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Conditions characterising transaction costs in multi-campus systems in developing institutions of higher learning. The Case of Great Zimbabwe University

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ABSTRACT

The study assesses conditions characterising transaction costs associated with the multi-campus system at the Great Zimbabwe University. Transaction cost as new institutional economics has been undermined and received no direct research attention nor has the nexus of the two phenomena been theorised in Zimbabwe. This resulted in lack of consideration of local conditions characterising school teaching and learning operations. A case study was used in order to explore and describe events and experiences by individual lecturers. In this regard, the research was carried out at three centres; Centre for Gender and Culture Studies, School of Social Science and the Great Zimbabwe University Main Campus. Using interviews and focused group discussions, while thematic content analysis, findings revealed that multi-campus seems to fit rather well with the lone star model, based on its decentralisation with specialisation or related degree programmes and support services for students. The morphology of the campuses of Social Sciences has affected the infrastructural, organisational and social network costs affecting lecturers' teaching, research and university service. Participatory action and learning of the members of staff is needed for them to feel responsible, and accountable to whatever the university administration has done. Efficient and effective shuttle facilities should be availed to lecturers of the School of Social Science for them to access all required and necessary support service for their effective delivery of teaching, research and university service.

Keywords: Transaction cost, multi-campus system, network theory

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Introduction

The multi-campus university concept is not a new phenomenon in institutions of higher learning. Its origins date back to the 1970s in countries like the United Kingdom and the United States of America. This system resulted from the myriad challenges in the existing institutions of higher learning (Pinheiro & Berg, 2017). Multi-campus universities have now become a common feature in higher education worldwide. Their establishment was a consequence of contraction patterns emanating from overcapacity, fragmentation and increasing competition in Northern Europe (Pinheiro & Berg, 2017).

Following the rise of the multi-campus system, a lot of concerns emerged. Smith (1980) highlighted concerns regarding standards and advocated the evaluation of academic programmes offered in different campuses/centres to check for possible variations. Dhillon (2000) was also concerned about challenges relating to the quality and the communication of information in complex multi-campus higher education institutions for developed nations. There was scarce information regarding the multi-campus system. Efforts to fill the information gap were made in various countries. In Australia, for example, Scott, Grebennkon and Johnson (2007) sort to establish whether multi-campus universities were distinctive in their educational profile, funding and experiences. In the United States, Prentiss (2011) explored how the multi-campus system administrators perceived the campuses and administrative culture found in each single campus. In the Nordic countries, Pinheiro et al (2017) explored the trajectories brought by the rise of multi-campus systems. Ghana, Kuluure (2005) reviewed the challenges to educational administrators, teachers, learners and surrounding communities. In all the aforementioned studies in Australia, the United States, Europe, Nordic countries and western Africa on multi-campus systems, focus was on the tension emanating from the rise of multi-campus systems, academic program review, quality and the communication of information in complex multi-campus higher education institutions, variation in profiles, funding and experiences and how administrators perceived the system, and its impact on the rest of the university community.

In Zimbabwe Dhliwayo (2014) tested the perception of internal customers concerning the introduction of a multi-campus university in Zimbabwe, given that the concerned university was preceded by garbled spells of seeking and renting venues all over the city of Harare. This created a negative perception of the University.

Dhliwayo (2014) further provided critical information meant to correct the negative perception of a multi-campus system university. This contributed to the acceptance of the multi-campus system by Zimbabwean universities that included Great Zimbabwe University. The universities appreciated the benefits such a system brought to students and staff.

However, much remains unknown regarding the conditions characterising the transaction costs associated with multi-campus systems, and about the possible mechanisms to handle them, among social science academics at Great Zimbabwe University. The studies done by Pinheiro et al, 2017; Dhliwayo, 2014; Prentiss, 2011; Scott, Grebennkon and Johnson, 2007; Kuluure (2005 did not theorise the conditions associated with multi-campuses which affected the execution of academic duties. Most of the studies were carried out in developed countries such as Australia, Britain, United States of America, and the Nordic countries which have vastly different economic systems from that of Zimbabwe.

Transaction cost, as new institutional economics, has been overlooked to the extent that it has received no direct research attention in Zimbabwe. The non-consideration of local conditions characterising teaching and learning operations has meant that challenges have persisted unaddressed. It is against this backdrop that this study assesses conditions characterising transaction cost associated with the School of Social Science academics at Great Zimbabwe University (GZU).

Network Theory

In understanding the operation of multi-campus colleges, the network theory is assumed to be a fruitful approach (Armstrong, Hamilton & Sweetely, 2006). A network consists of nodes that are linked together by different ties (Norgard & Skodvin, 2002; Törnquist, 1990; Christaller, 1966). Three distinctive types of networks were identified which encompassed infrastructural networks, organisational networks and social networks.

Infrastructural networks are physical and constitute the geographical space. They also relate to different forms of transportation of materials, people and messages. They include technological networks like computer-based networks and related systems. The last reflects more technological networks like computer-based networks and related systems (Norgard and Skodvin, 2002; Dicken & Lloyd, 1990,). Organisational networks relate to the formal structure in any institution and they link individuals, groups and workplaces together in production systems, enterprises and other organisations (Tichy, 1981). Social networks are usually made up of individuals who know each other quite well and who repeatedly have personal contact. They transmit ideas, impulses, and influence within different parts of society (Pfeffer, 1982; Burt, 1980; Norgård & Skodvin, 2002). Social networks may be seen as the informal connections between faculty members).

It is important to note that the efficiency of a multi-campus institution depends on how these networks function individually and in unison (Granovetter 1973; Krackhardt, 1992). A perfect network is where there is mutual interdependence between the different nodes in the network. However, Clark (1983 in Norgård & Skodvin, 2002 p. 54) argues that:

> Compared to business firms organised around the production and distribution of a set of products, academic institutions do not have strongly interdependent parts.

There are loose-coupled organisations in which different units can put out products – new knowledge, graduates just to mention a few, in relatively self-contained ways. In addition, there is a small degree of mutual interdependence between the different horizontal units. An argument can, however, be presented to the effect that interdisciplinary research potentially contributes immensely to new knowledge capable of addressing existential problems. Related to this is the structural hole concept where there are missing connections between the actors in a network (Burt, 1992). A properly functioning network has no *hole* (Norgård & Skodvin, 2002). Structural holes can result from "both weak organisational and academic ties, weak infrastructural links, lack of social connections between different actors in the organisation, as well as cultural differences" (Norgård & Skodvin, 2002 p. 61). It would appear that there are some structural holes that negatively impact lecturers operating in a multi-campus system.

The Transaction Cost (TC) approach

Transaction cost refers to any expense incurred during a transaction such as the transfer of a good or a service, which involves such activities as collecting information, bargaining, and communicating. Such transfers can be harmonious or inharmonious, leading to misunderstandings, conflicts, delays, among other negatives (Nola & Trew, 2015).

The transaction cost approach is an attempt to determine the cost of doing business. Economising is, therefore, pivotal in the conceptualisation of the transaction cost approach. In the context of multi-campus institutions, the Transaction Cost approach has three levels of analysis. These are the overall structure of the institution, the operational parts and the manner in which human assets are organised. A faulty relationship in terms of operating parts is liable to increase transaction costs (Pinheiro et al, 2017). For example, the way different departments and sections of the institution relate to each other in terms of accountability regarding the provision of services needs to be sound in order to manage transaction costs.

It is critical to determine which activities are important and essential to the institution so that non-essential activities are dispensed with in order to manage transaction costs. The organisation of human assets needs to match internal governance structures with the attributes of work groups in a discriminating way. Organising the institution into various compatible departments enhances efficiency (Pinheiro et al., 2017). That is why universities have schools/faculties, departments, research centres and libraries which are expected to operate with great connectivity.

Constituents' aspects of Transaction Cost (TC) Analysis

Organisational communication is critical for organisational efficiency. It refers to how an organisation's information is shared internally and externally. Such information is a precious commodity, which is not perfect or costless in institutions (Sandler, 2001). Effective dissemination of information enhances the efficient distribution of new knowledge, raises awareness and promotes collaboration (Hinojosa, 2017) Where information flow is poor, Transaction costs increase.

Lack of information promotes uncertainty. However, the term 'uncertainty' has been relatively neglected in transaction costs economics, "as issues of opportunism and bounded rationality have tended to assume a much higher status in analysis. Some of the issues behind uncertainty include un-predictability and mistrust in transactions" (Williamson, 1981 p. 569). To deal with these costs, organisations, therefore, need to make use of contracts. A contract spells out rights, obligations and rules. Contracts tend to limit uncertainty and consequently reduce transaction costs. Veiga (2014) observes that contracts are also sources of transaction costs. These costs are normally implied in the cost of information, negotiation, monitoring and enforcement of contracts.

Therefore, TC analyses help to improve governance structures as well as information flow thereby minimising uncertainty (Veiga, 2014 p. 103).

Typology of multi-campus institutions in modern institutions of higher learning

In Zimbabwe during the last two decades many universities have adopted multi-campus systems for various reasons, among which was the need to optimise access to university education. There are different types of multi-campus systems as shown in Figure 1 below:

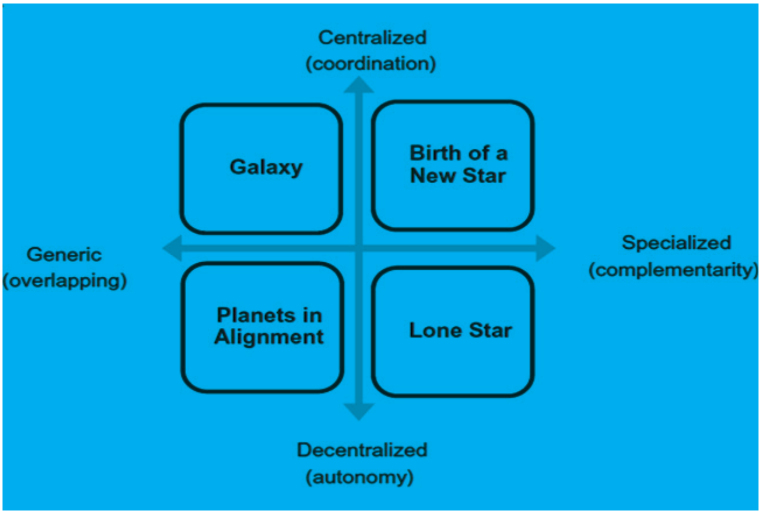

Figure 1: Types of multi-campus institutions of higher learning (Adopted from Pinheiro & Berg, 2017 p. 11)

Among the typologies of multi-campus institutions of higher learning given by Pinheiro and Berg (2017), the lone star appears to be the one used by Great Zimbabwe University. This model combines decentralisation (campus autonomy) with specialisation or complementary study programmes and services offered to students. Specific academic programmes are offered only at certain locations where administrative authority is delegated at the local level. This means that each campus has a unique blend of academic programmes, and is thus distinctive. This highly decentralised model is sensitive to local events and requirements (for example, allowing for experimentation and innovation). The model also benefits from economies of scope linked with greater specialisation.

Its downside is that in the long run it may develop an independent life and, in that way, becoming progressively decoupled from the system as a whole. This means that it may not remain aligned with the institution's overall strategic posture and institutional profile (Pinheiro & Berg, 2017).

The emergency of university multi-campus systems has been phenomenal in both developed and developing countries. They are considered advantageous in terms of increasing access to higher education while maintaining the quality of education (Hlengwa, 2014). Multi-campus universities may have two or more campuses (Kerr, 2001) which are often semi-autonomous. To prevent such universities from drifting away from the institution's values, there is need for effective coordination in terms of communication, resource provision, examination administration, research and interdisciplinary linkages, among other matters.

Research methodology

The qualitative case was used since it investigates contemporary phenomenon within a real-life context using multiple sources (Chindanya, 2011), probes deeply and analyses intensely (Cohen & Manion, 1994). Since the conditions characterising transaction costs in a multi-campus system are largely context bound, it was significant to establish the perceptions of the dean, chairpersons/ Heads of Department, a union representative, and lecturers so as to generate solutions based on their contextual understanding of the problem. *Selection of participants* was executed through purposive. The Dean of the School of Social Sciences, five chairpersons, a union representative and thirty-nine lecturers were selected. It is noteworthy that all those who were selected were willing participants who were enlightened about their rights regarding the research. *Data gathering strategies* consistent with qualitative research methodology were used in this study. These were focus group discussions (in respect of lecturers), in-depth interviews (in respect of the dean, five chairpersons and a union representative), document analysis. The focus group interviews enabled participants to answer freely, thereby enhancing the validity of the findings. The group dynamics of focus group interviews produced additional data which might have been lost in individual interviewing. The in-depth interviews facilitated consequential interaction between researcher and participants (Chindanya, 2011) thereby strengthening the trustworthiness of the findings. Triangulation of methods, and participants) further strengthened the trustworthiness of the research.

Data analysis

The constant comparative method was used to analyse the data. The responses were transcribed from the voice recorder. An inductive analysis which revealed the emergent themes coming out of the interviews and document analysis was done. Identification of repetitive themes was followed by integration and cross-validation of the themes. They were then synthesised in a descriptive analysis (Chindanya, 2011, McMillan & Schumacher, 2010).

Results

Attributes of multi-campus systems affecting transaction cost at GZU

The School of Social Sciences operates on two sites two kilometres apart on the City Campus in the city of Masvingo. These are the industrial site and the Centre for Gender and Cultural Studies site. The Main campus which houses administrative offices and the Schools of Agriculture and Science is eight kilometres from the city centre. The Main campus is the nerve centre of the university. It houses the offices of the Vice Chancellery, Bursary and Registry. That is also where the Examinations, Procurement, Information and Communication Technology, Work-Related Learning, Research and Postgraduate Studies, Central Services and Security offices, among others, are located. The Main Campus is situated ten kilometres from the School of Social Sciences site and eight kilometres from the Centre for Gender and Culture Studies site. Lecturers' offices and lecture venues for the school are housed at the said two sites.

The offices of the dean, deputy dean, four of the five chairpersons of department, lecturers and school administrators as well as the majority of lecture venues are located at the industrial site. School meetings and workshops are done at this site. This is also where most of the students learn. One weakness of a site like this one is that, in the words of Winchester and Sterk (2006 p. 5), "smaller and remote campuses are often marginalised, largely forgotten, and sometimes even exploited." The Dean, Deputy Dean, departmental chairpersons and school administrators discharge academic leadership and administrative duties at the industrial site. The School is semi-autonomous. There is also, in the words of Pinheiro and Berg (2017 p. 16), "a danger that, in the long run and left to its own devices, each campus may develop a life of its own, thus becoming increasingly decoupled from the system as a whole."

The Centre for Gender and Culture Studies Site houses offices for the department of Gender and Culture Studies and a gender centre library. It accommodates some lecture venues but there are no internal communication facilities (telephone extension handsets) in lecturers' offices, no other school nearby, no sporting facilities nearby, among other facilities. Challenges associated with such a site include high costs associated with commuting between sites and campuses, especially for committee meetings, and accessing sporting and other facilities (Pinheiro & Berg, 2017).

GZU seems to fit rather well with the description of the lone star model, based on its decentralisation, with specialisation or complementary study programmes and services offered to students. Gender programmes are offered at the Centre for Gender and Culture Studies site, while Psychology, Human Resource Management, Rural and Urban Planning Development, Sociology and Social Anthropology are offered at the industrial site. Administrative responsibilities are delegated at the local level. Each campus and site are characterised by a unique blend of academic programmes. Both the school and departments have a considerable degree of procedural autonomy. Autonomy may be considered to be more intrinsically related to an academic field rather than geographic location per se. Staff loyalty tends to be associated with the particular campus/ site where academics are located rather than the institution as a whole.

Implications of multi-campus system morphology on lecturers' transaction costs

Transaction costs are the cost of doing business. As lecturers conduct their business, they need to access the computer laboratory, considering that some of them do not have personal laptops or desktops and many others have antiquated computers. They also need to access the cafeteria for their meals, and attend committee meetings at the Main Campus. For the most part, they have to use their own vehicles. All this indicates that the morphology of the campuses of the School of Social Sciences has substantial implications relating to infrastructural network costs, organisational network cost, and social network costs.

Infrastructural network costs

Interviews revealed that academics experienced poor support services in the areas of cafeteria, library and laboratory services. The Centre for Gender and Culture Studies did not have catering services and a computer laboratory for lecturers. This meant that they had to travel to the inner city to get food. The centre had no adequate parking space of staff vehicles. Some staff vehicles were packed a distance from their offices. To access the computer laboratory, lecturers had to travel to the industrial site. This was time consuming and expensive. The situation was more dire for lecturers who did not possess personal motor vehicles. All these were unnecessary costs with a bearing on the performance of staff members. With offices on both campuses accommodating five or more lecturers each, there was not adequate space for teaching resources in the offices. Lecturers ended up keeping some of the material in their cars. The crowded nature of the offices was not consistent with academic work. As one lecturer-participant said:

> Because of space shortage in our offices, we cannot store teaching materials. With more than five lecturers in the same office doing different things at the same time…it results in conflict of interest. Offices are too noisy for one to concentrate on one's work.

This state of affairs negatively affected junior lecturers who needed to do research for tenure and promotion, given the Zimbabwe Council for Higher Education (ZIMCHE) requirements of five publications for tenure and fifteen publications for senior lectureship. The research rate and quality in the School suffered on account of the stated conditions, as Pinheiro and Berg (2017) also confirm.

Document analysis revealed that lecturers' offices at both the Centre for Gender and Culture site and the industrial site had no internal communication facilities. This meant that one had to use one's cell phone to transact university business. The internal communication systems were available to departmental secretaries. If lecturers were to use the secretary's phone, that would interfere with both their private scholarly communications and the secretary's business. The information flow drawback resulted in high level uncertainty among lecturers who had to second-guess administration regarding operational issues.

Coordination between administration and academic staff was ineffective, as observed by Pinheiro and Berg (2017) elsewhere. One participant (union staff member) bemoaned the situation thus:

> *University workers were not aware of the pension contribution effected by administration from 17% to 7.5%. also, the examination banking system policy was effected without having a circular in place and the same was the case with the higher and tertiary diploma issue. The university administration can now use a divide- and-rule approach since there is no time to meet or see each other as staff members of the university.*

Interviews also revealed that the Central Services department did not deliver consumables for the school and departments' operations and services. If one had to request for a vehicle from the university to collect the resources, it cost a lot of time. Departmental chairpersons would therefore sometimes use their own means of transport and initiatives to procure these resources which were at the GZU Storage Centre some eight kilometres from the School of Social Sciences (Industrial site) and ten kilometres from the Centre for Gender and Culture Studies (city site). One departmental chairperson decried this state of affairs thus:

> Collection of stationaries for the department is done by the chairperson if you want the operations of the department to flow without hiccups. We use our own vehicles to deliver stationary to our departments. The paper work to access a vehicle is a tedious exercise that's why we resort to the use of our own cars.

The efforts of chairpersons were an attempt to avert increased time wastage. This greatly ate into the time for research and innovation by lecturers. Failure to have resources in time by the school and departments affected the quality of teaching and services that members should offer in the committee system of the university.

Organisational networks costs

Data from documents revealed that GZU lecturers' union members realised a lot of information asymmetries as a result of the multi-campus system. Not all members were able to visit the main campus for union meetings. Policies were passed in the absence of other members of the lecturers' union. Lecturers found themselves operating as individuals, or groups at workplaces, thereby creating an uncoordinated academic environment. Lecturers' union minutes captured this situation:

> The issues of examination banking, work related learning allowances, post-graduate diploma in higher and tertiary education pronouncement are hearsay due to information asymmetry which created uncertainty at a higher education institution.

The negative impact of the state of affairs referred to above on lecturers compromised quality examination processing, assessment in work integrated learning and attitude towards innovation and industrialisation meant to achieve Education 5.0.

It has clearly emerged from the said data that there were serious issues relating to coordination between administration and academic departments resulting from poor organisational communication. This caused a lot of misunderstanding as certain policies appear to be dictated by the administration in contradiction with the university's committee system. The reduction in number of lecturers who go on contact leave to ten per semester and changes in the amount of pension contribution by the university were some of the issues that lecturers and administration were not on the same page. The faulty organisational communication system has created disgruntlement among lecturers of the school who blame it on the multi-campus system.

Social network costs

Focus group discussions revealed that schools on different campuses were disconnected and poorly networked. Communication systems were not in place for lecturers on different campuses. Multi-disciplinary collaborative research was thus rendered more difficult than need be. This has created a social network cost for lecturers and the university at large since it weakens relations between different units, a situation Norgard and Skodvin (2002) bemoan.

Conclusions

The nature of the multi-campus system at GZU fits well with the description of the lone star model based on its decentralisation with specialisation or complementary study programmes and services offered to students but it has a lot of organisational, social and infrastructural network costs affecting the teaching, research, university services, innovation and industrialisation. The social network costs have affected the interaction, integration, reciprocity among lecturers in the quest to attain satisfactory teaching, research and university service. The geographical locations of the campuses and sites had infrastructural network challenges affecting lecturers' execution of their duties. Due to organisational network challenges, GZU lecturers realised a lot of information asymmetries as a result of multi-campus system. Not all members were able to visit the main campus for union meetings. Policies are passed in the absence of some lecturers. Others operated as individuals, groups at workplaces thereby creating an uncoordinated academic environment. The network theory has assisted in the understanding of how multi-campus systems have resulted in the transaction cost among school of social science lecturers through organisational, social and infrastructural network costs affecting the teaching, research and university services.

Recommendations

Efficient and effective shuttle services should be availed to lecturers of the School of Social Sciences for them to access all required and necessary support services for effective delivery of teaching, research and university service. Organisational, social and infrastructural network costs affecting the teaching, research and university services can only be addressed through participatory action and learning of the members of staff so that they feel responsible, accountable to whatever the university administration is undertaking. Facilities to enhance communication among lecturers and between lecturers and administration need to be availed to lecturers.

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