

## ***Effects of Educational Cost Analysis on Emotional Intelligence of University Students in Knowledge Management***

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### **Abstract**

*This study investigated educational cost analysis and its effects on emotional intelligence of university students in knowledge management. The research was a true experimental study with pre-test post-test control group design aimed at raising the awareness of university students' level of emotional intelligence demands from the educational cost analysis technique in knowledge managerial context. The population included 250 educational management post graduate students of 2016/2017 session in the two public universities in Cross River State, Nigeria. A purposive sampling technique was used to select 120 subjects from the universities and randomly assigned to treatment and control groups. The instrument designated 'Scale of Educational Cost Analysis on Emotional Intelligence (SECAOEI)' was used to collect data for the study. The instrument was validated and had a reliability coefficient of 0.854. Arithmetic mean scores were used to answer research questions while analysis of co-variance (ANCOVA) was used in testing the hypotheses. The result indicated that educational cost analysis was an effective technique in enhancing emotional intelligence. Based on the findings, it was recommended among others that university educational managers should pay special attention to educational cost analysis technique as sine-qua-non for enhancing students' emotional intelligence in knowledge management.*

**Keywords:** Emotions, intelligence, cost, university, knowledge

### **Introduction**

Adaptive functions of universities are occupied by social structures that create ideas, knowledge, theories and apply information to existing problems. Educational managers do not only influence instructional service delivery structure but also ensure high emotional and cognitive intelligence in the system for economic development. Rizq (2012) reports that there is ever increasing demand of emotional labour from educational managers in order to keep totalitarianism in check and ensure emotional compliance expected in the society. This implies that university students need to be

supported by the teachers and administrators for the development of emotional intelligence as future productive capacity. Educational cost analysis technique tends to be a therapy used by teachers in driving social learning and emotional intelligence through socio-economic features (Ekanem, 2015). Therefore, proper knowledge management of university education may explore how inter-personal lives of students can shape their emotional intelligence.

University education is variously identified as a solid tool for empowerment of individual and the society. This notion is predicated on the fact that the real selves of university students need to be actively resisted with their emotional intelligence (totalitarianism) as a choice (not innate quality) for high performance in academics. Emotional intelligence in this study could be defined as an ability to identify and manage one's own emotion as well as the emotions of others. According to Araka (2017), it is the ability of one to process emotion related information in order to enhance living. Coleman (2014) noted that emotional intelligence was important as cognitive intelligence plus technical experience for outstanding performance. In the light of this, Ukpabio (2018) reports that university students in Cross River State, Nigeria face the challenge of harnessing institutional goals towards effective use of emotions for academic competence. This may require knowledge management to ensure purposeful learning process for optimum emotional knowledge and academic growth by university students.

It has been equally difficult for university education managers to translate emotions in the context of knowledge attainment in educational management. This makes university students to have limited functional intelligence to propagate, protect, preserve and promote indigenous knowledge for global development. In Soarmi (2016), commonality can be articulated in order to encourage emotional and cognitive lives of students through educational cost analysis. This subsumes in cost analysis which upholds adjustive thinking and learning behaviour of university students in educational management.

Emotional intelligence is poorly rooted in imperfect understanding of emotional experience in university students' lives. The poor emotional norms in the university system fail to enhance academic performance demanding educational analysis to alleviate negative behaviour and build inter-personal relationship among the students (Babatunde, 2015). Moreso, university students in Cross River State, Nigeria lack compassion of knowledge attainment since acting compassionately is not linked to self-interest and profit motives. There seems to be no sustainable learning among the students. Educational cost analysis technique may create new aspiration and widen horizon in order to enhance emotional intelligence and reduce social tension among university students (Agabi, 2015).

Proper quality management of university education may be said to be the only way the educational output can apply education to sufficiently empower themselves and the society. It is a vital tool in providing higher manpower requirement for economic, political and social development of a nation. As such, quality education is a prerequisite for educational management students to interpret and understand the full features of input-output process in education (Ekanem, 2016). These crystallize into educational cost analysis technique. This technique provides opportunity, economically, to students since education objectives are basically economic objectives as stated in the National Policy on Education in 2013. Also, education management requires versatile use of limited resources effectively and efficiently. This critical skill aimed at surmounting the challenges of frozen education budget, erosion of education quality, unemployment of educational output and gross education inequalities in education system (Akinyemi, 2016). This study therefore emphasizes re-engineering university system as repository of indigenous knowledge and high level skills because natural realities are not incorporated to boost emotional intelligence of students in the system.

Educational cost analysis is essential for feasibility, innovations, reforms and efficiency because education system makes use of resources and generates outcomes. In Ekanem (2018) and Uwazuruike (2016), it is a tool for testing economic feasibility with broad national education plan and proposed specific plan. This points to the fact that university system is a repository of indices of educational cost analysis namely: planning, efficiency, priority, equity and accountability. Planning serves as a tool for articulating resource requirement for carrying out programmes at a given time. Efficiency uncovers internal wastage, inefficiency and ways of eliminating them. Priority is the control of internal operations through proper use of funds. Equity assesses the distribution of resources among competing sections according to their priorities. Accountability ensures fair discipline by tracking expenses and evaluating area of expenses and whether funds are spent as intended. These measures give proper understanding of behaviour of cost components which may nurture emotional intelligence of university students in knowledge management (Adesina, 2015).

The theoretical framework adopted in this study is the human capital theory by Theodore Schultz in 1961. It states that education increases the productivity and efficiency of workers by increasing the level of cognitive skills possessed by the workforce. This theory is relevant to this study as education managers and teachers may use cost analysis in education to support university students to develop emotional intelligence as future productive capacity. This teaching-learning task represents input-output production process that ensures increase of students' stock of economically productive capability to identify and manage their emotions and those of others in the university system.

A schematic diagram derived from the theoretical framework of this study illustrates the relationship among the concept of this investigation as presented in figure I.

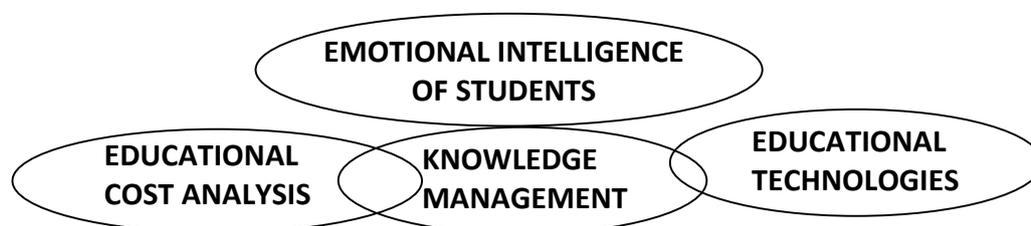


Figure I: A relationship of cost analysis, technologies and emotional intelligence of university students in knowledge management.

Source: Adapted from Ipe, M (2013). Human Research Development Review p.341.

In this schematic model, educational cost analysis technique assisted in providing knowledge and understanding through input-output socio-economic features. The features include cost determination, cost sources, prognosis requirements and logical details in education expenditure (Agabi, 2015). Educational technologies are processes of using appropriate tools to create, collect and share knowledge for the achievement of university objectives. Technologies assist to drive emotional intelligence vis-a-vis thinking and behaviour among the university students in educational planning and decision making (Ipe, 2013). Emotional intelligence is the social capacity of students to manage their emotions and emotions of others in the university system. Effective management of emotional intelligence facilitates learning and can contribute meaningfully to worthwhile educational development (Rizq, 2012). Knowledge management implies rationality of high expected academic pursuit in the university system producing new generation students. Such educational production guarantees already accumulated knowledge, existing knowledge and entirely new ideas through creative approaches (Babalola, 2011). Based on knowledge and learning management of university education, this research sets out to find out the effects of educational cost analysis on emotional intelligence of university students in knowledge management.

### **Purpose of the study**

The purpose of this study was to assess the effects of educational cost analysis on emotional intelligence of university students in knowledge management. Specifically, the study sought to:

1. determine the emotional intelligence of university students in knowledge management based on educational cost analysis technique.
2. ascertain the emotional intelligence among male and female university students in knowledge management based on educational cost analysis technique.

### **Research questions**

The following research questions guided the study:

1. What are the emotional intelligence mean scores of university students in experimental and control groups based on educational cost analysis technique?
2. What are the emotional intelligence mean scores of male and female university students in experimental group based on educational cost analysis technique?

### **Hypotheses**

The following null hypotheses were formulated to guide the study:

**Ho1:** There is no significant difference in emotional intelligence mean score of university students in experimental group and control group based on educational cost analysis technique.

**Ho2:** There is no significant difference in emotional intelligence mean score of male and female university students based on educational cost analysis technique.

### **Methodology**

The research was a true experimental study with pre-test post test design type. The area of the study was Cross River State, Nigeria. The State has two public universities (Federal and State Universities) and also one private university. The public universities are located in Calabar, the seat of government of the state. The population included 250 post graduate students in the two public universities. The sample for the study consists of 120 subjects with low emotional intelligence. They were identified through the administration of pre-test, and were randomly assign to experimental and control groups purposefully. 60 students with identification number 1-60 were placed in each of the groups purposefully. The experiment took place in the two public universities that served as treatment and control centres.

The subject responded to a researchers-developed scale titled: 'Scale of Education Cost Analysis on Emotional Intelligence (SECAOEI)'. The scale was based on social and emotional intelligence model comprising of 25 items self-report inventory used to assess emotional intelligence of university students. Each item had an option A to D ranging from 'Never to Always' where respondents indicated on a four point rating scale. The scale contained five sub-scales within the range of intelligence quotient (IQ) namely self-regard, flexibility, problem solving, empathy and inter-personal skills. These could be applied in various uses of cost analysis technique such as efficiency, planning, priority, equity and accountability (Ekanem, 2018). The instrument was face validated and the reliability coefficient of 0.886 obtained using Cronbach alpha method. Hence, the instrument was reliable for successful achievement of the research objectives.

The treatment model used in the study was training on educational planning, efficiency, priority, equity and accountability. The researchers placed only the experimental group on the training. The exclusion of the control group was to determine the effects of the treatment on the experimental group. The treatment lasted for six weeks during which the university students with low emotional intelligence in cost analysis seized out through the administration of the SECAOEI brought together to receive the treatment. This experiment was held once a week for sixty minutes during the quantitative analysis in educational management period in the universities. Two research assistants helped to keep the control group intact towards blinding them for the purpose of the study. The data obtained was analyzed using arithmetic mean to answer the research questions and analysis of covariance (ANCOVA) to test the research hypotheses for the study.

### **Presentation of results**

**Research question 1:** What are the emotional intelligence mean scores of university students in experimental and control groups based on educational cost analysis technique?

**Table 1:** Pre-test and post-test mean scores of university students' emotional intelligence based on cost analysis learning

<b>Source of Variation</b>	<b>N</b>	<b>Pre-test mean</b>	<b>Post-test mean</b>	<b>Mean Gain</b>
Experimental group	60	138.94	201.89	62.95
Control group	60	133.86	153.48	19.62

Table 1 showed that students treated with educational cost analysis technique had pre-test mean score of 138.94 and post-test mean score of 201.89 with mean gain of 62.95. Also students in the control group had a pre-test mean score of 133.86 and post-test mean score of 153.48 with mean of 19.62.

**Ho1:** There is no significant difference in emotional intelligence mean scores of university students in experimental group and control group based on educational cost analysis technique.

**Table 2:** Analysis of co-variance (ANCOVA) on the emotional intelligence mean scores of university students based on educational cost analysis technique

Source of Variation	SS	df	MS	Cal-f
Corrected Model	45,378.311	2	22,653.561	
Intercept	12,485.521	1	12,475.413	
Emotional Intelligence	146.823	1	46.891	
Treatment model	42,850.087	1	42,750.097	545.07
Error	7,583.108	117	78.359	
Residual	2,930412.000	120		
Corrected Total	52,878.310	119		

Crit-f = 3.94;  $P \leq 0.05$

In Table 2, the calculated f-value of 545.07 was greater than the critical f-value of 3.94 at 0.05 level of significance, educational cost analysis technique is significant in enhancing emotional intelligence of university students in knowledge management.

### Research question 2

What are the emotional intelligence mean scores of male and female university students in experimental group based on educational cost analysis technique?

**Table 3:** Pre-test and Post-test mean scores of male and female students' emotional intelligence after learning educational cost analysis

Source of Variation	N	Pre-test mean	Post-test mean	Mean Gain
Male	32	148.22	192.82	44.60
Female	28	136.51	169.72	33.21

Table 3 indicated that emotional intelligence of male students treated with educational cost analysis technique had pre-test mean score of 148.22 and post-test mean score of 192.82 with mean gain of 44.60. This is against pre-test mean score of 136.51 and post-test mean score of 169.72 with mean gain of 33.21 on the emotional intelligence of female students treated with the same technique. Therefore, educational cost analysis technique is more effective in enhancing emotional intelligence in knowledge management of the male students than their female counterparts.

## **Hypothesis 2**

There is no significant difference in emotional intelligence mean score of male and female university students based on educational cost analysis technique.

**Table 4:** Analysis of co-variance (ANCOVA) on emotional intelligence mean scores of male and female university students treated with educational cost analysis technique

<b>Source of Variation</b>	<b>SS</b>	<b>df</b>	<b>MS</b>	<b>Cal-f</b>
Corrected Model	408.002	2	205.402	
Intercept	8736.756	1	8736.756	
Emotional Intelligence	2.134	1	2.134	
Gender	399.625	1	399.625	6.042
Error	3116.487	57	67.320	
Residual	1825677.000	60		
Corrected Total	3527.510	59		

Crit-f = 4.03;  $P \leq 0.05$

Also in table 4, the calculated f-value of 6.042 is greater than the critical f-value of 4.03 at 0.05 level of significance, 1 df numerator and 59 df denominator. Therefore, educational cost analysis has a significant effect on emotional intelligence of university students in knowledge management in gender.

## **Discussion**

The analysis of research question one showed that educational cost analysis is effective in enhancing emotional intelligence of university students in knowledge management. This means that university students in educational management used educational cost analysis as an important economic evaluating tool to promote their ability to understand values and effectively apply power of emotions. This outcome was probably owing to the fact that social and emotional learning are basic conditions in university education. This finding was in consonance with Babatunde (2015) that reported high emotional intelligence as being critical in impacting learning in universities.

The result of analysing hypothesis one in Table 2 revealed that educational cost analysis technique was significant in enhancing emotional intelligence of university student in knowledge management. This finding further confirmed the answer to research question one in this study. The possible reason for this finding would be that

educational cost analysis initiates a purposeful structured work on students' real selves. This was having regards particularly to their emotions and those of others in order to guide their thinking and cognitive behaviour. These findings could be likened to Uwazuruike (2016) and Akinyemi (2016) that cost analysis in education involved planning skills and intelligence quotient (IQ) which helped in deepening understanding of work done with best academic pursuit. The cost analysis could reveal educational cost implications for education policy in terms of logical breakdown of component parts for meaningful and authentic learning by university students in knowledge management (Ekanem, 2016).

Also, in analysing research question two, educational cost analysis was more effective in enhancing emotional intelligence in knowledge management of male students than the female students. The plausible explanation to this finding was that the male university students apply development planning (systematic ordering of priorities) than their female counterpart to control emotion and assess emotions of others as guide to cognitive behaviour. In a study on relationship between education and emotional intelligence, Araka (2017) reported that male students were more effective than female students. This was in using cost and programme analysis to boost social and emotional intelligence in management.

In analysing hypothesis two, educational cost analysis had a significant effect on emotional intelligence of university students in knowledge management based on gender. This means that educational cost analysis has the capacity to add developmental values through economic knowledge as a form of pure intelligence for academic success of student gender. The students used their mental ability to measure emotional understandings in order to determine social and emotional behaviour for best academic pursuit. This present findings corroborated with Agabi (2015) that Educational cost analysis boost cognitive ability of students with empathy and interpersonal skills as vital learning conditions. This was to ensure high emotional intelligence for problem solving and adaptability to moral rules of university education.

However, the findings of Rizq (2012) contradicted this present study in that gender difference in emotional intelligence are significantly high for female students compared to their male counterparts. This could be due to the fact that female students seemed to be more emotionally expressive and understand emotions better than the male students. Nevertheless, this study emphasised the fact that educational cost analysis nurtured emotional intelligence of students. As such there should be assertiveness in terms of being judgmental about equity in management of emotions by university management. This notwithstanding, in other studies such as Coleman (2014) and Soarmi (2016), gender difference in emotional intelligence did not exist.

## **Conclusion**

Nigerian university system aimed at producing students with high emotional and cognitive intelligence that will contribute to the needs and aspirations of individuals as well as the society. It was observed that there have been no measures of commitment by university management in Cross River State, Nigeria to acquire emotional intelligence through training. Thus, the system was unable to build high achieving and emotional discerning students in knowledge management. Educational cost analysis was effective in enhancing the emotional intelligence of educational management students, indicating more capacity to male students than their female university student counterparts in this study. It appeared that university management had obviously realized the potency of educational management as agent of knowledge management. Educational management through cost analysis technique could develop emotional intelligence skills with an aim of improving human quality knowledge for reduction of anti-social behaviour and effective demand of academic work.

## **Recommendations**

1. Educational planners should be committed to the use of educational cost analysis in training educational management students in universities. This will develop the emotional and cognitive skills of university students to learn effectively.
2. University management should pay greater attention to gender difference in quality learning. This will improve learning behaviour and promote emotional intelligence of female university students.
3. University management should build capacity of teachers through workshops and seminars on the use of educational cost analysis technique. This is because effective learning may be interfered by university and classroom settings towards nurturing emotional intelligence of university students.
4. Curriculum planners should encourage scholars to write more textbooks on educational cost analysis. This will not only ensure mastering the technique, but also boost concept clarity in input-output education process by university students.

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