E-Campus Marketplace App: A Peer-To-Peer E-Commerce Platform for St. Clare College Students

Barrientos, Hazel Divine; Bilo, Valerie B.; Busa, Mark Carlo V.; Equiron, Justin Venedict D.; Estiller, Andrea S.; Jalando-on, Arnold D.; Rebagoda, Rea D.; Ruiz, Aaron Genesis M.

Department of Computer Science, St. Clare College of Caloocan

DOI: https://doi.org/10.51584/IJRIAS.2026.11060148

Received: 28 May 2026; Accepted: 03 June 2026; Published: 03 July 2026

ABSTRACT

This study focuses on the development and evaluation of the E-Campus Marketplace App, a peer-to-peer (P2P) e-commerce platform designed specifically for the students of St. Clare College of Caloocan. The research addresses the logistical challenges students face when acquiring school essentials—such as uniforms and booklets—including long waiting lines, uncertain stock availability, and the security risks associated with trading on unofficial social media groups. Using a descriptive developmental research design and an agile development methodology, the researchers created a centralized digital marketplace tailored to the school's environment, utilizing a React Native frontend and a Firebase backend database.

The application provides a secure login system, an organized product catalog, and integrated digital payment options designed to make transactions faster and more reliable. Diagnostic pre-surveys conducted among 193 respondents confirmed manual bottlenecks, specifically highlighting the frequency of long waiting lines (weighted mean = 4.06) and peer transaction anxieties on external social networks (weighted mean = 3.65). Subsequent post-implementation user evaluation of the functional prototype among 113 participants showed high levels of satisfaction regarding the system's ease of use, security features, and overall performance. Notably, respondents highly validated the platform's search and filter capabilities (weighted mean = 4.65) and expressed strong confidence in credential security (weighted mean = 4.52). The findings demonstrate that the app effectively modernizes campus commerce, providing a safer and more convenient alternative to manual methods. The study concludes that this platform is a valuable tool for improving organization, transparency, and trust within the school's community by bridging the gap between the school and students' transactions.

Keywords: E-Campus Marketplace App, Peer-to-Peer (P2P), St. Clare College of Caloocan, E-Commerce Platform, Digital Transactions, School Essentials.

INTRODUCTION & LITERATURE REVIEW

In the contemporary digital landscape, consumer behaviors among youth and university demographics have shifted decisively toward mobile-first interfaces and cashless transactions. For students within academic institutions like St. Clare College of Caloocan, the operational demand for a unified, campus-specific transactional environment has become increasingly critical. Currently, students must manage their essential campus acquisitions—including examinations booklets, uniforms, identification pins, and course materials—through highly fragmented, manual systems. This disjointed procedure regularly subjects the student body to chronic administrative delays, long wait times, and logistical friction, disrupting their academic schedules. Research by Dela Peña et al. (2023) highlights that e-commerce has transitioned from a supplementary convenience to an essential component of student survival in the Philippines; yet, many localized academic institutions continue to rely on obsolete physical counters to manage internal retail logistics.

The core logistical bottleneck at St. Clare College stems from the lack of centralized data visibility. Students frequently queue at administrative cashiers and bookshops only to find that required inventories have been depleted, resulting in wasted time and travel expenses. Furthermore, when students attempt to mitigate high textbook and uniform costs by seeking second-hand alternatives, they are forced to utilize unofficial social media groups (e.g., Facebook buy-and-sell groups). As noted by Jordan and Obra (2021), these "Closed Community

Groups" can foster baseline trust through shared school identity, but they inherently lack the transaction security, technical verification, and structured search parameters of a dedicated marketplace application. Consequently, students remain vulnerable to fraudulent listings, coordinate unsafe physical meetups, and purchase items that violate institutional uniform standards. This study bridges this operational gap by designing, developing, and evaluating a secure, school-monitored mobile application that facilitates official administrative sales and peer-to-peer student exchanges.

To establish the academic foundation for this mobile solution, it is necessary to examine digital integration trends within global and local school environments. Internationally, Smith et al. (2023) at the University of Virginia designed privacy-aware P2P frameworks for student trading, emphasizing that student willingness to adopt campus marketplaces correlates directly with their confidence in data protection and user verification protocols. This highlights the absolute necessity of integrating secure authentication boundaries tied to verified school credentials. Furthermore, Ahmed et al. (2024) demonstrated that localized, student-centric sharing platforms not only resolve logistical pain points but also promote sustainability and cooperative student-led economies. By offering a platform restricted to verified peers, institutions can effectively insulate their student bodies from external digital fraud while encouraging entrepreneurial skill development.

In the Philippine context, the rapid adoption of digital financial technologies (fintech) has completely reshaped transaction expectations. Ortiz et al. (2023) documented a massive behavioral shift among Filipino consumers toward mobile wallets like GCash, driven by the convenience and transaction security of cashless structures. Anne (2024) further proved that integrated digital payment gateways act as the primary catalyst for local e-commerce adoption by removing the delivery and payment friction associated with cash-based models. In contrast, the absence of cashless payment pathways at St. Clare College has been a continuous source of frustration for students accustomed to digital-first environments. Introducing a secure, cashless payment flow within a mobile application aligns institutional services with the actual digital habits of modern students.

Beyond logistical efficiency, localized e-commerce ecosystems foster social cohesion and institutional trust. Huang et al. (2022) established that online peer-to-peer interactions in university-branded digital servicescapes significantly strengthen student attachment to the physical campus. Allowing students to trade used textbooks, uniforms, and learning materials directly with verified peers reinforces mutual support and financial inclusivity. Administratively, digital transition also optimizes institutional governance. Williamson (2020) argues that campus digital platforms function as "market devices" that reorganize traditional schools into highly efficient, data-driven organizations. Shifting from physical ledgers and unmonitored peer trading to a structured, centralized digital database allows school administrators to maintain precise inventory control, log transaction histories, and enforce compliance with standard apparel specifications. This research synthesizes these three domains—security, community cooperation, and administrative efficiency—to construct a tailored mobile commerce solution.

METHODOLOGY

The researchers utilized a **Quantitative Research Method** to systematically measure and evaluate both the challenges in the current manual system, the technical performance and acceptability of the E-Campus Marketplace App. This approach was chosen to gather numerical data that could be statistically analyzed to prove the system's reliability, functionality, and ease of use. By focusing on quantifiable results, the researchers established a baseline using a diagnostic pre-survey to identify the frequency of challenges students face in the current manual system, such as long waiting lines and safety concerns in unofficial online trading groups.

The data gathering procedure followed a specific protocol where the researchers first secured official approval from the Department Head and Thesis Adviser to conduct the study and administer the surveys. For the diagnostic phase, the survey was administered using a dual-mode approach to ensure maximum participation across different academic levels: Tertiary students completed the survey digitally through Google Forms, while Elementary, Junior High, and Senior High School students were provided with printed physical copies of the questionnaire to accommodate classroom regulations regarding mobile phone usage.

This study utilized a **Descriptive Developmental Research Design**. This design framework serves a dual

ISSN No. 2454-6194 | DOI: 10.51584/IJRIAS |Volume XI Issue VI June 2026

purpose: guiding the software engineering process of the application while structuring the descriptive evaluation of its final performance.

The first component, the **Developmental Phase**, focused on the technical design, architectural construction, and programming of the mobile application and admin control panel. Using the Agile Methodology, this phase organized the system's development into incremental sprints. This iterative process allowed the developers to continuously code, evaluate, and debug key functionalities—such as role-based login validation, product grid filtering, built-in chatting, and automated receipt generation—prior to final deployment.

The developmental phase utilized the Agile Methodology, which breaks system creation into five manageable sprints:

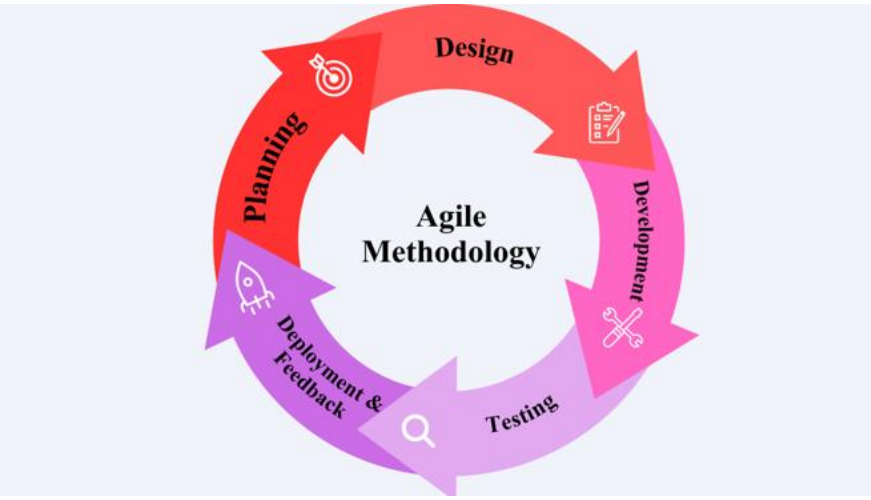

Figure 1. The Agile Development Process

Phase 1: Planning/Requirements Analysis

The researchers identified the core features necessary for the platform. This included the development of a secure login system for various user roles, an organized product catalog for school items, and a "No Cash Payment" transaction logic to ensure security.

Phase 2: System Design

During this stage, the User Interface (UI) was mapped out. The researchers used Figma to design the app, ensuring it remained user-friendly and intuitive for the St. Clare College student body.

Phase 3: Development

This phase involved the actual technical engineering and coding of the application. The frontend was built using React Native for Android compatibility, while the backend database and authentication services were managed through Firebase.

Phase 4: Testing

The system underwent rigorous unit testing to identify and resolve technical issues. The primary focus was fixing critical bugs such as login errors and failures in image uploads before the app was presented to users.

Phase 5: Deployment and Feedback

The functional prototype was presented to a selected group of student and faculty respondents for live demonstrations. Their interaction with the system provided quantitative feedback that the researchers used to make final adjustments and optimize the app's performance.

ISSN No. 2454-6194 | DOI: 10.51584/IJRIAS |Volume XI Issue VI June 2026

The second component, the **Descriptive Phase**, concentrated on investigating the usability, reliability, and security of the finalized system. Through surveys containing standardized assessment scales, this phase documented the user experience, acceptability, and overall performance of the prototype. This descriptive evaluation proved that the developed system matches the practical requirements and technical capabilities of college students and administrators.

To gather the necessary data for this study, the researchers utilized a two-phase structured survey instrument designed to evaluate both the baseline problems of the manual system and the technical performance of the "E-Campus Marketplace App." The instrument was administered in two formats: a Digital Survey (Google Forms) for Tertiary students to leverage real-time tracking, and Physical Questionnaires (Printed Copies) for Basic Education students to comply with campus mobile phone regulations.

The research instrument is divided into two primary phases:

1. Pre-Survey

The first part of the instrument was designed to identify the frequency of challenges and user preferences. The pre-survey questionnaire is divided into the following parts:

Part 1: Respondent Profile:

Collects demographic data including year level, department, current purchasing methods for school items, and initial sentiments toward digital-only payments.

Part 2: Problems Encountered in Buying and Selling:

Utilizes a 5-point Likert frequency scale (Always to Never) to measure the occurrence of logistical issues such as long lines, stock unavailability, and safety concerns on unofficial platforms.

Part 2.1: Feature-Specific Feedback:

Employs a 5-point importance scale (Very Important to Not Important) to assess the perceived value of proposed application features like secure login, item listing, and digital payment options.

Part 4: Open-Ended Feedback:

Provides a space for respondents to suggest additional items for the marketplace and voice specific concerns regarding security or privacy.

2. Post-Survey (Software Quality Evaluation Phase)

The second part of the instrument was administered following a live demonstration of the functional prototype. This phase evaluated the technical performance of the app based on established software quality criteria:

Part 1: Respondent Profile:

Captures the year level and department of the evaluation participants to ensure a representative sample of the student body.

Part 2: Software Quality Evaluation:

Uses a 5-Point Likert Scale (Strongly Agree to Strongly Disagree) to measure four key technical areas:

- Functional Suitability: Assessing if core functions like searching, filtering, and listing work accurately.

ISSN No. 2454-6194 | DOI: 10.51584/IJRIAS |Volume XI Issue VI June 2026

- Usability: Evaluating the clarity of the user interface, ease of navigation, and simplicity of the image upload process.
- Reliability: Checking for system stability, consistent performance, and consistency in saving transaction history.
- Performance & Security: Measuring the responsiveness of the app and user confidence in credential protection and digital e-receipt generation.

Part 3: Qualitative Feedback:

Includes open-ended questions where respondents identify the most useful features and provide specific suggestions for further aesthetic or functional improvements.

To ensure the validity of the instrument, the initial draft underwent a content validation process by the program head and faculty experts. Their feedback was used to refine the indicators, ensuring they were semantically clear and directly aligned with the specific objectives of the study.

To evaluate the problems and system performance, data gathering was organized in two distinct phases. First, the pre-survey was administered to ***n = 193*** respondents to document manual transaction challenges. Second, following a live demonstration of the prototype, the post-survey software evaluation was completed by ***n = 113*** participants. Because of mobile phone regulations in basic education, tertiary students answered surveys digitally through Google Forms, while elementary, junior high, and senior high school students completed printed physical questionnaires.

For statistical treatment, percentage distributions and weighted means were calculated. Demographics were analyzed using the percentage formula:

$$P = \frac{f}{n} \times 100$$

Where:

- P = Percentage
- f = Frequency (number of respondents in a category)
- n = Total number of respondents

Evaluation metrics were determined using the weighted mean formula:

$$\bar{x} = \frac{\sum fx}{N}$$

Where:

- $\bar{x}$ = Weighted Mean
- f = Frequency of each option chosen
- x = Weight of each option (e.g., 5, 4, 3, 2, 1)
- N = Total number of respondents
- $\sum$ = Summation

ISSN No. 2454-6194 | DOI: 10.51584/IJRIAS |Volume XI Issue VI June 2026

RESULTS AND DISCUSSION

Analyzing the diagnostic pre-survey data ***n = 193*** provides empirical evidence of the logistical bottlenecks within the traditional manual framework at St. Clare College of Caloocan. Table 1 outlines the demographic distribution of the research participants across both survey phases.

Table 1: Demographic Distribution of Research Participants

Year Level	**Frequency**	**Percentage**	**Frequency**	**Percentage**
Tertiary	97	50.26%	63	55.75%
Senior High School	63	32.64%	26	23.01%
Junior High School	18	9.33%	24	21.24%
Grade School/Elementary	15	7.77%	-	-
Total:	**193**	**100%**	**113**	**100%**

The demographic data shows that the majority of the respondents are from the Tertiary and Senior High School levels. This is a significant finding because these students are the primary users of the E-campus marketplace. Tertiary students, specifically those in the Computer Science program, provided technical insights into how the app should function. The inclusion of Junior High School students in the post-survey also proves that the app is easy enough for younger students to use. By having a wide range of academic levels, the researchers ensured that the feedback reflects the needs of the entire St. Clare College community.

Table 2: Current Purchasing Behavior and Digital Payment Sentiment

(Pre-Survey Analysis)

3. How do you *currently* purchase OFFICIAL school items (e.g., booklets, ID laces, new uniforms, ID pins, event tickets)	School Office (Cashier/Bookstore): **153**
	Shops outside school: **38**
	Other students: **25**
	Official Social Media Groups: **3**
4. How do you *currently* purchase OTHER school-related items (e.g.,books, school supplies, unused uniforms)?	Other students: **73**
	Unofficial Social Media Groups: **58**
	Shops outside school: **56**

The data reveals a heavy reliance on traditional methods for acquiring official school items, with 153 respondents currently visiting the school office or cashier. However, for other school materials, students are increasingly turning to peer-to-peer exchanges, with 73 respondents buying from other students and 58 utilizing unofficial social media groups.

Evaluation of the Existing Manual System (Pre-Survey Analysis)

The pre-survey acted as the tool for finding the exact problems in the current way students buy and sell school items.

Scale: 5 - Always, 4 - Often, 3 - Sometimes, 2 - Seldom, 1 - Never

Table 3: Problems Encountered

Problems Encountered	5	4	3	2	1	Weighted Mean	Verbal Interpretation
I experience long lines or waiting times when buying official items (e.g., booklets, tickets) at school offices.	85	65	22	11	10	4.06	Often
I arrive at the school store/office only to find that the item I need is out of stock or unavailable.	24	57	67	35	10	3.26	Sometimes
I feel hassled having to physically go to school just to buy a single item or check its availability.	49	54	69	12	9	3.63	Often
I encounter items bought from outside vendors (e.g., ID laces, pins) that do not match the official school standard/color.	32	56	62	29	14	3.33	Sometimes
I find it difficult to find other students who are selling the second-hand books or uniforms I need.	32	61	72	20	8	3.46	Often
I worry about the safety or legitimacy of sellers when transacting on social media groups (e.g., Facebook/Messenger)	55	48	62	23	5	3.65	Often
I experience inconvenience due to lack of cashless payment options.	28	36	60	46	23	3.01	Sometimes
I find it stressful to manage my time between classes and lining up for school essentials.	22	51	64	43	13	3.14	Sometimes

The survey shows significant challenges with the current manual system. The issue of "long lines or waiting times" had a weighted mean of 4.06, interpreted as "Often"." Additionally, the physical "hassle of going to school" just to verify item availability received a weighted mean of 3.63.

Safety is also a concern for students buying from other students. The "worry about safety on social media" earned a weighted mean of 3.65 ("Often"). These results prove that students need a secure, school-monitored app to replace risky transactions on social media.

Technical Evaluation of the Functional Prototype (Post-Survey Analysis)

After the demonstration, 113 respondents evaluated the prototype across four software quality areas.

Table 4: Evaluation of Functional Suitability

Functional Suitability	5	4	3	2	1	Weighted Mean	Verbal Interpretation
The search and filter functions effectively help me find school essentials.	74	39	0	0	0	4.65	Strongly Agree

The order/add to cart request process works accurately for buyers and sellers	45	35	33	0	0	4.11	Agree
The messaging feature allows clear communication regarding transactions.	30	38	45	0	0	3.87	Agree
The app allows me to list items for sale with complete details and images	39	42	32	0	0	4.06	Agree

The results indicate a high level of satisfaction with the app's core features. Particularly, the Search and Filter functions received zero negative or neutral feedback, with 74 respondents (65.5%) "Strongly Agreeing" and 39 (34.5%) "Agreeing" that the system effectively helps them find school essentials.

The perfect positive score in this category proves that the system logic correctly addresses the Statement of the Problem regarding the difficulty of finding school-related items. While the Order/Add to Cart and Messaging features also received high approval, recorded with 33 and 30 "Neutral" responses, respectively. This suggests that while the functionality is present, students may require more frequent usage.

Table 5: Evaluation of Usability

Usability	**5**	**4**	**3**	**2**	**1**	**Weighted Mean**	**Verbal Interpretation**
The user interface is visually organized and professional.	56	39	18	0	0	4.34	Strongly Agree
Can navigate through the app's features without needing a manual.	36	42	35	0	0	4.01	Agree
The icons and labels used in the app are easy to understand.	51	49	13	0	0	4.34	Strongly Agree
The process of uploading images for listings is simple and uncomplicated.	55	38	20	0	0	4.15	Agree

The usability of the application was one of the highest-rated categories, particularly in terms of interface organization. Fifty-six (56) respondents "Strongly Agreed" that the user interface is visually organized and professional. Furthermore, the ease of understanding icons and labels received a combined 100 positive responses (49 Strongly Agree and 51 Agree).

This confirms that the "minimalist approach" chosen during the design phase was successful in creating an intuitive experience. The data suggests the app has a low learning curve specifically, the 97 positive responses regarding navigation without a manual indicate that St. Clare College students can adopt the platform quickly with minimal orientation.

Table 6: Evaluation of Reliability

Reliability	**5**	**4**	**3**	**2**	**1**	**Weighted Mean**	**Verbal Interpretation**
The application does not crash or close unexpectedly during use.	41	53	18	1	0	4.19	Agree

ISSN No. 2454-6194 | DOI: 10.51584/IJRIAS |Volume XI Issue VI June 2026

The system accurately saves my profile and transaction history.	43	36	34	0	0	4.08	Agree
The app consistently loads product information without errors.	47	36	30	0	0	4.05	Agree
The application performs consistently across different sessions without needing to re-login or reset settings unexpectedly.	40	34	39	0	0	4.01	Agree

Reliability scores remained stable across different user sessions. For system stability (not crashing), 41 respondents "Strongly Agreed" and 53 "Agreed," though 1 respondent noted a "Disagree." The system's ability to accurately save profiles and transaction history earned 43 "Strongly Agree" and 36 "Agree" responses.

The single report of an unexpected closure highlights the importance of device compatibility testing, but the overall trend (94 positive responses) validates the choice of Firebase as a robust backend. The 47 "Neutral" responses regarding the loading of product information suggest that network latency (school Wi-Fi or data) might affect the perceived reliability of real-time data fetching, even if the system itself is functioning correctly.

Table 7: Evaluation of Performance & Security

Performance & Security	**5**	**4**	**3**	**2**	**1**	**Weighted Mean**	**Verbal Interpretation**
I feel confident that my school credentials are safe within the login system.	54	34	35	0	0	4.52	Strongly Agree
The app responds quickly when I tap on buttons or menu items.	44	46	23	0	0	4.20	Strongly Agree
The overall speed of the app makes transactions feel efficient.	39	48	24	2	0	4.18	Agree
The system accurately generates and stores digital e-receipts as proof of transaction.	36	52	10	5	0	3.79	Agree

Security remains a top priority for students. Fifty-four (54) respondents "Strongly Agreed" that their school credentials feel safe within the login system. The Digital E-Receipt system—a feature highly requested in the pre-survey—recorded 36 "Strongly Agree" and 52 "Agree" responses, although it noted 5 "Disagree" votes.

The high confidence in security (88 combined positive votes) validates the "Authorized User Base" design. The 5 "Disagree" votes regarding the digital e-receipt system, combined with open-ended feedback requesting a more "creative" UI, suggest that users desire a more formal or aesthetically pleasing design for their transaction proofs. However, the overall speed of the app (90 positive responses) proves that the prototype is efficient enough for fast-paced campus transactions.

CONCLUSION

Based on the findings of the study, it is concluded that the E-Campus Marketplace App: A Peer-to-Peer E-Commerce Platform for St. Clare College Students effectively addresses the challenges present in the existing

manual and unorganized system of acquiring school-related items. The results confirm that students frequently experience inconvenience due to long waiting times, limited accessibility, and safety concerns when using unofficial platforms, thereby validating the problems identified in Chapter I. By providing a centralized digital environment, the application simplifies the acquisition of school essentials while fostering a sense of trust and community among students. The integration of key features such as secure login, organized product catalogs, and cashless payment methods directly aligns with the current digital behaviors and preferences of the student body. Furthermore, as shown in Chapter IV, the system obtained high evaluation results in terms of functional suitability, usability, reliability, and security, indicating that the prototype is not only technically sound but also meets the specific institutional needs of the college. The application improves transaction efficiency, enhances accessibility, and promotes trust among users within the St. Clare College community. Therefore, it is concluded that the E-Campus Marketplace App is a viable and effective platform that supports the modernization of campus transactions and contributes to a more convenient, organized, and secure student experience.

TO BUILD ON THESE POSITIVE FINDINGS, THE RESEARCHERS RECOMMEND SEVERAL KEY TECHNICAL ENHANCEMENTS

Enhance the system's performance and accessibility starting with **Expanded Platform Compatibility**. Since the current prototype was developed specifically for Android devices to ensure accessibility for the majority of the student body , future researchers should focus on developing a version for iOS. This expansion would ensure that all St. Clare College students, regardless of their mobile device preference, can benefit from the marketplace, creating a truly inclusive digital ecosystem for the entire campus community.

Furthermore, the study suggests a need for **Network Optimization** to maintain system reliability even under varying conditions. Although the post-survey showed high satisfaction, some neutral responses regarding the loading of product information indicated that network latency or unstable school Wi-Fi could affect the perceived performance. Future iterations should implement advanced data caching or offline modes to ensure that the application remains responsive and efficient, thereby maintaining high ratings for performance efficiency and functional suitability regardless of the user's connection strength.

Finally, the researchers propose **Enhanced Device Compatibility Testing** as a priority for future system updates. While the overall trend for system stability was positive, a single report of an unexpected closure during the evaluation highlights the importance of testing the app across a wider variety of mobile hardware specifications. By conducting rigorous stress tests on various mobile processors and RAM configurations, developers can achieve high-level system stability and significantly reduce technical interruptions, further validating the choice of Firebase as a robust backend for the St. Clare College community.

REFERENCES

1. Ahmed, F., Jha, N. K., & Faizan, M. (2024). Design and development of a localized e-commerce solution for students focusing on economical sharing. arXiv. https://arxiv.org/abs/2411.11527
2. Almanza, D. J. V. B., Arrieta, M. M. C., Mangilog, K. J. H., & Villegas, Z. A. P. (2023). Add to cart: How an online shopping platform could impact Michael in Grade 12 DLSU Manila to purchase during the post-COVID-19 pandemic. DLSU Research Congress 2023. https://animorepository.dlsu.edu.ph/conf/shsrescon/2023/bus_pres/5/
3. Ambag, S. C., Bernarte, R., & Bautista Jr., A. (2024). Online shopping experience of Filipino faculty members who are selected to use the online marketplace in Manila. Diversitas Journal, 9(1), 158–171. https://www.researchgate.net/publication/378443806_Selected_Filipino_Faculty_Members'_Online_Shopping_Experience_in_Manila's_Online_Marketplace
4. Anne, G. (2024). E-commerce growth and digital payments in the Philippines. International Journal of Technology and Systems. https://doi.org/10.47604/ijts.2817
5. Bayudan-Dacuycuy, C., & Dacuycuy, L. (2022). Online marketplaces and the Philippine digital economy: Insights from the National ICT Household Survey. EconStor. https://www.econstor.eu/bitstream/10419/272884/1/1818781352.pdf

6. Brofors, O., Gripnes, E., Andersson, E., Strid, A., Lundqvist, E., & Ingvald, F. (2024). LiU Marketplace - Digital marketplace by students, to students [Bachelor's thesis, Linköping University]. DiVA Portal. https://liu.diva-portal.org/smash/record.jsf?pid=diva2%3A1883545&dswi d=-3693
7. Dela Peña, J., Ramirez, K., Santos, P., & Villanueva, R. (2023). Empirical analysis on the preference of Negros Oriental State University students to online shopping. East Asian Journal of Multidisciplinary Research, 2(4), 1120–1130. https://journal.formosapublisher.org/index.php/eajmr/article/view/3551
8. Fadillah, J., Putra, F. S., Fajrillah, A., Hidayat, W., & Ibrahim, Z. (2024). Use of e-commerce among the UIN SMH Banten students. Jurnal Impresi Indonesia, 3(7), 536–543. https://www.researchgate.net/publication/382439923_Analysis_of_the_U se_of_E-Commerce_among_Students_of_UIN_SMH_Banten
9. Huang, Y., Finsterwalder, J., & Chen, N. C. (2022). Online student engagement and place attachment to campus in the new service marketplace: An exploratory study. Journal of Services Marketing, 36(4), 497–512. https://doi.org/10.1108/JSM-08-2020-0336
10. Ismail, N., & Aziz, N. (2020). Student online marketplace for university community. Semantic Scholar. https://www.semanticscholar.org/paper/Student-online-marketplace-for-university-community-Ismail-Aziz/efc9155acb6d9313536cead648bab7aeb82bf1bc
11. Jordan, C. M. R., & Obra, K. P. B. (2021). We-commerce: A study on Filipino consumers trading in a social context through online closed community groups (CCGs). Animo Repository. https://animorepository.dlsu.edu.ph/faculty_research/10905/
12. Ortiz, M. J., Dela Cruz, R. P., Manalo, J. S., & Villanueva, K. A. (2023). A comparative study on behavioral intention of Filipino consumers: Cash vs. e-wallet. Proceedings of the International Conference on Industrial Engineering and Operations Management. https://ieomsociety.org/proceedings/2023manila/479.pdf
13. Philippine Institute for Development Studies. (2019). Determinants of e-commerce adoption of Philippine businesses (PIDS Discussion Paper Series No. 2019-24). https://doi.org/10.62986/dp2019.24
14. Santos, M., Dela Cruz, R., Mendoza, K., & Villareal, L. (2024). TikTok-driven buying patterns: A study of consumer behavior among university students in the Philippines. ResearchGate. https://www.researchgate.net/publication/395768178_TikTok-Driven_Buyi ng_Patterns_A_Study_of_Consumer_Behavior_among_University_Student s_in_the_Philippines
15. Smith, J., Walker, A., & Hayes, L. (2023). Providing a secure digital marketplace for college students: Designing a privacy-aware peer-to-peer e-commerce platform and analyzing its social impact [Master's thesis, University of Virginia]. LibraETD. https://libraetd.lib.virginia.edu/public_view/8336h302c
16. Williamson, B. (2020). Making markets through digital platforms: Pearson, edu-business, and the (e)valuation of higher education. Critical Studies in Education, 63(1), 1–17. https://doi.org/10.1080/17508487.2020.1737556
17. Zakariah, N., & Jamaluddin, S. (2023). Social marketplace web application for UiTM Perlis students [Undergraduate thesis, Universiti Teknologi MARA Perlis]. UiTM Institutional Repository. https://ir.uitm.edu.my/id/eprint/100153/