

Determining the Revenue Potentials of Car Park Facilities in Tertiary Institutions

Samuel, E¹, Akujuru, V. A²

¹ESV., Department Estate Management, Faculty of Environmental Sciences, Rivers State University, Port Harcourt.

²Professor, Department of Estate Management, Faculty of Environmental Sciences, Rivers State University, Port Harcourt

Abstract

Tertiary institutions are designed with the intent to develop professional manpower through academic trainings. This requires every tertiary institution such as universities to be designed as a community of academic affairs where facilities are put in place to sustain the desired objectives of their creations. Car parks are one of the numerous facilities in universities in Nigeria and are managed by their Estate and Works departments for the exclusive use of the university as determined by regulatory provisions. Car parks are available in Rivers State University while that of Ignatius Ajuru University of Education, there are not adequate car park. Their designs and uses do not create any revenue for the universities, amidst their perceivable potentials for income generation as they were purpose built for the service of the university. This study aim to examine the revenue generation potentials of well managed car park facilities in Tertiary Institutions in Nigeria. Data collection was made through primary and secondary sources. The mixed method approach was used and a case study strategy. The findings shows that there are few car parks but are not being commercialized and managed by professional for revenue generation. It is recommended that the available car parks can be managed and commercialized for revenue generation and more car parks can be design for use to generate fund internally. The paper thus concludes by suggesting some ways that could be of help to create good and lucrative approaches to car park facilities management for revenue creation.

Keywords: commercialization, Car Parks, Facilities Management, Revenue generation, university community

Introduction

Car Parks are essential facilities attached to the university community, considering the numerous activities involved in the university system. Parking is the act of stopping vehicle and leaving it unoccupied. As parking is an essential component of a transport system, vehicles are parked at convenient locations and parking affects the ease of reaching destinations, as well as the overall accessibility (Litman, 2013). In places where most people drive, it causes congestion because street mileage cannot be increased as rapidly as population increases. There is therefore the tendency for the space available to park cars to rise much faster than the space available for them to drive. This fact necessitates good management of car park facilities at all times.

The university community is characterized by volumes of activities designed to fulfill the objectives of tertiary education. This makes it necessary for complexes and buildings to be designed with reasonable parking spaces in the university community. According to Bates, Skinner, Scholefield and Bradley (1997), even municipalities require minimum parking requirements to ensure that a development contains an adequate number of spaces to avoid parking spillover onto adjacent streets and properties and to maintain traffic circulation. For a university community, car parks are primarily essential infrastructural facilities that are capable of generating income internally to boost treasury receipts. This can become a reality if good facilities management practice can be put in place alongside a policy driven commercialization to actualize the profitability of car parking facilities in the university campus.

Location is a very important factor for any car park operator, the better the strategy in the location of a car park in a university campus, the greater the possibilities for business. The reasons are that: the university campus is a place of interest for many people due to the various activities present therein; learning, shopping, works and services. In the meantime, parking policy tends to use parking pricing as tools to control the pressure of cars in the university community (short stay parking). The management of car parking as a resource can play a pivotal role in the development of incentives for Walking, circling, public transport use and car sharing. However, the capabilities of universities are not fully capitalized and have therefore shown less output in commercializing their products and services (Huggins, 2008).

A car park is partially controlled by public authorities because parking, especially in the universities plays a key role in mobility, access and economic development of what appears to be an ever more car-dependent society Hess and Polak (2004). The official motive for the provision of car parks in universities has always been initiated through administrative policies over welfare and is therefore operated on charge-free basis. Be that as it may, the development of a parking facility for visitors to the university campus stands to be a veritable source of internally generated revenue, if there can be an articulated revenue collection system attached to it. This is obviously perceivable, judging from the number of vehicles that enters and leaves the university community per day. The universities in Nigeria are at the moment faced with the problem of inadequacy in funding from the authorities established them. This has resulted in unforeseen imposition of levies and regular upward reviews of school fees without a rethink on using what is available to get what is needed with an attendant decay of the available facilities as there is no policy-driven urge for improvement to attract / boost on internally generated revenue.

This study is focused on the Revenue Potentials of Car Parks Facilities in two Universities (Rivers State University and Ignatius Ajuru University of Education) both in Port Harcourt Local Government and Obio Akpor Local Government Area of Rivers State. This study examined those factors that are critical towards enhancing revenue generation (potentials) from car park facilities in the selected Universities. The study objective is to determine the revenue potentials of car park facilities in the selected tertiary institutions in the study area. It is imperative to understand how adequate car park facilities provision in tertiary institution can enhance revenue potentials / generation by tertiary institutions when properly managed, maintained and serviced with trained personnel and experts. Although, several authors and scholars have examined the car park facilities and revenue generation in other aspects, there is need to further investigate revenue potentials of car park facilities in tertiary institutions.

The study proposes that, adequate management, maintenance and servicing of car park facilities in tertiary institutions will enhance the revenue potentials of such car parks and will create internal source of revenue for the University.

2. Aim and Objectives of Study

Aim:

To examine the revenue generating potentials of well managed car park facilities in tertiary institutions in Nigeria.

Objectives:

The objectives of this study are to:

1. Investigate the establishment and management of car park facilities in the selected universities.
2. Determine the revenue potentials of car park facilities in tertiary institutions.
3. Identify the possibility of creating a commercialized management structure for Car parking system.

Concept of Car Park

Parking is the temporary storage of vehicle between trips and/or at the end of trips. According to Oyesiku (2002), transporting goods and passengers from the point of origin to the destination is the primary purpose of any transport. Transport takes individuals and commodities to people as can be seen in the literature, which offers tremendous economic benefits.

Parking facilities can play an important role as a point passage for the driver from a car into a building and/or the urban fabric. Alternatively, it can be viewed as the starting and/or ending point of travel for the automobile and its driver. In attempting to solve the complex urban and environmental issues surrounding the use of the automobile, the parking lot can be seen as part of the solution for the integration of different systems of transportation, or as a transfer point between systems, bus, train or air. These solutions are not historically new but are seen to reemerge, as traffic in many urban areas becomes overwhelming and extremely time consuming (McDonald, 2009). Weant and Levinson (2010), sees parking as a contributor to the appearance of city and suburbs; affects traffic congestion and traffic operations; and equally influences the choice of mode and route of travel which also affects the viability and competitive posture of commercial areas. Osoba (2012), is of the view that the road transport operation is a circulatory system that must be a continuous process and any infringement at any point along the line will definitely affect the whole system and hinder its effectiveness. Therefore, parking facilities are essential in order to allow flow of traffic. Since, parking challenges are no longer confined to the tertiary institutions; the challenges now extend throughout the urban region.

This assertions are however applicable to all spheres of human activities, including the university community where in the observation of Olorunfemi and Basorun (2013), the provision of car parks, particularly in educational area, creates conscious choices to provide better access to land use at the expense of more efficiently moving traffic.

Car Parking and Management

Parking management refers to policies and programs that result in more efficient use of parking resources and include several specific strategies, which when appropriately applied, can significantly reduce the number of parking spaces required in a particular situation, providing a variety of economic, social and environmental benefits. The availability and cost of a parking space is an important determinant of whether or not people choose to drive to a particular destination, and also whether they choose to own a car at all (Tom and Koglin, 2014). It is further asserted that where there is a shortage of parking spaces, many may accept that there is need for parking controls. Parking controls and prices are however rarely popular with the public but they serve as policy options that are relatively well known (Tom and Koglin, 2014). It is to be further noted also that Parking controls and pricing are the transport demand management measure

that is most frequently implemented by local authorities, yet little of the academic literature deals with experience of this policy, preferring instead to concentrate on the ‘sexier’ topic of congestion charging. According to Jacobs (2010), in order to effectively manage a given car park system, there need to be the implementation of a management programme that institutes a fee policy and to achieve the objectives of the policy, parking management, there shall be:

1. Portions of available parking space will be designated as ‘Reserved
2. Visitors to the parks would be compelled to pay a fee, and
3. Parking that lasts more than a day shall also be levied accordingly.

These three objectives therefore stand as the basis for creating revenue from car park facilities within the university community

Commercialization and Management of Car Parking system in the University

Parking is seen as an infrastructure but this assertion can only be a reality if its use is paid for by those who use the infrastructure and its management also left in the hands of the expertise to management (Kelly, 2016). Parking facilities are constructed in combination with some buildings to facilitate the coming and going of the buildings users. Although a car is parked in a variety of places for a large part of its life, little or no debate has focused on parking areas and in fact seen as transport hubs where the variety of transit means take place (e.g. car/bus, car/walking, car/cycling etc). It can be argued that much has not been done for parking despite the vital role that it plays”.

Wells (2015) suggests that: where possible, it is desirable to provide shelters for passengers waiting at bus stops. They should be designed to accommodate the maximum number of passengers normally waiting and to provide adequate protection from the weather, they should be well lit and ventilated and approaching buses should be visible from inside the shelter. Where waiting times may be long, it may be desirable to provide seating. Requirements differ depending on the length and frequency of journeys and a higher standard of facility is required for long distance services. Shelters at bus stops may incorporate such facilities as kiosks for newsvendors or refreshments which may provide useful revenue.

Wells (2015), states that the purpose for parking is to provide a safe and convenient place for a vehicle to park. Traffic moves towards a destination but at a point it must be parked while some business, whether private or public, recreation or servicing are transacted. Failure to supply suitable terminal facilities “results in jams, frustration and confusion.” This eventually leads to the decline in importance and value of those areas which are at present considered most desirable for the day to day business of a city or town. Various land uses generate and attract traffic of varying proportions hence parking demand is generated according to distribution and type of land used in an area together with the level of accessibility provided by competing modes of transport. Commercial vehicle drivers like taxi and minibuses want easy delivery and its parking space are not immediately available. The tendency is that they will double park. However, the balance between the space for flow of traffic and that for parking has to be carefully decided as the amount of space required for parking and the flow of traffic will not be conflicting. Current research has improved the understanding of factors that affect accessibility.

Levine, *et al.* (2012), found that urban density has about ten times as much influence on the number of destinations motorists can access in a given time period as a proportional increase in traffic speeds. Ewing and Cervero (2010), found that a 10% increase in roadway connectivity reduces average travel distances by 1.2%. Kuzmyak (2012), found that residents of urban neighborhoods with good travel options, connected streets and more nearby services drive a third fewer daily miles and experience less congestion delays than residents of automobile-dependent communities. These studies indicate that cities can provide

high levels of accessibility, despite lower average traffic speed. However, increased density can also increase potential conflicts, also called external costs, such as traffic and parking congestion, of transport is instantaneous movement from one place to another, at no cost' (Hibbs, 2010:26) accident risk, and pollution emissions. Of all common activities people engage in, motor vehicle travel tends to impose the greatest external costs. A large percentage of congestion in urban areas (8 to 74%) is caused by automobiles in search for a parking place. Shoup (2016) studies this problem and identifies a set of conditions under which car users are more inclined to drive around and look for an on street parking place, instead of off street parking. On street parking could be cheap, off street parking could be expensive, fuel could be cheap, the car user wants to park for a long time or the car user is alone and saving time is not important. Shoup (2016) also states that the search for an on street parking place generally takes between 3.5 and 14 minutes.

Revenue Allocation to and Generation in Nigerian Universities

Revenue from the accounting point of view is the total amount of income generated by the sale of goods and services related to the operations of a business which could be in the form of interests, royalties or other fees (Wolk, Dodd, & Rozycki, 2008). Revenue may refer to income or the amount in a monetary unit earned during a period of time, thus total revenue is profit or net income, less expenses in a given period. Revenue generation therefore is the process of planning, marketing and selling products, with the ultimate aim of generating income.

Sources of Revenue for Tertiary Institutions

i. Government Subventions:

Education has always been seen as a social service and governments that are willing to establish institutions of higher learning, such as university allocates a sizable proportion of their annual budget to the provision of and financing of education (Emunemu and Isuku, 2010). These are given in the form of grant, either as a capital grant or recurrent grant. It is important to note that capital grants takes care of capital projects which include erection of new buildings and keeping, improving and restoring existing ones to currently acceptable standards while recurrent is for salaries and wages.

ii. Donations and Endowment Funds:

Donations are made to the school by corporate organizations such as Multinational National Companies and International Agencies like the United Nations Educational, Scientific and Cultural Organization (UNESCO), the United Nations Development Program (UNDP) ETC.

iii. Tuition Fees/Levies

Tuition payments, usually known as tuition fees in Commonwealth English, are fees charged by education institutions for instruction or other services. Levies are payments imposed on students to take care of administrative costs in the university.

iv. Education Tax Fund (ETF)

Tertiary Education Trust Fund, abbreviated as TETFUND, is a scheme established by the Federal Government of Nigeria in 2011 to disburse, manage, and monitor education tax to government-owned tertiary institutions in Nigeria (Vanguard Newspaper, 2015)

v. Internally Generated Revenue

Internally generated revenue (IGR) is the revenue generated by the management of the institution within their area of jurisdiction which is the institution itself. The capacity of any institution to generate revenue internally is one very crucial consideration for the running of an educational institution.

Methodology

The study adopted the Case Study research design with emphasis on descriptive statistical and contextual analysis of limited number of questionnaires and interview conducted in line with the research topic. In the study scenario, sample size was purposively obtained sequentially from the various faculties of the selected universities. Purposive sampling involves the reliance of the researcher on his or her own judgment when choosing members of population to participate in the study (Sounders, Lewis & Thornhill, 2012). This was made as in Table 1:

Table 1: Determination of Sample Size from various Faculties

S/No	Faculties/Institutes/Schools	Sample Obtained
Rivers State University		
1.	Agriculture	15
2.	College of Continuing Education (CCE)	30
3.	Education	15
4.	Engineering	20
5.	Environmental Sciences	15
6.	Medical Science	15
7.	Humanities	15
8.	Law	20
9.	Management Sciences	20
10.	Sciences	15
11.	Social Sciences	15
	TOTAL	180
Ignatius Ajuru University of Education		
1.	Business Studies	20
2.	Social Sciences	15
3.	Humanities	20
4.	Natural and Applied Sciences	15
5.	Vocational and Technical Education	15
6.	Education	25
	TOTAL	110

Source: Field Data (2022)

The sample population therefore was derived from the addition of sum of the number obtained from the Rivers State University which is 180 to that obtained from the Ignatius Ajuru University of Education, all giving a cumulative Total of 290 as the Sample size for the study. The study used the mixed research method (qualitative and quantitative) with the use of interview, observation and questionnaire as data collection method in the selected tertiary institutions (Universities). Collected data was analyzed using

simple descriptive statistical tool, table of frequency, percentage and mean, content and interpretative analysis. Analyzed results were presented with tables, and texts. The characteristics of the respondents were therefore as follows:

Table 2 Respondents’ Characteristics

S/No	Respondents’ Characteristics	Variables	Frequency		Cumulative Frequency	Cumulative Percentage
			RSU	IAUE		
1.	Sex of Respondents	Male	92	52	144	42.4%
		Female	128	68	196	57.6%
2.	Attachment of Respondents (official Status)	Students	202	104	306	90%
		Staff	12	11	23	6.8%
		Visitors	6	5	11	3.2%
3.	Respondents’ year of study (for students)	Year 1	33	17	50	15%
		Year 2	33	17	50	15%
		Year 3	33	17	50	15%
		Year 4	33	17	50	15%
		Year 5	33	17	50	15%
		PG	36	20	56	16.5%
4.	Respondents’ means of Transportation	Private Car	40	21	61	18%
		Campus shuttle service	180	63	243	71%

Source: Field Data (2022)

Results

The study was carried out to seek respondents’ opinions on the establishment, administration and management of car park facilities in the university community. It further explored opinions about the revenue potentials of Car Park Facilities in the university communities under various situations as income yielding facilities. These are as shown in Tables 3 and 4:

Table 3 Opinions about the Establishment, Management and Administration of Car Park Facilities in the selected Universities

Assessment of Operation	Very Poor			Poor			Neither Poor Nor Good			Good			Very Good		
	RSU	IAUE	CF	RSU	IAUE	CF	RSU	IAUE	CF	RSU	IAUE	CF	RSU	IAUE	CF
Establishment	22	11	33	81	47	128	4	5	10	77	47	124	35	10	45
Management	29	10	39	68	42	110	Nil	8	8	70	53	123	53	7	60
Administration	13	17	30	35	25	60	32	10	42	106	47	153	35	20	55

Source: Field Data (2021)

NB:

- RSU - Rivers State University
- IAUE - Ignatius Ajuru University of Education
- CF - Cumulative Frequency

Table 4 Data Presentation of responses to Revenue Potentials attached to daily entrance of large volume of cars into the university community

Revenue Potentials	Strongly Disagree			Disagree			Undecided			Agree			Strongly Agree		
	RSU	IAUE	CF	RSU	IAUE	CF	RSU	IAUE	CF	RSU	IAUE	CF	RSU	IAUE	CF
Agreement over RP from Large Flow of Vehicles	Nil	3	3	4	47	51	29	19	48	114	53	167	62	9	71
Agreement over RP from Population of the University	4	Nil	4	9	12	21	32	17	49	103	52	155	70	41	111
Agreement over RP from Availability of Usable Land	Nil	25	25	4	18	22	46	16	62	163	27	190	9	32	41

Source: Field Data (2022)

Where:

- RP - Revenue Potentials
- RSU - Rivers State University
- IAUE - Ignatius Ajuru University of Education

Discussions

Establishment and management of a car parking facility

The study was carried out as comparative study where the Rivers State University (RSU) is designed with well spaced parking facilities attached to all complexes, in addition to a Central Car Park where commuter services are taken care of, whilst in all the three campuses of the Ignatius Ajuru University of Education (IAUE), there are no significant parking facilities, excepting spaces between complexes which are interlocked with precast materials to facilitate parking of vehicles of staff and students. A juxtapose of the two university communities indicates that there is no commuter service available within the campuses of the IAUE and buildings and complexes are positioned very close to each other in short distances. This indicates that available parking spaces are limited to only vehicles of students and staff and therefore lack the potential for commercialization, while in the RSU, distances between faculties and complexes are very wide, calling for commuter services which are already ongoing as at the time of this study. These factors are expressed in the tables above.

Revenue Potentials of Car Park Facilities in the Selected Institutions

The selected universities are undergoing significant expansion with an attendant population explosion resulting from the establishment of new faculties and departments. Accordingly, there has been significant flow of vehicular traffic on daily basis, and the availability of spaces, particularly in the Rivers State University which raises income potentials. It is observed in the study that the Ignatius Ajuru University lacks enough spaces in the two busy campuses at Rumuolumeni and St. John's at Aba Road but confining parking to a controlled central position could create a good ground for raising revenue

Identified possibility for creation of commercialized management structure for Car parking system.

The selected institutions are situated in motorable locations where vehicular transport system prevails. With the recent conversion of the Rivers State University from a monoversity status to a full university in the year 1980 and the Ignatius Ajuru University from a School of Education to a University in the year 2010, there has been an increase of activities. All of these institutions are relying on State Government's statutory allocations, which from all indications is no longer enough for the running of affairs. Parking spaces are available in the RSU and the IAUE respectively but are being used as facilities complementary to complexes and buildings, yielding no income to augment government's efforts. In spite of the paucity of funds, the Port Harcourt terrain creates frequent pot holes on the road and car park infrastructures. Maintaining any defect further depletes the lean resources available thus creating need for more revenue in both institutions. It is thus obvious that commercialized management structure, when put in place can create a revenue base from car parks.

Conclusion

The study has convincingly explored revenue potentials from car park facilities in the university community. Nevertheless, there is a deviation in the management of available facilities as in-house management is relied upon against professional management which could have considered commercialization as an option for sustenance and revenue creation. The study has thrown more light on the fact that in spite of internally generated revenue through commercialization, there is dearth of literature on commercialization action plans in Nigerian Universities.

REFERENCES

1. Emunemu, B and Isuku, J. E (2010). Alternative Strategies for Sustaining the Revenue Base of Tertiary Institution in Nigeria. ResearchGate.
2. Ewing, Reid & Cerveto, R. (2010). Travel and the Built Environment, Journal of the American Planning Association, 76:3, 265-294, DOI: [10.1080/01944361003766766](https://doi.org/10.1080/01944361003766766)
3. Hess, S. and Polak, J. (2004). Effects of Speed Enforcement Cameras on Accident rates. *Journal of Transportation Research Board*. Vol. 1830, issue 1, doi.org/10.3141/1830 – 04
4. Hibbs, Darren (2010). A Conceptual Analysis of Clutch Performances in Competitive Sports. *Journal of the Philosophy of Sports*. Vol. 37, issue 1. Doi: 10.1080/00948705.2010.9714765.
5. Huggings, R (2008). The Evolution of Knowledge Clusters: Progress and Policy; Progress and Policy. *Economic Development Quarterly*, 22(4), 277–289. <https://doi.org/10.1177/0891242408323196>
6. Jacobs D. P. N. (2010). Parking Revenue Model: An Informational Report. Association for European Transporters and Contributors.
7. Kelly and Clinch, P.(2006). Influence of Varied Parking Traffic on Parking Occupancy Levels By Trip Purpose Transport Policy 13: Issues 6, pp. 487-495.
8. Kuzmyak, J. R. and Jennifer Dill (2012). Walking and Bicycling in the United States. The who, what where and why.
9. Litman, T. (2013). Well Measured—Developing Indicators for Sustainable and Livable Transport Planning. Victoria Transport Policy Institute, Victoria, Canada.
10. McDonald (2009).
11. Olorunfemi, S. O and Basorun, J. O (2013). Appraisal of Regional Mobility in Lokoja, Kogi State, Nigeria. *Nigerian Journal of Society and Communication*. Pp 420 – 446.
12. Osoba (2013). Opening Remarks By Olusegun Osoba During Vanguard 2013 Awards
13. Oyesiku, O. K. (2002). Policy Framework for Urban Motorcycle Transport System in Nigerian Cities. In: Godard, X. and Innocent, F., Eds., Urban Mobility for All, A. A., Lisse, Balkema, 255-261.
14. Scholefield, G. and Bradley, R. (1997). Study of parking and traffic demand: a Traffic Restraint Analysis Model (TRAM).
15. Shoup, Donald (2016). Cutting the Costs of Parking Requirements, <https://www.accessmagazine.org>
16. Sounders, M, Thonhill, A., and Lewis, P. (2012). Research Methods for Business Students. Pearson Education Ltd., Harlow
17. Tom, Rye and Koglin, Till (2014). *Parking Management*. Emerald Group Publishing Limited. Chapter 8, Vol. 5, Pp 157 – 184. Doi: 10.1108/ S2044-994120140000005027. Researchgate.
18. Vanguard Newspaper Publication of September 10th 2015 – Jigawa College receives N2bn TETFUND intervention fund.
19. Weant, R. A. and Levinson, H. S. (2006). Parking. Eno Transport Foundation. Washington D.C.
20. Wells, J. (2015). Corruption in the construction of public infrastructure: Critical issues in project preparation.
21. Wolk, Harry I., Dodd, James L., Rozycki, John J. (2008). Accounting Theory: *conceptual Issues in a Political and Economic Environment*, volume 2, Saga Library in Accounting and Finance. 7th Edition. Sage. P. 383.