

The impact of Hostel amenities on students' Academic performance In Federal Universities North East, Nigeria

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Abstract

Assessing the effect of hostel amenities on student academic performance is crucial given the increasing demand for excellence among students. However, there has been limited research conducted in Northern universities. This paper aimed to evaluate the impact of hostel amenities on students' academic performance in Federal Universities in North East Nigeria, intending to provide guidance for the provision of adequate amenities and services to enhance student satisfaction in their hostels. The population for this study consisted of students residing on campus in the study area, totaling 32,256 students across seven federal university hostel blocks. An approximate sample size of 2,700 students was selected for data collection using a proportional sampling technique based on the hostel blocks. A five-point Likert scale questionnaire was used as the data collection instrument, and pretesting surveys were conducted to validate the questionnaire. The collected data were analyzed using regression analysis. The findings indicated that amenities such as electricity supply, bathrooms, sporting facilities, recreational facilities, common rooms, wardrobes, internet services, surveillance cameras, wall sockets, whiteboards, fans, and plumbing showed positive coefficients with p-values less than 0.05, indicating a positive and significant effect on students' academic performance. Additionally, the results revealed that amenities like toilets, fire extinguishers, and laundry services had a weak negative impact on the relationship between amenity provision and students' academic performance. The study recommends that future research should explore other factors not considered in this study to enhance the formulation and implementation of policies regarding the provision and management of amenities. It also emphasizes the need for a dedicated budget for ongoing maintenance, as neglect often results from insufficient funding.

Key words: Student hostel, Satisfaction, Student Performance, Service Provision

1.0 Introduction

Students' academic performance is impacted by several factors, including their living conditions. Hostel amenities, in particular, play a significant role in shaping their academic experience. This study examines the influence of hostel amenities on the academic performance of students in Federal Universities in North East Nigeria. Research suggests that proper hostel amenities boost students' comfort, well-being, and academic productivity, while inadequate living conditions can negatively affect academic success. Studies by Aithal and Aithal (2019) and Mbazor (2021) highlight that hostel accommodations and amenities are a major concern for university students worldwide. These facilities are critical in determining how effectively students engage with their academic work on campus. The quality and availability of hostel amenities have a direct effect on both students' academic performance and their overall well-being, making this an important topic of study. A comfortable living environment promotes focus and supports academic engagement, making it essential to understand and enhance the factors that contribute to student satisfaction in hostels.

Hostel amenities generally consist of basic necessities such as water, electricity, security, laundry services, internet access, cafeterias, parking spaces, health services, and wardrobes. According to Sa'ad (2021), students require a comfortable environment to unwind after classes in order to fully engage in lectures and other school activities. Ensuring the availability, upkeep, and proper management of these hostel amenities is essential for students' academic success.

Universities across the country must prioritize providing sufficient and functional amenities to improve student hostel life and enhance the overall university experience. Georger (2017) and Rahman et al. (2020) highlighted the crucial role that well-maintained hostel accommodations play in helping students attend lectures, participate in school activities, and carry out research. Improving the quality of life in student hostels requires addressing key issues related to the availability and distribution of suitable accommodations. Consequently, this study aims to assess the condition of hostel amenities to determine their impact on students' academic performance.

2.0 Literature Review

2.1 Impact of amenities on Academic Performance

Abdullahi and Gwamna (2017) examined the impact of both physical and non-physical amenities on student academic performance in Nigerian universities. They collected data through questionnaires and analyzed it using the relative satisfaction index. The findings revealed that Nigerian universities are facing challenges, reflected in a decline in teaching and learning quality due to inadequate amenities, which contributes to unsatisfactory academic performance. The study also showed that the effectiveness of existing amenities is closely tied to how well they are managed. This process provides insight into student needs and how well amenities are functioning. However, based on the findings, no case study was included, and the conclusion is more reflective of the authors' opinions.

Navarez (2017) explored student satisfaction with six aspects of their room. Questionnaires were distributed to 38 respondents, and the data was analyzed using descriptive statistics. The findings indicated that the current state of student accommodations does not meet the demand for learner-centered and quality-driven hostel amenities, and study group discussions are encouraged as a result. However, a gap in the literature was identified, as the study had no defined population, and the sample size of 38 students was too small to generalize the findings. Additionally, the author did not adequately interpret the analysis, leading to inaccurate conclusions.

2.2 Determinant of Students' academic performance

Several factors influence students' academic performance, including socioeconomic background, quality of teaching, learning environment, and personal motivation. Students from low socioeconomic backgrounds often face challenges like poor nutrition, insufficient resources, and a lack of parental support, all of which can negatively affect their academic performance. In contrast, students from wealthier backgrounds tend to have access to better resources and support, which can positively influence their academic success. Additionally, the quality of teaching plays a crucial role in determining academic performance. Teachers who are knowledgeable can foster a positive learning environment, significantly impacting student outcomes (Lund et al., 2019).

Online learning, however, can have negative effects, such as time wasted due to poor internet connectivity, inadequate course content, lack of proper supervision, and a lack of group discussions with peers (Anthonia, 2014). In a study conducted by Anthonia (2014), the impact of off-campus living on students' academic performance in Abia State was examined. Data was collected using a structured questionnaire and analyzed with descriptive statistics. The findings revealed that a lack of care from relatives and family members negatively influenced students' academic performance. Based on these findings, the study concluded that parents need to spend more time listening to their children's concerns and provide appropriate support.

Chaudhry (2011) examined the factors influencing students' academic performance in a metropolitan area in Pakistan. A questionnaire was distributed to participants, and data were analyzed using ANOVA to identify factors affecting performance. The findings indicated that parents' socioeconomic background and education level were the most significant factors, with parental education contributing greatly to student performance. Ali (2013) explored the factors influencing academic achievement in mathematics departments at a southern Nigerian university. A random sample of 100 students from each school was selected, and data were analyzed using their second-semester results from 2011/2012 through mean, standard deviation, and percentages. The results showed that KSU students performed slightly better than COE students. Hamza and Abdulghani (2014) identified factors that contribute to students' success in medical studies, such as attending lectures, participating in focus groups, completing tests and assignments, revision, learning skills, note-taking, learning from patient interactions, time management, and family support. The study concluded that these factors, which are common to various students, could help improve academic performance. However, the study lacked an in-depth analysis of the university system's role in student performance.

2.2.1 Hostel amenities and academic performance

Hostel amenities can greatly influence students' academic performance. Students living in hostels with comfortable conditions, such as clean and well-maintained facilities, tend to focus better on their studies and achieve higher academic results. In contrast, students living in hostels with poor conditions, such as lack of internet access, overcrowding, insufficient lighting, and limited privacy, may struggle to concentrate and perform well academically (Animba & Nneji, 2020). Furthermore, hostels that offer resources like study areas, computer labs, and free parking can contribute to students' academic success (Ramli, Zain, Campus, Chepa, & Bharu, 2018). As noted by Animba et al. (2020), hostel amenities are essentially those that enhance the comfort of the residents. Silalahi (2020) categorized hostel amenities into two stages: those meant for students and those for administrative staff.

Maponya (2020) emphasized that the primary goal of providing hostel amenities is to support students' activities and ensure their comfort, which in turn can boost their academic performance (Ramli et al., 2018). Similarly, Nepal (2016) argued that hostel amenities enhance the effectiveness of teaching in schools. However, inadequate physical amenities can negatively affect students' interest in learning. Insufficient amenities have been shown to reduce students' motivation to learn, leading to a decline in their interest (Maponya, 2020).

Mlambo (2011) highlighted that students' academic success can be evaluated through various factors, such as gender or grades. Many studies have shown that a lack of amenities can cause a decline in academic performance. In line with this, Ramli et al. (2018) stated that students residing in newer hostels with better amenities tend to perform better academically than those living in older hostels with insufficient facilities. Abisuga, Wang, and Sunindijo (2019) revealed that the condition of hostel amenities directly affects students' academic success, with students in well-maintained hostels achieving higher marks compared to those in poorly maintained accommodations. Additionally, Herman, Reinke, Dong, and Bradshaw (2022) pointed out that the design of hostels is another important factor in improving student achievement.

The arrangement of classroom furniture also impacts academic performance. Creating a learning environment where students feel comfortable and supported is crucial. Previous studies have found that female students tend to feel more at ease when the classroom is arranged in clusters or rows, as these setups create a more intimate and personal atmosphere that fosters communication and collaboration.

However, Simmons, Carpenter, Crenshaw, and Hinton (2015) argued that classroom arrangements in clusters and rows can sometimes lead to disruptive behavior and distract students from their tasks. Additionally, Ramli et al. (2018) noted that students living in hostels with newer and functional amenities tend to perform better than those in older, nonfunctional accommodations, which can negatively impact their studies. Previous research has indicated a significant correlation between the school environment and students' behavior toward learning. Langer (2000) found that students achieve better academic results when they reside in well-organized and maintained

hostels. A supportive living environment can foster greater involvement in academic activities, suggesting that the quality of hostels plays a crucial role in students' academic success.

At the same time, Souck and Nji (2017) examined how inadequate supervision and a lack of maintenance culture affect the lifespan of amenities. This highlights the importance of effective supervision of facilities, including buildings and technical systems, to ensure that amenities operate smoothly and efficiently. Ramli et al. (2018) emphasized that a properly estimated repair plan should be established to ensure efficient allocation of repair costs and proper functioning of amenities. Effective management of school facilities is essential for helping institutions achieve their goals and objectives. In a similar vein, Durán-Narucki (2008) pointed out that insufficient amenities can lead to poor student attendance in classes, ultimately weakening academic performance. Nduka, Oyeyemi, Olofinnade, Ede, and Worgwu (2021) explained that institutions with inadequate indoor recreational areas in hostels may hinder students' ability to study effectively in classrooms, resulting in some students missing classes due to health-related issues.

2.2.3 Relationship between Academic Performance and Amenities Provided

In a recent study, Asibu (2021) explored the factors affecting the academic success of medical students at the University of Cape Town. The findings revealed that the availability of amenities in hostels has a significant impact on students' academic performance and is crucial to their achievements. It is widely acknowledged that providing adequate amenities is essential for student satisfaction, which in turn leads to improved academic outcomes. Jamelske (2009) reported on research conducted in North America regarding amenities in student residence halls. The study found that students living in dormitories achieved higher GPAs, maintained their grades more effectively, enrolled in more credit hours, and formed better connections with faculty due to the facilities available to them.

Nabaseruka (1997) also demonstrated a strong link between amenities and academic success, indicating that schools with superior hostel accommodations had students who achieved higher grades compared to those in schools with inadequate facilities. Similarly, Moore (2000) found that students who chose on-campus amenities generally performed better academically, attributing this to the convenience of being close to classrooms, as well as access to quality amenities and privacy. As a result, many students preferred to live on campus for its proximity to academic resources and comfortable living conditions.

2.4 Impact of Hostel Amenities on Students' Academic Performance

Maina and Aji (2017) investigated the influence of hostel amenities on the academic performance of architecture students. They conducted surveys and analyzed the data using a relative satisfaction index to assess the impact of factors such as cleanliness, power supply, water availability, and overcrowding on academic achievements. The results indicated that amenities play a vital role in

academic success, with room size significantly affecting student performance. The study recommends that policymakers and amenities managers enhance current practices to improve living conditions on campus and plan for future accommodation needs.

Mbazor (2021) examined how the quality of campus housing and its amenities impact students' academic performance at the Federal University of Technology, Akure, Nigeria. The analysis showed a positive correlation between academic performance and the quality of housing amenities. This study suggests that the living environment can significantly influence students' ability to concentrate and succeed academically.

Previous research on the relationship between hostel amenities and academic success has produced mixed results. Thompson, Samiratedu, and Rafter (1993) studied the impact of living on campus among first-year college students and found that those residing on campus had higher retention rates, better academic progress, and greater academic achievement. Agron (1997) noted that research conducted in North America indicates that students living in university accommodations generally have higher GPAs, improved retention rates, take on more course credits, form connections with faculty members, engage in student leadership, and participate in campus activities.

Nabaseruka (1997) highlighted the negative effects of inadequate accommodations on students' academic success, showing that schools with better amenities were associated with superior student performance compared to those with lower-quality facilities. Additionally, studies indicate that students living in on-campus hostels tend to achieve higher GPAs than those in off-campus accommodations due to easier access to university resources like computers, IT facilities, clubs, gyms, and extracurricular activities (Araujo and Murray, 2010; Owolabi, 2015).

Contrary to popular belief, Delucchi (1993) found in a study conducted in a college town that students living off-campus, within walking distance of their lecture halls and university resources, did not demonstrate a significant difference in academic achievement compared to those living on campus. Furthermore, Zhao and Kuh (2004) suggested that a student's satisfaction with their living arrangement and the amenities provided by the university could also influence academic performance.

The allocation of hostels in public universities is crucial for determining students' academic performance. Respondents expressed varied opinions on how hostel allocations should be managed. Many opposed assigning rooms on a first-come, first-served basis, believing students should be allocated rooms based on need rather than arrival time. Some respondents argued that larger rooms should accommodate more students, while others disagreed and felt that the number of occupants should not exceed the room's capacity.

In contrast, opinions differed regarding smaller rooms, with some advocating for fewer students per smaller space and others seeing no need for such limitations. Respondents emphasized that hostel administrators should ensure a fair allocation process, free from bias or favoritism. They

believed that room assignments should be made immediately upon admission, with a fair distribution based on need rather than personal connections. This finding aligns with Aluko (2011), who stated that the recommended occupancy ratio according to British standards is two persons per room. These rooms should meet high standards and be allocated fairly, as such practices impact students' academic performance.

3.0 Methodology

3.1 Data collection and Sources

To achieve the study's objective, data were gathered from 2,700 participants using a structured questionnaire. The collected data underwent regression and ANOVA analyses. To validate the instrument, reliability and validity studies were conducted.

3.2 Result and Discussion

Pre-processing of data is crucial for model fitting especially for regression Analysis. Issues such as normality test, Probability Plot (p – p) of Regression Standard Residuals, Scatterplot, linearity homoscedasticity and reliability tests are discussed before the determination of the impact of hostel amenities on student academic performance.

Table 1: ANOVA Table

Model		Sum of Squares	DF	Mean Square	F	Sig.
1	Regression	453.284	31	14.622	31.359	.000
	Residual	1230.971	2640	.466		
	Total	1684.255	2671			

a. Dependent Variable: Students' Academic Performance

Source: Researcher's computation using SPSS

Table 1 presents the analysis of variance (ANOVA) results which was used to evaluate the overall significant of the fitted regression model. The $F(31, 2640) = 31.359$, $p < 0.05$ indicates that the regression model is significant in predicting students' academic performance. This implies that at least one of the hostel amenities provided have significant ant impact on students' academic performance.

Histogram of the data is presented in Fig. 1:

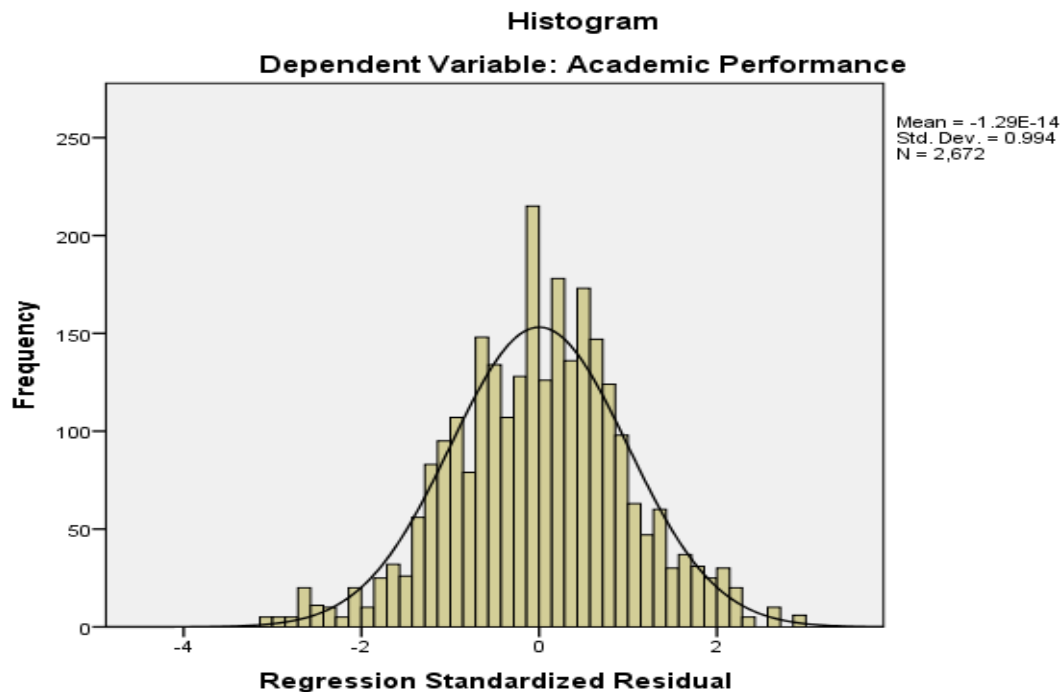


Fig. 1 Histogram Plots of Regression standardized Residuals

Figure 1 displays a histogram illustrating the distribution of standardized residuals from a regression model where academic performance is the dependent variable. The X-axis indicates the standardized residuals, which represent the deviation of actual values from predicted values in terms of standard deviations. Residuals close to zero imply that the model's predictions align well with actual academic performance, while extreme positive or negative residuals indicate significant discrepancies. The Y-axis shows the frequency of these residual values in the dataset. The histogram reveals a symmetrical distribution centered around zero, with a greater concentration of residuals near the center and a gradual decrease towards the extremes.

The mean residual is nearly zero (approximately $-1.29e-14$), suggesting that the residuals are, on average, centered around zero, which indicates a well-fitting model. With a standard deviation of 0.994, most residuals lie within one standard deviation of the mean. The distribution closely resembles a normal curve, as shown by the overlaid normality line that closely follows the shape of the bars. This near-normal distribution indicates that the regression model's assumptions, especially the assumption of normally distributed errors, are largely satisfied, which is a positive sign for the model's reliability.

In terms of the model fitness, the residuals' symmetry and the mean being close to zero imply that the model provides unbiased and accurate predictions for academic performance. Overall, the histogram suggests that the regression model is a good fit, with normally distributed residuals and no significant skewness or bias.

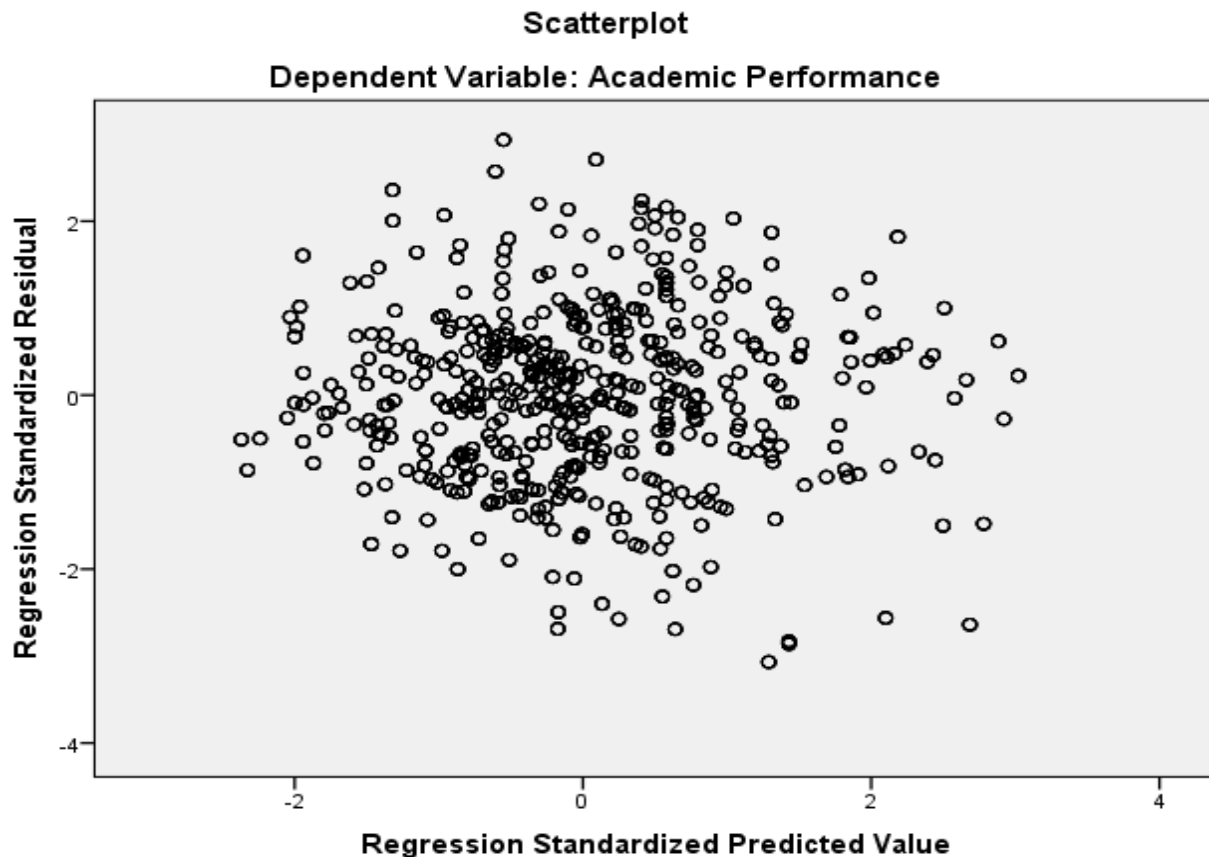


Figure 2 displays a scatterplot illustrating the relationship between the standardized predicted values from the regression (X-axis) and the standardized residuals (Y-axis), with academic performance as the dependent variable. The scatterplot reveals a random distribution of residuals, suggesting that the assumptions of linearity and homoscedasticity are met for this regression model. The lack of a distinct pattern indicates that the model is well-specified and yields unbiased predictions. Furthermore, there are no noticeable signs of heteroscedasticity or outliers, which further supports the model's validity.

Table 2: Regression coefficient of the impact of hostel amenities provided on students' academic performance

Hostel Amenities provided	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	T	Sig.
(Constant)	2.704	.047		57.390	.000
Electricity supply	.106	.018	.198	6.017	.000
Kitchen	.023	.020	.036	1.138	.255
Water provision	-.114	.024	-.204	-4.740	.000
Bathroom	.178	.023	.304	7.792	.000
Restaurant provision	-.268	.022	-.421	-12.349	.000
Sporting facility	.199	.022	.295	8.997	.000
Recreational facility	.033	.012	.054	2.706	.007
Shower	-.197	.020	-.272	-9.605	.000
Fire protecting equipment	.008	.020	.011	.378	.706
Common Room	.131	.022	.224	5.954	.000
Desk and Chairs provision	-.004	.024	-.006	-.154	.878
Wardrobe	.174	.021	.288	8.186	.000
Cleaning services	.010	.023	.018	.437	.662
Internet services	.062	.020	.108	3.017	.003
Hostel security services	-.142	.021	-.243	-6.820	.000
Sickbay	-.061	.022	-.101	-2.769	.006
Study space	.018	.024	.030	.746	.456
General hostel maintenance services	-.135	.021	-.230	-6.521	.000
Intercom system	-.025	.024	-.040	-1.048	.295
Laundry services	-.031	.015	-.052	-2.049	.041

Smart temperature control	.012	.014	.021	.876	.381
Surveillance cameras	.037	.018	.059	2.069	.039
Deadbolt locks	-.038	.023	-.058	-1.646	.100
Toilets	-.006	.028	-.010	-.214	.830
Wall socket	.095	.028	.158	3.374	.001
White board suggesting	.062	.020	.101	3.070	.002
Booking room	-.051	.026	-.079	-1.988	.047
Extinguisher	-.030	.023	-.047	-1.280	.201
Reading corner	-.042	.023	-.063	-1.811	.070
Fan	.049	.021	.083	2.300	.022
Plumbing	.077	.018	.119	4.164	.000

Source: Researcher's computation using SPSS

Table 2 displays the regression coefficients for the effect of hostel amenities on students' academic performance in Federal Universities located in Nigeria's North Eastern region. The findings indicate that amenities such as electricity supply, bathrooms, sporting facilities, recreational facilities, common rooms, wardrobes, internet services, surveillance cameras, wall sockets, whiteboards, fans, and plumbing all have positive coefficients with p-values below 0.05, signifying a positive and significant impact on students' academic performance. This suggests that improvements in these hostel amenities are likely to lead to a significant enhancement in students' academic performance. In contrast, amenities such as water provision, restaurant services, showers, hostel security services, sickbays, general hostel maintenance services, laundry services, and room bookings have negative coefficients with p-values less than 0.05, indicating a negative and significant impact on students' academic performance. This implies that an increase in these specific hostel amenities may result in a significant decline in students' academic performance.

The regression results also indicated that amenities such as kitchen provision, fire protection equipment, cleaning services, study spaces, and smart temperature control had positive coefficients with p-values greater than 0.05, suggesting that these hostel amenities have an insignificant positive impact on students' academic performance. This means that while an increase in these amenities may lead to a slight increase in academic performance, the effect is not significant. Conversely, provisions for desks and chairs, intercom systems, deadbolt locks, toilets, extinguishers, and reading corners were associated with negative coefficients and p-values greater than 0.05, indicating a negative and insignificant impact on students' academic performance. This suggests that an increase in these specific amenities may lead to an insignificant decrease in academic performance.

On the other hand, this study adopted a survey research strategy, which involves collecting data through a questionnaire. The survey method encompasses the complete set of techniques used to conduct survey research, collect, and manage data (Lynn, Erens & Sturgis, 2012). This approach was utilized to analyze the data gathered in order to address the research questions, which are descriptive, correlational, and associational in nature.

5.0 Conclusion

The study assessed the impact of hostel amenities on students' academic performance in Federal Universities in North East Nigeria. The findings showed mixed results regarding the relationship between hostel amenities and academic performance. Certain amenities, such as electricity supply, internet access, and wall sockets, had positive coefficients, indicating a significant positive relationship with academic performance ($P < 0.05$). This suggests that investing in these amenities can considerably enhance academic performance. Conversely, amenities like laundry services, room bookings, and sick bays displayed positive coefficients but had p-values greater than 0.05, indicating a non-significant positive relationship with academic performance. This suggests that these amenities may need further investigation or enhancement. Policymakers and educators should prioritize these amenities in hostel development and maintenance, as the study indicates that hostel amenities are essential for supporting students' success. This aligns with the findings of Makinde & Ayeni (2018).

References

- Ajayi, M. A.; Akuakanwa, N., & Y. A. (2015). Student satisfaction with Amenities I n Federal University of Technology Akure. *European Scientific journal* 34, 1857-7881.
- Akinluyi, M. L. (2016). Study of Social, Physical Qualities and Satisfaction in Selected Students Halls of Residence, University of Ibadan, Nigeria. *International Journal of Architecture and Urban Development*, 6(1), 5-20.
- Akinpelu, O. P. (2015). Students' assessment of hostel Amenities in the Polytechnic Ibadan, Ibadan, Nigeria: Realities and challenges. *Research on Humanities and Social Sciences*, 5(17), 74-81.
- Akinpelu, O. P., Oyewole, K. A., & Owolabi, M. A. (2019). Students' Assessment of Hostel Amenities in The Polytechnic Ibadan, Nigeria: Realities and Challenges. *institutions*, 10(30).
- Akpoiroro, R. M. & Okon, J. E. (2015). Students' satisfaction with service delivery in Federal Universities in South-south geo-political zone, Nigeria: *International Journal of Educational Administration and Policy Studies*, 7(5), 110-113.
- Al-Ababneh, M. (2020). Linking ontology, epistemology and research methodology. *Science & Philosophy*, 8(1), 75-91.

- Alderson, P., & Morrow, V. (2020). *The ethics of research with children and young people: A practical handbook*. Sage.
- Aldiabat, K. M., & Le Navenec, C. L. (2018). Data saturation: The mysterious step in grounded theory methodology. *The Qualitative Report*, 23(1), 245-261.
- Aleyomi, M. B., & Nwagwu, R. C. (2020). Strategic model for Nigeria's security and socioeconomic development. *African identities*, 1-21.
- Ali, H. O. (2013). Factors affecting students' academic performance in mathematical sciences department in tertiary institutions in Nigeria. *Us-China education review*, 3(12), 905-913.
- Ali, S., Haider, Z., Munir, F., Khan, H., & Ahmed, A. (2013). Factors contributing to the students' academic performance: A case study of Islamia University Sub-Campus. *American journal of educational research*, 1(8), 283-289.
- AlKandari, N. (2007). Students' perceptions of the residence hall living environment at Kuwait University. *College Student Journal*, 41(2), 327-335.
- Alshehri, A. F. (2017). Student satisfaction and commitment towards a blended learning finance course: A new evidence from using the investment model. *Research in International Business and Finance*, 41, 423-433.
- Alshuwaikhat, H. M., & Abubakar, I. (2008). An integrated approach to achieving campus sustainability: assessment of the current campus environmental management practices. *Journal of cleaner production*, 16(16), 1777-1785.
- Aluko, O. E. (2011). The assessment of housing situation among students in the University of Lagos. *African Research Review*, 5(3).
- Alutaibi, A. A. (2018). *The impact of amenities management practices on tenant satisfaction for residential complexes in the Kingdom of Saudi Arabia* (Doctoral dissertation, Loughborough University).
- Alvesson, M., & Deetz, S. (2020). *Doing Critical Research*. SAGE.
- Amole, D. (2005). Coping strategies for living in student residential Amenities in Nigeria. *Journal of environmental behaviour*. 37, 153-165.
- Amole, D. (2009). Residential satisfaction in student's hostel. *Journal of environmental psychology*, 29, 78-88.

- Amron, M. T., Ibrahim, R., Bakar, N. A. A., & Chuprat, S. (2020, March). The validity and reliability evaluation of instruments for cloud computing acceptance study. In *2020 6th International Conference on Information Management (ICIM)* (pp. 269-273). IEEE.
- Animba, I. E., & Nneji, F. N. (2020). Principals' perception on factors militating against effective secondary school management in Enugu State Nigeria. *Sapientia Foundation Journal of Education, Sciences and Gender Studies*, 2(4).
- Anita Dzikon Adamu and Wistom Shakartu (2016) Condition of on campus hostel building in the Federal Universities in North Central Nigeria. *Journal of Construction Management and Innovation* Vol.6 91)-1330-1338
- Antoniadou, V. (2017). Collecting, organizing and analyzing multi modal data. *Merrill/Pearson Education Upper Saddle River, NJ: Merrill/Pearson Education*
- Appiah, M. K. (2016). Effects of Amenities Quality on Customer Satisfaction. A Case from Private Hostels in Wa-municipality of Ghana. *British Journal of Marketing*, 4(3): 48 – 54.
- Asibu, E. (2021). *Factors Influencing Academic Achievement of Medical Students in the University of Cape Coast* (Doctoral dissertation, University of Cape Coast).
- Azeez, T., Taiwo, D., Mogaji-Allison, B., & Bello, A. (2016). Comparative assessment of students' satisfaction with hostel accommodation in selected private Universities in Ogun State, Nigeria. *European Scientific Journal, ESJ*, 12(32), 410.
- Babatunde, S. O., & Perera, S. (2017). Public-private partnership in university female students' hostel delivery: Analysis of users' satisfaction in Nigeria. *Amenities*.
- Bardhoshi, G., & Erford, B. T. (2017). Processes and procedures for estimating score reliability and precision. *Measurement and Evaluation in Counseling and Development*, 50(4), 256-263.
- Barnard-Brak, L., Lechtenberger, D., & Lan, W. Y. (2010). Accommodation strategies of college students with disabilities. *Qualitative Report*, 15(2), 411-429.
- Barry, K. (2021). Momentarily immobile: Backpacking, farm work, and hostels in Bundaberg, Australia. *Geographical Research*, 59(1), 46-55.
- Baruch, Y., & Holtom, B. C. (2008). Survey response rate levels and trends in organizational research. *Human relations*, 61(8), 1139-1160.
- Bartelt, D. W., & Kottrlik J.W (2001) Using krejcie and morgan and other formulas to determine sample size. *Journal of education Research*, 94 (4) 237-244

- Battisto, D., Li, X., Dong, J., Hall, L., & Blouin, J. (2023). Research Methods Used in Evidence-Based Design: An Analysis of Five Years of Research Articles From the HERD Journal. *HERD: Health Environments Research & Design Journal*, 16(1), 56-82.
- Bella-Omunagbe, O. C. (2015). *Drivers and Consequences of Residents' Satisfaction with Off-campus Student Housing in South-South, Nigeria* (Doctoral dissertation, Nelson Mandela Metropolitan University).
- Berkoz, L. Turk, S. S. E; & Kellekci O. M. L (2009). Environmental quality and user satisfaction in mass hostel areas: The case of Istanbul. *European Planning Studies*, 17 (1), 61 – 74.
- Bichi, A. M., Abdu, A., & Adam, A. I. (2018). Hostel in kano university of science and technology, Wudil, Kano State, Nigeria.
- Bindinoba, F.K Nimako, S.G and Nkkamalu,K. (2013). Student housing availability scale in higher institution for learning. Hindawi Publishing Cooperation Urban Studies Research. Development
- Bolisani, E., & Bratianu, C. (2018). The elusive definition of knowledge. In *Emergent knowledge strategies* (pp. 1-22). Springer, Cham.
- Busch-Geertsema, V., & Sahlin, I. (2007). The role of hostels and temporary accommodation. *European Journal of Homelessness*, 1(1).
- Chacón, T.C. (2009). A survey of school psychology faculty members' knowledge, skills, and attitudes regarding distance education and distance education technologies. (Doctoral dissertation). Retrieved from Pro Quest Dissertations and Theses.
- Chandigarh University (2013). Hostels: Home away from home. Retrieved from <http://www.cuchd.in/student-amenities/hostel-amenities.php>
- Cheng, C. H., Bråten, I., Yang, F. Y., & Brandmo, C. (2021). Investigating structural relationships among upper-secondary school students' beliefs about knowledge, justification for knowing, and Internet-specific justification in the domain of science. *Journal of Research in Science Teaching*.
- Chibili, M. N. (2019). Rating Systems and the Structure of the Hospitality Industry. In *Modern Hotel Operations Management* (pp. 48-91). Routledge.
- Chukwu, J. (2001). Problems of students' hostel accommodation in higher educational institutions: A Case study of the University of Nigeria, Nsukka. M.sc thesis dissertation.
- Dolapo, E. O and Omole, D. (2006). Residential satisfaction in student hostel. *Journal of environmental psychology*. 34(3), 223-256.

- Douglas, H. (2009). Effect of environmental influences on student attitude *Journal of Collage student Development* 30 (3) 242-248.
- Drysdale, D. A. (2010). *Campus attacks: Targeted violence affecting institutions of higher education*. DIANE Publishing.
- Durán-Narucki, V. (2008). School building condition, school attendance, and academic achievement in New York City public schools: A mediation model. *Journal of environmental psychology*, 28(3), 278-286.
- Hennink, M., Hutter, I., & Bailey, A. (2020). *Qualitative research methods*. Sage.
- Henseler, J., Müller, T., & Schubert, F. (2018). New guidelines for the use of PLS path modeling in hospitality, travel, and tourism research. In F. Ali., S. M. Rasoolimanesh, & C. Cobanoglu (Eds), *Applying Partial Least Squares in Tourism and Hospitality Research* (pp. 17–33). Emerald Publishing Limited.
- Herman, K. C., Reinke, W. M., Dong, N., & Bradshaw, C. P. (2022). Can effective classroom behavior management increase student achievement in middle school? Findings from a group randomized trial. *Journal of Educational Psychology*, 114(1), 144.
- Ibrahim, A., Musonda, I., & Ibrahim, K. (2018). Challenges of student housing provision through public private partnership. In *Development infrastructure and investment in Africa DII-2018 conference proceedings*.
- Idowu, J. O. (2012). *Managerial control of resources and infrastructural Amenities as correlates of students 'academic achievements in state colleges of education in Southwestern Nigeria* (Doctoral dissertation).
- Igbinedion, J. (2012). Re-Engineering On-Campus Hostel Accommodation in Public Tertiary Institutions in Delta State for Improved Students' Academic Performance, Character moulding, Employability and Self-Productivity. *Knowledge Review*, 26(2), 159-164.
- Ishiyaku, B., Kasim, R., & Harir, A. I. (2016). Confirmatory factorial validity of public housing performance evaluation constructs. *Journal of Building Performance*, 7(1).
- Islam, R., Ahmed, S., Rahman, M., & Al Asheq, A. (2020). Determinants of service quality and its effect on customer satisfaction and loyalty: an empirical study of private banking sector. *The TQM Journal*, 33(6), 1163-1182.
- Jacob, O. N., Elizabeth, A., & Ahaotu, G. N. (2020). Problems faced by Students in Public Universities in Nigeria and the Way Forward. *Jurnal Sinestesia*, 10(2), 105-116.

- Jamelske, E. (2009). Measuring the impact of a university first-year experience program on student GPA and retention. *Higher Education*, 57, 373-391.
- Jain & Gupta (2020) Student satisfaction with hostel amenities. A comparative study *Journal of Building Performance*, 7(1). 567-591.
- Johns-Putra, A. (2018). The rest is silence: postmodern and postcolonial possibilities in climate change fiction. *Studies in the Novel*, 50(1), 26-42.
- Joseph E.L.(2013). Gap theory based analysis of users expectations *journal of Building environment*. 41(7), 89-92.
- Joshua, U. Adama, A. and Douglas. O. (2018). Students housing in private University in Nigeria. *International Journal of Built Environment as sustainability. Journal of behavioural Sciences* 31(7), 100-111.
- Justice, S, Tettety, Z. (2017). Student Accommodation and Academic Performance in Technical University Khumasi Ghana. *Journal of behavioural science* 4(5).209-214
- Kadir, F., Ogunleye, M. B., & Otunola, A. O. (2021). Post Occupancy Evaluation of Students' Satisfaction with Hostel Amenities in Federal Polytechnic Offa, Kwara State, Nigeria. *Journal of Education, Society and Behavioural Science*, 34(12), 78-89.
- Kang, Z., & Ting, K. Y. (2013). Student attitudes towards teaching methods used in Universities the UK. *Review of European Studies*, 5(4), 71
- Kankam, P. K. (2019). The use of paradigms in information research. *Library & Information Science Research*, 41(2), 85-92.
- Kaur, S. (2016). Student support amenities in higher education: A student perspective. *International Journal of Indian Psychology*, 3(3), 126-132.
- Kaushik, V., & Walsh, C. A. (2019). Pragmatism as a research paradigm and its implications for social work research. *Social Sciences*, 8(9), 255.
- Kashyap & Boora (2017) student satisfaction with hostel facilities in higher institution *International Journal of Built Environment as sustainability. Journal of behavioural Sciences* 31(7), 102-115.
- Kaya, N., & Erkip, F. (2001). Satisfaction in a Dormitory Building the Effects of Floor Height on the Perception of Room Size and Crowding. *Environment and Behaviour*, 33(1), 35-53

- Khozaei, F., Hassan, A. S., and Khozaei, Z. (2010). Undergraduates Students' Satisfaction with Hostel and Sense of Attachment to Place. Case Study of University Sains Malaysia, *American Journal of Engineering and Applied Science*, 3 (3): 516 – 520
- Kiruru, N. J., & Ogola, R. T. (2020). Quality of private accommodation for undergraduate students in public Universities in Kenya. *European Journal of Education Studies*, 7(6).
- Kim, J, & Lee, S (2021) The effects of dormitory on collage students' academic performance
- Kolawole, O. A., & Boluwatife, A. R. (2016). Assessment Of The Factors Influencing Students' Choice Of Residence In Nigerian Tertiary Institutions. *Sains Humanika*, 8(2).
- Kolawole, O.A & BEluwatife, A.R. (2016). Assessment of the factors influencing students' choice of residence in Nigerian tertiary institutions. *Journal of management and sciences* 17, 136-54.
- Kornberger, M., & Mantere, S. (2020). Thought experiments and philosophy in organizational research. *Organization Theory*, 1(3), 2631787720942524.
- La Roche, C.A Flanigan, M.A & Copeland, P.K j (2016). Student trends preferences
- Langer, J. A. (2000). Excellence in English in middle and high school: How teachers' professional lives support student achievement. *American Educational Research Journal*, 37(2), 397-439.
- Laudon, C. K., & Laudon, P. J. (2013). *Essentials of management information systems*. Pearson Education, Inc.
- Lund, J. L., & Kirk, M. F. (2019). *Performance-based assessment for middle and high school physical education*. Human Kinetics Publishers.
- Levy, P. s., Lemeshow, S. (2008). Sampling of population: Methods and application (4th ed.) wilex
- Lee,J & Lee Y. (2022) The impact of school facilities on student achievement. *Journal of education Resacher*. 195(4). 533-548
- Makinde & Ayeni (2018) University infrastructure discussion regional differences in hostel amenities and academic performance. *International Business Research*, 15(12), 41-52.
- Maarouf, H. (2019). Pragmatism as a supportive paradigm for the mixed research approach: Conceptualizing the ontological, epistemological, and axiological stances of pragmatism. *International Business Research*, 12(9), 1-12.

- Maina, J. J., & Aji, J. Y. (2017). Influence of Accommodation on the academic performance of Architecture Students. *Built environment journal*, 14(2), 47-59.
- Majid, M. A. A., Othman, M., Mohamad, S. F., Lim, S. A. H., & Yusof, A. (2017). Piloting for interviews in qualitative research: Operationalization and lessons learnt. *International Journal of Academic Research in Business and Social Sciences*, 7(4), 1073-1080.
- Mansoor, U. L., & Hussain Ali, M. A. M. (2015). Impact of hostel students' satisfaction on their academic performance in Sri Lankan Universities.
- Maponya, T. J. (2020). The Instructional Leadership Role of the School Principal on Learners' Academic Achievement. *African Educational Research Journal*, 8(2), 183-193.
- Mbazor, D. N. (2021). Assessment of the influence of on-campus housing quality and Amenities on students' academic performance at the federal university of technology, Akure, Nigeria. *Baltic Journal of Real Estate Economics and Construction Management*, 9(1), 14-32.
- Mbury, L. (2016). Environmental quality and user satisfaction in mass hostel areas. Case of Istanbul European Planning Studies.17,161-74
- McGowen, R. S. (2007). *The impact of school Amenities on student achievement, attendance, behavior, completion rate and teacher turnover rate in selected Texas high schools*. Texas A&M University.
- Mlambo, V. (2011). An analysis of some factors affecting student academic performance in an introductory biochemistry course at the University of the West Indies. *The Caribbean Teaching Scholar*, 1(2).
- Mohajan, H. K. (2017). Two criteria for good measurements in research: Validity and reliability. *Annals of Spiru Haret University. Economic Series*, 17(4), 59-82.
- Mohsin, A., & Ryan, C. (2003). Backpackers in the Northern Territory of Australia-motives, behaviours and satisfactions. *International Journal of Tourism Research*, 5, 113-131
- Mohsin, Y. (2003). An analysis of Management of Student Hostels. A case study of Ahmadu Bello University Zaria Thesis dissertation
- Muijs, D. (2004). *Doing quantitative research in education with SPSS (1st ed)*. London: Sage
- Mullet, D. R. (2018). A general critical discourse analysis framework for educational research. *Journal of Advanced Academics*, 29(2), 116-142.

- Munjal, A., & Kaur, J. (2021). 4 Reliability and redundancy in performance of equipment. In *Systems Reliability Engineering* (pp. 61-74). De Gruyter.
- Nachatar Singh, J. K., Schapper, J., & Jack, G. (2014). The importance of place for international students' choice of university: A case study at a Malaysian university. *Journal of Studies in International Education*, 18(5), 463-474.
- Nair, P. (2019). *Blueprint for tomorrow: Redesigning schools for student-centered learning*. Harvard Education Press.
- Najib, N. and Yusuf, O. (2009). Residential satisfaction of student hostel Amenities in malaysian public Universities. Msc thesis dissertation Nigeria Nsukka. Unpublished Seminar paper, educational foundations, UNN.78 Nsukka.
- Najib, N. U. M., Yusof, N. A., & Osman, Z. (2011). Measuring satisfaction with student housing Amenities. *American Journal of Engineering and Applied Sciences*, 4(1), 52-60.
- Nanclares, N. H., & Rodríguez, M. P. (2016). Students' Satisfaction with a Blended Instructional Design: The Potential of " Flipped Classroom" in Higher Education. *Journal of Interactive Media in Education*, 2016(1).
- Navarez, J. C. (2017). Student residential satisfaction in an on-campus housing amenities. In *DLSU Research Congress*.
- Ndirangu, M., & Udoto, M. O. (2011). Quality of learning Amenities and learning environment: Challenges for teaching and learning in Kenya's public Universities. *Quality Assurance in Education*.
- Nduka, D. O., Oyeyemi, K. D., Olofinnade, O. M., Ede, A. N., & Worgwu, C. (2021). Relationship between indoor environmental quality and sick building syndrome: a case study of selected student's hostels in Southwestern Nigeria. *Cogent Social Sciences*, 7(1), 1980280.
- Ndulue, L., Nwagbara, A., & Nnadi, E. O. E. (2022). ascertaining the existence of maintenance policies in the management of hostel buildings in the public Universities in South East Nigeria. *Only One Earth*, 160.
- Ogungbe, M. A., Olukolajo, M. A., & Binuyo, O. P. (2018). An investment analysis of private student hostel in Nigeria tertiary institutions: a case of FUTA campus. *International journal of investment management and financial innovations*, 4(1), 1-8.
- Ogunyemi, A. (2022). The Effects of Students Housing on Academic Performance at the University of Ibadan in Nigeria. *Global Journal of Management and Business Research*, 22(B4), 53-80.

- Ojo, E.O. and Odusami, K.T (2013). Occupants' satisfaction approach to hostel performance evolution. The case of Nigeria RICS COBRA Research conference. University of Cape Town, 10-11th September, pp. 985-997
- Ojo, F. k, Olabintan, O. D, & Ologunagba, M. (2013). Post occupancy evaluation of privatized students' hostel: Case study Federal University of Technology Akure. *International journal of computer science and information technology and security*, 3, 237-245.
- Oke, A. E., Aigbavboa, C. O., & Raphiri, M. M. (2017). Students' satisfaction with hostel accommodations in higher education institutions. *Journal of Engineering, Design and Technology*.
- Okpa O.E (2019). Quality amenities delivery and students' satisfaction in public Universities in south western Nigeria *International Journal of Innovative Social & Science Education Research* 8(2): 201-206
- Oladiran, O. J. (2013). A post occupancy evaluation of students 'hostels accommodation. *Journal of building performance*, 4(1).
- Pallant, J. (2005), *SPSS Survival Manual: A Step-by-Step Guide to Data Analysis Using SPSS for Windows* (Version 12), Allen & Unwin, Sydney.
- Pallant, J. (2010), *SPSS survival manual: a step-by-step guide to data analysis using SPSS for Windows*, 3rd edition, Open University press, McGraw Hill, New York, NY
- Pallant, J. (2011). *SPSS survival manual: A step by step guide to data analysis using the SPSS program*.
- Patricia Toyin Sawyer (2013) Assessment of adequacy of hostel amenities and students satisfaction *Journal of Facilities management* (4)346\362
- Philip, A., Ileanwa, A. C., & El-Hussain, A. M. (2018). Post-occupancy evaluation of student's hostel Amenities in Federal Universities in North Central, Nigeria. *Architecture Research*, 8(4), 123-128.
- Purwanto, A., & Sudargini, Y. (2021). Partial least squares structural equation modeling (PLS-SEM) analysis for social and management research: a literature review. *Journal of Industrial Engineering & Management Research*, 2(4), 114-123.
- Rahman, M. M., Tabash, M. I., Salamzadeh, A., Abduli, S., & Rahaman, M. S. (2022). Sampling techniques (probability) for quantitative social science researchers: a conceptual guideline with examples. *Seeu Review*, 17(1), 42-51.

- Rahman, S. M., Mia, M. S., Ahmed, F., Thongrak, S., & Kiatpathomchai, S. (2020). Assessing students' satisfaction in public Universities in Bangladesh: An empirical study. *The Journal of Asian Finance, Economics and Business*, 7(8), 323-332.
- Rahman M. Tabash M (2019) Assesising student satisfaction with hostel amenities in Malaysian University *Journal of Asian Finance, Economics and Business*, 6(7), 226- 232 .
- Ramli, A., Zain, R. M., Campus, C., Chepa, P., & Bharu, K. (2018). The impact of Amenities on students' academic achievement. *Sci. Int. (Lahore)*, 30(2), 299-311.
- Rashid, Y., Rashid, A., Warraich, M. A., Sabir, S. S., & Waseem, A. (2019). Case study method: A step-by-step guide for business researchers. *International journal of qualitative methods*, 18, 1609406919862424.
- Refai, D., Klapper, R. G., & Thompson, J. (2015). A holistic social constructionist perspective to enterprise education. *International Journal of Entrepreneurial Behavior & Research*.
- Regoniel, P. (2015). Conceptual Frame work Development Hand Book. A step-by-step guide with five practical examples available at www.simpleeducateme/2015/01/05/conceptual-framework-guide/.and assessed on 15 Nov.2021
- Reis, C. T., Laguardia, J., Vasconcelos, A. G. G., & Martins, M. (2016). Reliability and validity of the Brazilian version of the Hospital Survey on Patient Safety Culture (HSOPSC): a pilot study. *Cadernos de saudè publica*, 32.
- Ridder, H. G. (2017). The theory contribution of case study research designs. *Business Research*, 10(2), 281-305.