Navarro et. al., 2021)	to use the AI	BI3		I would use AI effectively to present my ideas and communicate my intentions
		BI4		I would use AI to immerse myself in objectively reaching my work goals
		BI5		I would continue to use AI in the future for work-related tasks
Perceived Ease	The ability of	PUE1	1.	The manual provided for using AI was easy to understand
of Use	the employees	PUE2	2.	My knowledge of AI allowed me to use it easily
(Navarro et. al.,	to easily use the	PUE3	3.	The AI itself was user-friendly
2021)	ΑI	PUE4	4.	The version of this AI was efficient
		PUE5	5.	The AI features were easily accessible and utilized
Perceived	The impact of	PU1	1.	I felt that AI provided updated information at work
Usefulness	AI as an aiding	PU2	2.	I felt that AI provided accurate information at work
		PU3		

(Navarro et. al.,	tool for the		3.	I felt that AI provided clear and concise information at
2021)	employees	PU4		work
,	1 7	PU5	4.	I felt that AI provided understandable information at work
			5.	I felt that AI enabled me to monitor information more
		PU6		efficiently
			6.	I felt that the AI effectively visualized data
Perceived	The favorability	PS1	1.	I felt motivated to use the AI
Satisfaction	of the	PS2	2.	I was satisfied with the current features of the AI
(Navarro et. al.,	employees	PS3	3.	I felt that the AI satisfied my questions
2021)	towards AI	PS4	4.	I was satisfied with the information provided by AI
,		PS5	5.	I was satisfied with the use of AI
Perceived	The acceptance	POS1	1.	The company itself cares about my well-being by
Organizational	of employees			introducing AI to me
Support	towards AI as	POS2	2.	The company cares about my general satisfaction at work
(Ghizali et. al.,	an aiding tool			by introducing AI to me
2018)	provided by the	POS3	3.	The company cares about my opinions by introducing AI
	organization			to me
	_	POS4	4.	The company tries to make my job as interesting as
				possible by using the AI
Employee	The interaction	EE1	1.	I felt that AI-enabled me to be productive at work
Engagement	of employees	EE2	2.	I felt that AI reduced work-induced stress
(Nurnida et. al.,	towards work	EE3	3.	I felt that AI helped me focus on my tasks
2020)	mediated by AI	EE4	4.	I felt that AI helped me set goals needed for my tasks

Table 1 identifies the 6 constructs that will be used to study along with their definitions. The range of the questions per construct ranges from 4-7 ensuring that they are adequate enough in achieving the desired idea of the construct. The gathered data will undergo factor analysis to ensure the reliability of the identified constructs and path analysis to determine the strength of each question in representing the idea of the construct.

4. Results

After gathering and analyzing the data through Structural equation modelling This section would discuss the different findings that define the reliability and the effectivity of the model in representing its idea. The study would first utilize reliability analysis for the whole model before proceeding to path analysis which defines the strength of relationship between each construct.

Table 2. Reliability Analysis of TAM integrating OST

Constructs	Question no.	Loading Factor Average		Composite	Cronbach
			Variance	Reliability	Alpha
Behavioral	1	0.754	0.60	0.82	0.842
Intention	2	0.806			
	3	0.762			
	4	OMITTED			
	5	OMITTED			
Perceived Ease	1	OMITTED	0.75	0.90	0.7
of Use	2	0.868			
	3	0.885			
	4	0.84			
	5	OMITTED			
Perceived	1	0.832	0.70	0.90	0.81
Usefulness	2	OMITTED			
	3	OMITTED			
	4	0.826			
	5	0.849			
	6	0.849			

Perceived	1	0.83	0.71	0.92	0.933
Satisfaction	2	0.82			
	3	0.84			
	4	0.85			
	5	0.87			
Perceived	1	0.8	0.60	0.85	0.865
Organizational	2	0.888			
Support	3	0.81			
	4	0.7			
Employee	1	0.85	0.71	0.91	0.906
Engagement	2	0.86			
	3	0.85			
	4	0.8			

Table 2 identified the adequate questions that can be used in the study in making the questionnaire reliable. There were omitted questions as it did not pass the reliability test and by omitting items that resulted erratic answers, the study was able to determine the reliability of each construct (Hair et. al., 2022). The findings suggest that identified items for each construct presented at Table 2 proved to be reliable by subjecting these constructs to Cronbach Alpha and Average Variance. According to Diamontopulus et. al., (2000), a score greater than 0.5 in Average Variance proves to be adequate in determining the spread of data. Additionally, Widadi (2020) stated that a scores in Composite reliability and Cronbach Alpha greater than or equal to 0.7 is reasonable and should be the ideal scores when assessing the items within a construct. The loading factor presented per each construct defines the strength of each item in answering building the idea of the construct, it is generally regarded that scores greater than 0.5 is acceptable (Thurstone, 1931).

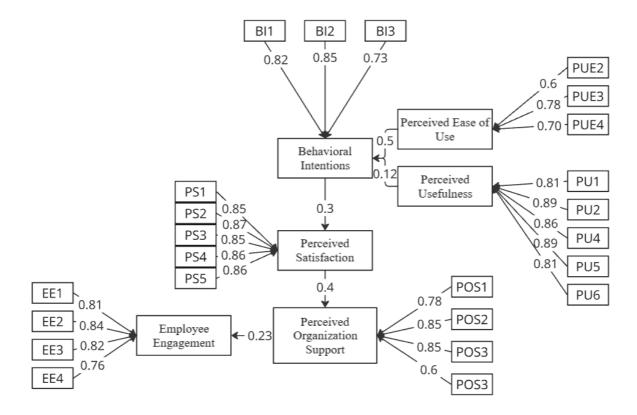


Figure 2. Path Analysis of TAM integrating OST

As shown in Figure 2, the study was able to determine the strength of each item representing the idea of the construct. In analyzing the figure, the study utilized Goodness of Fit Index (GFI), Root Mean Square of Approximation (RMSEA), Comparative Fit Index (CFI), Incremental Fit Index (IFI), and Tucker Lewis Index (TLI). These indices were the primary basis in determining the effectiveness of the model. The use of this fit indices had been the standard in determining the reliability and the effectiveness of the model, this would mean by applying the same methodology as past studies conducted, achieving a reliability.

Fit Model Indices	Parameter Estimates	Minimum Cutoff	Remarks
GFI	0.823	< 0.99	Acceptable Fit
RMSEA	0.09	<0.1	Reasonable Fit
CFI	0.911	>0.8	Reasonable Fit
IFI	0.913	>0.9	Reasonable Fit
TLI	0.9	>0.9	Acceptable Fit

Table 3. Fit Parameter Model of TAM integrating OST

Table 3 shows the parameter estimates of the model. According to Milko (2020), the following estimates can be defined into different remarks. The findings suggest that TAM integrating OST is reasonable and acceptable in representing its idea, this means that the following model is adequate enough to interpret the relationship between the acceptance of technology as linked to perceived organizational support by the employees.



Figure 3. Model Representing Improved Employee Engagement through TAM integrating OST

Figure 3 now determines the relationship of each construct given that the model is reliable, each construct can be interpreted as having positive relationship towards another construct and the linkage between the Technology Acceptance Model and the Organizational Support Theory was the connection between Perceived Satisfaction (PS) and Perceived Organizational Support (POS). The relationship between each other defines that the more satisfied the employees are when utilizing the AI for work, the more they will accept the implementation of AI in their organization bringing about the Organizational readiness towards AI adoption and improving the employee engagement towards their work through generative AI.

5. Discussion

With the introduction of generative AI to different industries such as digital companies, oftentimes they face barriers in adopting generative AI to their organizations. Re and questions how they would be able to utilize AI as a leverage against their competitors. The study first determined the importance of TAM being implemented at the companies, the perceived ease of use ($H_2 = 0.5$) had more weight than perceived usefulness ($H_1 = 0.12$) when explaining the Behavioral intention of the employees. For the implementation of generative AI by looking at the perspective of perceived ease of use, the capabilities of generative AI include large scope which becomes harder to use the more specified and modified the AI is to the company. This would mean that even if employees see the AI to be useful since it contains a lot of features, it wouldn't become effective to them if they are unable to utilize the features due to its complexity. This leads to an understanding that companies should not heavily focus on the features or the capabilities of the generative AI they are providing to their employees but rather give importance to how well they can use it. By leveraging the importance of User experience, they will be able to increase the chances of the employees being satisfied with the model. As such, the Behavioral intention ($H_3 = 0.3$) strengthens the satisfactions of the employees utilizing the generative AI. Increasing the strength of how well they are satisfied with the technology increases the chances that they will further use the technology in the future as these had already been represented through the unified

theory of acceptance and use of technology where it does not state the relationship of perceived satisfaction but it is generally accepted that behavioral intention have a direct relationship to perceived satisfaction and that behavioral intention as well have a direct relationship to use behavior which incites that perceived satisfaction can affect the use behavior (Venkatesh, 2003).

The connection between perceived satisfaction and organizational support is very important as this was stated by Torre et. al. (2020) regarding the satisfaction of employees in technology usage ultimately improves how they are able to interact with their organizations. The study identified that perceived satisfaction had a positive relationship towards Perceived Organizational Support (H₄=0.4) which defines that the employees being satisfied with the provided AI tends to believe more that they are being acknowledged by the organization. By having satisfiable usage of technologies provided by the organization, the employees are able to commit their performance towards their responsibilities with more ease. Another article that relates the improvement of organizational performance through organizational support was made by Hossin et. al. (2021) stating that the role of organizations in improving the employees through supportive actions improve the overall performance value of the organization. As such this notation can also be viewed through the modified model in which having better organizational support yields better employee engagement ($H_5 = 0.23$). According to Eisenberger et. al. (2019), the relationship of organization to its employees paved a vital role in employee performance, as such, Eisenberger's study provides an insight how Perceived Organizational Support is related to Employee Engagement. As the way of organization is supporting its employees by providing the generative AI (Soomro et. al., 2024), a study conducted by Priya et. al. (2020) states that AI has a role in driving the employee engagement towards better direction, the utilization of the modified model creates a clear representation how the acceptance of AI in the organization impacts the employee engagement. Since the role of AI was to improve the employee engagement, a study suggests that by improving the employee engagement within the organization, they will be able to further improve their organizational performance leading to better work interactions and productivity (Noercahyo et. al., 2020).

The generative AI that the organization provided to their employees identified numerous relationships with each other. The study was able to determine that the capabilities of the employees to use the generative AI is the leading reason whether they should accept the AI as an aiding tool for their organization rather than having so many features that it confuses its users. According to Sauer et. al. (2020), the user experience should be the focus when developing or introducing technologies, a common misconception that organizations face when they introduce new technologies to users is the thinking that the technology should be very flexible and has the ability to provide what the users want. However, by approaching this method, most organizations tend to overlook the usability of the technology they propose leading to less usage. By utilizing the TAM model, this follows a reaction towards perceived satisfaction which is another important aspect achieving a good organizational support (Asgari et. al., 2020).

6. Conclusion

In a digital company setup, the implementation of technology and the continuous use of the technology was defined by how good the perspective of the employees is to the organization by deliberating whether they should use the AI as part of their system. The study accommodates additional variables towards the readiness of the organizations in adopting AI which is the organizational support theory. The results of using AI should not only end in how satisfied they are in using the technology but should look how well they are able to navigate through their work and bring more interactions with their workplace. Organizational support theory primarily focuses on how the employees feel that they are being supported by their organizations, one common factor that influences this is the skill gaps the employees face during their work. By providing generative AI as a solution, the overall capability of the employees encourages better work interactions and creates a better organizational culture. As discussed, the relationship of TAM towards OST highlights the readiness of the organizations to fully adopt the AI. The feeling of employees that they feel supported when using AI should create continuous usage of the technology and be one of the deciding factors in incorporating AI into their system. This reduces ineffective utilization of AI and as well as creating a standard assessment how TAM integrating OST can be utilized by organizations in determining should they commit to the implementation of technology. As the study strives to attain its objective, the proponents of the study were able to determine the following from the specific objectives:

• Reliability of each Construct – the first objective of the study is to determine the reliability of each construct, as shown from previous tables, the study was able to prove the reliability of each construct through factor analysis and omission of unfavored variables creating a lean assessment tool.

- Relationship of each Construct the second objective of the study is to determine if there is a presence of relationship between each construct identified, one of the deciding variables towards the organizational readiness is the connection between perceived satisfaction and perceived organizational support. As the study identified that there is indeed a positive relationship between each other, the study concludes that the acceptance of AI through the TAM model can improve organizational readiness and further correlate with the forecasted improvement such as employee engagement by utilizing the generative AI.
- Reliability of the Modified Model the last objective of the study is to finally determine how capable the model is in representing its idea, since the study hypothesized that the modified model can be an adequate model in assessing organizational readiness in adopting the generative AI and improving employee engagements, the findings conclude that they are indeed reliable enough to be an assessment tool for assessing organizational readiness and serve as a model that explains the acceptance of generative AI within the organization can improve its performance through the continuous usage of generative AI.

In summary, the modified TAM model which incorporates OST as another variable for improved accuracy in organizational assessment proves to be adequate and reliable in determining the organizational readiness that envelopes the idea of employee satisfaction in using generative AI and the employee engagements towards their work when the generative AI is being used. By improving employee engagements in the workplace, the organizations will be able to reduce the number of employee turnovers.

References

- Al-Adwan, A. S., Li, N., Al-Adwan, A., Abbasi, G. A., Albelbisi, N. A., & Habibi, A., "Extending the Technology Acceptance Model (TAM) to predict university students' intentions to use Metaverse-Based Learning platforms". *Education and Information Technologies*, 28(11), 15381–15413. 2023. https://doi.org/10.1007/s10639-023-11816-3
- Albdour, A. A., & Altarawneh, I. I., Employee engagement and organizational commitment: Evidence from Jordan. International journal of business, 19(2), 192. 2014
- Al-Dalahmeh, M., Héder-Rima, M., & Dajnoki, K., The effect of talent management practices on employee turnover intention in the Information and Communication Technologies (ICTs) sector: case of Jordan. Problems and Perspectives in Management, 18(4), 59–71. 2020. https://doi.org/10.21511/ppm.18(4).2020.06
- Asgari, A., Mezginejad, S., & Taherpour, F, The role of leadership styles in organizational citizenship behavior through the mediation of perceived organizational support and job satisfaction. *Innovar*, 30(75), 87-98. 2020
- Bérubé, M., Giannelia, T., & Vial, G, Barriers to the Implementation of AI in Organizations: Findings from a Delphi Study. *AISeLibrary*. 2021
- Bhattacherjee, A., & Hikmet, N., Reconceptualizing Organizational Support and its Effect on Information Technology Usage: Evidence from the Health Care Sector. *Journal of Computer Information Systems*, 48, 69–76. 2016. https://doi.org/10.1080/08874417.2008.11646036
- Rizk, Blake, Effects of Organisational Support and Innovation Culture on AI Adoption. Masters thesis, Dublin, National College of Ireland. 2020
- Campued, J. C., Papa, D. M., De Castro, A. C., & Malang, B. P, Exploring Challenges and Opportunities: Evaluating the awareness and readiness of selected government agencies in adopting artificial intelligence (AI). *International Journal of Multidisciplinary Applied Business and Education Research*, 4(12), 4504–4517. 2023. https://doi.org/10.11594/ijmaber.04.12.26
- Davis, F. D., Perceived usefulness, perceived ease of use, and user acceptance of information technology, MIS Quarterly, vol. 13, no. 3, pp. 319-340, 1989.
- Davis, F. D., & Venkatesh, V. A critical assessment of potential measurement biases in the technology acceptance model: three experiments. *International Journal of Human-Computer Studies*, 45(1), 19–45. 1996. https://doi.org/10.1006/ijhc.1996.0040
- Diamantopoulos, A., Siguaw, J.A. and Siguaw, J.A. (2000) Introducing LISREL A Guide for the Uninitiated. SaGE Publications, London. References Scientific Research Publishing. Available https://www.scirp.org/reference/referencespapers?referenceid=2895193
- De Witte, N. A., Rimando, C. R. D., Vandenborre, D., Aseron, A. M. C., Mojica, G. D., Damian, J. A., Van Daele, T., & Schraeyen, K., A culturally-sensitive approach to technology acceptance: the process of applying the UTAUT2 model in the Philippines. *Procedia Computer Science*, 248, 14–21. 2024. https://doi.org/10.1016/j.procs.2024.10.358

- Eisenberger, R., Fasolo, P., & Davis-LaMastro, V. Perceived organizational support and employee diligence, commitment, and innovation. Journal of Applied Psychology, 75: 51-59. 1990.
- Eisenberger, R., Shanock, L. R., & Wen, X., Perceived organizational support: Why caring about employees counts. *Annual Review of Organizational Psychology and Organizational Behavior*, 7(1), 101–124. 2019. https://doi.org/10.1146/annurev-orgpsych-012119-044917
- Epstein, J., Santo, R. M., & Guillemin, F., A review of guidelines for cross-cultural adaptation of questionnaires could not bring out a consensus. *Journal of Clinical Epidemiology*, 68(4), 435–441. 2014. https://doi.org/10.1016/j.jclinepi.2014.11.021
- Feijao, C., Flanagan, I., van Stolk, C., & Gunashekar, S. The global digital skills gap. Curr. Trends Future Dir. 2021 Ghazali, H., Nashuki, N. M., & Othman, M. (2018). The Influence of Perceived Organizational Support (POS), Perceived Supervisory Support (PSS) and Organizational Commitment (OC) towards Intention to Leave or Intention to Stay: A case of Casual Dining Restaurants in Klang Valley, Malaysia. International Journal of Academic Research in Business and Social Sciences, 8(9). Available: https://doi.org/10.6007/ijarbss/v8-i9/4860
- Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S, Partial Least Squares Structural Equation Modeling (PLS-SEM) using R. In *Classroom companion: business*. https://doi.org/10.1007/978-3-030-80519-7, 2021.
- Hossin, M. A., Hosain, M. S., Frempong, M. F., Adu-Yeboah, S. S., & Mustafi, M. a. A., What drives sustainable organizational performance? The roles of perceived organizational support and sustainable organizational reputation. *Sustainability*, *13*(22), 12363. 2021. https://doi.org/10.3390/su132212363
- Labor turnover statistics (National Capital Region, 1st and 2nd quarters 2020). *Philippine Statistics Authority*. Available: https://psa.gov.ph/content/labor-turnover-statistics-national-capital-region-1st-and-2nd-quarters-2020. Accessed on June 17, 2025
- Navarro, M. M., Prasetyo, Y. T., Young, M. N., Nadlifatin, R., & Redi, A. a. N. P., The Perceived Satisfaction in Utilizing Learning Management System among Engineering Students during the COVID-19 Pandemic: Integrating Task Technology Fit and Extended Technology Acceptance Model. Sustainability, 13(19), 10669. 2021. Available: https://doi.org/10.3390/su131910669
- Noercahyo, U.S., Maarif, M.S. and Sumertajaya, I.M., "THE ROLE OF EMPLOYEE ENGAGEMENT ON JOB SATISFACTION AND ITS EFFECT ON ORGANIZATIONAL PERFORMANCE", *Jurnal Aplikasi Manajemen*, 19(2), p. 296, 2021. â€" 309. doi:10.21776/ub.jam.2021.019.02.06.
- Nurnida, I., Fakhri, M., Winarno, A., Putri, V. L., Kurnia, B., Nugraha, D. W., & Maharani, D., Engineering effect of quality of work life and employee engagement toward turnover intention. 2020. Available: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3709593
- Na, S., Heo, S., Choi, W., Kim, C., & Whang, S. W., Artificial Intelligence (AI)-Based Technology adoption in the Construction industry: A cross National perspective using the Technology Acceptance Model. *Buildings*, 13(10), 2518. 2023. https://doi.org/10.3390/buildings13102518
- Ridwan, Muhammad and Mulyani, Sitti Rizki and Ali, Hapzi, *Improving Employee Performance Through Perceived Organizational Support, Organizational Commitment and Organizational Citizenship Behavior*. Systematic Reviews in Pharmacy, 11 (12). ISSN 0976-2779, 2020.
- Priya, M. S., Khan, S., Siddiqui, S., Sharma, M. S., & Verma, S. (2024). The Role of AI in Shaping the Future of Employee Engagement: Insights from Human Resource Management. *EBSCOhost*.
- Santos, J. V., & Jocson, J., Adoption of artificial intelligence technologies in the Philippine construction industry: A review of literature. *Journal of Interdisciplinary Perspectives*, 2(8). 2024. https://doi.org/10.69569/jip.2024.0304
- Sauer, J., Sonderegger, A., & Schmutz, S., Usability, user experience and accessibility: towards an integrative model. *Ergonomics*, 63(10), 1207–1220. 2020. https://doi.org/10.1080/00140139.2020.1774080
- Sholikah, M., & Sutirman, S., How Technology Acceptance Model TAM Factors of Electronic Learning Influence Education Service Quality through Students' Satisfaction. *TEM Journal*, 1221–1226. 2020. https://doi.org/10.18421/tem93-50
- Soomro, S., Fan, M., Sohu, J. M., Soomro, S., & Shaikh, S. N., AI adoption: a bridge or a barrier? The moderating role of organizational support in the path toward employee well-being. *Kybernetes*. 2024. https://doi.org/10.1108/
- Straub, D., Keil, M., & Brenner, W, Testing the technology acceptance model across cultures: A three country study. *Information & Management*, 33(1), 1–11.1997. https://doi.org/10.1016/s0378-7206(97)00026-8

- Tee, P. K., Wong, L. C., Dada, M., Song, B. L., & Ng, C. P., Demand for digital skills, skill gaps and graduate employability: Evidence from employers in Malaysia. *F1000Research*, *13*, 389. 2024. https://doi.org/10.12688/f1000research.148514.1
- Torre, C., Tommasetti, A., & Maione, Technology usage, intellectual capital, firm performance and employee satisfaction: the accountants' idea. *The TQM Journal*, 33(3), 545–567. 2020. https://doi.org/10.1108/tqm-04-2020-0070
- Thurstone, L. L, Multiple factor analysis. *Psychological Review*, 38(5), 406–427. 1931. https://doi.org/10.1037/h0069792
- Utomo, H. J. N., Irwantoro, I., Wasesa, S., Purwati, T., Sembiring, R., & Purwanto, A, Investigating the role of innovative work behavior, organizational trust, Perceived organizational support: an empirical study on SMES performance. *Journal of Law and Sustainable Development*, 11(2), e417. 2023. https://doi.org/10.55908/sdgs.v11i2.417
- Venkatesh, N., Morris, N., Davis, N., & Davis, N, User acceptance of information Technology: toward a unified view. MIS Quarterly, 27(3), 425. 2003. https://doi.org/10.2307/30036540
- Widadi, Feryal & Subroto, Bambang & Rahman, Aulia, Tax Avoidance Mediated by Constitutional Ownership as Moderating Variables. ETIKONOMI. 21. 411-430. 2022. 10.15408/etk.v21i2.25799.
- Yaşlioğlu, M., & Yaşlioğlu, D. T, How and When to Use Which Fit Indices? A Practical and Critical Review of the Methodology. *Istanbul Management Journal*, 1–20. 2020. https://doi.org/10.26650/imj.2020.88.0001
- Zizic, M. C., Mladineo, M., Gjeldum, N., & Celent, L, From Industry 4.0 towards Industry 5.0: A Review and Analysis of Paradigm Shift for the People, Organization and Technology. *Energies*, 15(14), 5221, 2022. https://doi.org/10.3390/en15145221

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Samantha S. Caragay is an aspiring industrial engineer currently pursuing a Bachelor of Science in Industrial Engineering at the Technological Institute of the Philippines. She has contributed to published research, including a project on multifunctional rescue equipment featured in the IEEE Xplore Digital Library. With hands-on internship experience in production and inventory management, as well as proficiency in engineering tools and software, Samantha is committed to driving productivity and fostering continuous improvement in professional environments.

Trishia Anne Marie Cobalida is an industrial engineering student at the Technological Institute of the Philippines in Quezon City, Manila, Philippines. She is a consistent honor student starting from the early levels of education harboring scholarships and academic discounts including her entry into the Technological Institute of the Philippines. She is currently a third-year student in college striving for quality education and improvement of skills and knowledge. She is also a member of the Organization of Industrial Engineering Students (ORIENTS) in the multimedia guild. Some of her works are published and seen at the university.

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