An Evaluation of Students' Perspectives on the Teaching and Learning of Property Investment Valuation in a Nigerian University

Namnso Bassey Udoekanem[1]

Department of Estate Management and Valuation
Federal University of Technology, Minna, Niger State, Nigeria
E – mail: namnsoudoekanem@futminna.edu.ng
Tel: +2348023741703

David Odegwu Adoga

Department of Estate Management and Valuation
Federal University of Technology, Minna, Niger State, Nigeria

Shien Stephen Kuma

Department of Estate Management and Valuation
Federal University of Technology, Minna, Niger State, Nigeria

Abstract

This paper evaluates students' perspectives on the teaching and learning of property investment valuation through an empirical study of 84 graduating real estate students in a Nigerian university selected through purposive sampling technique. It was found that the students' overall level of understanding of the basic topics in property investment valuation was highest in the definition of property investments and lowest in hedonic modelling of property investment values. Analysis of Variance (ANOVA) in the level of understanding of the basic topics in property investment valuation between the male and female respondents produced an F-ratio of 0.53 at p-value greater than 0.05. The respondents strongly agreed that practical exercises in the field will facilitate understanding of property investment valuation. They also agreed that lecturers with practical experience teach property investment valuation better and that property investment valuation should be taught together with valuation of financial assets. The paper concludes that there is need for practical-based property investment valuation curriculum at the university level in Nigeria in which property investment valuation is taught within the context of comparative investment appraisal.

Keywords: *Property Investment Valuation; Teaching; Learning; Students; University; Nigeria*

I. Introduction

Property investments are those real properties which are expected to produce benefits in the form of direct monetary return (Ifediora, 1993). They are properties which are income-yielding and as such produce an income-flow (Millington, 1982) or are acquired purely as an investment (Hargitay and Yu,

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[1] Corresponding Author

1993; Baum and Crosby, 1995; Ajayi, 1998; Hoesli and Macgregor, 2000). According to Wyatt (2007), property investments comprise those properties which are held as investments, where the ownership interest is separate from the occupation interest. He further argued that in the valuation of property investment, the valuer will capitalise the rental income produced by the property at an appropriate investment yield using the investment method of valuation. This exercise is generally known as property investment valuation (Enever, 1986; Baum and Mackmin, 1989; Baum and Crosby, 1995; Ajayi, 1998, Udo, 2003; Wyatt, 2007; Jefferies, 2010). Property investment valuation involves the estimation of the future benefits to be enjoyed by the owner of a freehold or leasehold interest in land or property, expressing those future benefits in terms of present worth (Baum and Mackmin, 1989). It has also been viewed as the prediction of the most likely selling price of a property, to distinguish it from property investment analysis, which is the estimation of investment worth, all of which constitute the totality of property investment appraisal (Baum and Crosby, 1995). The underlying principle of property investment valuation is to discount net economic benefits from a property investment over its predicted life at a specified rate of return or discount rate (Wyatt, 2007). Basically, this requires the estimation of two major parameters. These parameters are the rental value and the capitalisation rate applied to the current and projected cash flows (Sykes, 1983). In terms of value, property investment represents the most significant investment class and constitutes nearly one-half of the wealth in the world (Karakozova, 2005). As concluded by Corgel, Smith and Ling (2000), property investment comprises 49% or $21.41 trillion of the world's wealth ($44 trillion) whereas stocks and bonds comprise 25.5% and 18.8% respectively. Also, it has been found that property investment has high diversification benefits in the portfolio of local and international investors due to its low correlation with the returns of other investment vehicles in the investment market (Grubel 1968; Solnik and Boucrelle 1996; Longin and Solnik, 2001; Boon and Higgins, 2007). In Nigeria, the valuation of property investment may be required for several purposes and such exercise is a function of the property valuer. Given the role of property investment in the portfolio of investors globally, it is necessary to pay greater attention on the training of valuers. This will enhance the development of creative, innovative and practically-competent human resources for the impeccable valuation of property investments in the country.

2. Development of Property Investment Valuation Thought

Before 1960, property investment valuation was solely based on the logic of the conventional technique which relies on some assumptions that there is no growth in future rental value over present rental value; that rents are fixed on long leases without review; and that the capitalisation rate used in the valuation is the internal rate of return expected from the investment. These assumptions have been found to be logical only during the pre-reverse yield gap and were based on the perception of property investors during the period (Baum and Crosby, 1995). The appearance of the reverse yield gap witnessed some changes in the property market, resulting also in the change of expectations of real property investors. These affected the conventional valuation technique, resulting in some adjustments to the approach. Baum and Crosby (1995) also showed that conventional valuation technique for rack rented freeholds, reversionary freeholds and leaseholds involved a single rate calculation where the freehold in perpetuity is the maximum value and the values of the reversionary interest and the leasehold interest summate to a total which equals the whole, such that the sum of the two equals the total value of the freehold in perpetuity. This basis gradually changed to the use of more than one remunerative rate of interest in the valuation of reversionary freehold and dual rate, and later tax adjusted dual rate valuation for leaseholds. Findings from empirical studies on property investment valuation techniques in the past three decades or so have revealed that the basis of conventional valuation technique was logical only before the

appearance of the reverse yield gap, prior to the advent of inflation in the property market (Wood, 1972; Greaves, 1972; Marshall, 1976; Sykes, 1981; Crosby, 1986; Udo, 1989 and Ajayi, 1998). The advent of inflation in the property market brought with it some attendant effects on property investors. This made it necessary for the appraisal of property investments to be in comparison with alternative investment vehicles in the investment market. The existence of inflation in the investment market had initially brought out the inherent qualities between inflation prone investments producing inflation-prone return and inflation proof investments producing inflation-proof return. In the property market, the effect of inflation gradually resulted in the introduction of rent reviews, a problem which could not be handled by the traditional property investment valuation models. These among other issues, necessitated research into investment valuation techniques appropriate for the valuation of property investments in times of inflation. Methods of property investment valuation which explicitly consider prospective future income flow generated by property investment, including rental and capital growth of the investment to reflect the treatment of future value changes due to the effect of inflation on the income flow, and which appraise property investment comparatively with other investment vehicles available in the investment market were proposed. These proposals resulted in the emergence of contemporary valuation techniques. Thus in the teaching and learning of property investment valuation in recent times, two major techniques have emerged namely, the conventional and contemporary valuation techniques. The strongest criticisms of the conventional valuation technique are that it fails to specify explicitly the income flows and patterns assumed by the valuer, and that it applies growth implicit all risks yield to fixed contracted tranches of income (Baum and Mackmin, 1989). Contemporary valuation techniques are based on the underlying assumptions that there is growth in future rental over present rental values; that rents are not fixed, but are reviewed at periodic intervals (review dates) and that the capitalisation rate depends on the preconceived level of growth in the future. Crosby, 1986; Baum and Crosby, 1995; Ajayi, 1998; Udo, 2003; Wyatt, 2007). On this basis, this paper seeks to evaluate students' perspectives on the teaching and learning of property investment valuation in a typical Nigerian University with a view to illuminating critical areas requiring further improvement in the training of valuers for the valuation of property investments in the country.

3. Methodology and Data

Data for the study were obtained through structured questionnaires. A total of 131 structured questionnaires were administered to 500-level Bachelor of Technology (B.Tech) Degree students in the Department of Estate Management , Federal University of Technology, Minna, Niger State, Nigeria, selected through purposive sampling technique, out of which 84 were properly completed and returned, representing a response rate of 64%.These students were selected because they have been taught property investment valuation as a course at various levels for about four academic sessions. Data collected for the study include the demographic characteristics of the respondents as presented in Table1, respondents' opinions regarding their level of understanding of the basic topics in property investment valuation as well as their opinions on the teaching and learning of property investment valuation in the University as presented in Tables 2 and 3 respectively, among others. A 5-point Likert scale was used to determine the mean of the respondents' responses for each of the opinions. The respondents' opinions regarding their level of understanding of the basic topics in property investment valuation were analysed to determine their overall level of understanding. The points attached to the respondents' level of understanding are: Very Good (5); Good (4); Fair (3); Poor (2) and Very Poor (1). Also, their opinions on the teaching and learning of property investment valuation in the University were analysed to determine their consensus opinion and rank based on the respondents' mean response and Relative Importance Index (RII) respectively. Similarly, the weights attached to the respondents'

opinions on the teaching and learning of property investment valuation in the University are: Strongly Agree (5); Agree (4); Undecided (3); Disagree (2) and strongly Disagree (1). In the ranking of the opinions, the opinion with the highest RII was ranked first while the one with the lowest RII was ranked last. A one-way Analysis of Variance (ANOVA) was used to determine whether differences in the level of understanding of the basic topics in property investment valuation between the male and female respondents are significant statistically while the Spearman's Rank-Order Correlation Model was used to determine whether the male and female respondents under study relate significantly in their opinions regarding the teaching and learning of property investment valuation in the University.

Table 1: Demographic Characteristics of the Respondents

Characteristics	Frequency
Gender	
Female	38(45.2%)
Male	46(54.8%)
Total	84(100%)
Age Group	
21 – 25 years	58(69.0%)
26 – 30 years	24(28.6%)
31 – 35 years	2(2.4%)
Total	84(100%)
Marital Status	
Married	6(7.1%)
Single	78(92.9%)
Total	84(100%)

Source: Author's Field Survey

Table 2: Respondents' Responses on their Level of Understanding of the Basic Topics in Property Investment Valuation

Basic Topics	Level of Understanding														
	Very Good			Good			Fair			Poor			Very Poor		
	M	F	All	M	F	All	M	F	All	M	F	All	M	F	All
Definition of property investment	19	11	30	24	24	48	3	2	5	-	-	-	-	-	-
Classification of property investments	13	6	19	31	27	58	2	5	7	-	-	-	-	-	-
Characteristics of property investments	15	8	23	21	24	45	10	5	15	-	-	-	-	-	-
The property market	17	16	33	22	20	42	7	1	8	-	-	-	-	-	-
Property market cycles	2	2	4	14	12	26	25	18	43	1	4	5	-	1	1
Mathematics of property investment valuation	7	1	8	11	13	24	19	21	40	5	2	7	-	-	-
Construction of property investment valuation tables	7	3	10	8	8	16	20	20	40	10	5	15	-	2	2
Determination of net income of real properties	10	4	14	18	17	35	15	14	29	2	2	4	-	-	-
The Years' Purchase as an Income Capitalisation Factor	11	4	15	19	18	37	12	12	24	3	2	5	-	1	1
Theory of property yields	8	3	11	14	15	29	22	14	36	2	4	6	-	-	-
Conventional leasehold valuation	7	4	11	19	10	29	18	18	36	2	4	6	-	-	-

	M	F	All	M	F	All	M	F	All	M	F	All	M	F	All
Conventional freehold valuation	7	3	10	21	13	34	17	16	33	-	4	4	-	-	-
Marriage Valuation	4	2	6	11	14	25	15	7	22	14	6	20	1	6	7
Statistical techniques in property investment valuation	6	2	8	9	11	20	23	16	39	6	5	11	-	1	1
Equated yield technique	3	2	5	14	16	30	19	14	33	6	6	12	1	-	1
Real value approach	4	1	5	15	12	27	18	14	32	9	9	18	-	1	1
Explicit DCF technique	5	1	6	9	12	21	16	15	31	7	6	13	3	3	6
Contemporary leasehold valuation	4	2	6	14	15	29	24	15	39	3	6	9	-	-	-
Contemporary freehold valuation	5	1	6	12	18	30	24	12	36	2	7	9	1	-	1
Hedonic modelling of property investment values	3	1	4	4	4	8	16	11	27	12	13	25	5	6	11
Depreciation of property investments	6	4	10	20	21	41	16	10	26	4	2	6	-	-	-
Computer applications in property investment valuation	5	6	11	11	7	18	14	11	25	8	9	17	4	3	7

Note: M= Male Respondents' Responses; F= Female Respondents' Responses; All= Responses of all Respondents
Source: *Field Survey (2010)*

Table 3: Respondents' Opinions on the Teaching and Learning of Property Investment Valuation in the University

Opinion	Respondents' Responses														
	Strongly Agree			Agree			Undecided			Disagree			Strongly Disagree		
	M	F	All	M	F	All	M	F	All	M	F	All	M	F	All
Property investment valuation is an aspect of financial mathematics and should be taught using mathematical teaching methods	16	6	22	27	25	52	3	6	9	-	1	1	-	-	-
Quantitative skills are necessary for solving property investment valuation problems	17	10	27	22	26	48	6	2	8	1	-	1	-	-	-
Practical exercises in the field will facilitate understanding of property investment valuation	34	31	65	10	5	15	2	2	4	-	-	-	-	-	-
Most examples in property investment valuation given by lecturers in the classroom are abstract	15	14	29	21	19	40	5	1	6	3	3	6	1	1	2
Property investment valuation is difficult to understand	4	2	6	11	9	20	3	5	8	22	21	43	4	1	5
Lecturers with practical experience teach property investment valuation better	29	18	47	14	16	30	-	3	3	1	-	1	1	-	1
Computer software should be used in the teaching of property investment valuation	23	19	42	12	10	22	9	9	18	1	-	1	-	-	-
Students should be given real live problems in property investment valuation to solve in the classroom	28	19	47	15	14	29	3	4	7	-	1	1	-	-	-
Only lecturers with a minimum of Masters degree and professional qualifications should teach property investment valuation	20	22	42	14	9	23	6	4	10	2	3	5	2	-	2
Property investment valuation should be taught together with valuation of stocks and shares	15	10	25	21	17	38	5	7	12	1	4	5	2	-	2

Note: M= Male Respondents' Responses; F= Female Respondents' Responses; All= Responses of all Respondents
Source: *Field Survey (2010)*

4. Results and Discussion

The respondents performed better in understanding the property market and in the definition of property investment than in any other topic based on the mean of the respondents' responses on their level of understanding of the basic topics in property investment valuation as presented in Table 4. Also, the respondents' overall level of understanding was lowest in hedonic modelling of property investment values than in any other topic. Respondents strongly agreed that practical exercises in the field will facilitate understanding of property investment valuation. This opinion was ranked first by the respondents with a RII of 0.95 as presented in Table 5. Similarly, respondents also agreed that lecturers with practical experience teach property investment valuation better. This opinion was ranked second by the respondents with a RII of 0.90. In terms of the consensus opinion, the respondents agreed on all the opinions, but were undecided on the opinion that property investment valuation is difficult to understand. This opinion was ranked last by the respondents with a RII of 0.55. Analysis of Variance (ANOVA) in the level of understanding of the basic topics in property investment valuation between the male and female respondents produced an F-ratio of 0.53 at p-value greater than 0.05 as presented in Table 6. This implies that although there are differences in the level of understanding of the basic topics in property investment valuation between the male and female respondents, such differences are not significant statistically. The correlation analysis of opinions of male and female respondents regarding the teaching and learning of property investment valuation in the University produced a strong positive correlation coefficient of 0.81 at p-value less than 0.05. This was found to be significant at both 0.05 and 0.01 levels as the p-value is 0.0049 (2-tailed) as presented in Table 7. The implication of this is that, the male and female respondents under study relate significantly in their opinions regarding the teaching and learning of property investment valuation in the University.

Table 4: Respondents' Overall Level of Understanding of the Basic Topics in Property Investment Valuation

Basic Topics	Mean		
	Male	Female	All
Definition of property investment	4.35	4.24	4.30
Classification of property investments	4.24	4.03	4.14
Characteristics of property investments	4.11	4.08	4.10
The property market	4.22	4.41	4.30
Property market cycles	3.40	3.27	3.34
Mathematics of property investment valuation	3.17	3.35	3.42
Construction of property investment valuation tables	3.27	3.13	3.20
Determination of net income of real properties	3.80	3.62	3.72
The Years' Purchase as an Income Capitalisation Factor	3.84	3.59	3.73
Theory of property yields	3.61	3.47	3.55
Conventional leasehold valuation	3.67	3.39	3.55
Conventional freehold valuation	3.78	3.42	3.62
Marriage Valuation	3.04	3.00	3.04
Statistical techniques in property investment valuation	3.34	3.23	3.29
Equated yield technique	3.28	3.37	3.32
Real value approach	3.30	3.08	3.20
Explicit DCF technique	3.15	3.05	3.10
Contemporary leasehold valuation	3.42	3.34	3.39
Contemporary freehold valuation	3.41	3.34	3.38

Hedonic modelling of property investment values	2.70	2.46	2.59
Depreciation of property investments	3.61	3.73	3.66
Computer applications in property investment valuation	3.12	3.11	3.12

Source: *Computed from Data in Table 2*

Table 5: Respondents' Consensus Opinion on the Teaching and Learning of Property Investment Valuation in the University

Opinion	Mean			Respondents' Consensus Opinion	Relative Importance Index	Rank
	Male	Female	All			
Property investment valuation is an aspect of financial mathematics and should be taught using mathematical teaching methods	4.28	3.95	4.13	Agree	0.83	7
Quantitative skills are necessary for solving property investment valuation problems	4.20	4.21	4.20	Agree	0.84	5
Practical exercises in the field will facilitate understanding of property investment valuation	4.70	4.76	4.73	Strongly Agree	0.95	1
Most examples in property investment valuation given by lecturers in the classroom are abstract	4.02	4.11	4.06	Agree	0.81	8
Property investment valuation is difficult to understand	2.75	2.74	2.74	Undecided	0.55	10
Lecturers with practical experience teach property investment valuation better	4.53	4.41	4.48	Agree	0.90	2
Computer software should be used in the teaching of property investment valuation	4.27	4.26	4.27	Agree	0.85	4
Students should be given real live problems in property investment valuation to solve in the classroom	4.54	4.34	4.45	Agree	0.89	3
Only lecturers with a minimum of Masters degree and professional qualifications should teach property investment valuation	4.09	4.32	4.20	Agree	0.84	5
Property investment valuation should be taught together with valuation of stocks and shares	4.05	3.87	3.96	Agree	0.79	9

Source: *Computed from Data in Table 3*

Table 6: Result of the Analysis of Variance in the level of understanding of the basic topics in property investment valuation between the male and female respondents under study

Source of variation	Sum squares	DF	Mean square	F statistic	p
Groups	0.102	1	0.102	0.53	0.4712
Residual	8.113	42	0.193		
Total	8.215	43			

Source: *Computed from Data in Table 2*

Table 7: Result of correlation analysis of opinions of male and female respondents regarding the teaching and learning of property investment valuation in the University

rs statistic	0.81	
95% CI	0.36	to 0.95
t statistic	3.85	
DF	8	
2-tailed p	0.0049	

Source: Computed from Data in Table 3

6. Findings

Most of the basic topics in property investment valuation in which the students' overall level of understanding is good are aspects of the conventional techniques of property investment valuation. However, the students' overall level of understanding is low in basic topics which are aspects of the contemporary techniques of property investment valuation and lowest in hedonic modelling of property investment values. Majority of the students strongly hold the opinion that practical exercises in the field will facilitate understanding of property investment valuation. Furthermore, other opinions agreed by the students are that property investment valuation is an aspect of financial mathematics and should be taught using mathematical teaching methods, most examples in property investment valuation given by lecturers in the classroom are abstract, lecturers with practical experience teach property investment valuation better, computer software should be used in the teaching of property investment valuation, students should be given real live problems in property investment valuation to solve in the classroom, only lecturers with a minimum of Masters degree and professional qualifications should teach property investment valuation, and property investment valuation should be taught together with valuation of stocks and shares. However, the students were undecided on the opinion that property investment valuation is difficult to understand. Although there are differences in the level of understanding of the basic topics in property investment valuation between the male and female students, such differences are not significant statistically.

7. Conclusion

Based on the findings of the study, there is need for practical-based property investment valuation curriculum at the university level in Nigeria, in which property investment valuation is taught together with valuation of financial assets. This is necessary for the development of skills in comparative investment appraisal and the training of property valuers as investment specialists. Current global trend is that property investment is treated as part of the wider investment community, not in isolation. The implication of this is that, greater emphasis should be made on the teaching of topics which constitute contemporary techniques of property investment valuation, in which property investments are appraised comparatively with alternative investments in the investment market, coupled with real time problem-based learning.

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