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## DECISION-MAKING AND SCHOOL EFFECTIVENESS IN CAMEROON

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## ABSTRACT

Decision-making and school effectiveness in Cameroon. To achieve this, the purpose of this study was to examine the relationship between decision-making and school effectiveness in Cameroon. The researcher used explanatory sequential mixed methods, that is, quantitative and qualitative approaches (pragmatic paradigm) with correlational research design. The questionnaire and semi-structured interview guide were used to gather data. The target population was 2151, the accessible population was 1037 and the sample size was 285 headteachers. The simple random sampling method was used to select a sample size. The purposive and expert sampling techniques were used to select 10 teachers for the interview. The study area was the English-speaking North West and South West Regions of Cameroon with thirteen (13) divisions and sixty-five (65) sub-divisions. The instruments met validity requirements with a content validity index, CVI of 0.75, and reliability using Cronbach's coefficient alpha of 0.80. The model specification used the Multiple Correlation Analysis. The demographic and descriptive data were analyzed using descriptive statistics: frequencies, percentages, sums, mean scores, and standard deviations. Data from interviews were analyzed thematically and narratively. Analyses of hypotheses began with Pairwise Correlation and proceeded with the Ordinary Least Square (OLS) coefficient of the Simple Linear Regression Estimation Technique. The data was presented in the form of OLS coefficients with a p-value of 0.000 for each hypothesis as follows: Ho1: There is no significant relationship between decision-making procedures and school effectiveness with an Ordinary Least Square coefficient of 0.4725. The results have a resilient recommendation.

Keywords: decision-making, processes, school effectiveness, North West, South West, Cameroon

## **INTRODUCTION**

The current situation of school effectiveness in Cameroon is not a new derivative. School effectiveness is characterized by a clear school mission, high expectations from learners, instructional leadership, frequent monitoring of pupils' progress, the opportunity for student time on tasks, home school partnerships, a safe and orderly learning environment, pupils' rights and responsibilities, a learning organization and professional leadership. However, the National Development Strategy, 2020-2030 agenda on education comes in to talk about (i) access and equity (ii) quality, employability, and entrepreneurship and (iii) strengthening the education system to complement school effectiveness. To elucidate the lapses in school effectiveness, the primary school completion rate in Cameroon rose from 73% in 2012 to 76.79% in 2016 and fell to 67% in 2017 (MINEDUB 2018). In line with Mbua (2003), the headteacher makes decisions affecting pedagogy, finance, school plant, pupils, personnel, and school community relations within the ambits of available information in the school milieu. However, it is not known whether any research has been carried out on headteachers' informed decision-making and school effectiveness in primary schools in English-speaking Cameroon. Assuming that school effectiveness depends mostly on headteachers' informed decision-making, the focus will be on decision-making procedures, decision-making types, quality data management, data requirement identification, and data utilization. The researcher, therefore, seeks to analyze this situation so as to provide recommendations and suggestions for the improvement of school effectiveness given the wide advantages that informed decision-making may be expected to portray in this dimension.

# LITERATURE REVIEW

As modernity is taking pride in place in the contemporary world, the drive towards evidence-based decision-making in Cameroon like elsewhere in the world is growing in importance. In a bid to determine the degree to which decision-making practices predict school effectiveness. Today in Cameroon, the bid for quality education as advocated by international bodies can be reflected from the use of data at national levels by World Bank institutions in the Ministry of Basic Education: The Cameroon Equity and Quality for Improved Learning (PAEQUE) and presently, the Cameroon Education Reform Support Project (CERSP) known by its French acronym (PAREC) in 2019 all of whom had to collect data to decide on the quotas for recruitment, construction of classrooms and equipment of schools and staff. This required that schools and districts should supply verifiable and authentic data to enable the forerunners of these projects to make informed decisions on their activities. (PAREC, 2019).

The 2010 law on Inclusive Education, Law No, 2010/002 of 13<sup>th</sup> April 2010 in the Republic of Cameroon on the protection of persons with disabilities and older persons, provides the state the opportunity to offer protection and support in health, social welfare, and education services to persons with different categories of special needs in Cameroon. This requires the collection of data on inclusive education and imminent submission to the hierarchy. This is seen in the advocacy of the Socio-Economic Empowerment of Persons with

Disabilities (SEEPD) program of the Cameroon Baptist Health Services (CBCHS) that led to the Memorandum of Understanding with the Regional Delegation of Basic Education for the North West on January 6, 2020.

Moreso, by the Memorandum of Understanding, the CBCHS uses the Washington Short Set of Questions (WSSQ) to collect disaggregated data from primary school pupils to establish the level of disability amongst pupils and propose educational improvement strategies for quality education and school effectiveness. This bid for school improvement is reflected in Sustainable Development Goal 4 which aims at ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all so that girls and boys complete free primary and access secondary education meritoriously by the year 2030.

However, it was not until late the 1995 Forum was held to improve education in Cameroon that many decisions were taken affecting educational development in the country. The brainchild of this forum, Law of Orientation of National Education, Law No. 98/004 of 14/04/1998 to lay down guidelines on education in Cameroon was enacted. According to this law, the purpose of education was stated as follows: *the general purpose of education shall be to train children for their intellectual, physical, civic, and moral development and their smooth integration into society bearing in mind prevailing economic, socio-cultural, political, and moral factors.* 

Consequently, some of the fallouts of the law were the six years of primary school courses, the national syllabuses for English Speaking Primary Schools developed in the year 2000, mass promotion across levels and collective promotion within levels (2001), eminent recruitment of contracts teachers (2007), construction of classrooms, purchase of textbooks and school materials for basic education amongst others which emanated from the Cameroon Quality and Equity in Improved Learning known by its French acronym PAEQUE (Programme amelioration de l'Equite et Qualite de Education). This later on became the Cameroon Education Reform Support Project (CERSP) best known by its French acronym as PAREC (Programme d'Appui a la Reforme de l'Education au Cameroun) in July 2019.

The Millennium Development Goals Objective 2 (MDG) aims, "to achieve universal primary education". It compares global education agendas by locating the scope of MDG2 to primary education with a focus on access to and completion of primary education for all; Education For All (EFA) adopted in 2000, scopes on basic education with a universal intention of access to quality basic education for all. The Sustainable Development Goal in Objective Four (SDG4), "to ensure inclusive and equitable, quality education and promote lifelong learning opportunities for all" (UNESCO, 2018), focuses on basic and post-basic education

with a lifelong perspective and policy focused on access to quality basic learning for all plus equitable access to post basic education and relevance of learning for work and citizenship (Tawil & Locatelli, 2015).

The National Development Strategy (NDS) as the second phase towards the attainment of Vision 2035 announced by the Head of State, Paul Biya that runs from 2020 to 2030 puts education at the central stage with special plans on improving access to education (MINEPAT, 2020). By this framework, education policy will reinforce the training of teacher trainers, as well as the provision of technical and vocational training institutions in Cameroon. The new education program will arm young people with skills for the future. The NDS aims to promote an education system within the 2020-2030 agenda that will give every graduate, English-French fluency, prepare them for work in fields important to the country's social and economic development, ensure that all children graduate from elementary education, and that regional disparities in school infrastructure and staffing are reduced.

In accordance with the NDS, quality education is envisioned in informed education practices and the bid for school effectiveness. The fallouts of the 1995 Forum on Education were facilitated by the International Treaties and programs aforementioned to which Cameroon had ratified. Inclusive Education today attracts international and national attention as seen in the various international agreements to which Cameroon is a signatory. The Sector Wide Approach to Education emanated on the heels of this forum in 2005 and instigated the Basic Education Sector Strategy specifying the road map to the achievement of the goals of basic education within stated periods (MINEPAT, 2006). In these documents, reference is made to the teaching of Information and Communication Technologies and the eminent co-option of educational technologies in education were the operation of an information center to manage data in schools from which decisions about educational activities can be derived. Today school effectiveness is seen from the perspective of participative decision making which will normally take from the actual field situation to justify necessary decisions taken by the school leaders in the basic education sector.

Conceptually, informed decision-making practices in schools in Cameroon can be accentuated by the government's call for action in education since the 1995 forum on education. This led to the production of new syllabuses for primary schools in Cameroon, a brainchild of Law No. 98/004 of April 14, 1998, which focused on the orientation of national education. The Sector Wide Approach to Education, (MINEPAT, 2006) placed some variants on the considerations of education. This was followed with the Millennium Development Goals in 2005 in which Goal 2 talks about achieving universal primary education. This led to

the Sustainable Development Goals in which Goal 4 focuses on ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all today we are talking of the NDS30 which focuses on three competencies: (i) access and equity, (ii) quality and employability and (iii) strengthening of the education system. (MINEPAT, 2020).

Our center of interest is the decision-making process which requires that one plan, implements, assesses, analyses, and reflects as stipulated by the US Department of Education (2009) in the No Child Left Behind (NCLB) Act of 2001 and later on Every Student Succeeds Act (ESSA) of 2015 to ensure school effectiveness. The concept of informed decision-making in Cameroon is rooted in the National Development Strategy 2020-2030, which conceives structural transformation and inclusive development for an emergent Cameroon (MINEPAT, 2020). This document further envisages its implementation through significant progress in terms of providing education, through the construction of several schools and management structures for all education cycles, training, and recruitment of teaching staff. It comes at the heels of the leadership issues in the draft document on the sector-wide approach to education (2005) which suggests managerial conditions, academic programs, availability of textbooks and pedagogic materials, qualification of teachers, working conditions, and the health of schools.

Despite the strengths of the system, access to quality basic education remains very low. The major expectations of the basic education sector remain access and equity, efficiency and quality, partnership and management, and governance. The achievement of universal basic education is still farfetched: The Cameroon education sector plan (2013-2020) enumerates a series of challenges in the sector such as completion rate, gender disparities, rural-urban, and regional disparities, net enrolment ratio, transition rate from primary to secondary as evidence of issues in educational leadership and development.

The NDS30 states more prominent challenges include: universal primary education, structural transformations like (a) regional and gender disparities in access to basic education; (b) poor quality of basic education, to a large extent resulting from shortage and poor distribution of teachers around the country; (c) limited availability of early childhood development (ECD) programs; (d) weak sector management and governance, including poor sector coordination, planning, and monitoring and evaluation; (e) inadequate sector financing and internal inefficiency; and (f) recent influx of refugees and large number of Internally Displaced Persons (IDPs) continue to retard the smooth progress of the sector and are an imminent challenge to vision 2030 education agenda.

It is worthwhile noting that these challenges enumerated in the Growth and Employment Strategy Paper (GESP) by Cameroon (2013) cannot be achieved without an appropriate stocktaking of the present situation to predict the future and likewise a determination of better decision-making procedures and strategies for achievement. Data needed for making structural decisions has to be properly identified, quality determined, and efficiently utilized.

#### **RESEARCH METHODOLOGY**

#### **Research Design**

This research makes use of the explanatory sequential mixed methods research design. Firstly, a research design according to Schindler (2001), Amin (2005), Yogesh (2016), Nworgu (2015), and McCombes, (2021) is the format for the collection, measurement, and analysis of data, a specification of how data related to a given problem should be collected and analyzed, a statement of the object of the inquiry and the strategies for collecting the evidence, analyzing the evidences and reporting the findings and a conceptual structure within which the quantitative or qualitative research is conducted.

This mixed methods research design requires making decisions about the type of data you need, the location and timescale for the research, the participants and sources, the variables and hypotheses if relevant, and the methods for collecting and analyzing data. To him, research design sets the parameters of your project: it determines exactly what will and will not be included and also defines the criteria by which you will evaluate your results and draw your conclusions. In this way, the reliability and validity of your study depend on how you collect, measure, analyze, and interpret your data.

In line with the three principal research approaches, this thesis uses a mixed method research design in which the quantitative method deals with a lot of numeric data, the qualitative approach uses mainly exploratory data, and all approaches are combined in one research. In line with Creswell (2014), mixing or blending data provides a stronger understanding of the problem or question than either of the methods by itself because it collates the strengths of each of the approaches into a single study.

#### **Population Samples**

The sample size of the population is 285. The sample size for each division was calculated as a convenient proportion of the total sample size of the accessible population. This was because the sample had to be maintained to comply with the standards of scientific research. The Krejcie & Morgan Table was used because it is very easy to deduce the sample size from the table and requires very little information to determine it, simply, the population.

This table specifies the sample size for each population of study in the various divisions of the regions under study.

Furthermore, it should be noted that the sample size of 285 falls within the sample size of 200-300 respondents which as a general rule, provides an acceptable margin of error and falls before the point of diminishing returns (Minsel, 2022). To him, it is left to the researcher to determine the margin of error to calculate the sample size which is usually affected by the desired level of precision, feasibility of coverage, cost of sample, and time required to administer the research instrument amongst others.

| Region     | Division        | No. of   | Schools  | Accessible | Sample | Size Sample Size |
|------------|-----------------|----------|----------|------------|--------|------------------|
|            |                 | (Head Te | eachers) | Population | (QUAI  | N) (QUAL)        |
| North West | Boyo            | 14       | 5        | 63         | 16     | 1                |
|            | Bui             | 20       | 8        | 104        | 31     | 1                |
|            | Donga-Mantung   | 26       | 9        | 41         | 20     | 1                |
|            | Menchum         | 17       | 0        | 61         | 17     | 1                |
|            | Mezam           | 19       | 0        | 129        | 37     | 1                |
|            | Momo            | 15       | 8        | 51         | 15     | 0                |
|            | Ngoketunjia     | 11       | 9        | 68         | 9      | 1                |
| South West | Fako            | 14       | 5        | 135        | 54     | 1                |
|            | Kupe-Muanenguba | 11       | 9        | 51         | 15     | 0                |
|            | Lebialem        | 98       | 3        | 53         | 15     | 1                |
|            | Manyu           | 22       | 1        | 127        | 16     | 1                |
|            | Meme            | 15       | 4        | 105        | 32     | 1                |
|            | Ndian           | 15       | 5        | 49         | 9      | 1                |
|            | Total           | 215      | 51       | 1037       | 285    | 10               |

Table 1: Sample population of the study

Source: Regional Delegations of Basic Education for the North West & South West (2021)

This table indicates that from the two regions, all 13 divisions were accessible with 1037 public schools. The sample size was 285 for questionnaires and 10 for interviews. The accessibility of the divisions was partial as only the headquarters were mostly accessible and so mostly the central sub-divisions and some sub-divisions within the divisions

## Instrument

the researcher used the self-delivery (self-administered) technique and for the interview, he used the personal approach. To this end, the researcher first obtained authorization to carry out research from the Dean of the Faculty of Education. This gave him the go-ahead to visit the area of study and the sampled schools to administer the questionnaires and the interviews.

To make things easy, the researcher visited the Regional Delegations of Basic Education for North West and South West Regions of Cameroon and presented the authorization letter to the Regional Delegates while introducing themselves and the purpose of the visit. The Regional Delegate in each case equally gave him the authorization to carry out the research in his/her region. The researcher proceeded to contact headteachers from various parts of the region to administer the questionnaires. Most of them were contacted during the regional seminars in the two regions, 16/03/2022 in the North West and 31/03/2022 in the South West, and during the sub-divisional seminars and meetings organized by the Inspectors at the regional capitals due to the ongoing socio-political crises. The Inspector solicited that the headteachers should complete the questionnaires and hand them instantly to the researcher since it would not be possible for them to come back to submit them at a later date. For those headteachers not met, their contacts were obtained from their hierarchy and contacted on WhatsApp or call for the results. Some of them were contacted through research agents recruited to contact these headteachers.

## **Data Analysis Procedures**

According to Amin (2005), data analysis is the process of systematically applying statistical and logical techniques to describe, summarize, and compare data. In this study, descriptive and inferential statistics were used to analyze the data collected. The returned questionnaires were coded statistically and input into the computer and the analysis was carried out accordingly. Similarly, the interviews collected were analyzed using thematic narrative analysis and narrative techniques. It is worthy to recall here that the data analysis was done in three sections for each research variable viz: descriptive statistics, inferential statistics, and thematic narrative analysis. This type of analysis allows the responses of the interviewees to be structured under the research questions as themes and their views narrated under each of these objectives or hypotheses. The interview items under each objective were alike and respondents gave their views in the same order making it easy for themes to be narrated.

Descriptive statistics was used to analyze data using the statistical package for social sciences (SPSS version 20.0) and reported using frequencies, percentages, mean, and standard deviation. Inferential statistics were then analyzed using the Ordinary Least Square of Simple Regression to verify the hypotheses. Other statistical techniques used to summarize and describe the data for better understanding, were tables and textual explanations as the situation so desired.

A respondent's code was established. Questionnaire items had closed-ended questions intended to solicit quantitative data and were coded by assigning numbers to represent the construct to enable the computer to interpret the information. The items on the Likert Scale were also coded as follows: strongly agree, agree, disagree, and strongly disagree and assigned 4, 3, 2, and 1 for positively worded items respectively. Meanwhile, negatively worded items took the reverse, that is: 1, 2, 3, and 4 respectively. The table below illustrates the scoring of items on the Likert Scale.

| Option                 | Positively worded items | Negatively worded items |
|------------------------|-------------------------|-------------------------|
| Strongly Agree (SA)    | 4                       | 1                       |
| Agree (A)              | 3                       | 2                       |
| Disagree (D)           | 2                       | 3                       |
| Strongly Disagree (SD) | 1                       | 4                       |

| Table 2: Illustration of the Scoring | of Items on the Likert Scale |
|--------------------------------------|------------------------------|
|--------------------------------------|------------------------------|

Source: (Amin, 2005)

Table 2 shows the options or modalities used to rate the questionnaire items. It shows that there are positively worded items rated 4,3,2,1 from strongly agree, agree, disagree to strongly disagree. The reverse holds true for negatively worded items.

#### **Research Question**

The research question that was investigated in this study was as follows: How do decisionmaking related to school effectiveness?

### **Techniques for Data Analysis**

The data collected was analyzed using both descriptive and inferential statistics. Reliability of an instrument as Amin (2005) cites, is the dependability or trustworthiness of a measuring instrument: the degree to which the instrument consistently measures whatever it is measuring. When an instrument is repeatedly used and the same results are obtained, it implies that it is reliable. Amin further explains that while validity informs the test users about the appropriateness of a test, reliability talks about the consistency of the scores produced. Looking at Nworgu (2015), reliability is the degree of consistency with which the instrument measures whatever it measures; the truthfulness of an instrument, whether it tells different things on different occasions. A valid instrument is always reliable but a reliable instrument must not necessarily be valid.

Spearman Correlation is expressed as:

The reliability coefficient of the instruments was determined using the Cronbach's coefficient alpha ( $\alpha$ ), using this formula:

$$\boldsymbol{\alpha} = \begin{pmatrix} 1 - \frac{\sum \sigma_k^2}{\sigma^2} \end{pmatrix}$$
 Where;  

$$\sum \sigma_k^2 = \text{sum of the variances of the k parts, usually items of the test.}$$

$$K = \text{Number of items.}$$

$$\boldsymbol{\sigma}^2 = \text{Standard Deviation of whole test.}$$

$$\boldsymbol{\alpha} = \text{KR}_{20} \text{ (since parts are individual items).}$$

The reliability coefficient was realized at 0.8 indicating a high reliability meaning that the respondents' true scores were perfectly reflected on their true status in respect to the variables being measured. Following Ranjit, (2016) in Tah, (2021), emphasis on this reliability coefficient was calculated only for the questionnaire owing to the fact that there does not seem to be set procedures for determining the various indicators of validity and reliability in qualitative research.

#### RESULTS

#### **Descriptive Statistics**

How far are decision-making processes related to primary school effectiveness in the North-West and South-West regions of Cameroon?

Table 3 below provides a descriptive analysis of decision-making process items. Found in the table are the frequencies and percentages of agreement and disagreement with various statements.

| Overtionneire item M                       | C A  | •    |     | SDA           | AGREE |      | DISAGREE |            |
|--|------|------|-----|---------------|-------|------|----------|------------|
| Questionnaire item M                       | 5A   | A    | DA  |               | F     | %    | F        | %          |
| I usually conceive myF                     | 108  | 150  | 12  | 15            | 250   |      | 25       | 0 <b>7</b> |
| decisions before making them. <sub>%</sub> | 37.9 | 52.6 | 4.2 | 258 90<br>5.3 |       | 90.5 | 27       | 9.5        |
| I often identify the processesF            | 106  | 156  | 17  | 6             |       |      |          |            |
| involved before making                     |      |      |     |               |       |      |          |            |
| decisions.                                 |      |      |     |               | 262   | 91.9 | 23       | 8.1        |
| %  | 37.2 | 54.7 | 6   | 2.1           |       |      |          |            |
| I usually diagnose my<br>f                 | 97   | 150  | 27  | 11            | 247   | 86.6 | 38       | 13 /       |
| % weeks of the second carding them.        | 34   | 52.6 | 9.5 | 3.9           | 247   | 00.0 | 50       | 13.4       |

Table 3: Decision-making and school effectiveness

| I always identify alternatives F         | 84   | 158  | 35   | 8   |     |      |    |      |
|--|------|------|------|-----|-----|------|----|------|
| to any decision before                   |      |      |      |     |     |      |    |      |
| making them.                             |      |      |      |     | 242 | 84.9 | 43 | 15.1 |
| %  | 29.5 | 55.4 | 12.3 | 2.8 |     |      |    |      |
| I do an evaluation of the F              | 75   | 148  | 44   | 18  |     |      |    |      |
| alternatives before decision- $_{\%}$    | 26.3 | 51.9 | 15.4 | 6.3 | 223 | 78.3 | 62 | 21.7 |
| making.                                  |      |      |      |     |     |      |    |      |
| I make a choice of F                     | 74   | 161  | 37   | 13  |     |      |    |      |
| alternative decisions %                  | 26   | 56.5 | 13   | 4.6 | 235 | 82.4 | 50 | 17.6 |
| before decision-                         |      |      |      |     |     |      |    |      |
| making.                                  |      |      |      |     |     |      |    |      |
| I always measure alternativesF           | 87   | 151  | 35   | 12  |     |      |    |      |
| to ensure better decision-               |      |      |      |     |     |      |    |      |
| making                                   |      |      |      |     | 238 | 83.5 | 47 | 16.5 |
| %  | 30.5 | 53   | 12.3 | 4.2 |     |      |    |      |
| I often compare theF                     | 88   | 150  | 36   | 11  |     | 11   |    |      |
| consequences of alternatives $_{\rm \%}$ | 30.9 | 52.6 | 12.6 | 3.9 | 238 | 83.5 | 47 | 16.5 |
| before making decisions.                 |      |      |      |     |     |      |    |      |
| I always implement the bestF             | 120  | 132  | 22   | 11  | 252 | 00 / | 22 | 11 6 |
| alternative chosen. %                    | 42.1 | 46.3 | 7.7  | 3.9 | 232 | 00.4 | 55 | 11.0 |
| I always evaluate any F                  | 106  | 138  | 29   | 12  |     |      |    |      |
| decision that is taken after $\ _{\%}$   | 37.2 | 48.4 | 10.2 | 4.2 | 244 | 85.6 | 41 | 14.4 |
| implementation.                          |      |      |      |     |     |      |    |      |
| Summary of table (averageF               | 95   | 149  | 29   | 12  | 244 | 05 6 | 41 | 144  |
| fragmanary & paraantaga)                 |      |      |      |     | 244 | 85.6 | 41 | 14.4 |

Source: Field work (2023)

According to results from the table above, the large majority of respondents were of the opinion that they usually conceive their decisions before making them as 90.5% of the respondents agreed corresponding to 258 out of 285 as against 9.5% (27) of those who disagreed. Similarly, 91.9% (262) of the respondents agreed with the fact that they often identify the processes involved before making decisions while 8.9% (23) of the respondents disagreed. In the same vein, 86.6% (247) of the sample agreed that they usually diagnose their decisions before taking them as opposed to 13.4% (38) of respondents who reported the contrary. 84.9% (242) of the respondents agreed that they always identify alternatives to any decision before making them whereas 15.1% (43) of the sample disagreed. Furthermore, 78.3% (223) of the

respondents were of the opinion that they did an evaluation of the alternatives before decision making meanwhile 21.7% (62) reported the opposite. In addition, 82.4% (235) of the sampled respondents agreed that they made a choice of alternative decisions before decision making while 17.6% (50) of the respondents disagreed with the statement. Also, 83.5% (238) of the respondents agreed that they always measured alternatives to ensure better decision making while 16.5% (47) disagreed. The same percentage of respondents also agreed with the fact that they often compared the consequences of alternatives before choosing decisions. 88.4% (252) of the respondents agreed that they always implemented the best alternative chosen whereas 11.6% (33) had a contrary opinion. Further results show that 85.6% (244) of the respondents agreed with all the statements used to describe decision making process in school while averagely, 14.4% (41) disagreed.

# **Inferential Statistics**

## Hypothesis

Ha: There is a significant relationship between decision-making and school effectivenessHo: There is no significant relationship between the decision-making and school effectiveness.

This study determines whether there is no significant or significant relationship between the decision-making process and school effectiveness. In order to verify the first hypothesis of this study we employ the Ordinary Least Square estimation technique on a simple regression model. Results of the regression analysis on the effect of decision-making on school effectiveness are presented in the table below.

| DV: School effectiveness index | Coef.        | Std. Err.          | t     | P-value |
|--------------------------------|--------------|--------------------|-------|---------|
| Decision-making process index  | 0.4724620*** | 0.0621262          | 7.60  | 0.000   |
| Constant term                  | 0.2779026*** | 0.0216429          | 12.84 | 0.000   |
| R-squared                      | 0.1697       | Adj R-squared      |       | 0.1668  |
| F(1, 283)                      | 57.83        | <u>Prob &gt; F</u> |       | 0.0000  |

Table 4: The effect of decision-making on school effectiveness

Note: \*\*\*, \*\* and \* means significant at 1%, 5% and 10% respectively.

Source: Field work (2023)

Results from the regression analysis in the table above show that the coefficient of the decision-making process index is positive (0.472462) which implies that there is a positive effect of the decision-making process on school effectiveness in the North West and South West Regions in Cameroon. In effect, a unit-point increase in the decision-making process index will bring about a 0.1668-point increase in the school effectiveness index. Moreover, it should be noted that this result is statistically significant at 1% level given that the p-value (0.000) is far less than 0.01 (1%). In a nutshell, there is a positive and significant effect of the decision-making process on school effectiveness in the North West and South West Regions of Cameroon. Based on this finding, we reject the first null-specific hypothesis of the study which postulates that there is no significant relationship between decision-making processes and school effectiveness, and accept the alternative hypothesis. It should further be noted that variations in the decision-making process account for 16.68% of the variation in school effectiveness given that the adjusted R-square was estimated at 0.01668 and this model is overall significant at 1% level as the probability of Fischer statistics (**Prob>F = 0.0000**) is less than 0.01 (1%). Thus, the decision-making process significantly predicts school effectiveness.

#### **Decision Maker in the School**

An interview with the headteacher revealed the decision-maker. They know what is good for the school. The second corroborates by saying that the headteacher makes decisions since he is appointed to head the school. The next sees the headteacher as the main decisionmaker in the school because he is accountable for every fault in the school. Moreso, Interviewee 4 says the headteacher makes major decisions as the head of the school who masters the needs of the school. The next says the headteacher is the decision taker as the school head who masters the needs of the school. Another interviewee similarly corroborates that the headteacher takes decisions as the one responsible for the school following orders from the hierarchy. Furthermore, another one agrees that the headteacher is bound to make decisions about his school since he is the head of the school. Interviewee 8 agrees that the headteacher makes decisions in school just for the fact that he is the headteacher. The ninth interviewee says that the headteacher makes decisions because teachers are not allowed to make major decisions in school. The last interviewee says that the headteacher makes decisions on the basis of being a school head. She iterates that for any decisions to be taken, they always preview and undertake some processes. In all, the interviewees regard the headteacher as the main decision-maker on school leadership practices and an endeavor to enhance school effectiveness.

#### Various Procedures for Decision-making

In trying to explore the various procedures for decision-making from interviewees, the first person illustrates how a formal decision-making procedure makes good plans and also leads to a collective solution of problems faced in their school. The next person lists procedures like consultation and dialogues. In procedures, another one said the headteacher seeks everyone's opinion and summons brief meetings. In another instance, one interviewee enumerates the process of making decisions which is most often democratic. Moreso, the next person says the headteacher makes decisions by consulting staff, individuals, or other stakeholders. He works with other persons to make school-based decisions. The headteacher follows administrative procedures put in place which are formal and some of these require consultations of some information in school to determine decisions to be taken. He follows routine procedures for decision making though may not properly fulfil the necessary steps. A list of some processes in decision-making was highlighted in which the interviewee talked of announcing the need for a decision, gathering information, and analyzing it to arrive at a conclusion. In meetings, the headteacher actually follows a certain procedure to convince the members to make some decisions. However, a good number of situations abound where classroom teachers are hardly consulted and they only receive instructions, in the form of autocratic decisions. To sum it all up, the interviewees insinuated that headteachers usually follow a certain procedure before making decisions in school, and from the analysis, the MBO process remains the template of a decision-making process.

The views of interviewees on decision-making procedures are edified herewith: The decision-making process should be standardized. Putting in place a standard decision-making process will enlighten the education community of actions in the face of challenges and clear doubts.

Decision-making improves school effectiveness because everyone's opinion counts. They are void of contradictions as the general opinions of staff, pupils, and parents are consulted. The headteacher evaluates the needs of the school thinks out what is best for the school and informs other stakeholders. He recognizes the value of a decision-making procedure and endeavors to carry out some analysis of the cost of resources involved and the after-effects of the decision before taking them. These procedures ease decision-making because they are standardized and easy to understand by those affected and equally facilitate the work of the school head. Decision-making procedures are not a bed of roses as they equally slow down the pace of decision-making because of the several considerations to be undertaken and the information needed to evaluate alternatives, measure the risks and benefits, and arrive at a conclusion to be taken. The procedures also affect decisions negatively because classroom teachers are not consulted and people are reduced to a turning knot in a school organization.

However, a good number of situations abound where classroom teachers are hardly consulted and they only receive instructions, in the form of autocratic decisions. In all, decision-making procedures are encouraged in taking school-related decisions based on available data and information to improve school effectiveness.

#### DISCUSSION

Findings from this study indicate that of the 285 respondents contacted, an average number of 244 respondents making up 85.6% of the respondents are of the opinion that decision-making processes affect school effectiveness. These are the respondents who actually agree or strongly agree with the relationship between decision-making types and school effectiveness. In this light, a mean of 0.2897 was obtained with a standard deviation of 0.194 to indicate the low dispersion around the mean and of this variable from the other variables.

Looking at inferential data, the Ordinary Least Square estimation technique was used on a simple regression model to determine the relationship between decision-making processes and school effectiveness. Results from the regression analysis showed that the OLS coefficient of the decision-making process index is positive (0.472462) indicating a positive effect of the decision-making process on school effectiveness in the North West and South West Regions in Cameroon. Moreover, it should be noted that this result is statistically significant at 1% level given that the p-value (0.000) is far less than 0.01 (1%). Thus, there is a positive and significant effect of the decision-making process on school effectiveness in the North and South West Regions of Cameroon. Based on this finding, we reject the null-specific hypothesis.

Variations in the decision-making process account for 16.68% of the variation in school effectiveness given that the adjusted R-square was estimated at 0.1668 and this model is overall significant at 1% level as the probability of Fischer statistics (**Prob** >  $\mathbf{F} = 0.0000$ ) is less than 0.01 (1%). Thus, the decision-making process significantly predicts school effectiveness.

Interview responses indicate that 10 teacher respondents consulted concerning the position of the headteacher as the main decision-maker in the school and they conceded to this. Concerning the position of the school head in following the procedures for decision-making, they mostly accepted that the headteacher follows at varying levels in their schools. They also indicated that though the procedures slow down the speed of decision-making, they are generally good and recommend that school heads should establish standard decision-making procedures and communicate with all education stakeholders to be aware in the event of upcoming school activities and issues in school leadership practices.

These findings are in line with the theory supporting decision-making and school effectiveness that was propounded by Peter Drucker in his famous Management By Objectives

commonly referred to as MBO. He postulated that education leaders should be flexible, collaborative, focused on decentralization, knowledge, Management By Objectives (MBO), and a process called SMART (Carmela, 2018). Moreso, according to Anand (2020), Drucker affirmed that decision making begins with opinions and that no one has ever failed to find the facts he is looking for.

Consequently, there is a need for information to put a foundation for any better decisionmaking process that can ever be realized. These opinions are expected to align with organizational goals as specified by Odiorne (1979), Anand (2020), and CFI (2020), who enlist a summary of decision-making processes in educational organizations. According to them, these goals require that there is information to substantiate it and this is none other than data collected to this effect. Drucker saw the decision-making process as a standard hard and fast rule when in 1966, The Effective Executive, he postulated that computers were soon to replace human beings in organizations as decision-making devices at least at the middle management where it would be expected to make all the operating decisions of organizations.

Today our school leaders are still of the opinion that if enough information is available, the decision-making process will be guaranteed and simple to follow and all school leaders and members of the education community will be aware of what decisions are to be taken and when. More than 85.5% of the school leaders support this idea. When interviews were carried out on this variable, teachers who are beneficiaries of this decision-making conceded that standard decision-making processes are lauded because they keep the employees abreast with what type of decisions are to be taken and when, their effects, and compliant requirements. Thus, it avoids surprises and revolts in school administration and causes teachers and parents to be focused on school activities.

The processes in the MBO as expatiated by Drucker were edified by many authors and this has been conceded to form ten processes as follows: conception, identification of processes, diagnosis of decisions, identification of alternatives, evaluation of alternatives, choice of alternative, measuring alternatives, comparing consequences of alternatives, implementation and evaluation. These procedures require information at one level to enable progress to the next level. It is here that 85.6% of the respondents agree that decision-making processes affect school effectiveness. It is in this dimension that a unit-point increase in the decision-making process index will bring about a 0.1668-point increase in the school effectiveness index. Moreover, it should be noted that this result is statistically significant at the 1% level given that the p-value (0.000) is far less than 0.01 (1%). This is an indication that decision-making theory is significantly effective in the relationship between decision-making and school effectiveness.

From the analysis indicated supra, a lot has been said in conceptual literature about decision-making processes and school effectiveness. At the beginning of the school year, the Hon Minister of Basic Education transmits instructions to be achieved in the course of the school year down the hierarchy: Directors, Regional Delegates, Divisional Delegates, Inspectors of Basic Education, Headteachers, and other associated educational stakeholders. These authorities down the hierarchy state these instructions in the form of objectives to be achieved in the course of the school year. For this reason, the objectives have to be achieved through a set of principles, and the MBO is seen as the theoretical model conceived for implementing these objectives for the benefit of the school organization.

The concept of informed decision-making in Cameroon is rooted in the National Development Strategy 2020-2030, which conceives structural transformation and inclusive development for an emergent Cameroon (MINEPAT, 2020). This document further envisages its implementation through significant progress in terms of providing education, through the construction of several schools and management structures for all education cycles, training, and recruitment of teaching staff. It comes at the heels of the leadership issues in the draft document on the sector-wide approach to education (2005) which suggests managerial conditions, academic programs, availability of textbooks and pedagogic materials, qualification of teachers, working conditions, and the health of schools.

The quality of decisions is the key to the success or failure of an organization. The timely and correct decisions on important issues taken by managers ensure the wealth and survival of the organization. Thus, decision-making should be done very carefully and accurately. Managerial duties mostly involve making decisions of one kind or the other. Every day hundreds of decisions are made in school, consciously and unconsciously. According to

Drucker (2006), "Whatever a manager does, he does through making decisions." Decision-making is connected with formulating plans, establishing objectives, laying down policies, and so on. According to Davar (1999), "Decision-making can be defined as the selection based on some criteria of one's behavior alternative from two or more possible alternatives. To decide means to cut off or in a practical context to come to a conclusion." By this, Davar, reiterates the decision-making process in management. According to Jones (1969), "the decision is a solution selected after examining several alternatives chosen because the decider foresees that the course of action, he selects will do more than the other to further his goals and will be accompanied by the fewest possible objections and consequences". Thus, a decision essentially involves choosing a particular course of action, after considering the possible alternatives. It may be expressed in words or it may be implied from behavior. All along, these writers focus on decision-making as the choice of better alternatives.

alternatives are chosen through a standard decision-making procedure which from the statistics obtained, indicate that it has a positive significant relationship with school effectiveness.

In the empirical literature, Boyle, Duffy, Whitfield & Liu (2012) did research on the impact of resources on decision-making. They saw decision-making as a significant activity within the industry. This article provides greater insight into the impact that resources can have on how decision-making is executed. Investigated variables included the experience levels of decision-makers and the quality and availability of information resources that affect decision-making in organizations.

Similarly, Mast (2017), carried out research on decision-making in a school district determining the location for a new high school in Mid-Western State in Sahw. He used a historical case study of one large, Midwestern school district's process of choosing the site on which to build a new high school. The case study used participant interviews and document analysis. He focused on the collaborative planning perspective, a model describing reality and knowledge as socially constructed and encouraging the inclusion of all viewpoints, which exposes power relationships. Evidence or information is used within these social structures to inform decisions, within context and among the unique knowledge and experiences of the individuals involved.

In another analysis, Agasisti & Bowers (2017) researched data analytics and decisionmaking in education: towards the educational data scientist as a key actor in schools and higher education institutions. They outlined the importance of data usage for improving policy-making (at the system level), management of educational institutions, and pedagogical approaches in the classroom. They illustrated some examples of recent applications, warned against potential risks of inadequate analytics in education, and listed a number of barriers that impede the widespread application of better data use. They called for the development of a more robust professional role for data scientists applied to education with the aim of sustaining and reinforcing a positive data-driven approach to decision-making in the educational field. Educational Data Mining (EDM) uses its techniques applied to data about the learning process, with the aim of understanding patterns and recurrences (Romero & Ventura, 2007; Baker & Inventado, 2014). They see all these as determining the processes of decision-making in school establishments.

Consequently, based on decision-making processes, we can deduce that decisionmaking is about a series of steps that school administrators take to ensure that better decisions in educational institutions are taken for better school effectiveness. These steps require the collection of information to inform the current situation and future risks of decisions to be taken. From an assessment of the risks and benefits of alternatives based on available resources, a better process is being pursued to reach good decision-making.

# RECOMMENDATIONS

Decision-making processes are important in any public primary school. Headteachers are advised to follow a better decision-making process in order to arrive at better and more informed choices that can improve school effectiveness. This process is highlighted as the Management by Objective process, bearing in mind that instructions to headteachers emanate from the ministry in the form of instructions or objectives to be achieved within a stated period of time, usually within the course of the school year.

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