

# Turkish Online Journal of Educational Technology

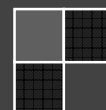
*Special Issue for INTE 2017  
October 2017*

Prof. Dr. Aytekin İşman  
Editor-in-Chief

Prof. Dr. Jerry WILLIS - ST John Fisher University in Rochester, USA  
Prof. Dr. J. Ana Donaldson - AECT President  
Editors

Assist.Prof.Dr. Fahme DABAJ - Eastern Mediterranean University, TRNC  
Associate Editor

Assoc.Prof.Dr. Eric Zhi - Feng Liu - National Central University, Taiwan  
Assistant Editor





**THE  
TURKISH ONLINE  
JOURNAL  
OF  
EDUCATIONAL  
TECHNOLOGY**

**October 2017**  
**Special Issue for INTE 2017**

**Prof. Dr. Aytekin İşman**  
Editor-in-Chief

Editors

**Prof. Dr. Jerry Willis**  
**Prof. Dr. J. Ana Donaldson**

Associate Editor

**Assist. Prof. Dr. Fahme Dabaj**

Assistant Editor

**Assoc. Prof. Dr. Eric Zhi - Feng Liu**

**ISSN: 2146 - 7242**

**Indexed by**

**Education Resources Information Center – ERIC**  
**SCOPUS - ELSEVIER**

# **Analysis of Underlying Constraints Affecting the Choice of Building as A Major Course**

**Ayodeji. O. OGUNDE**

*Department of Building,*

*Covenant University,*

*Canaanland, Ota,*

*Ogun State, Nigeria.*

*ayodeji.ogunde@covenantuniversity.edu.ng*

**Ebenezer BAMIDELE**

**Timothy. O. MOSAKU**

**Olabosipo.I. FAGBENLE**

**Adefolake. O. OGUNDE**

**Robert UGOCHUKWU**

**Abisola OGUNDE**

**Olufunke OGUNDE**

**Opeyemi JOSHUA**

The aim of this study is to analyse the underlying constraints affecting the choice of Building as a major course. The objectives of the paper are to assess the awareness of students on Building as a course in the institution, identify the percentage of students willing to study Building as compared to other related courses, identify constraints of students who chose Building. Secondary and primary data were obtained. Data was obtained by the administration of questionnaire, and interviews of students studying building technology in Covenant University. A sample size of 150 students comprising of students from the 5 levels of the programme partook of the survey. Purposeful sampling technique was used and the data obtained was analyzed using a 5-point Likert scale.. The factors affecting the choice of building in varying degrees include Poor awareness of the course, Inappropriate advice, Method of teaching, Demands of the course, Gender differences, Tuition fees, Basic Technological skills, Learning Environment, Method of teaching, Prospects for students in studying the course. However, majority of the students' constraint was lack of awareness about the course; therefore it is recommended that proper awareness of Building Technology as a profession should be done via workshops and seminars in secondary schools so as to broaden the view of students about the course even before entering into the higher institution. . Building technology skills acquisition is declining in many institutions in the country, therefore it requires serious attention at national level. The National Institute of building (NIOB), Council of registered builders of Nigeria (CORBON) that have been tasked with a detailed assessment of the construction / building skills shortage should address these inadequacies.

**Key words:** Building Technology, Course, Institution, Profession, University

## **INTRODUCTION**

A Building can be defined simply as permanent or temporary structure enclosed within exterior walls and a roof, and including all attached apparatus, equipment, and fixtures that cannot be removed without cutting into ceiling, floors, or walls. Building can be defined as the process or business of constructing something the process of constructing, shaping, developing, or forming a particular thing (Businessdictionary). Building development in Nigeria has a long history going back to the pioneer period where arranging training in the nation is moderately recent. The provincial government for case authorized the Town Improvement Ordinance in 1863 and built up the Lagos Executive Development Board (LEDB) taking after the episode of bubonic plague in Lagos somewhere around 1925 and 1928 (Abiodun, 1985). The Board was built up amid this period to clear the ghetto zones influenced by the sickness and to

build up lodging units in Lagos. Then again, the greater part of the arrangement creators and system implementers comprised chiefly of common hirelings.

The number of students enrolling for building courses at universities has decreased substantially. The resulting reduction in the number of new graduates, along with the current and projected shortages of skilled professionals in almost all building fields, has been noted with alarm, not only by academics at universities, but by officials in various state bodies in many countries of the world. The impact of lower student numbers has resulted in some universities reducing the number of academic teaching and research positions in building departments, and even in a few cases, the closure of such departments. With such a large number of higher organizations of adapting now offering mixed bags of natural courses and this combined with the opposition in the building business, this study is set to explore the level of enthusiasm for Building Technology in students of covenant university.

The aim of this research is identifying constraints affecting the choice of building as a major with Covenant University as a case study. The objectives are given below:

- To assess the awareness of students on Building as a course in the institution
- To identify the percentage of students willing to study Building as compared to other courses relating to construction
- To identify the constraints of students who chose Building

Identifying factors which influence career choice, and the differences in the factors influencing different groups of students, will assist us in identifying underlying causes for low student enrollment. This will also allow us to make recommendations regarding how recruitment and advisory resources can be used more effectively and how campaigns can be focused appropriately in order to attract students. This study would help us realize how many building technology candidates are finding fulfilment in the course of study and how it can be improved. The various aspects considered for improvement can promote the willingness of students to study the course and the ways to reduce or totally eliminate these constraints on the long run.

## **2.0 RELATED STUDIES**

Career selection is one of many important choices a person will make in determining future plans. This decision will impact them throughout their lives. The essence of who the student is will revolve around what the student wants to do with their life-long work. It then follows that how the student perceives their environment, personality, and opportunity also will determine the career choices students make. The decision-making processes of students at the entry point to higher education have been the focus of several research projects. Studies conducted since the early 1990s have examined intrinsic motivations such as interest in an area of knowledge and related career opportunities (Sugahara, Boland, & Cilloni, 2008), as well as the more general reasons for attending a particular university: for example, reputation, campus environment, academic programs and services (James, 2001; Elsworth et al., 1998).

Some studies have been carried out on factors influencing students' choices of careers. In their study on the retail career choice, Soyeon and Goldberry (undated) identified three broad factors namely: intrinsic, extrinsic and lifestyle. The intrinsic factors include the nature of the job itself, enjoyment of the job as a whole, variety of jobs, intellectual stimulation, pleasant work environment and fit of job to personality. The extrinsic factors identified by the authors are salary, benefits, job security/stability and prestige of career field while lifestyle factors include flexibility of working hours, ability to manage home/family, time for leisure and preferred geographical location. In another study by the College of Occupational Therapists (2000), awareness was found to be a major factor in career choice. The study showed that around a third of the students made the decision to become occupational therapists while studying in years 12 and 13 (16%) or after taking A level/higher (15%). Only 5 percent made the decision before GCE/Scottish equivalent level. The study identified the respondents' friends and family (40%) as the most influential source of career advice. University prospectus, school career staff, college careers' pack and local career services are other sources.

### 3.0 METHODOLOGY

This research is based on the case study which is Covenant University. Field data was obtained by the administration of questionnaire, and interviews of students studying building technology in Covenant University. The population of Building Technology students from 100 to 5001 studying building technology in Covenant University was a total of 283. A sample size of 150 students comprising of students from the 5 levels of the programme partook of the survey. Purposeful sampling technique was used. The data was analyzed using tables and a 5-point Likert scale.

### 4.0 ANALYSIS OF DATA

The survey was carried out on the Building technology students in Covenant University. The total population of students that participated was One hundred and fifty (150) in number. The males that participated were 102 in number while females were 48. The population was a total of 283 students while 30 students per each level of 100 to 500level was the sample size.

Analysis of data was done using the Likert scale. The scores were obtained by assigning weights to the 5 – point Likert scale, that is, from strongly Agree = 5 points to Strongly Disagree = 1 point, then summing the scores for each item and then dividing by the number of respondents to each item. The mean score was then grouped as follows to arrive at consensus opinion about each item: Strongly agree= 5.0-4.50, Agree =4.49-3.0, Neutral= 2.99-2.50, Disagree= 2.49-1.5 strongly Agree=1.49-1.0.

### 4.1 BACKGROUND OF STUDENTS

The students that participated in this research are all Building technology students from all levels.

**Table 1: Students' Background.**

Variable	Characteristics	Percentage
Sex	Male	68%
	Female	32%
Was Covenant University your choice?	Yes	82%
	No	18%
Did you know about Building Technology as a course?	Yes	24%
	No	76%
Was Building Technology your first choice?	Yes	28%
	No	72%
Do you like the course Building Technology?	Yes	94%
	No	6%
Would you chose building technology over again if you had the chance?	Yes	70%
	No	30%

From the questionnaire survey carried out, majority of the respondents were male because they are in majority in all the classes. That notwithstanding the researched showed that 56% of the students that took part of the survey were not aware of Building as a course of study and 72% claimed it wasn't there first choice of study. Despite the lack of awareness of the course of study most still found it interesting, 94% of the respondents attested to the fact that they presently like and enjoy the course and major reason given for that was the lucrative nature of the course and practical nature as well. 70% of the respondents said they would choose building Technology as a course of study again, should they have to do it over. On whether the students chose Building technology as a course, 28% claimed Yes and while 72% said no, mainly because there was no awareness of building as a course.

## 4.2 STUDENT'S ATTITUDE TOWARDS BUILDING PROFESSION

**Table 2: Student's Attitude towards Building Profession**

S/N	PERCEPTION OF BUILDING TECHNOLOGY	Strongly Agree (%)	Agree (%)	Neutral (%)	Disagree (%)	Strongly disagree (%)		Implication (Using the highest %)
1	Building technology is a good course	70	24	6	0	0	4.64	Agreed
2	Building technology is a tedious course	38	40	16	6	0	4.10	Agreed
3	Building Technology is a lucrative course	34	58	8	8	0	4.26	Agreed
4	There are many successful builders out there	24	38	30	4	0	3.78	Agreed
	<b>ABOUT LEARNING AND PRACTICE</b>							
5	I understand building technology concepts	38	48	8	0	6	4.12	Agreed
6	The lecturers of the course are knowledgeable	36	46	14	4	0	4.04	Agreed
7	The learning environment is conducive for learning	28	32	22	14	4	3.56	Agreed
8	Practicing building is what I will do after the university level	14	28	34	20	4	3.28	Agreed
9	Other professionals have better advantage of being established than a builder	4	10	28	36	11	2.5	Neutral

**Source: Authors' Field Work (2016)**

Table 2, shows that in spite of the fact that majority of the students were either forced into the discipline or entered into the discipline as the last resort, about 42% of them saw their future prospects as bright and promising. Only 4% of the students claimed not to find the course interesting while 34% were unsure.

High salaries are considered important therefore “good money/benefits” was noted as being important almost seven times more often than any other factor. It was also found that high salary and job security were rated most highly, and that job availability was close in importance to these top two. These are similar to findings for accounting students. Myburgh (2005) carried out a study amongst students in a various universities and found that availability of jobs, followed by job security, were top in importance.

Majority of the students, 36% of the respondents to be precise, disagreed to the fact that other professionals have a better chance of being established, while overall outcome being a neutral stand point. This a pointer to the fact that although they believe in the good of the course, there is an idea that it may not be as profitable as earlier anticipated.

#### 4.3 CONSTRAINTS AFFECTING STUDENTS' CHOICE OF STUDYING BUILDING

There are several constraints as described through oral interview which accompanied the questionnaire distribution that affect the choice of students studying building technology, ranging from

- Poor awareness of the course
- Advice
- Method of teaching
- Demands of the course
- Gender differences
- Tuition fees
- Basic Technological skills
- Learning Environment
- Method of teaching
- Prospects for students in studying the course

- **Poor awareness of the course**

The survey showed that students who left the secondary level as at 2012/ 2013 and presently in 400 to 500 level of the course (building technology) were not properly informed about the course before formal contact with the university itself. The lack of awareness made them to initially dislike the course as there was a feeling of studying a subordinate course as compared to others.

- **Advice**

Advice emanating from parental quarters contributed greatly to the decision of studying Building Technology as a course. Only a few students had advice from a professional's stand point which engendered a bit of interest in the subject itself.

- **Demands of the course**

The false idea in the minds of students who were poorly informed about the course was that it is a very tedious course, which was hard to comprehend due to the different aspects of it. They felt it would take so much out of them. So many did not choose the course for this reason,

- **Gender differences**

Generally, the construction industry is a male dominated environment, basically due to the heavy lifting and the necessity of being up and doing at all times. The terrain, location and duration of projects undertaken are significant factors as the female students are concerned.

- **Tuition fees**

The tuition fees for building like engineering courses are usually the highest. For a school like Covenant University, the cost of enrolling a student for such a course in the institution placed challenges on some families and they initially considered sending their ward/children on the study for a lower priced course and this period allowed for delays in choosing building as a course of study for their ward/children.

- **Basic Technological skills**

To study Building technology the student must be well grounded in 'Technical Drawing' and must have offered and passed it at the WASSCE stage before entering the University but not all students were privileged to be exposed to this subject, that is why some did not even consider studying the course at all.

Also IT software skills in applications such as AutoCAD, AutoCAD Revit, BIM needed to be learnt at least in its basic form as it will be used during the course of study of the students, and usually they lack any knowledge about the use of these applications.

- **Learning Environment**

The learning environment matters a lot. Not all Universities have the facilities to enroll students for this course and this limits the students' choice of universities. Students surveyed did not really have much idea of the facilities put in place for the study of Building Technology in Covenant University and some testified to have been reluctant in choosing both the institution and the course of study.

- **Method of teaching**

The method of teaching involves a lot of theoretical work and face-face method. The online model perhaps would have helped in gaining more ground as regards students that are willing to learn and understand what the course was about. Students opined that sufficient visits to factories of production and manufacture of construction products have not fully been met and in fact just started in recent years. Nevertheless, town and gown seminars have been introduced in Covenant University to take care of these challenges.

- **Prospects for students in studying the course**

Several students attested to the fact that they knew nothing about Building Technology as a course and a profession as a Builder. They were given and transferred to study the course when they could not meet up the cut off mark for the initial course of study that they chose. They had not idea concerning the prospects for the course not until they fully enrolled for the programme which helps them discover how broad the Building profession was.

#### **4.4 STUDENTS' PERCEPTION OF THE PROFESSION BASED ON INTERVIEW**

The students of Building Technology that were interviewed revealed that they had not applied for building technology originally (70%), but later retired for the course. Most of them disliked the course at first, but began to enjoy it later, a considerable number are still indifferent.

When asked about lecturers' attitude and knowledge of the course 66% claimed that the lecturers were in fact knowledgeable on the course, the only problem is the poor communication skills proper. Although some students said that they believed that the lecturer liked to get at par with the students and make sure they understood concepts, which they liked. Others lamented the approaches of certain lecturers, such as leaving students to teach themselves.

When asked if they would recommend the course to others, they generally agreed and are shown by the 70% of the respondents. They however stated that Building Technology would be recommended over Civil Engineering and other related courses because of the breadth of Building Technology in relation to other courses. These are similar to findings for accounting students. Myburgh (2005) carried out a study amongst students in a various universities. It was also found that High salaries, availability of jobs, followed by job security, were top in importance.

#### **PERCEPTIONS OF BUILDING AS CAREER**

- Although solution provision and service to the public are the reasons why some of the students would like to venture into the profession, profit or finance remained the major reason why the students would like to become professionals in the industry. Some of the students are interested in the profession in other to proffer solutions to the existing methods of construction such as the use of sustainable buildings, green buildings, dry construction, prefabricated systems, and other methods of construction.
- Many of the students perceive building as a vast and versatile profession in the sense that it is a very wide profession and has a lot of areas in which one can venture into such as; building production management, building construction, project management, facility management, feasibility and viability studies, building maintenance management, building surveying, project monitoring and evaluation, and arbitration, mediation and expert witness. More



specialized jobs are also available in the building industry, such as building services like plumbing, electrical works, wood works, iron works, tiling, painting, other finishes and many other works. This availability of so many jobs in the industry provides job opportunities for lots of individuals.

- It is an interesting and essential profession as it tends to meet one of man's basic needs which is shelter. Some students enjoy the industry because it entails working on site most times, and they love the practical aspect of the job unlike white collar jobs which entails working 24/7 in offices or on computers.
- Some students appreciate the fact that the profession is very profitable and lucrative, but also acknowledge that it could be cumbersome if one is not careful, experienced, smart and has appropriate knowledge of the rules guiding the profession.
- Students also enjoy the fact that one gets to work with lots of different professionals in diverse industries. They acknowledge that the industry cannot go to the dust, which means it will continue to grow and add values to the human life.
- The profession entails innovation, and it is very dynamic. It requires hard work, good efforts and labour. It is very tasking, stressful, demanding and most times, requires long hours of work. Some students also feel that it is a boring profession; it is redundant and very political.
- They believe that the profession is revolutionary and contains the potential to lead the way in national development and growth. It is solution driven, resourceful, and renders services to the public in different areas of building.
- It is an adventurous profession, a profession that also involves dirty works
- Many of the students who have had an experience of working in the industry or with a professional believe that, although what is taught in their classrooms relates to what is done on site, there is still lots more to the profession. To summarize, students' perception of Building Technology is mixed or generally indifferent, which may indicate that students do not yet have a well grounded idea of the course.

## **5.0 CONCLUSION AND RECOMMENDATION**

Building is an interesting and essential profession as it tends to meet one of man's basic needs which is shelter. However, majority of the students' constraint was lack of awareness about the course; therefore it is recommended that proper awareness of Building Technology as a profession should be done via workshops and seminars in secondary schools so as to broaden the view of students about the course even before entering into the higher institution. . Building technology skills acquisition is declining in many institutions in the country, therefore it requires serious attention at national level. Since the building industry is believed to be a very significant contributor, both directly and indirectly, to national economies. Several agencies, such as the National Institute of building (NIOB), Council of registered builders of Nigeria (CORBON) that have been tasked with a detailed assessment of the construction / building skills shortage and should propose initiatives to address inadequacies.

## **ACKNOWLEDGEMENT**

We hereby acknowledge the support of Covenant University in funding this research work and publication of the paper in your journal.

## **REFERENCES**

- Abiodun, J.O. (1985): 'The Provision of Housing and Urban Environmental Problems in Nigeria'. In Abiodun J.O. (ed.) *Urban and Regional Planning Problems in Nigeria*. Ile-Ife. University of Ife Press Ltd.
- Bailey, M. and Ifenthaler, D. and Gosper, M. and Kretzschmar, M. 2014. Factors influencing tertiary students' choice of study mode, in Proceedings of the Annual Conference of the Australian Society for Computers in Tertiary Education, Nov 23-26 2014, pp. 251-261. Dunedin, NZ: Ascilite.
- Hagel, P and Shaw RN (2010), How important is study mode in student university choice? - Higher Education Quarterly, 2010 - Wiley Online Library Joel F. Houston and Christopher M. James(2001) Do Relationships

- Have Limits? Banking Relationships, Financial Constraints, and Investment, *The Journal of Business*, Vol. 74, No. 3 (July 2001), pp. 347-374 Published by: The University of Chicago Press, DOI: 10.1086/321930 Stable URL: <http://www.jstor.org/stable/10.1086/321930>
- Olujinmi, J.A.B. (1999): Education for Town Planners in Nigeria: The Role of Town Planners Registration Council of Nigeria (TOPREC). *Journal of the Nigerian Institute of Town Planners*. Vol XII. Muggonzibwa, E. A., Kikwilu, E. N., Rugarabamu, r. N. and M. K. Ntabaye (2000): "Factors Influencing Career Choice Among High School Students in Tanzania". *Journal of Dental Education*. Vol. 64 issue 6, 423-429.1 American Dental Education Association.
- Shim, S (1999) "A Personal Value-Based Model of College Students' Attitudes and Expected Choice Behavior Regarding Retailing Careers", *Family and Consumer Sciences Research Journal*, 09/01/1999
- Sugahara, Boland, and Cilloni (2008), Factors Influencing Students' Choice of an Accounting Major in Australia *Journal of Accounting Education* Volume 17, 2008 - Issue sup1: 2008 Supplement – 10th iaaerworld congress of accounting educators

### **Internet addresses**

**NIOB:** <http://www.niobng.org/education.html>

**NUC:** <http://www.nuc.edu.ng/pages/universities>

<http://www.businessdictionary.com/definition/building.html#ixzz3o5QuoqDB>

**Scribd:** <https://www.scribd.com/document/275317232/Factors-Affecting-Students-Choice-of-URP-Final-2>

### **Inhabitat.com**

Milleniumbuildings.com

[www.princeton.edu/news/2017/03/13/innovations](http://www.princeton.edu/news/2017/03/13/innovations)

<https://www.cnn.com/video/2013/11/26/top-5-innovations-in-building-materials.html>

[www.raconteur.net/business/top-ten-construction](http://www.raconteur.net/business/top-ten-construction)

[www.constructionglobal.com/equipment-and-it/future](http://www.constructionglobal.com/equipment-and-it/future)

[https://en.wikiversity.org/wiki/Building\\_construction\\_techniques](https://en.wikiversity.org/wiki/Building_construction_techniques)

[en.wikipedia.org/wiki/List\\_of\\_tallest\\_buildings](http://en.wikipedia.org/wiki/List_of_tallest_buildings)

Milleniumbuildings.com

Wikipedia.com