

Original Article

Examining the Relationship Between ICT Proficiency, Motivation, Institutional Support, and Leadership Aspiration Among Employees in Higher Education

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Abstract. This study aims to examine the influence of Information and Communication Technology (ICT) proficiency, motivation, and institutional support on leadership aspirations among employees of two private Higher Education Institutions (HEIs) in Cebu City, Philippines. Existing studies focus primarily on gender as the variable used to identify employees' leadership aspirations. The study employed Pearson's product-moment correlation. A total of 406 faculty and administrative staff were selected through stratified and purposive sampling. The questionnaires were adapted. Results showed statistically significant positive relationships across all variables, with ICT Proficiency exhibiting the strongest correlation, suggesting that digital competence is a critical determinant of leadership aspiration, further supported by the positive roles of motivation and institutional support. Based on these findings, the study recommends that HEIs implement targeted employee development strategies, including those in cybersecurity and data management. Future studies may conduct regression analysis and structural equation modeling to understand the predictive capabilities of the variables. Qualitative methods, such as interviews or focus group discussions, may also be employed. The results can inform succession planning and extension programs that mentor aspiring leaders not only in education but also in other fields of practice.

Keywords: Correlational analysis; ICT proficiency; Institutional support; Leadership aspiration; Motivation.

Leadership is essentially the ability to guide and inspire people toward a common goal. It involves several key actions, such as establishing a clear path, making decisions, motivating others, and fostering teamwork. Effective leaders are expected to communicate well, be honest, adapt to change, and help their team members reach their full potential (Gandolfi & Stone, 2018; Lundqvist et al., 2023). This topic is a primary focus for organizations, which collectively spent a substantial amount on leadership development in 2015. Public interest in leadership has grown dramatically, with Google search volume for the term almost doubling between 2018 and 2023. Despite this interest and investment, reports indicate that only 11% of companies consider their leadership strong (Pincus, 2024). There is a glaring gap that highlights a clear need for a better approach, one that connects leadership development more directly to proven psychological ideas about human needs and

motivation.

Leadership in the Philippines is hampered by significant national issues, including political and educational crises, high unemployment that drives workers overseas, and pervasive systemic problems such as corruption and underfunded education (Cimene & Aladano, 2013; Macapobre et al., 2024). Since organizational success is heavily dependent on effective leadership (Schuetz, 2017) and requires proper succession planning (Hill & Kutsyuruba, 2023), the leadership aspiration of employees, which is their desire to assume leadership roles (Fritz & van Knippenberg, 2017), is vital, especially in higher education, where competition for excellence is intense. Despite the critical importance of effective leadership in academic success and quality, the factors influencing employees to take on these roles remain complex and unclear (Hill & Kutsyuruba, 2023), with many employees showing reluctance, citing heavy workload, lack of institutional support, and persistent self-doubt despite competence (Aycan et al., 2024; Pinheiro et al., 2019).

The drive or aspiration to lead is the essential starting point for personal growth and career advancement, as people generally will not take on the challenging duties of leadership without this inner motivation (Athar et al., 2022). Furthermore, leaders skilled in information and communication technology (ICT) are better equipped to articulate a shared vision, focus on teaching methods, and encourage ongoing professional development within their teams (Christensen et al., 2018). Key factors, such as concerns about staff support, supervision quality, compensation (salary and benefits), and the overall school environment, are vital for encouraging employees to become leaders (Hancock et al., 2016). For aspiring leaders, institutional support is crucial and includes practical training, early field experience, constructive feedback, and clear, consistent university expectations (Gray, 2018). However, most current research focuses too heavily on gender as the primary factor in explaining why employees aspire to leadership roles (Fritz & van Knippenberg, 2017, 2018; Williams & Morey, 2018).

Studies underscore the importance of ICT skills among teachers, highlighting their influence on teaching efficiency, student participation, and career advancement (Shah, 2022). Studies indicate that ICT skills across applications, such as word processing, spreadsheets, presentations, video conferencing, and multimedia editing, enhance instructional delivery and professional development. The correlation between perceived ICT importance and actual skill levels varies: it is strong for presentations and video editing but minimal for career advancement (Magallanes et al., 2024). ICT competence is a crucial factor for technological pedagogical learning in schools. There is a positive correlation between technology leadership and the related competencies that teachers may exhibit in their roles. Effective management and support for ICT resources are required to foster a technology-driven learning environment (Ahmad & Husnin, 2022). A study in the IT/ITeS (Information Technology Enabled Services) industry of South India examines the relationship between IT skills and leadership aspirations among 348 women professionals. The results show that career competence is positively correlated with leadership aspiration (Nair & Senthilkumar, 2024).

Motivation to lead (MTL) is a personal resource that significantly impacts career sustainability and longevity. Leaders with high affective-identity and social-normative motivation exhibited higher career satisfaction. They were more likely to seek challenging leadership positions, whereas those with low affective-identity and high non-calculative motivation reported poorer well-being and lower leadership effectiveness (Auvinen et al., 2020). New teachers exhibit moderate leadership aspirations at the beginning of their careers. This happens because student training in schools is not directly related to management (Karakış, 2021). In nursing, self-efficacy for leadership, shaped by opportunity for skill development, temporary leadership experiences, and mentoring, strongly enhances MTL and career goals (Cziraki et al., 2018). Work-life initiatives positively affect leadership aspirations, particularly among women. Lastly, the supervisor's gender interacts with the subordinate's gender to influence leadership aspiration through support and job control (Fritz & van Knippenberg, 2017). A lack of support or formal acknowledgment for informal leaders can lead to burnout and job dissatisfaction, thereby cutting off a key source of future leadership talent and undermining initial aspirations (Ballesteros et al., 2023). A successful pathway requires institutional commitment to an equitable system where leadership efforts are formally and meaningfully rewarded (Petersen, 2020).

Institutional Support is critical for both nurturing existing aspirations and translating them into sustained action. This support manifests in two key ways: developmental and systemic. Developmental support involves fostering a culture that encourages existing supervisors to exhibit transformational leadership (Abid et al., 2025) and

providing personalized coaching and inspirational mentorship that enhance overall motivation and prepare individuals for broader roles (Nguyen et al., 2025). Programs within healthcare delivery systems for leadership development, such as the Core Leadership Program (CPL), have been developed. The leadership program being tested in the study significantly boosted participants' confidence, self-awareness, and strategic, operational, and relational competencies. This may also guide participants at other institutions to develop an equivalent program to prepare faculty leaders to lead in an increasingly changing academic health center environment (Hackworth et al., 2018). In academic medicine, organizational commitment and support significantly predict faculty promotion and leadership aspirations, with faculty desiring transparent processes, clear guidance, and holistic professional development opportunities (Sancheznieto & Byars-Winston, 2021).

The primary purpose of this study is to investigate the influence of information and communication technology proficiency, motivation, and institutional support on the employees' leadership aspirations in higher education institutions. The results of this study will provide a valuable resource for policymakers and leaders tasked with establishing concrete succession plans to ensure the organization's leadership sustainability. The research is directly connected to three Sustainable Development Goals (SDGs). It supports SDG 4: Quality Education by enhancing the professional competence of higher education staff through ICT skills and leadership development, thereby improving educational quality. Simultaneously, it aligns with SDG 5: Gender Equality by addressing gender issues in leadership and promoting equal opportunity. Finally, SDG 8: Decent Work and Economic Growth by investigating employee motivation and institutional support to boost productivity and career progression.

Methodology

Research Design

This study employed a quantitative research design. The quantitative approach entails the systematic collection, analysis, and interpretation of numerical data, and findings are presented objectively and in a structured manner. Specifically, the study collected data on employees' self-perceived information and communication technology (ICT) proficiency, motivation, institutional support, and leadership aspirations.

Participants and Sampling Technique

The participants in this study were recruited through purposive and stratified random sampling from two private universities in Cebu City. Purposive sampling was first employed to determine the inclusion and exclusion criteria of the respondents. Only faculty and staff members who have been employed for at least one (1) year were included in the sampling, while those who are occupying supervisory or head positions were excluded. Purposive sampling is widely recognized for its appropriateness in selecting participants who can provide the most relevant and meaningful data, thereby enhancing the reliability and trustworthiness of the findings (Memon et al., 2025). After establishing the pool of eligible participants, stratified random sampling was employed to ensure that both academic and administrative staff were appropriately represented. Stratified random sampling is considered one of the most reliable probability sampling techniques because it reduces sampling bias and increases representativeness by ensuring that subgroups are adequately included in the sample (Mackiewicz, 2018). The sample size was determined using Slovin's formula (Adam, 2020), $n = N / (1 + Ne^2)$, where n = sample size; N = population size, and e = margin of error (Mukti, 2025). From this, 1,421 were selected for this study. Stratified random sampling was used to obtain the study sample because participants were recruited from any of the institution's departments, and the sample size for each stratum was proportional to the stratum's population size.

Table 1. *Distribution of the Respondents of the Study by Clusters*

Private Higher Education Institutions (HEIs)	Number of Population in Strata (N)	Strata Sample Size (n)
University A - Academic Cluster	606	133
University A - Administrative Cluster	273	60
University B - Academic Cluster	304	67
University B - Administrative Cluster	238	52
Total	1421	312

Table 1 shows the distribution of samples obtained, which were identified as respondents of the study. The first stage was to determine the stratum of each department within the institutions. There were four strata (Administrative and Academic Clusters) in University A, with a total of 879 employees, and 542 in University B. The second stage determined that the desired sample size of 312 was divided by the population size of 1421, and the quotient was multiplied by the stratum size (i.e., the number of units in each stratum). The whole number was

identified as the sample size derived from the product value, which was then used to calculate the total sample size.

Table 2. *Retrieval Rate of Survey Questionnaires by Institution*

Private Higher Education Institutions (HEIs)	Sample Size	Actual Retrieval of Questionnaires	Retrieval Rate
University A - Academic Cluster	133	171	128.57%
University A - Administrative Cluster	60	93	155.00%
University B - Academic Cluster	67	89	132.84%
University B - Administrative Cluster	52	53	101.92%
Total	312	406	130.13%

Table 2 clearly shows exceptionally successful survey collection, as all four clusters achieved retrieval rates of over 100%. The overall return rate was 130.13%, indicating that 406 questionnaires were collected, despite an initial target sample size of 312. Performance varied, with the University A Administrative Cluster achieving the highest rate at 155.00% (93 retrieved from 60), indicating strong engagement in that specific group. Conversely, the University B Administrative Cluster achieved the lowest relative success at 101.92% (53 retrieved from 52), narrowly exceeding its goal, while the Academic Clusters for both institutions also yielded very high returns. This widespread success in data retrieval suggests that the challenges often faced in data gathering, such as low participation, were effectively overcome. Such high rates imply highly successful mobilization strategies, including robust follow-up procedures and, critically, securing endorsement from institutional leaders. The support gained through meetings with deans and department heads was likely essential; their influence likely encouraged staff participation and facilitated logistics, ultimately allowing the researchers to exceed their sample quotas and gather a vast and robust dataset. This increases data accuracy and reliability, reducing bias in the findings and improving generalizability to the entire group.

Research Instrument

The study utilized a four-part questionnaire. The first is ICT proficiency, which was carefully adapted from the study of Caluza et al. (2017), “An Assessment of ICT Competencies of Public School Teachers: Basis for Community Extension Program,” and Rodriguez (2021), “Technology Leadership: Assessing the Competency Level of High School Administrators and Teachers in the Use of ICTs”. The second and third parts, which concern motivation and institutional support, were adapted from Geroy & Prado (2024), “Commitment, Job Satisfaction, and Productivity of Employees in a Higher Education Institution”. The final section of the questionnaire, which assesses the leadership aspirations of faculty and staff, was adapted from Northouse (2016), “Leadership, Theory, and Practice.” Pilot testing was conducted with 34 respondents to assess the tool's reliability. The Cronbach's Alphas for ICT proficiency (.95), motivation (.96), institutional support (.98), and leadership aspiration (.87) indicate that the adapted tools are reliable.

Data Gathering Procedure

Various research protocols and procedures were followed to obtain the study data. The data for the study were collected as follows: First, the research proposal was submitted to the Research Ethics Committee of Liceo de Cagayan University for review and clearance. Second, a letter of recommendation was obtained from the Dean of the Graduate School and forwarded to the participating universities through their Human Resources and Research and Development offices for endorsement by the approving authority. Third, participants were selected based on the inclusion criteria of being faculty or administrative staff with at least one year of service and without leadership roles. Those who did not meet these criteria or chose to withdraw were excluded. Fourth, the survey questionnaire, written in English and prepared using Google Forms or Microsoft Forms, was distributed via participants' official university email addresses. Some participants completed the survey using a printed copy. The survey took about 15 to 30 minutes to complete, and polite reminders were sent to non-respondents. Fifth, all responses were collected anonymously, stored in encrypted files accessible only to the researcher and statistician, and will be deleted after five years from the completion of the study. Sixth, the data were tallied, statistically analyzed, and presented in aggregate form, with results shared only for academic purposes and with participating institutions upon request. Throughout the process, ethical safeguards were observed. Risks are minimal, as no incentives were given to avoid undue influence. Benefits include contributing to institutional improvement and advancing academic knowledge.

Data Analysis Procedure

The study employed the Pearson product-moment correlation to assess the relationship between employees' leadership aspirations and the independent variables. Its primary purpose is to determine the extent to which the variables are related in the absence of manipulation or intervention. Correlational research enables the identification of the strength and direction of relationships among variables, providing insights into how one variable may vary in relation to another (Devi et al., 2022).

Ethical Considerations

The researchers ensured that ethical conduct was central to the study, with a focus on protecting participants' rights and maintaining academic integrity. The research protocols established by the institutions were strictly complied with. The principle of informed consent was rigorously followed: participants were fully informed of the study's purpose, procedures, and intended use of their data; their voluntary participation was guaranteed, and they had the right to withdraw at any time without penalty. Strict confidentiality and anonymity were maintained. Participants' identities and all personally identifiable information, such as names, were treated with the utmost care, ensuring no mention of any identifiable information in the research. Only the researcher has access to the data, which was stored securely in either locked storage or on a password-protected computer. Participants were assured that the study would cause no harm, physical, social, psychological, or other, throughout their involvement. Finally, to uphold academic integrity, the study was subjected to a plagiarism-detection tool. Transparency and data protection measures were implemented across all phases to maintain participants' trust, ensure compliance with established ethical standards, and adhere to data protection laws.

Results and Discussion

Relationship Between ICT Proficiency, Motivation, Institutional Support, and Leadership Aspiration

Table 3 presents the results of a correlation analysis examining the relationships between leadership aspiration and ICT proficiency, motivation, and institutional support. The findings reveal a statistically significant relationship between employee leadership aspiration and each variable, as indicated by p-values < .000 for all items. This means that a relationship exists and is not due to chance. There is a significant relationship between leadership aspiration and ICT proficiency ($r = 0.303$, $p < .000$). *Correlational analyses of ICT Proficiency sub-variables reveal a statistically significant positive relationship with all four digital competencies and leadership aspiration.* Specifically, Data and Information Management ($r=0.306$, $p < .000$) shows the strongest link, suggesting that the strategic skills in interpreting and leveraging data are the most potent drivers of leadership ambition, followed by the Usage of Productivity Tools ($r=0.289$, $p < .000$) and Internet and Network Management ($r=0.284$, $p < .000$), affirming that operational efficiency and effective digital coordination are also key components. The least influential component is Basic Computer Operation ($r = 0.264$, $p < .000$), indicating that while foundational digital literacy is necessary, advanced, strategic skills are what truly fuel aspiration. These findings suggest that an employee's ability to manage data and information, as well as their overall ICT skills, has the most substantial positive association with their leadership aspiration. The results align with findings from a study on the relationship between IT skills and leadership (Nair & Senthilkumar, 2024).

Table 3. Relationship Between Employees' Leadership Aspiration and Information Communication Technology Proficiency, Motivation, and Institutional Support

Variables	n	r	p	Interpretation
Basic Computer Operation	406	0.264	.000	Significant
Usage of Productivity Tools	406	0.289	.000	Significant
Internet and Network Management	406	0.284	.000	Significant
Data and Information Management	406	0.306	.000	Significant
ICT Proficiency	406	0.303	.000	Significant
Job Security/Pay	406	0.140	.000	Significant
Recognition	406	0.245	.000	Significant
Rewards	406	0.237	.000	Significant
Motivation	406	0.223	.000	Significant
Seminar	406	0.186	.000	Significant
Workshop	406	0.226	.000	Significant
Skills Development	406	0.236	.000	Significant
Professional Development	406	0.232	.000	Significant
Institutional Support	406	0.232	.000	Significant

The correlational analysis of the Motivation sub-variables reveals a statistically significant positive relationship

between all three components and Leadership Aspiration. Recognition ($r = 0.245, p < .000$) exhibits the strongest positive association, indicating that the desire for professional acknowledgment and status is the most powerful motivational factor driving leadership ambition among employees in Higher Education Institutions. Closely following is Rewards ($r = 0.237, p < .000$), which suggests that both tangible and intangible benefits associated with achievement also play a substantial role in stimulating the desire for advancement. In contrast, Job Security/Pay ($r = 0.140, p < .000$) shows the lowest correlation magnitude, confirming that while foundational compensation and security are essential, they are less influential than psychological factors such as recognition and rewards in shaping leadership aspiration. Overall, motivation was significantly associated with leadership aspiration ($r = 0.223, p < .000$). This aligns with the study, suggesting that factors beyond fundamental motivation are needed to enhance aspiration (Karakiş, 2021).

Lastly, the institutional support sub-variables reveal a statistically significant positive relationship with all four components of Leadership Aspiration. Skills Development ($r = 0.236, p < .000$) exhibits a positive association, underscoring that targeted investment in developing tangible competencies is the most effective form of support for encouraging leadership ambition. Closely following are Professional Development ($r = 0.232, p < .000$) and Workshop attendance ($r = 0.226, p < .000$), suggesting that aspiring leaders highly value formal, practical learning opportunities and career-oriented growth programs. In contrast, Seminar attendance ($r = 0.186, p < .000$) shows the lowest correlation, confirming that while informational events are helpful, they are less influential than structured, high-engagement activities in employees' proactive desire to seek leadership roles. The relationship between Leadership Aspiration and Institutional Support ($r = 0.232$) indicates that supportive efforts are positively associated with leadership aspiration. This aligns with the study on leadership aspirations, which reports that faculty desire transparent processes, clear guidance, holistic professional development opportunities, organizational commitment, and support, all of which influence faculty promotion and leadership aspirations (Sanchez-Nieto & Byars-Winston, 2021). Overall, the findings provide strong evidence of a significant relationship between employees' leadership aspirations and each of the three factors. This result suggests that as the value of these variables increases, employees' leadership aspirations also increase. This confirms that these variables are, to varying degrees, associated with an employee's desire for leadership.

Conclusion

Based on the study's findings, ICT Proficiency emerged as the strongest factor influencing employees' leadership aspirations. This underscores its growing necessity for professional advancement within the contemporary academic and administrative landscape. Motivation and institutional support also play significant, though more moderate, roles; together, these findings establish that all three factors are crucial in fostering employees' desire to pursue leadership roles in higher education. The study's results carry significant implications for practice, offering clear recommendations for HEI management. Institutions are strongly advised to enhance and prioritize strategic ICT development programs to build digital competence, thereby cultivating a pool of competent and aspiring leaders. Concurrently, efforts should focus on strengthening motivational systems by explicitly linking rewards and recognition to leadership readiness and by bolstering institutional support through accessible and relevant professional development opportunities. By actively investing in these three areas, HEIs can create an environment that purposefully nurtures internal talent and transforms professional competence into leadership aspiration, thereby ensuring a strong succession pipeline. This study provides an updated empirical framework for understanding leadership aspiration in HEIs, moving beyond traditional factors to incorporate the critical element of technological readiness. The correlational nature of the study means it can only establish associations, not direct causation. Furthermore, the findings are based on data from only two private HEIs in a single location, which limits their generalizability to broader public university systems or to different national contexts. Future research should employ advanced quantitative methods, such as regression analysis and Structural Equation Modeling (SEM), to accurately predict the variables under study. Additionally, qualitative methods, such as interviews or focus group discussions, are recommended to gain a deeper context. The results of this study can also serve as a basis for succession planning and extension programs to mentor and train young professionals and aspiring leaders, not only in the educational setting but also in other fields of practice.

Contributions of Authors

Author 1: conceptualization, data gathering, data analysis, and writing

Author 2: conceptualization, data analysis, and writing

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Conflict of Interests

The authors declare that there is no conflict of interest regarding the publication of this paper.

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