

Evaluating the Correlates of Diversification at Zambia Law Development Commission in the Tenacity of Revenue Increase

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Abstract
The study evaluated the correlates of diversification for the Zambia Law Development Commission. A positivism research design was employed supported by quantitative and qualitative data collection approach. The sample size comprised of 33 respondents. The study was a census based one and purposive sampling was used to select the participants while data was collected through use of questionnaires and interviews. Thematic analysis and a statistical package of SPSS 22.0 was used to analyse the data collected. The Findings reviewed that Staff demonstrated moderate intention to diversify, the correlates of constraints to business of diversification show a weak to moderate correlate and that while the Commission has intentions to embark on related diversification than unrelated diversification, four constraints are prominent and these are value, money, people and clientele related. By employing the Theory of Constraints, this study has added various nuances and textures to eliciting diversification and constraints in a public institution. Should the Commission desire to increase its revenue and be sustainable, it would be ideal to employ the theory of constraints.
Keywords: Innovation, diversification, sustainability and performance
DOI: 10.7176/PPAR/12-6-02
Publication date: August 31st 2022

Background
The Zambia Law Development Commission (ZLDC) is a statutory body established under the Zambia Development Commission Act No. 11 of 1996, chapter 32 of the laws of Zambia. It was established with numerable functions and notably to entrench the socio-political values of the Zambian people into statutes and this was to cover incorporation into legislation anomalies that should be eliminated consider new and more effective methods of administration of laws and the dispensation of justice that should be adopted and legislated; examining new areas of the law that should be developed which are responsive to the changing needs of Zambian society; and the removal of archaic pieces of legislation from the statute book among others (see Chapter 32 of the laws of Zambia).

The commission has for some time experienced a very high attrition rate of staff and has not been performing very well according to the Auditor General's Reports of 2013 to 2017. Insiders attribute the high attrition to low revenues and lack of diversification. Some critics in the law fraternity and especially the Law Association of Zambia have argued that the commission is rather too traditional to consider diversifying with a view to increase its revenue base. There is evidence elsewhere pointing to the fact that any organisation may diversify as long as it is capable of using evidence based business management. Literature has shown that increasing diversification is one of many strategic policies that corporates undertake to ensure sustainability and to improve the performance with which internal resources are utilized.

Corporate diversification takes place when a firm expands to produce and sell different products/services. Since this is an issue of strategic importance, given that the Commission is failing to increase its revenue base and experiencing high staff attrition, it is highly desirable to determine the correlates of diversification for the Zambia Law Development Commission and where possible to identify probable forms of diversification.

Problem statement
Studies Globally have been done on correlates of diversification littles have been known of what the Zambian context is hence the study done on evaluating the correlates of diversification at Zambia Law of Development Commission.

Research Objectives
1. To establish the extent of diversification at ZLDC in the tenacity of revenue increase
2. To examine the methods used for diversification at ZLDC
3. To explore the correlates of diversification at ZLDC

Research questions
1. What extent has ZLDC diversified this far?
2. Which are some of the ways has ZLDC tried to employee in the quest to diversify this far?
3. What are the correlates of diversification at ZLDC?

Theoretical Framework

This study was anchored in the theory of constraints. The Big Idea behind the theory is that every process has a constraint (bottleneck) and focusing improvement efforts on that constraint is the fastest and most effective path to improved profitability (Goldratt, 1988; Gupta, 2003; Gupta et al., 2004; Davies et al., 2005). Boyd and Gupta (2004) established TOC as a theory by clearly identifying the underlying construct "throughput orientation" along with its three dimensions which are Mindset, Measures and Methodology. As such, the Theory of Constraints is a methodology for identifying the most important limiting factor (i.e. constraint) that stands in the way of achieving a goal and then systematically improving that constraint until it is no longer the limiting factor. From a functional perspective (e.g. the operations function), a list of problems, often loosely defined as constraints, can be quite long, representing problems in each function or department. However, the chain analogy suggests that not all problems can be the weakest link(s) in the chain; some problem has to be the most significant with respect to the organization's ability to move in the direction of its goal (Rahman, 1998; Blackstone, 2001; 2010; Balderstone and Mabin, 2003). A constraint is considered as a process or process step that limits throughput or anything that limits a system from achieving higher performance versus its goal or a factor that limits the system from getting more of whatever it strives. In this study, it is assumed that constraints inherent of the Commission that could be limiting diversification include:

a) Ability: Inability to produce more saleable goods/services due to limited capacity (Cox et al., 2005).
b) Raw materials: Suffering from limited raw materials limiting production or selling more saleable goods/services;
c) Policies: Policies prevent the system from selling more goods/services (Sadat et al., 2013);
d) Equipment: The way equipment is currently used limits the production or selling more saleable goods/services (Cox et al., 2005);
e) Skill and knowledge: Lack of skilled people limits the production or selling more saleable goods/services (Qian, 2002; Robbins, 2011; Santarelli and Tran, 2016);
f) Value: People have placed no value for the organization and as such the institution cannot do or produce more saleable goods/services.
g) Money: No money to execute particular tasks (Dimitrov and Tice, 2006; Kuppuswamy and Villalonga, 2010).

Conceptual Framework

The conceptual framework which appears below is an inductive generation from literature related to diversification and the constraints seen in a system as enunciated by the TOC. The assumption is that the ZLDC is engrossed in the application of traditional methods of raising income (Library, Consultancy and Research). However, because the commission has internal constraints, it is unlikely to diversify to raise revenue and enhance its performance. It is not expected that an increase in revenue and performance could be attained as long as the constraints to diversification remain. Figure 1summarises the conceptual model of the main variables understudy.

ZLDC Traditional Methods of Rising Income
Library
Consultancy
Research

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Sustainability and revenue inhibited by the following diversification constraints

a) Ability: Inability to produce more saleable goods/services due to limited capacity.
b) Raw materials: Suffering from limited raw materials limiting production or selling more saleable goods/services
c) Policies: Policies prevent the system from selling more goods/services.
d) Equipment: The way equipment is currently used limits the production or selling more saleable goods/services.
e) Skill and knowledge: Lack of skilled people limits the production or selling more saleable goods/services.
f) Value: People have placed no value for the organization and as such the institution cannot do or produce more saleable goods/services
g) Rewards: People see no rewards coming from an organisation and as such the institution produces more saleable goods/services;
h) Money: No money to execute particular tasks
i) Clientele: The commission has limited clientele for the quantity of its services

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Intention to Diversify

1) Entering a new market by adding new products' that is those that are similar to their current products.
2) There are possible products or services currently available, which could be extended to new customer groups.
3) Introducing new products and services that do not refer to the current business and could be extended to new and old customers.
4) Moving up or down the supply chain by combining two or more stages of production normally operated by separate government units.
5) The Commission could add products or services that are unrelated to what they already offer currently, but may meet some more needs of their existing customers

Figure 1: Conceptual model of variables understudy

Method and design

Data were collected through a self-administered questionnaire. This was an e mail administered questionnaire to all eligible staff at the Commission. The survey investigated staff intentions to diversify and probable constraints. Respondents were additionally instructed to provide specific demographic information. The items in the questionnaire were measured by using a 5-point Likert-type scale, based on Vagias's (2006) Likert scale recommendation.

The data were analysed with SPSS 22.0. Since the questionnaire was designed to measure attitudes in relation to diversification and constraints based on a five-point scale, it behoved the researcher to consider using composite scores. Recognising that Likert items cannot be analysed as single items as this would create information overload, composite scores / indicator scores instead were used as they represent small sets of data points that are highly related to one another, both conceptually and statistically (OESC, 2008; Statistics Canada, 2010). Therefore, combining and presenting these items as a single score reduces the potential for information overload.

The general procedure for generating composite / indicator scores included the following steps: (1) converting, or recoding, ordinal (Likert) responses to numeric responses, (2) determining the weighted mean, and the weighted standard deviation of the original data so that the composite scores reflect (as nearly as possible) the original semantic (i.e., word) meaning of the original data. The last step of rescaling the composite scores is necessary because it allows us to retain the meaning of the responses which went into creating the composite scores.

From the composite scores, it was possible for the researcher to perform non parametric analysis by creating groups. Meaningful grouping is the non-statistical combination of selected original variables based on the interpretation of the variables' values or scores. Meaningful grouping was used to create a composite outcome variable from multiple continuous variables. These original variables, when combined into a composite, can indicate an attribute (e.g., high intention to diversify or low intention to diversify) that is meaningful. A composite variable created by meaningful grouping was categorical. The key point is that the composite scores fell in a range or probability space and as such it was possible to assign the level of intention to diversify as well as not diversify. The following groups were determined *a priori.*

The possible probability space for diversification was supposed to be from 5 to 20. Three meaningful categories were developed with the following probability spaces. (i) A score of 5 to 9 was indicative of low intention to diversity, (ii) a score of 10 to 15 was indicative of moderate intention to diversity whereas a score of 16 to 20 was indicative of high intention to diversity.

In ascertaining the strength of the relationship, Cohen (1998) absolute correlation values, where r=.10 to .29 means low, r=.30 to .49 means moderate and r=.50 to 1.0, indicating high; were used. Spearman rank correlation as a non-parametric alternative to linear regression and correlation was used in this study. The null hypothesis under assessment was: The Spearman correlation coefficient, ρ ("rho"), is 0. A ρ of 0 means that the ranks of one variable do not covary with the ranks of the other variable; in other words, as the ranks of one variable increase, the ranks of the other variable do not increase (or decrease). Recognising that the Spearman correlation coefficient, rs, can take values from +1 to -1. rs of +1 indicates a perfect association of ranks, a rs of zero indicates no association between ranks and a rs of -1 indicates a perfect negative association of ranks. The closer rs is to zero, the weaker the association between the ranks (Daneyet al., 2007).

Findings

In Table 1, descriptive statistics of key variables is given. From the population N = 33 staff who formed part of the study, few staff n = 15 have certificates, however, the overall numbers of those who have masters, diploma and bachelors are substantial and account for n = 18.

Table 1: Level of Education

Level of education	Frequency
I am a Masters holder	8
I am a Bachelors holder	4
I am a Diploma holder	6
I am a Certificate holder	15
Total	33

The sample mean age was 34 (± 6.1 SD). The youngest and oldest respondents were respondent were 25 and 46 years. These employees had not worked for the commission long. The mean duration was 5 years (± 4.4 SD). The longest one served was 20 years and the shortest was 2 years.

Profile of Diversification Intention

The researcher assessed the construct diversification as the intention to introduce new goods or services or improvement in offering the existing goods or services. Five Likert items of intention to diversify were measured on a five-point scale as follows: 1 for strongly disagree, 2 for disagree, 3 for somewhat agree, 4 for agree and 5 for strongly agree. The items included the following.

1) Entering a new market (in other words there is not any existing demand, but there could be) by adding new products' that is those that are similar to their current products.
2) There are possible products or services currently available, which could be extended to new customer groups.
3) Introducing new products and services that do not refer to the current business and could be extended to new and old customers.
4) Moving up or down the supply chain by combining two or more stages of production normally operated by separate government units. (This typically means the Commission decides to start taking over some or all of the functions related to the production)
5) The Commission could add products or services that are unrelated to what they already offer currently, but may meet some more needs of their existing customers (This is a different product altogether, but it has the potential to attract many of the commission)

Using the majority rule principle to determine which side of the ordinal scale weighs more than the other in order to make a decision, the median (SWA) is used to create two polar points of type of agreements when dealing with Likert items. From Table 2, it is evident that staff of the commission intend diversifying in two out of the five diversification domains and these are (a) the Commission could add products or services that are unrelated to what they already offer currently, but may meet some more needs of their existing customers (This is a different product altogether, but it has the potential to attract many more of the Commission's potential customers) and (b) entering a new market (in other words there is no existing demand, but there could be) by adding new products that are similar to the current products. This is shown by the sums of agreements and strongly agreements that are more than those of disagree and strongly disagree.

Table 2: Intention to Diversify

Diversification domains	SA	DA	SWA	A	SA
Entering a new market (in other words there is no existing demand, but there could be) by adding new products that are similar to the current products.	0	3	12	15	3
There are possible products or services currently available, which could be extended to new customer groups.	12	11	4	3	3
Introducing new products and services that do not refer to the current business and could be extended to new and old customers.	5	2	19	7	0
Moving up or down the supply chain by combining two or more stages of production normally operated by separate government units. (This typically means the Commission decides to start taking over some or all of the functions related to the production and distribution of goods and services)	7	11	6	8	1
The Commission could add products or services that are unrelated to what they already offer currently, but may meet some more needs of their existing customers (This is a different product altogether, but it has the potential to attract many more of the Commission's potential customers).	4	4	0	15	10

The researcher opted to rank the innovative domains by summing up the positive agreement composite scores (Agree and strongly agree). The first in ranking was that the Commission could add products or services that are unrelated to what they already offer currently, but may meet some more needs of their existing customers (This is a different product altogether, but it has the potential to attract many more of the Commission's potential customers). The least was The Commission could add products or services that are unrelated to what they already offer currently, but may meet some more needs of their existing customers (See Table 3).

Table 3: Ranking of Variables - Intention to Diversity

Innovation domains	DA	SDA	Σ	Ranking
Entering a new market (in other words there is no existing demand, but there could be) by adding new products that are similar to the current products).	15	3	18	2
There are possible products or services currently available, which could be extended to new customer groups.	3	3	6	5
Introducing new products and services that do not refer to the current business and could be extended to new and old customers.	7	0	7	4
Moving up or down the supply chain by combining two or more stages of production normally operated by separate government units.	8	1	9	3
The Commission could add products or services that are unrelated to what they already offer currently, but may meet some more needs of their existing customers	15	10	25	1

A further analysis of the degree of intention to innovate was done using the composite score to determine the level of intention to diversity among staff relative to the population parameter. The population mean or true mean was set to be 15 for purposes of this determination. The computed statistical mean in this study was 12 and this was well below the true mean 15 implying that the staff of the commission had less consideration to diversity (Table 4).

Table 4: Descriptives of Intention to Diversity

Mean	Median	Mode	SD	Min	Max
12.0	11	11	2.7	8	18

In case we needed to appreciate the degree of intention to diversify, it was possible to categorise intention to diversity. Using the range of scores that were was created. The possible probability space to categorise the degree on intention to diversify ranged from 5 to 20. Three categories were developed with the following probability spaces. (i) A score of 5 to 9 was indicative of low intention to diversity, (ii) a score of 10 to 15 was indicative of moderate intention to diversity whereas a score of 16 to 20 was indicative of high intention to diversity. Table 5 shows the categories of intention to diversity and n = 23 (72.7%) of the respondents fall in the moderate intention to diversity.

Table 5: Descriptive Statistics of Level of Diversification

	Frequency
Low intention to diversify	6
Moderate intention to diversity	23
High intention to diversity	4
Total	33

This section looks at the constraints the commission experiences in its day-to-day operations. Using the majority rule principle to determine which side of the ordinal scale weighs more than the other in order to make a decision, the median (SWA) is used to create two polar points of type of agreements when dealing with Likert items.Staff of the commission. In terms of ranking have as shown in Table 6.

Table 6: Constraints

Constraints	**SDA**	**DA**	**SWA**	**A**	**SA**
Ability: Inability to produce more saleable goods/services due to limited capacity*.	4	2	6	14	7
Raw materials: Suffering from limited raw materials limiting production or selling more saleable goods/services	6	8	17	2	0
Policies: Policies prevent the system from selling more goods/services.	5	12	5	4	7
Equipment: The way equipment is currently used limits the production or selling more saleable goods/services.	8	7	7	4	7
Skill and knowledge: Lack of skilled people limits the production or selling more saleable goods/services.	1	6	7	9	6
Value: People have placed no value for the organization and as such the institution cannot do or produce more saleable goods/services*	1	3	6	4	19
Rewards: People see no rewards coming from an organisation and as such the institution produces more saleable goods/services;	1	8	4	7	7
Money: No money to execute particular tasks*	2	3	6	12	10
Clientele: The commission has limited clientele for the quantity of its services*	1	5	8	12	7

Diversification and constraints

Nine constraint variables were correlated with each of the five diversification variables. This was done to determine the statistical dependence between two sets variables that were measured on an ordinal scale. The Spearman correlation coefficient was used to assess how well the relationship between the variables can be described using a monotonic function. The Main hypothesis that was tested was - ***$H0_1$***: Constraints within ZLDC do not exhibit any monotonic relationship with diversification intention. Spearman correlation shows the existence of a monotonic relationship only with four pairs of variables as shown below in Table 7.

Table 7: Correlations of Diversification and Constraints n = 33

Variable 1 - Constraint	*Variable 2- Mode of Diversification*	*rs*	*Sig*	*Strength*
Value: People have placed no value for the organization and as such the institution cannot do or produce more saleable goods/services	Introducing new products and services that do not refer to the current business and could be extended to new and old customers.	-.355.	042	Weak
The commission has no money to execute particular tasks	The Commission could add products or services that are unrelated to what they already offer currently, but may meet some more needs of their existing customers	-.596	.001	Moderate
Clientele: The commission has limited clientele for the quantity of its services	The Commission could add products or services that are unrelated to what they already offer currently, but may meet some more needs of their existing customers (This is a different product altogether, but it has the potential to attract many of the commis	-.571	.001	Moderate
People have placed no value for the organization and as such the institution cannot do or produce more saleable goods/services	Introducing new products and services that do not refer to the current business and could be extended to new and old customers.	-.344.	033	Weak

Discussion of Findings

This study sought to investigate the existence of a monotonic relationship between constraints and diversification intention in one population. The study found a moderate intention to diversity. The most important finding of this study is that while the Commission has intentions to embark on related diversification than unrelated diversification, four constraints are prominent and these are value, money, people and clientele related. In the current traditional business line which includes library services, consultancy and research, the Commission sees no sufficient intention for expanding into business activities different from the current ones. This means that the Commission is not intending to embark on unrelated diversification. The assumptions of the Theory of Constraints have been met as four elements have emerged as constraints and yet the essential premise that all firms have at least one critical constraint that limits their production capacity. The value of diversification in the Commission could enhanced if the four constraints related to value, money, people and clientele are resolved.

Limitations and Significance of the Findings

This study, like most studies on entrepreneurial intention, is not without limitations. First, the researcher assessed staffs' perceptions of intention to diversify and constraints. We should also be cautious in assuming causality. The correlational design of our study does not allow for causal conclusions. Although there is a paucity of research establishing the reasonable connection between of intention to diversify and constraints, we should keep in mind that intentionality does not necessarily lead to actual behaviour. Prospective longitudinal research designs may follow up to see which areas of diversification and what constraints should be the focus in order to enhance sustainability and raise revenue. Data collected from the Commission may not be representative of the entire public sector in Zambia as public institutions are heterogeneous with different subcultures.

Despite its limitations, this study offers valuable guidelines and insight for those academics, practitioners and government officials who may want to review the, current state of constraints to diversification of the current system and make changes in order to foster the diversification mind-set in the individuals within the Commission. This is particularly important in the context of a developing country such as Zambia seeking to create a public sector diversification culture for further socio-economic growth and development.

Conclusion

To conclude, this article has investigated the existence of a monotonic relationship between constraints and diversification intention in one population. The most important finding of this study is that while the Commission has intentions to embark on related diversification than unrelated diversification, four constraints are prominent and these are value, money, people and clientele related. This study has shown that there is an enhancing dependency of these four constraints on diversification. By employing the Theory of Constraints, this study has added various nuances and textures to eliciting diversification and constraints in a public institution. Should the Commission desire to increase its revenue and be sustainable, it would be ideal to employ the theory of constraints.

Declaration of Conflicting Interests

The author declares no potential conflicts of interest with respect to the research, authorship and/or publication of this article.

Funding

The author received no financial support for the research, authorship and/or publication of this article.

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