CHAPTER 5

PROPERTY INDUSTRY SURVEY

5.1 Introduction

The purpose of the survey was to collect comments from real estate professionals in the industry on Masters Real Estate topics offered in South Africa and other parts of the world which would support the process of assessing and improving Masters Real Estate curricula in South Africa. Justification for the survey was based on the fact that practitioners in the industry had an important role to play in the process of real estate curriculum development and improvement (Galuppo and Worzala, 2004). In addition, postgraduate real estate curricula in South Africa were developed without conducting a more scientific property industry survey to determine real estate curriculum requirements (Cloete, 2002). To ascertain whether the curricula were fulfilling the objective they were intended to meet, the property industry survey was relevant.

In this chapter the survey approach is highlighted. Data collected from the property industry survey is analysed. The tabulated results from the questionnaire are provided and described. The two main hypotheses for the study are also tested using the data collected to determine the reliability of the findings.

5.2 Survey approach

To collect information from the property industry on Masters Real Estate curricula, a questionnaire was administered. Through the questionnaire real estate professionals were asked to: (a) rank common Masters Real Estate topics offered in South Africa and other parts of the world, which were identified through the curriculum survey in their order of importance using the Lickert scale; (b) advise approximate time as a percentage to be spent on a subject or topic during the course; and (c) finally, using two open-ended questions to suggest a maximum of five topics and other comments to be considered in a Masters Real Estate programme (see Appendix A: The questionnaire). The questionnaire was sent to 777 real estate professionals. 748 of these were delegates who attended the 38th SAPOA International Convention and Property Exhibition held at the International Convention Centre

in Durban from 17 to 19 May 2006; and 29 were first and second year students who enrolled for the Master of Science in Real Estate Degree for year 2006 at the University of Pretoria in South Africa. Out of 777questionnaires which were sent out, a total of 250 questionnaires were returned, representing 32.18% response rate. Thereafter, data was captured from the questionnaires into a computer and analysed in readiness for the interpretation of the results of the study. Five questionnaires were returned by the post because the postal addresses of the respondents had changed, and two questionnaires were received after completing data analysis, as a result they were not included in the analysis.

The SAPOA members and delegates were used in the property industry survey because SAPOA was the main representative body and official voice of leading property owners and investors in South Africa from the private sector for the property industry. SAPOA members also comprised of real estate professionals from different real estate fields and geographical areas in South Africa. This was of great benefit to the survey because it minimised biases. MSc Real Estate students studying at the University of Pretoria were included in the property industry survey because most of them were working and knew what was expected at the workplace.

5.3 General survey procedure

5.3.1 Response data

The response data from the property industry survey was classified into the following five main categories:

a. Details of respondent

The real estate professionals were assisted to answer this question by ticking pre-arranged questions in connection with their qualifications, current employers, current property involvements, years of experience, and geographical locations they were based.

b. Assessment of Masters Real Estate topics according to their importance

To assist the real estate professionals assess and rank the topics in an order of importance, the Lickert Scale was used where 1 was equivalent to Not Important, 2 was equivalent to Important, and 3 was equivalent to Very Important.

c. Time to be spent on a Masters Real Estate topic during the course

To answer this question the real estate professionals were asked to indicate approximate percentage of time to be spent on each subject during the course. When the percentages of time allocated to all the subjects in the course were added, the total was expected to be 100 percent.

d. Topics to be included in a Masters Real Estate syllabus

This was an open-ended question where real estate professionals were asked to list a maximum of five topics they wished to be included in a Masters Real Estate curriculum.

e. Other comments to be considered in a Masters Real Estate syllabus

This too was an open-ended question where real estate professionals were asked to give a maximum of five comments to be considered in a Masters Real Estate curriculum.

5.3.2 Treatment of the data

a. Types of questions posited to data

Two types of questions were posited in the survey to guide data treatment. The first type of question was given to all real estate professionals to determine the overall response to a series of questions. The second type of question was given to different categories of real estate professionals to determine differences in responses to the questions.

When responses from different populations were ranked and compared, all data followed non-normal distribution. In this case the data was either positively or negatively skewed and did not conform to a normal distribution curve (Leedy, 1997). For this reason the standard parametric tests were inappropriate. Therefore, the necessary tests were performed using non-parametric techniques where distribution-free statistical tests were appropriate. The tests employed were used to compare ranked data from different populations to determine if the population locations differed significantly at 5% level of significance. To determine the appropriate test procedures when comparing the different populations, the following sample values were considered: the number of populations to be compared, whether the observations were independent or dependent (paired), and whether the data was ranked or qualitative but not normal. To compare the data, populations were grouped based on category of years of

experience (0 to 5, 6 to 15, and more than 15 years), and geographical locations of real estate professionals.

b. Testing for comparisons between different populations

To establish if there were significant differences between different populations, different appropriate tests were conducted, for example Friedman test was used to compare responses from three categories of years of experience of real estate professionals (0 to 5, 6 to 15, and more than 15 years).

5.3.3 Description of statistics of survey respondents

Tables 5.1, 5.2, 5.3, 5.4 and 5.5 show the description of statistics of respondents to the property industry survey. By qualification Table 5.1 shows that 7.6% of the respondents possessed Matric, 30.8% possessed Bachelor's degrees, 26.4% possessed Honour's degrees, 28% possessed Master's degrees, and 1.2% possessed Doctorate degrees. When the figures of respondents possessing a Bachelor's qualification is added to figures of holders of Honour's, Master's and Doctorate degrees, the total is 216 out of 250 respondents, representing 86.4% of all the respondents. This indicated that the majority of respondents in the survey had formal university education, which implied that the quality of data collected was reliable in terms of comments on a university real estate curriculum.

In terms of current employer/s, Table 5.2 shows by frequency that most of the respondents (63) worked for the banks and other financial institutions, representing 19.1%. This could suggest that the major providers of real estate related jobs to real estate professionals in South Africa during the time the survey was conducted were banks and other financial institutions. By comparing public, private and other sectors of employment, 82.4% of the respondents were employed in the private sector, 9.4% were employed in the public sector, and 4.2 % were employed by the universities and other training institutions. The results show that most of the respondents came from the private sector.

When the survey respondents were analysed based on current property involvement/s, it is noted in Table 5.3 that property development was the sector with most respondents (19.8%), followed by property / facilities management (17.8%). This could mean that at the time of

the survey most of the real estate professionals in South Africa were involved with property development as the main real estate activity.

Table 5.1: Description of statistics of survey respondents by qualification

Qualification of respondent	Frequency	Percentage (%)
Matric	19	7.6
Bachelor's degree	77	30.8
Honour's degree	66	26.4
Master's degree	70	28
Doctorate degree	3	1.2
Other	15	6
Total	250	100

Table 5.2: Description of statistics of survey respondents by current employer/s

Current employer	Frequency	Percentage (%)
University / trainer	14	4.2
Government:		
. Central	16	4.8
. Provincial	2	0.6
. Local	5	1.5
Parastatal	8	2.4
Private:		
. Bank / Financial Institution	63	19.1
. Listed Property Vehicle	15	4.5
. Property Developer	48	14.5
. Property / Facilities Manager	37	11.2
. Property Valuer	18	5.5
. Property Broker / Marketer	27	8.2
. Property Investor	31	9.4
. Construction Company	7	2.1
. Consultants e.g. QS, Eng.,etc	26	7.9
Other	13	3.9
Total	330	100

Table 5.3: Description of statistics of survey respondents by current property involvement/s

Current property industry involvement	Frequency	Percentage (%)
Academic / trainer	22	5.5
Property Developer	80	19.8
Property Valuer	37	9.2
Property / Facilities Manager	72	17.8

Property Investor	48	11.9
Property Broker / Marketer	35	8.7
Property Finance	55	13.6
Property Economist	6	1.5
Building Contractor	11	2.7
Other	38	9.4
Total	404	100

Table 5.4: Description of statistics of survey respondents by category of years of experience

Category of years of experience	Frequency	Percentage (%)
0 to 5 years	59	23.6
6 to 15 years	103	41.2
16 to 42 years	88	35.2
Total	250	100

Table 5.5: Description of statistics of survey respondents by geographical location

Geographic location	Frequency	Percentage (%)
Gauteng	138	55.2
Northern Cape	1	0.4
KwaZulu-Natal	27	10.8
Eastern Cape	5	2
Mpumalanga	3	1.2
Western Cape	27	10.8
Free State	2	0.8
National	33	13.2
International	14	5.6
Total	250	100

Table 5.4 shows categories of years of experience in real estate work of the respondents. Twenty three percent were recent graduates with 0 to 5 years of experience. Real estate curriculum comments from this category were based on recent course content and teaching methods. Respondents from category of 6 to 15 years work experience were in majority representing 41.2% while those from 16 years and above were 35.2%. The last two categories were considered more experienced and were employers or mentors of the recent graduates. Therefore, the comments from these categories included weaknesses observed in recent graduates who joined the real estate industry. The participation of real estate professionals in the survey from the three different categories of years of experience was advantageous because it further enriched the quality of data by collecting views from professionals with different practice perceptions based on years of experience.

By geographical location, Table 5.5 shows that the majority of the respondents were from Gauteng (55.2%), which is the most developed province economically in South Africa. This could imply that most real estate professionals in South Africa were employed in Gauteng. In general, the results show that geographically all provinces in South Africa were represented by respondents in the survey. Table 5.5 also shows that 5.6% of the respondents in the survey operated internationally, further justifying the claim that globalisation of real estate business was growing and gaining importance (Roulac, 2002; and Schulte, 2002). The participation of respondents from different geographical areas was beneficial for the study as it was considered a reliable indication of impressions received from all geographical areas of the real estate industry in South Africa.

5.3.4 Testing the hypotheses

Hypotheses of the study tested by the property industry survey through the questionnaire and survey results are:

Hypothesis 1:
Topics included in the existing Masters Real Estate curricula in South Africa are important for the real estate industry in South Africa.

Hypothesis 2:
New challenges and needs had emerged in the real estate industry in South Africa, which are inadequately being addressed by topics included in the existing Masters Real Estate curricula in South Africa.

5.4 Results and analysis

5.4.1   Testing hypothesis 1: Topics included in the existing Masters Real Estate curricula in South Africa are important for the real estate industry in South Africa.

5.4.1.1 Overall response on importance of Masters Real Estate topics by all respondents

To establish the overall response on importance of topics all real estate professionals in the survey were asked to rate the topics using the Lickert scale on a three point rating system as follows: 1 for Not Important, 2 for Important and 3 for Very Important. The respondents rated the topics based on their importance in the real estate industry. Table 5.6 shows the overall rating of the topics by the real estate professionals using the mean. The highest mean is 2.77 for Property Finance and the lowest mean is 1.88 for Information Technology which is almost 2. Based on this overall rating, it is observed that real estate professionals considered all eighteen topics included in the existing Masters Real Estate curriculum to be important for the real estate industry in South Africa. No topic scored 3 and none too scored 1.

Table 5.6: Ranking of Masters Real Estate topics by real estate professionals based on importance

Topic	Rank	Mean	Standard deviation
Property Finance	1	2.76707	0.46006
Property Investment	2	2.67470	0.53374
Property Economics	3	2.66265	0.52233
Property Development	4	2.64659	0.54956
Financial Management	5	2.56225	0.60670
Property Valuation	6	2.51004	0.60317
Property Law	7	2.47791	0.60950
Building Economics	8	2.37349	0.69056
Property Management / Facilities Management	9	2.31727	0.65972
Property Tax	10	2.27711	0.65340
Construction Contract Law	11	2.16867	0.73757
Property Marketing	12	2.16064	0.67074
Research	13	2.10843	0.69582
Environmental Economics and Management	14	2.00803	0.63495
Building Technology	15	1.94378	0.71056
Corporate Strategy	16	1.91968	0.72511
International Real Estate	17	1.91566	0.72743
Information Technology	18	1.88353	0.72296

5.4.1.2 Ranking of Masters Real Estate topics by all respondents

Table 5.6 shows ranking of the eighteen topics in the order of their importance by all real estate professionals by descending mean. In terms of topic importance, the respondents ranked Property Finance as number one with a mean of 2.77, Property Investment was ranked second with a mean of 2.67, Property Economics was ranked third with a mean of 2.66, and Property Development was ranked fourth with a mean of 2.65. Ranked at the bottom were the following topics: International Real Estate with a mean of 1.92 and Information Technology with a mean of 1.88. The results show that real estate practitioners regarded Property Finance

as the most important topic and Information Technology as least important topic in Masters Real Estate curriculum.

5.4.1.3 Rating of the importance of Masters Real Estate topics based on years of experience

Table 5.7 shows rating of the importance of Masters Real Estate topics by category of years of experience using the mode where 1 represents 'Not Important', 2 represents 'Important', and 3 represents 'Very Important'. Results in this table reveal two interesting issues. Firstly, professionals with 0 to 5 years work experience have indicated that Information Technology as a topic is not important in Masters Real Estate curriculum by rating it 1. The reason for this rating could be that real estate professionals in this category are generally younger and started to attend school in an era when Information Technology is being emphasised and taught even at lower levels of education. Secondly, professionals with 16 to 42 years work experience have rated International Real Estate as not important topic in the curriculum by assigning it 1. The reason for this rating could be that real estate professionals in this work experience category are generally older and studied as well as started practising in an era when influences of globalisation were not as critical on business in general and specifically on the real estate business as it is today.

Chi-Square tests were conducted on the three categories of years of experience (0 to 5 years, 6 to 15 years, and 16 to 42 years) for each topic to compare if there were relationships between importance of topics and years of experience. The test was conducted at 5% level of significance. Table 5.7 shows that only four topics out of eighteen topics (22.2%) had significant relationships between importance of topic and years of experience. These topics were: Construction Contract Law, International Real Estate, Property Law, and Property Tax. For the other topics there were no significant relationships between importance of topic and years of experience. This result indicated that despite the differences in years of experience, there were no serious differences among real estate practitioners on the impression of importance of topics.

Table 5.7: Rating of importance of Masters Real Estate topics by category of years of experience

Topic	Mode			P-Value	Significance level
	0-5 yrs	6-15 yrs	16-42 yrs		
Building Economics	3	3	3	0.3265	nsl
Building Technology	2	2	2	0.8626	nsl
Construction Contract Law	3	2	2	0.0164	sl
Corporate Strategy	2	2	2	0.2744	nsl
Environmental Economics & Management	2	2	2	0.4262	nsl
Financial Management	3	3	3	0.7925	nsl
Information Technology	1	2	2	0.1138	nsl
International Real Estate	2	2	1	0.0013	sl
Property Development	3	3	3	0.7701	nsl
Property Economics	3	3	3	0.1860	nsl
Property Finance	3	3	3	0.9668	nsl
Property Investment	3	3	3	0.3378	nsl
Property Management / Facilities Management	3	3	2	0.2208	nsl
Property Marketing	2	2	2	0.4031	nsl
Property Law	3	3	2	0.0141	sl
Property Valuation	3	3	3	0.1856	nsl
Property Tax	3	2	2	0.0016	sl
Research	2	2	2	0.1994	nsl
Key P-Value: Probability of significant difference					
nsl: No significant relationship					
sl: significant relationship					

5.4.1.4 Rating of importance of Masters Real Estate topics based on geographical location

In order to conduct a meaningful test to test for relationship between importance of topics and geographical location, the respondents were divided into five geographical locations. These regions are described as Cape, Transvaal, KwaZulu-Natal and Free State, National, and International. Cape region combined respondents from Northern Cape, Eastern Cape and Western Cape Provinces. Respondents from Gauteng, Limpopo, North West, and Mpumalanga Provinces were grouped together to form Transvaal region. The third geographical location combined respondents from KwaZulu-Natal and Free State. The fourth geographical location was National. This location included all respondents who operated in more than one of the four geographical locations. The last geographical location was International and included all respondents who also operated outside South Africa.

Table 5.8 shows rating of the importance of Masters Real Estate topics by geographical location using the mode where 1 represents 'Not Important', 2 represents 'Important', and 3 represents 'Very Important'. Chi-Square tests were conducted on the five geographical

locations (Cape, Transvaal, KwaZulu-Natal and Free State, National, and International) for each topic to test if there were relationships between importance of topics and geographical location. The test was conducted at 5% level of significance. Table 5.8 shows that only two topics out of eighteen topics (11.1%) had significant relationships between importance of topic and geographical location. These two topics are: Construction Contract Law and International Real Estate. For the other topics there were no significant relationships between importance of topic and geographical location. This result showed that despite the differences of geographical locations, there were no serious differences among real estate practitioners on the impression of importance of topics.

Table 5.8: Rating of the importance of Masters Real Estate topics by geographical location

	Mode						
Topic	**C**	**T**	**KN + FS**	**N**	**I**	**P-Value**	**Significance level**
Building Economics	3	3	2	2	3	0.7018	nsl
Building Technology	1	2	2	1	2	0.2679	nsl
Construction Contract Law	2	2	1	2	2	0.0372	sl
Corporate Strategy	1	2	2	1	2	0.7247	nsl
Environmental Economics & Management	2	2	2	2	2	0.9082	nsl
Financial Management	3	3	3	3	3	0.9343	nsl
Information Technology	2	2	1	1	1	0.7427	nsl
International Real Estate	1	2	2	1	2	0.0150	sl
Property Development	3	3	3	3	3	0.7957	nsl
Property Economics	3	3	3	3	3	0.6179	nsl
Property Finance	3	3	3	3	3	0.9029	nsl
Property Investment	3	3	3	3	3	0.7334	nsl
Property Management / Facilities Management	3	2	3	2	3	0.3606	nsl
Property Marketing	2	2	2	2	3	0.4041	nsl
Property Law	2	3	3	3	3	0.6117	nsl
Property Valuation	3	3	3	3	3	0.6300	nsl
Property Tax	2	2	2	2	2	0.7009	nsl
Research	2	2	2	2	3	0.1191	nsl
Key: C = Cape. T = Transvaal. KN = KwaZulu-Natal. FS = Free State. N = National. I = International							
P-Value = Probability of significant difference							
Nsl = No significant relationship							
Sl = significant relationship							

5.4.1.5 Overall response on approximate percentages of time to be spent on Masters Real Estate topics by all respondents

All respondents were asked to indicate approximate percentages of time to be spent on each of the eighteen topics during the course. After allocating the percentages of time, the total for the eighteen topics was supposed to be 100%. Table 5.9 contains percentages of time the real estate professionals allocated to the topics. The results show that no topic was given zero

percent of time. By allocating percentages of time to all the topics, real estate professionals indicated that they agreed that all eighteen topics in the curriculum were important and should be allocated time during the course.

5.4.1.6 Ranking of approximate percentages of time allocated to Masters Real Estate topics by all respondents

Table 5.9 shows the ranking of the percentages of time to be spent on each of the eighteen topics in a Masters Real Estate syllabus in descending order as proposed by the real estate professionals. Property Finance was given the highest percentage of time (8.46%) during the course. Ranked second was Property Development with 8.31%, third was Property Investment with 7.92% and fourth was Property Economics with 7.30%. Ranked at the bottom was Information Technology with 3.58% and Corporate Strategy with 3.43%. Based on this ranking, the perception of real estate practitioners was that more time should be assigned to Property Finance and least time to Corporate Strategy during the course.

Table 5.9: Ranking of approximate percentages of time allocated to Masters Real Estate topics by real estate professionals

Topic	Rank	Percentage of time (%)	Standard deviation
Property Finance	1	8.4680	4.2192
Property Development	2	8.3144	4.2252
Property Investment	3	7.9276	4.6663
Property Economics	4	7.2975	3.6711
Property Valuation	5	7.1635	4.8728
Property Management / Facilities Management	6	6.7068	5.2116
Financial Management	7	6.4143	3.5422
Property Law	8	6.1275	2.9267
Building Economics	9	5.6102	5.8948
Research	10	5.0544	4.8001
Property Marketing	11	4.7717	2.7184
Construction Contract Law	12	4.4233	2.4861

Property Tax	13	4.3851	2.4811
Building Technology	14	4.0238	3.6068
Environmental Economics and Management	15	3.8748	2.3415
International Real Estate	16	3.7612	2.4512
Information Technology	17	3.5823	2.2393
Corporate Strategy	18	3.4368	2.4269

5.4.1.7 Rating of the approximate percentages of time allocated to Masters Real Estate topics based on years of experience

Table 5.10 shows the rating of the approximate percentages of time allocated to Masters Real Estate topics by category of years of experience. Kruskal-Wallis test was conducted to determine if there were any significant relationships between categories of years of experience and approximate times to be spent on the topics at 5% level of significance. The results of the test were tabulated in Table 5.10. Property Tax was the only topic out of the eighteen topics (5.6%) which exhibited a significant relationship between years of experience and time assigned to be spent on a topic during the course. This result indicated that the respondents generally agreed on approximate times to be spent on Masters Real Estate topics as shown in Table 5.9 despite the differences in years of experience.

Table 5.10: Rating of approximate percentages of time allocated to Masters Real Estate topics by category of years of experience

	Percentage of time (%)				
Topic	0-5 yrs	6-15 yrs	16-42 yrs	P-Value	Significance level
Building Economics	4.6056	6.0811	5.6102	0.1102	nsl
Building Technology	3.8125	3.7149	4.4819	0.2719	nsl
Construction Contract Law	4.5260	4.6749	4.0729	0.3799	nsl
Corporate Strategy	3.3138	3.2834	3.6747	0.1916	nsl
Environmental Economics & Management	3.9056	3.8074	3.9337	0.7118	nsl
Financial Management	6.7074	6.7897	5.8096	0.5493	nsl
Information Technology	3.6278	3.3413	3.8247	0.2738	nsl
International Real Estate	3.8424	4.0558	3.3744	0.3999	nsl
Property Development	8.3750	8.7319	7.7916	0.5782	nsl
Property Economics	6.9000	7.4721	7.3090	0.6656	nsl
Property Finance	9.1354	8.4959	8.0494	0.9606	nsl
Property Investment	8.5833	7.8392	7.6518	0.9688	nsl
Property Management / Facilities Management	7.2083	6.2288	6.9753	0.4091	nsl
Property Marketing	4.9891	4.6228	4.8235	0.6512	nsl
Property Law	6.8333	5.8618	6.0554	0.1645	nsl
Property Valuation	7.6020	6.7968	7.3331	0.5221	nsl
Property Tax	5.0638	4.4124	3.9693	0.0355	sl

Research	5.5104	4.7631	5.1313	0.3007	nsl
Key P-Value: Probability of significant difference nsl: No significant relationship sgl: significant relationship					

5.4.1.8 Rating of the approximate time to be spent on Masters Real Estate topics based on geographic location

Rating of the approximate percentages of time allocated to Masters Real Estate topics by geographical location is shown in Table 5.11. Kruskal-Wallis test was conducted to determine if there were any significant relationships between geographical location and approximate times to be spent on the topics at 5% level of significance. Table 5.11 contains the results of the test. Property Finance and International Real Estate were two topics out of the eighteen topics (11.1%) which exhibited significant relationships between geographical location and time to be spent on a topic during the course. Results of the test proved that the respondents were generally in agreement on approximate times to be spent on Masters Real Estate topics as shown in Table 5.9 despite the differences in geographical location.

Table 5.11: Rating of approximate percentages of time allocated to Masters Real Estate topics by geographical location

	Percentage of time (%)						
Topic	**C**	**T**	**K+ F**	**N**	**I**	**P-Value**	**Sig. lvl**
Building Economics	5.9688	5.8591	5.5920	4.3620	5.1539	0.5635	nsl
Building Technology	4.7219	3.7751	4.0920	3.9483	4.8182	0.3803	nsl
Construction Contract Law	3.8419	4.6066	4.4365	4.1724	4.5385	0.6587	nsl
Corporate Strategy	3.1645	3.4654	2.8920	3.6964	4.4546	0.6539	nsl
Environmental Economics & Management	3.5516	3.9108	4.1320	3.6785	4.2308	0.8912	nsl
Financial Management	6.0969	6.6315	6.0865	6.7069	5.0769	0.2336	nsl
Information Technology	3.0677	3.7359	3.5313	2.8393	5.0385	0.1266	nsl
International Real Estate	3.4871	3.9238	3.7604	2.9655	4.6154	0.0242	sl
Property Development	8.1750	8.1218	9.3846	8.4655	8.0769	0.9214	nsl
Property Economics	7.2969	7.5071	7.4220	6.5345	6.7308	0.6499	nsl
Property Finance	8.3438	8.3233	8.6400	9.9483	6.5769	0.0374	sl
Property Investment	7.9688	7.7946	7.3600	8.7241	8.4615	0.1766	nsl
Property Management / Facilities Management	6.7063	6.0784	8.7692	7.2586	7.5385	0.3525	nsl
Property Marketing	5.3438	4.4971	5.2800	5.2241	4.0385	0.1740	nsl
Property Law	6.0469	6.2198	6.6600	6.0517	4.5769	0.1606	nsl
Property Valuation	7.75	7.2278	5.8481	7.2759	7.4615	0.1809	nsl
Property Tax	4.4065	4.5499	3.5620	4.3621	4.3462	0.5553	nsl
Research	4.7344	5.3052	5.4620	3.7931	5.3846	0.4875	nsl
Key: C = Cape. T = Transvaal. K = KwaZulu-Natal. F = Free State. N = National. I = International. P-Value = Probability of significant difference. Sig. lvl = Significance level Nsl = No significant relationship. Sl = significant relationship							

5.4.1.9 Conclusion regarding hypothesis 1

Topics included in the existing Masters Real Estate curricula in South Africa and other parts of the world were important for the real estate industry in South Africa. The hypothesis was supported by the data from importance of topics and percentages of time allocated to topics in the curriculum given by real estate practitioners.

5.4.2   Testing hypothesis 2: New challenges and needs had emerged in the real estate industry in South Africa, which are inadequately being addressed by topics included in the existing Masters Real Estate curricula in South Africa.

In order to determine if new challenges and needs had emerged in the real estate industry in South Africa which were inadequately being addressed by the existing Masters Real Estate curricula the respondents were asked two open-ended questions (see Part 3 of the Questionnaire: Appendix A). First question asked the respondents to list a maximum of five other topics to be included in the curriculum which they considered important for the real estate industry. Second question asked the respondents to give a maximum of five any other comments to be considered in the curriculum. The first question was aimed at obtaining real estate topics while the second question was aimed at getting other comments in general to be considered in the existing Masters Real Estate curricula in order to make them deal with new challenges and needs the industry was facing. The respondents were restricted to give only five answers to each question to assist them list only important answers. The two open-ended questions were still recommended while realising that respondents' answers would be difficult to summarise and that an attempt to do so would create bias in data interpretation. The recommendation was based on the fact that the open-ended questions offered a unique opportunity to real estate professionals to express themselves by giving topics and comments they thought should be considered in the curriculum to address new challenges and needs that had emerged in the industry.

5.4.2.1 Overall response on any other topics to be included in a Masters Real Estate curriculum by all real estate professionals

Appendix E contains a list of other topics the respondents suggested should be included in a Masters Real Estate curriculum in ranking order by frequency. In total 129 topics were suggested. The phrasing of the suggested topics as shown in Appendix E was exactly the same as respondents' statements. In some cases where there were similarities between the proposed topics, they were grouped together.

When the responses were analysed, it was noted that real estate professionals had a diverse view of topics which they wanted to be included in a Masters Real Estate curriculum in order to address new challenges and needs in the industry. Several topics were suggested ranging from topics expected in a real estate curriculum to topics which are traditionally viewed as not part of the real estate discipline. Examples of topics requested which are not part of real estate include Move management, Banking practice, and Supply chain management (see Appendix E). This result agrees with the observations made by Roulac (2002) and Black and Rabianski (2003) who noted that the challenge today was to determine which topics belonged to real estate as there appears to be no clear cut consensus on the boundary lines of the discipline.

In terms of desired topic ranking, Appendix E shows that the group comprising of the following related topics: 'Town planning / urban management / urban design and planning / urban studies / principles of urban planning / rezoning' had the highest responses (42), representing 10.61%. Second in the rank was Project management (24 responses), third was Negotiation skills (18 responses), and fourth was Corporate real estate management / institutional property asset management (13 responses). The suggestion of other topics in the survey by real estate professionals indicated that there were challenges in the industry which were inadequately being addressed by the existing curricula. By following the trend of response frequencies given to suggested topics, more challenges were related to issues of Town Planning, Project Management, Negotiation, and Corporate Real Estate Management.

However, when the suggested topics were reassessed it was observed that some of the requested topics were already offered in some of the existing curricula as sub-topics, topics or electives (see Appendix E). Based on this reassessment, it was noted that out of 129 suggested topics, 89 topics were already offered representing 69% while 40 topics were not offered representing 31%. As indicated earlier, despite the domination of 'offered suggested topics' over 'not offered suggested topics', the results still show that the industry was facing

challenges which were inadequately being addressed by the existing curricula. The fact that real estate practitioners had mentioned the suggested topics, it meant that there was a need to further investigate the topics regardless of whether they were currently 'offered' or 'not offered'. Even if some topics were shown as currently offered in the existing curricula, but the fact that they were included on the desired list that could imply that there were other problems associated with the topics in the existing curricula which made them fail to support the industry effectively. These problems need to be investigated and could include, for example, out-of-date course content. The results further reveal a critical need for a second stage of research in the suggested topical areas so that the challenges the industry is facing could be fully understood and get addressed.

5.4.2.2 Overall response on any other comments to be considered in a Masters Real Estate curriculum by all real estate professionals

Any other comments to be considered in a Masters Real Estate curriculum which were given by all real estate professionals in the survey are listed in ranking order by frequency in Appendix F. The phrasing of the comments as shown in Appendix F was exactly the same as respondents' statements. In some cases where there were similarities between the comments, they were grouped together. In total 109 comments were given by the respondents. As expected from an open-ended question, a variety of comments were submitted. Some of the comments were not helpful. However, most of the comments provided were constructive and could contribute significantly towards curriculum improvement.

When the comments from real estate professionals were analysed it was noted that they were diverse in nature and comprised of two main groups: (a) weaknesses of the curriculum and curriculum needs; and (b) strengths of the curriculum. Comments related to weaknesses and curriculum needs were in majority (106 out of 109 comments) than comments related to strengths of the curriculum. This response rate supported the supposition that existing curricula were not fully addressing the needs and challenges of the industry.

Two important comments related to strengths of the curriculum which were given by real estate professionals in the survey are:
- Your list is very comprehensive / all topics listed seem to cover every thing / course seems comprehensive

- Holistic content or approach

Some of the critical weaknesses and curriculum needs which were mentioned by the professionals in the survey are:

Weaknesses of the curriculum:

- Inadequate practical component in the curriculum.
- Lack of case studies.
- Masters Real Estate syllabus must include real estate issues in the entire Southern Africa region because a good number of students are coming from there.
- Graduates require an understanding of what is expected of them in an employment environment, often graduates are clueless when inducted into an employment environment.

Curriculum needs:

- Involvement of guest lecturers.
- Experienced lecturers are ideal for valuable education / experienced lecturers add huge value to the course.
- Curriculum must be relevant in South Africa.
- Site visits and discussions with industry professionals must be included.
- Invite motivational speakers.
- All assignments must be based on practical problems.
- Specialisation must be encouraged.
- Experiential learning must be considered.
- Modules should not be seen in isolation because project success is determined by a combination of information obtained from several modules.
- Students should have basic property knowledge before undertaking these studies.
- Consider social aspects of property development.
- Property courses related to property or land ownership and redistribution initiatives must be considered in South Africa, including black economic empowerment, property and construction charters.
- Students should be grouped and produce a full property development and management mock assignment.

- Organise property development educational tour for students.
- Issues on how to deal with tribal or customary land for development must be considered.
- Consider business skills.
- Consider issues of leadership.

Generally, the comments on the curriculum were critical. The impression given by the real estate practitioners is that several areas in the curriculum require to be improved to enable the existing Masters Real Estate curricula in South Africa adequately support the production of real estate professionals who would deal with new industry challenges and needs competently. Therefore, this study recommends that continued research efforts be undertaken, which are directed towards addressing curriculum weaknesses and needs identified in the survey.

In terms of ranking of comments by response frequency, Appendix F shows that responses on comment 'practical component / real life project practicals' ranked number one with fifteen responses. Second was 'case studies' (6 responses). Ranked third were demands for writing / communication skills, guest lecturers, and experienced lecturers. Based on these results, two important concerns are raised by the real estate professionals.

Firstly, the existing curricula were not covering adequately the practical issues required in the industry. This requirement could be based on the fact that 'practicals / real life projects' supported students to immediately become productive when they join the workplace. In addition, practical exposure enabled students to easily cope with challenges and needs that have emerged in the industry. This research finding is in line with a recurring theme in research which continues to emerge: a graduate programme must possess an appropriate blend of theory and practice to succeed in the eyes of the real estate industry (Gallupo and Worzala, 2004).

Secondly, the industry is demanding that writing / communication skills to be emphasised in the existing curricula. This result is again in line with observations noted by Gibler (2001); and Miles and Trefzger (2006) that there is a continuing high demand for effective writing and communication skills in the workplace.

5.4.2.3 Conclusion regarding hypothesis 2

New challenges and needs have emerged in the real estate industry in South Africa, which are inadequately being addressed by topics included in the existing Masters Real Estate curricula in South Africa. The hypothesis was supported by the data from desired topics and other comments given by real estate professionals.

5.5 Conclusions of the property industry survey

Results of the property industry survey show that Masters Real Estate education programmes offered in South Africa have both strengths and weaknesses. The main strength of the curricula is that real estate practitioners rated all topics included in the existing curricula which were identified through the curriculum survey as important for the industry. These topics are: Building Economics, Building Technology, Construction Contract Law, Corporate Strategy, Environmental Economics and Management, Financial Management, Information Technology, Property Development, Property Economics, Property Finance, Property Investment, Property Management / Facilities Management, Property Marketing, Property Law, Property Valuation, Property Tax, and Research. In addition, practitioners also commented that the curricula were comprehensive in nature. The impression given by the practitioners is that real estate should be viewed broadly, and for graduates to function competently in the industry they need to be exposed to different topics relevant to the proper understanding of real estate. The practitioners are in favour of the interdisciplinary approach to the study of real estate. However, results from rankings of topic importance and percentages of time to be spent on topics revealed that practitioners considered Property Finance as the most important topic in the curricula and that this topic should be allocated more time than the other topics in the curriculum.

In the survey seven major weaknesses of the curricula were identified. First, International Real Estate, a topic which was not offered in existing curricula in South Africa was rated as important by real estate professionals. The perception given by the respondents is that they are aware that real estate business was now global and that it was relevant for professionals to be exposed to real estate knowledge required in the global context to enable them effectively practice real estate internationally. However, it is important to point out that the professionals recommended less time to be allocated to the topic in the curriculum as compared to the other

topics. Related to 'International Real Estate', was a comment given by the respondents in one of the open ended questions that the curricula should include real estate issues relevant to students from other Southern African countries. The view of the practitioners is that the curricula lacked enough course content on foreign real estate markets. As a consequence the existing curricula failed to address international real estate issues adequately.

Second, the respondents expressed a general feeling that even though existing postgraduate real estate curricula in South Africa were traditionally strong, they had inadequately supported real estate practitioners to deal with new challenges and needs which had emerged in the industry. This was expressed through answers given to the first open ended question in Part 3 of the survey questionnaire where practitioners were asked to give other topics to be considered in the curricula (see Questionnaire: Appendix A). The practitioners responded by giving desired topics which they thought could support them deal with the new challenges and needs. These topics include: Town planning / urban management / urban design and planning / urban studies / principles of urban planning / rezoning; project management; negotiation skills; and corporate real estate management / institutional property asset management. Even though some of the desired topics were sub-topics, topics or electives in the existing curricula, the impression given by the industry is that topical issues raised require further investigation in order to support practitioners deal with new challenges and needs which had emerged. It is possible that topical areas desired by the practitioners in the survey were not adequately meeting industry needs in terms of course content.

Third, the respondents indicated that the existing postgraduate real estate curricula in South Africa had exposed students to practical real estate issues inadequately. The opinion of the practitioners is that the curricula were putting emphasis on theory and not practice of real estate issues.

Fourth, the practitioners suggested that they required experienced lecturers to be involved in the teaching of Masters Real Estate students. Most of postgraduate real estate students are working and it was inappropriate for them to be taught by inexperienced lecturers. Experienced real estate lecturers added value to the time spent by postgraduate students during their studies.

Fifth, the respondents pointed out that the curricula failed to integrate different real estate topics taught to enable the students appreciate their relationships and importance in real estate studies. In the process students have viewed different courses separately and lacked the ability to build linkages between the courses offered while in the industry.

Sixth, the curricula were not responding quickly enough to political, social and cultural changes in South Africa. In recent years South Africa has transformed a lot politically and socially since the democratic era from 1994. In the survey practitioners expressed concerns that the curricula had not transformed enough to accommodate relevant political, social and cultural changes in society which were important to real estate.

Finally, there is an indication from the respondents that real estate as a profession has evolved. As a consequence it is common these days to see real estate professionals being requested to undertake new tasks they were traditionally not asked to do before. The practitioners feel that the curricula should adapt to accommodate new emerging professional demands. A good example of an emerging task mentioned by professionals in the survey which they are frequently getting involved in is Project Management.

CHAPTER 6

MODEL CURRICULUM

6.1 Introduction

Chapter 6 contains a model curriculum which has been developed based on the findings of literature research, the curriculum and property industry surveys for postgraduate real estate education in South Africa. The main objective of the model is to demonstrate to institutions offering Masters Real Estate programmes in South Africa how an acceptable curriculum can be developed in line with industry requirements. This model is relevant because of its contribution to knowledge in real estate education. While it is appreciated that the existing curricula were developed by consulting experts in different property fields in South Africa, it is relevant to confirm the educational needs by following a more rigorous scientific approach with the intention of improving the curricula wherever necessary in order to continue meeting industry requirements in the future. In addition, postgraduate real estate education is relatively new in South Africa. Therefore it was relevant to assess the quality of education offered so far to allow rectification of deficiencies identified at an early stage with the input from the industry. This model is aimed at addressing this important desire.

The model should be viewed as a solution to address requirements which were expressed by the industry to improve postgraduate real estate education in South Africa. Of importance, the model should only be viewed as a guide to the development process of a suitable curriculum for the industry in the South African context. Decisions to be taken on the most appropriate educational programmes to be implemented depend largely on judgements to be made by universities offering the courses. These decisions will depend on several other factors which include goals and resources.

6.2 Critical factors considered in the development of the model curriculum

Significant factors identified in this study which have offered a comprehensive and systematic approach to the development of a model for postgraduate real estate education in South Africa are outlined below.

- Constituents of the real estate industry in South Africa

- Conventional real estate knowledge and skills

- Industry requirements

- Student requirements

- Education institution requirements

- Research and technology

- Political, social, economic and cultural factors

6.3 Constituents of the real estate industry in South Africa

The objective of postgraduate real estate education is to support the real estate industry. This objective can be achieved by understanding the nature and characteristics of the industry to be supported. At the beginning of the process of curriculum development it is advisable to identify constituents of the real estate industry to be supported in order to formulate relevant curriculum. Black *et al*., (1996) argued that constituent needs should be the driving force to guide the development of real estate curriculum. In this study, constituents of the real estate industry in South Africa were first identified from the type of real estate topics offered in the existing curricula. This decision was based on the fact that universities offering the courses consulted experts in the various fields of real estate in South Africa to establish topics to be included in the curricula. Findings of the property industry survey which followed, in relation to the importance of real estate topics offered, provided a second platform to confirm constituents of the real estate industry in South Africa. In the survey, real estate practitioners indicated that all topics were important. Ideally, topics supported the industry and therefore, indirectly gave an indication of the characteristics of the industry. By accepting that the topics were important, it was then possible to determine characteristics of the real estate industry in South Africa and its main constituents. Some of the important constituents confirmed are: property development, property economics, property finance, property investment, property management / facilities management, property marketing, property law, property valuation, and property tax. This model curriculum is targeted at supporting these constituents in the industry. It is significant to mention that constituents of the real estate industry identified in South Africa were similar to those identified in related studies done in other countries, for example in the USA (Black *et al*., 1996; and Black and Rabianski, 2003).

6.4 Conventional real estate knowledge and skills

For postgraduate real estate education in South Africa to remain relevant to the industry in future, it has to continue conveying conventional knowledge and skills required by a real estate professional. Black *et al*., (1996) offered a guideline for the development of a comprehensive real estate curriculum. They noted that a comprehensive real estate curriculum should be envisioned as a four-cornered approach to cover the many specific topics of the real estate field. Four main components which were identified as essential for a comprehensive real estate curriculum were: market subjects; financial subjects; legal and public policy subjects; and physical and development subjects. Carn and Rabianski (1986) identified investment, finance, marketing, valuation, and law as important topics which should constitute a real estate curriculum. Property law was also recommended by Placid and Weeks (2009) as a cornerstone of every real estate programme. Important skills required by real estate professionals include: negotiation, information processing, management, communication, and problem-solving (Institute for Corporate Finance, 1992 cited in Black *et al*., 1996).

6.5 Curriculum

The guiding philosophy behind the model curriculum for postgraduate real estate education in South Africa is that education will continue to change to respond to relevant changes taking place in the industry and society. In addition, the systems approach is emphasised as the means to make education relevant in future. In this approach interaction between education institutions offering the curricula and industry is encouraged. Of importance, research on factors causing change in education and the industry will continuously be undertaken to provide reliable evidence for curriculum improvement. The model curriculum also incorporates the following procedures to improve its effectiveness and maintain high quality:

- Revisit regularly real estate knowledge and skills required.
- Implement an objective curriculum assessment method.
- Create an efficient feedback mechanism on the curriculum from students and industry.
- Adopt a quick response reaction to curriculum improvement.
- Include a rigorous validation test for curriculum improvement.
- Hire well qualified and experienced teaching and research staff.

6.5.1 Education institution requirements

Contents of this section have been determined in line with the intentions and requirements of the departments and schools at the universities offering Masters Real Estate curricula in South Africa. These requirements were identified in the curriculum survey.

6.5.1.1 Aim of the curriculum

The aim of the model curriculum is to produce competent real estate professionals for the industry who are equipped with management, decision-making and research skills.

6.5.1.2 Purpose of the curriculum

The purpose of the model curriculum is to prepare real estate professionals for career advancement in different real estate fields in the private sector, public service, academic and research institutions.

6.5.1.3 Student admission

Applicants for Masters Degree in Real Estate should possess an honour's, a present four-year or a previous five-year degree in a built environment related discipline or an appropriate field from a recognised tertiary institution. Built environment disciplines include: real estate, quantity surveying, construction management, project management, architecture, town planning, and engineering. Other appropriate fields include: commerce and law. In addition, applicants should have appropriate work experience in a relevant real estate related environment. Candidates with inadequate knowledge in the built environment will be required to take additional course subjects in the first year in order to supplement the built environment knowledge.

6.5.1.4 Duration of the course

A minimum of two years will be required for a student to complete a Masters Real Estate degree, either on full time or part time basis.

6.5.1.5 Delivery of the curriculum

The preferred method of delivery of the curriculum is by block release, whereby a block is equivalent to one week. A maximum of eight block weeks should be enough to complete implementation of the curriculum. For a course duration of two years, eight block weeks will be split into half for each year. This entails that two block weeks will be allocated per semester.

The block release system has been recommended for the model because universities offering the courses agree that the system allows learners based far away from the universities to easily make arrangements to attend the courses when required. In addition, the system allows students to work while studying. This is of particular importance bearing in mind that most of the students following the courses are already employed.

6.5.1.6 Student assessment

Student assessment will comprise of two components. These are course work and research assessments. Course work assessment will be split between continuous assessment and examinations. Continuous assessment would be allocated 40 percent while examinations will be given 60 percent of the final mark. Continuous assessment would consist of assignments, group projects and other assessment tools which do not form part of examinations. A sub-minimum of 40 percent for semester and year marks will be required for admission to examinations on any subject. A minimum final mark of 50 percent will be required for a student to obtain a pass in any subject. 50 percent will also be required to pass the treatise.

6.5.1.7 Total credits

Results of the curriculum survey revealed that the existing five Masters Real Estate curricula in South Africa are using different total credits for their programmes except for UW and UCT. The UP, UW, UCT, UFS and NMMU allocated 230, 180,180, 240 and 202 credits, respectively to their programmes. Despite this disagreement, they all meet SAQA requirements in terms of minimum total credits required for a Masters Degree in South Africa, which are 180 total credits. Because of lack of uniformity in total credits used by the universities it was decided that one credit system out of the five be selected for design purposes of this model curriculum. Based on convenience reasons, it was decided that total

credits followed by the UP be used in this model. Out of 230 total credits, the UP allocated 170 credits for coursework and 60 credits for treatise.

6.5.1.8 Graduation

In order to be considered for the award of the degree, it is assumed in this model curriculum that a student should have obtained the minimum credits required by the UP, i.e. 230 credits.

6.5.2 Curriculum requirements of the industry

Course content requirements of the model curriculum which were determined based on the requirements expressed by real estate professionals in the property industry survey are shown in Table 6.1.

Table 6.1: Masters Real Estate topic requirements of the industry in South Africa

Topic	Topic importance rank	Topic mean	Topic time rank	Time allocated (%)
Property Finance	1	2.76707	1	8.4680
Property Investment	2	2.67470	3	7.9276
Property Economics	3	2.66265	4	7.2975
Property Development	4	2.64659	2	8.3144
Financial Management	5	2.56225	7	6.4143
Property Valuation	6	2.51004	5	7.1635
Property Law	7	2.47791	8	6.1275
Building Economics	8	2.37349	9	5.6102
Property Management / Facilities Management	9	2.31727	6	6.7068
Property Tax	10	2.27711	13	4.3851
Construction Contract Law	11	2.16867	12	4.4233
Property Marketing	12	2.16064	11	4.7717
Research	13	2.10843	10	5.0545
Environmental Management	14	2.00803	15	3.8748
Building Technology	15	1.94378	14	4.0238
Corporate Strategy	16	1.91968	18	3.4368
International Real Estate	17	1.91566	16	3.7612
Information Technology	18	1.88353	17	3.5823
Total	18			100%

In Table 6.1 it is noted that when the ranking of percentages of time allocated to the topics during the course is compared to the ranking of importance of topics, there are some similarities. Property Finance was ranked first in both rankings. For the other topics, all

topics which appeared in the top 10 ranking for topic importance also appeared in the top 10 ranking for percentage of time to be spent on a topic during the course expect for Property Tax which dropped to position 13 in the time rank. Like in the topic importance rank, Corporate Strategy, International Real Estate and Information Technology were ranked at bottom in the time rank. Based on these results, the two separate rankings can guide real estate educators reasonably in curriculum improvement with regard to time to be allocated to a topic by relating topic importance and time as suggested by real estate professionals.

6.5.3 Recommended curriculum

6.5.3.1 Course subjects

The model curriculum consists of 18 course subjects required by the industry to be taught to real estate professionals in South Africa. It is important to recognise that the curriculum is focused on real estate and intends to produce competent professionals who are specialised in real estate. As a consequence course subjects in the model curriculum are classified into three groups which are: compulsory, recommended and optional real estate course subjects. These groups are given below:

A. Compulsory subjects
- Property Finance,
- Property Investment,
- Property Economics,
- Property Development,
- Property Valuation,
- Property Law,
- Property Management / Facilities Management,
- Property Tax, and
- Property Marketing.

B. Recommended subjects
- Building Economics,
- Construction Contract Law,

- Corporate Strategy,

- Environmental Management,

- Financial Management,

- International Real Estate, and

- Research Methodology.

C. Optional subjects

- Building Technology, and

- Information Technology

Compulsory subjects comprise of important real estate course subjects ranked in the top 10 in the survey by real estate practitioners that should be given priority in the curriculum. Property Marketing has been included in the list of compulsory subjects even though it was not ranked in the top 10 by real estate professionals because in existing literature it is regarded as a principle subject (Carn and Rabianski, 1986 cited in Finch and Weeks, 2003). Because Financial Management and Building Economics are not considered in existing literature as principle real estate subjects, they are excluded from the list of principle subjects despite the fact that the industry ranked them in the top 10.

Recommended course subjects in the model curriculum consist of subjects which were ranked below 10 in the property industry survey by real estate professionals and are not considered as principle real estate subjects in the existing literature. The intention of these course subjects in the curriculum is to equip real estate professionals with additional relevant knowledge and skills required by real estate professionals to function competently in the industry. These subjects will be allocated less time in the curriculum than compulsory real estate course subjects.

The last category of subjects in the curriculum comprise of optional course subjects. These subjects are important for real estate professionals but will only be recommended to be taken by a student depending on his past educational background to supplement built environment knowledge or to gain exposure to information technology which is required by real estate professionals in the industry.

6.5.3.2 Skills

Skills desired by real estate professionals which were identified in the existing literature and property industry survey that are required by professionals to function successfully in the industry to be incorporated in the model curriculum include:

- Negotiation;
- Management;
- Interpersonal;
- Change management;
- Time management;
- Teamwork;
- Writing, communication, presentation, and public-speaking;
- Problem-solving;
- Business; and
- Leadership skills.

From the above list it is noted that a host of skills are required for a real estate professional to be competent in the industry. In the model curriculum, these skills will blend with the technical expertise acquired from real estate course subjects to support the students to compete for employment opportunities and function effectively at management level in the private sector, public service, research and academic institutions.

6.5.3.3 Areas of emphasis

In addition to offering required real estate course subjects and desired skills, the following areas are emphasised in the model curriculum in order to produce graduates with specialized skills needed by real estate industry and society:

- Hiring of well qualified and experiencing lecturers.
- Creation of good teaching environment for lecturers.
- Involvement of experienced guest lecturers.
- Creation of good learning environment for students.
- Promoting research to equip students with problem-solving skills and critical thinking.

- Balance between theory and practical course content in the curriculum in response to the industry request for graduates to "hit the ground running" immediately when they join the work place.

- Application of case studies in the curriculum which are relevant to real estate students.

- Use of real-life projects where students notice theory learnt in class being executed into practice.

- Integration of course subjects in the curriculum with the intention of making students understand the interrelationships between different real estate course subjects in the industry.

- Inclusion of educational tours and site visits to enable students appreciate theoretical issues learnt in class taking place in the field.

- Encouraging internship, experiential learning, and mentorship to be part of the learning process to offer the opportunity to students to apply theory into practice and to learn from experienced real estate professionals in the industry.

- Exposing students to real estate knowledge required in the global context.

- Sensitising students on environmental concerns as they study real estate.

- Making students realise the significance of applying ethics and morals in real estate practice.

- Making students aware of public-private sector concerns in property development projects.

- Sensitising students on political and social implications in real estate decision-making.

- Equipping students with decision-making skills more especially financial analysis in real estate.

- Exposing students to important information technology tools required in the industry.

- Teaching students to learn how to deal with change in their lives and in the industry.

- Making students aware of the significance of independent and continuous learning in their lives as professionals.

- Encouraging students to develop networking skills to be successful as real estate professionals.

6.5.4 Curriculum structure

6.5.4.1 Structure of curriculum block weeks

The model curriculum will be delivered to students in a period of two years which consist of four semesters. In the four semesters, a maximum of eight block weeks (two block weeks per semester) will be utilised to present the curriculum. Table 6.2 shows the spread of curriculum block weeks over the study period.

Table 6.2: Structure of blocks weeks for Masters Real Estate Education in SA

Year 1	Dates	Activity
Semester 1	**January to June**	
1. Block week 1	January	Orientation, lectures, assignments
2. Block week 2	April	Lectures, assignments, tests
Examinations	June	Semester 1 examinations
Semester 2	**July to December**	
3. Block week 3	July	Lectures, assignments, tests
4. Block week 4	September	Lectures, assignments, tests
Examinations	November	Year-end examinations
Year 2		
Semester 3	**January to June**	
5. Block week 5	January	Lectures, assignments, tests
6. Block week 6	April	Lectures, assignments, tests
Semester 4	**July to December**	
7. Block week 7	July	Lectures, assignments, tests
8. Block week 8	September	Lectures, assignments, tests
Examinations	November	Year-end examinations

6.5.4.2 Organisation of course subjects in the curriculum

Real estate practitioners in the industry require a curriculum which gives students a solid foundation by exposing them to many different fields which make up the real estate profession. This is reflected by the number of course subjects required in the curriculum. Eighteen course subjects were recommended to be included in the curriculum. In terms of curriculum planning, this request presents a huge challenge in the development of this model curriculum. It is a challenge because 18 subjects are too many to be fitted in four semesters, which is a very limited time to cover all the subjects in detail. The right approach to deal with this problem was to develop a condensed curriculum which satisfies requirements of the main

interested parties in the curriculum. These parties include: the industry; students; education institutions offering the courses; and education authorities.

To develop an acceptable condensed curriculum, the required course subjects were re-grouped into modules which would convey the required knowledge expected by the industry. The aim of the curriculum, which is to produce professionals who are specialised in real estate, was the guiding principle in the re-grouping process. Consequently, real estate course subjects that were categorised as compulsory subjects were prominent in the re-grouping process by being allocated space first in the curriculum. Compatibility of the course subjects was a key factor considered in the re-grouping process of the subjects. Course subjects which were related and compatible were easily grouped together. In the re-grouping process, course subjects from the recommended category were built around compulsory course subjects to offer supplementary knowledge required by professionals in the industry. Eleven important modules for the model curriculum that emerged from the 18 course subjects after the re-grouping process are shown in Table 6.3. It will be noted that in certain cases after re-grouping related subjects, new representative names to identify the modules are given. For example the course module which combines Property Finance, Property Investment, Property Economics, and Property Tax is named Property Finance, Investment and Economics. It will also be observed that Property Development is a name of a course module which represents the following combined subjects: Property Development, Property Marketing, Building Economics, and International Real Estate. Credits allocated to modules in the curriculum were determined by making use of the percentages of time allocated to the subjects by real estate professionals in the property industry survey and the assumed total course work credits required to complete the degree are 170.

Table 6.3: Modules for model curriculum

Modules	Time allocated (%)	Credits (out of 170)
1. Construction Contract Law	4.4233	7
2. Corporate Strategy	3.4368	6
3. Financial Management	6.4143	11

4. Property Finance,
    Property Investment,
    Property Economics &
    Property Tax
   (Property Finance, Investment & Economics)
	8.4680
	7.9276
	7.2975
	4.3851
	(28.0782)
		47

5. Property Development,
    Property Marketing,
    Building Economics &
    International Real Estate
   (Property Development)
	8.3144
	4.7717
	5.6102
	3.7612
	(22.4575)
		38

6. Property Management / Facilities Management &
    Environmental Management
   (Property and Facilities Management)
	6.7068
	3.8748
	(10.5816)
		18

7. Property Law	6.1275	10
8. Property Valuation	7.1635	12
9. Research Methodology	5.0545	8
Optional modules		
10. Building Technology	4.0238	7
11. Information Technology	3.5823	6
Total	100	170

6.5.4.3 Sequence of course modules in the curriculum

The sequence and spreading of course modules in the curriculum over the period of two years are given in Table 6.4.

The spread and sequencing of the modules enables the curriculum to focus on producing a professional who is specialised in real estate. To achieve this, the model curriculum is structured around modules which contain compulsory real estate subjects, being subjects emphasising on the real estate profession as required by the industry. These modules are: Property Finance, Investment and Economics; Property Development; Property and Facilities Management; Property Valuation; and Property Law. Except for Property Law, these modules are offered in sequence as year modules in first and second years. The curriculum is built around these modules as integrating devices in the curriculum. In the first year introductory real estate course content for the modules is offered to the students while in the second year advanced real estate course content is taught. By spreading and sequencing these important real estate modules over two years, the arrangement allows the students to focus and specialise in real estate.

With the exception of Property Law, semester modules consist of course subjects which are classified as recommended in the curriculum to support the compulsory subjects in the process of producing a well-rounded real estate professional. They have been spread over the semesters depending on the most appropriate time they are required by students in the learning process. For example Research Methodology has been placed in Semester 1 to equip students with research skills in preparation for the thesis they will undertake in the second year. In the curriculum Property Law has been classified as a semester module and not a year module, even though it is a compulsory subject because the quantity of its course material is adequate for a semester period.

Table 6.4: Sequence of course modules in the curriculum

First Year			
Semester 1	**Semester 2**	**Credits**	**Comment**
Research Methodology		8	Semester module
Financial Management		11	Semester module
	Construction Contract Law	7	Semester module
Property Finance, Investment and Economics I	Property Finance, Investment and Economics I	47	Year module
Property Development I	Property Development I	38	Year module
Property and Facilities Management I	Property and Facilities Management I	18	Year module
Property Valuation I	Property Valuation I	12	Year module
Second Year			
Semester 1	**Semester 2**		
Corporate Strategy		6	Semester module
	Property Law	10	Semester module
Property Finance, Investment and Economics II	Property Finance, Investment and Economics II	-	Year module
Property Development II	Property Development II	-	Year module
Property and Facilities Management II	Property and Facilities Management II	-	Year module
Property Valuation II	Property Valuation II	-	Year module
Optional modules			
Building Technology		7	Semester module
Information Technology		6	Semester module
	Total	170	

6.5.5 Summary of proposed curriculum content

Summary of the proposed model curriculum which shows modules, course subjects, credits, and percentages of content is shown in Table 6.5.

Table 6.5: Summary of the proposed model curriculum

Core Modules	Course subjects	Credits	Content (%)
Construction Contract Law	Construction Contract Law	8	4.7
Corporate Strategy	Corporate Strategy	6	3.5
Financial Management	Financial Management	11	6.5
Property Finance, Investment & Economics	Property Finance, Investment, Tax & Economics	46	27
Property Development	Property Development, Marketing, Building Economics & International Real Estate	38	22
Property & Facilities Management	Property Management, Facilities Management & Environmental Management	18	10.6
Property Law	Property Law	10	5.9
Property Valuation	Property Valuation	12	7
Research Methodology	Research Methodology	9	5.3
Optional modules			
Building Technology	Building Technology	6	3.5
Information Technology	Information Technology	6	3.5
	Total	170	100

6.5.5.1 Description of course subjects

Building Economics – A course subject which teaches students various methods of controlling the cost of buildings at the design stage to achieve economic efficiency in the building process and maximise value for money for the client. Both present and future building costs are taken into account. Study themes include: building cost estimates; contract price adjustments; payment certificates; variation orders; and influence of design on costs.

Building Technology – A course subject which teaches students issues related to the building components and process. Study themes include: soil mechanics and building foundations; building design and construction; brick work; roofs; joinery, windows, frames, and doors; plastering; flooring and tiling; ceilings; glass and glazing.

Construction Contract Law – A course subject that teaches students legal issues related to construction. Study themes include: principles of the law of contract; procurement of

construction and engineering contracts; roles of the parties; negligence; allocation of risk; construction defects; remedies for breach of contract; arbitration and litigation; and contractual abuse.

Corporate Strategy – A course subject which teaches students issues related to business success. Study themes include: corporate decision making; marketing and business planning; competitive advantage; and economic and social factors which influence the performance of firms. These principles are applied to construction and property business.

Environmental Management – A course subject which teaches students issues related to the management and efficient utilisation of environmental resources. Study themes include: environmental pollution; waste management systems; environmental legislation; impact of construction on the environment; environmental impact assessment; environmental management systems; and effects of environmental pollution on land values.

Facilities Management – A course subject which teaches students an integrated approach to managing, improving and adapting the buildings used by an organisation in order to create an environment that strongly supports the core objectives of the organisation. Study themes include: space and services planning; services and energy management; maintenance management; life cycle costing; value management; outsourcing; and performance measurement.

Financial Management – A course subject that teaches students issues related to effective use of finances for an organisation and financial reports. Study themes include: structure of financial statements; analysis and interpretation of financial statements; valuation of businesses; planning, control and management of finance; and construction accounting.

Information Technology – A course subject which teaches students issues related to computer programmes in order to become computer literate. This may include GIS.

International Real Estate – A course subject that teaches students real estate issues from a global perspective.

Property Development – A course subject which focuses on teaching students land or existing property improvement processes. Study themes include: principles of urban economics; planning control; township development; residential property development; commercial property development; industrial property development; specialised forms of property development; traffic and parking; location studies; and feasibility studies.

Property Economics – A course subject that focuses on teaching students efficient utilisation of land resources and their improvements in society. Study themes include: factors influencing the property market; market mechanisms (supply and demand); property / construction cycles; national economy; location objectives; population and urbanisation; and different forms of urban property markets.

Property Finance – A course subject which focuses on teaching students utilisation of finance in property. Study themes include: money and banking; sources and forms of property finance; cost of capital; and capital budgeting.

Property Investment – A course subject which focuses on teaching students real estate as an alternative investment. Study themes include: nature and scope of real estate investment; the investment decision process; investment analysis; investment time horizons; property investment decision-making approaches; investment strategy; the ownership entity; and property selection.

Property Management – A course subject which focuses on teaching students the administration of property with the objectives of maximising return on property investment; maintaining or increasing property value; and keeping property in good condition for its intended use. Study themes include: the role of property management; property portfolio management; property asset management; property management and property owner relationship; operating costs; leasing; energy and water management; management structures; employee relations; and marketing of management services.

Property Marketing – A course subject which equips students with skills of buying, selling and letting of property. Study themes include: marketing management process; environment of the property market; property market analysis; the estate agent; property market segmentation; and property marketing strategy.

Property Law – A course subject that teaches students legal issues related to property. Study themes include: ownership of property; property conveyancing; interests in property; forms of land tenure; joint ownership; registration of rights over property; and statutory control over property.

Property Valuation – A course subject that equips students with skills of determining the most probable exchange prices of property. Study themes include: the concept of value; methods of valuation; purposes of valuation; types of valuations; principles of town planning; and factors influencing value.

Property Tax – A course subject that focuses on teaching students issues related to money which has to be paid to government from property investments and transactions. Study themes include: income tax; value added tax; capital gains tax; and assessment rates.

Research – Means a course subject which teaches students general research process. Study themes include: research design; research methods; writing literature review; methods of data collection and analysis; research writing skills and referencing conventions; and concluding research.

CHAPTER 7

CONCLUSIONS, RECOMMENDATIONS AND SUMMARY

7.1 Introduction

The intent of this study was to assess content of existing postgraduate real estate curricula in South Africa to determine if they were relevant to the industry and to suggest areas requiring improvement. Specifically, the study was aimed at answering the research question shown in Section 1.2.

Four sub-problems (research objectives) were set to achieve the aims of the study (see Section 1.3). The hypotheses in Section 1.4 guided the gathering and analysis of data and the interpretation of results in line with the objectives of the research.

To build up the theoretical framework for the study, relevant literature on the subject was reviewed in Chapter 2. Literature of the study was reviewed under three main subheadings: real estate discipline; critical issues of real estate education; and influential elements of real estate curriculum development.

Three research approaches were used to collect data for the study (see Chapter 3). These are: use of relevant publications, postgraduate real estate curriculum survey, and the property industry survey. According to Leedy (1997), the method of research adopted for this study is typified as the descriptive method.

Data analysis and interpretation of results for the research was done in Chapters 4 and 5. Testing of the hypotheses based on results of the property industry survey was covered in detail in Chapter 5.

To complete the research process, a model curriculum for postgraduate real estate education in South Africa was finally developed based on a number of significant factors including requirements of the property industry in Chapter 6.

Findings from literature review supported the results in the two original surveys (i.e. curriculum and property industry surveys) to draw conclusions and recommendations for the study in Chapter 7.

7.2 Key research findings of the study

The key findings of the investigation are summarised in this section based on the research objectives outlined in Section 1.3.

7.2.1 Findings of first research objective

The first research objective of the study was to identify important elements presently influencing real estate education and industry which may continue to introduce significant changes to the profession in the future. To achieve this objective a detailed literature research was undertaken to identify the factors. It was found in the study that some of the important influential elements causing change in the real estate curriculum include: accreditation bodies; clients; climate and environmental concerns; demographic factors; economic development; employers; entrepreneurship; finance; globalisation; government and political factors; information technology advances; land; local communities and professionals; publications and research; real estate educators; real estate constituents; real estate consumer behaviour, social and cultural factors; real estate cycle; students; and urban form changes and problems (see Section 2.4).

7.2.2 Findings of second research objective

The second objective of the research was to analyse existing postgraduate real estate curricula to identify topics which supported the real estate profession to contribute significantly to society in South Africa. To achieve this objective, a survey and analysis of existing Masters Real Estate curricula offered in South Africa and other parts of the world was done in Chapter 4. When Masters Real Estate curricula in South Africa were analysed and compared locally and with equivalent curricula internationally the following conclusions were found:

- Numerically, few formal postgraduate real estate curricula were offered in South Africa than in USA and UK. In South Africa five programmes were identified which are offered by Universities of Pretoria, Witwatersrand, Free State, Nelson Mandela Metropolitan, and

Cape Town. In USA and UK, seven Master's programmes specialising in Real Estate were selected in each of these countries for comparison purposes. However, South Africa offered more Masters Real Estate curricula than other countries in Africa. Only three programmes were found from other African countries (see Tables 4.1, 4.2, and 4.3).

- When compared locally, Masters Real Estate curricula in South Africa exhibited some differences and similarities. Differences included: names given to curricula, diversity of real estate topics, percentages allocated to common course subjects, and course credit allocation systems. Similarities included: common real estate topics, location of curricula, student admission requirements, duration, and delivery methods of courses. Common topics included: property valuation, property management, property development, property finance, property investment, and property marketing (see Sections 4.3.1.1 and 4.3.1.2).

- When Masters Real Estate curricula in South Africa were compared with equivalent curricula internationally, similar differences and similarities were identified. From the international comparison, noteworthy differences which emerged were location of real estate programmes, the diversity of topics, and curriculum emphasis. Comprehensive curricula in South Africa like curricula in other African countries, UK and other British Commonwealth countries were housed together with other built environment programmes. The USA programmes were housed in business schools where finance and investment were emphasised in the curricula. An additional difference was International Real Estate as a topic which did not feature in any of the curriculum in South Africa (see Sections 4.3.2 and 4.3.3). An important similarity with some curricula in other parts of the world was accreditation of some curricula in South Africa by the RICS. Such similarities support the conclusion that despite disagreements in some course offerings, Masters Real Estate curricula in South Africa were comparable to equivalent courses internationally.

- Based on curriculum analysis, eighteen important postgraduate real estate topics which supported the real estate profession to contribute significantly to society in South Africa and other parts of the world were identified. These topics were: building economics, building technology, construction contract law, corporate strategy, environmental economics and management, financial management, information technology, international real estate, property development, property economics, property finance, property investment, property management / facilities management, property marketing,

property law, property valuation, property tax, and research. The topics were incorporated in the study questionnaire to determine their importance to the property industry in South Africa.

7.2.3 Findings of third research objective

The third objective of the research was to determine current requirements of the real estate industry in South Africa. To determine the requirements, a property industry survey was conducted to obtain views from real estate professionals. This was achieved in Chapter 5. The investigation was limited to four main areas.

Firstly, the professionals were asked to rank the eighteen topics in terms of importance to the industry using the Lickert scale. Results revealed that the industry required all topics in the curriculum. However, the industry considered Property Finance as the most important topic in the curriculum with a mean of 2.77 and Information Technology as the least important with a mean of 1.88. The opinion of the professionals was that Property Finance was more important to the industry than the other topics (see Table 5.6).

Secondly, the practitioners were asked to suggest approximate percentages of time to be spent on the eighteen topics in the curriculum. Practitioners allocated percentages of time to all the eighteen topics in the curriculum. Property Finance was allocated the highest percentage (8.47%) while Corporate Strategy was allocated the lowest percentage (3.43%). Perception of the industry was that more time should be allocated to Property Finance during the course (see Table 5.9).

Thirdly, professionals were asked to suggest any other topics they required to be included in the curriculum. 'Town planning / urban management / urban design and planning / urban studies / principles of urban planning / rezoning' had the highest responses (42), second was Project Management (24 responses), third was Negotiation Skills (18 responses), and fourth was Corporate real estate management / institutional property asset management (13 responses) (see Appendix E). The suggestion of other topics in the survey by real estate professionals indicated that there were challenges and needs in the real estate industry which were being addressed inadequately by topics in the existing curricula.

Finally, the industry was asked to give any other comments they thought should be considered in the curriculum. In terms of frequency, responses requesting a strong 'practical component' in the curriculum ranked number one with fifteen responses. Second was 'case studies' (6 responses) (see Appendix F). Based on these results, the opinion of industry was that the existing curricula were not exposing students adequately to practical issues required at the workplace. Other important weaknesses of the curricula which were identified from the list of comments were:

- Lack of course content on foreign real estate markets.
- Curricula failed to integrate different real estate topics.
- Curricula were not responding quickly to political, social and cultural changes.
- Curricula were not adapting to accommodate new emerging professional tasks.

Despite the deficiencies reported above, an important strength of the curricula identified from comments given by the respondents was that the curricula were comprehensive. The view of the practitioners was that students were being exposed to most of the important topics required for a professional to function competently in the industry.

7.2.4 Findings of fourth research objective

The last objective of the research was to develop a postgraduate real estate educational model in line with the requirements of the real estate industry in South Africa. This was achieved in Chapter 6. The model which describes the process of developing an acceptable postgraduate real estate curriculum for the industry in South Africa will be made available to universities offering the courses to be used in improving the courses in future.

7.3 Conclusions of the study

Conclusions reached in this study have come from findings of the literature research and two original surveys conducted specific to South Africa. The conclusions drawn are outlined below:

- The study confirmed that real estate is a multidisciplinary field which is influenced by many factors from society and industry. To produce capable professionals, postgraduate real estate education needs to expose students to a variety of relevant topics necessary for a real estate professional to function competently. Apart from the traditional real estate

course content, a competent professional also requires exposure among others to the effects of finance; social and cultural factors; laws; and political factors in the curriculum (Chikafalimani and Cloete, 2008).

- The existing postgraduate real estate curricula in South Africa are diverse. However, despite the disagreements in course content, the curricula were comparable locally and with equivalent curricula internationally through exhibition of common elements in some course offerings expected in a real estate curriculum like property valuation, property management, property development, property finance, property investment, and property marketing.

- The existing postgraduate real estate curricula offered in South Africa have contributed positively to society and industry by covering well the traditional areas of the curriculum expected from a real estate professional. This was proved by the study in two ways. Firstly, real estate professionals indicated that all topics included in the curriculum were important. Secondly, some respondents commented that the curricula were comprehensive.

- While the positive contribution of the curricula to society and industry is significant, the industry identified weaknesses in the curricula which need to be addressed. Some of these deficiencies are: (a) inadequate exposure of students to practical real estate issues in the curriculum; (b) lack of enough course content on foreign real estate markets; (c) failure to integrate real estate topics in the curriculum; (d) slow response to political, social and cultural changes taking place in South Africa; and (e) failure to accommodate new emerging professional tasks.

7.4 Recommendations of the study

Recommendations regarding future direction of postgraduate real estate education in South Africa are drawn from findings and conclusions outlined above.

Firstly, postgraduate real estate curricula should be strengthened to improve the traditional areas of preparation for a real estate professional they are offering today. This was important because the education provided now will form a strong foundation for new directions of postgraduate real estate education depending on changes to be accommodated in the future. This can partially be achieved by maintaining the comprehensive and interdisciplinary

approach to the study of real estate at higher education institutions. In this approach students are well prepared to take challenges in the industry by being exposed to all relevant real estate topics required by a real estate professional. In addition, real estate faculty should pay attention to the opinion given by real estate professionals with regard to importance of real estate topics to the industry in curriculum improvement processes.

Secondly, the practical component of the curricula should be improved to prepare students well for responsibilities they will resume at the workplace. Currently, the perception of the industry is that the curricula placed more emphasis on theory than practice. Institutions offering the programmes should explore ways of balancing these two significant issues in the curricula. This could be achieved by introducing innovations in the traditional real estate curriculum. These can include: practical assignments; real life projects; case studies; site visits; internship / experiential learning; hiring experienced lecturers; and involving specialist guest lecturers.

Thirdly, the course content on foreign real estate markets should be improved. This was relevant because the postgraduate real estate programmes in South Africa attracted students from foreign countries. This can be achieved by introducing International Real Estate as a topic in the curriculum. The topic would convey to students real estate knowledge required in the global context.

Fourthly, lecturing staff of the institutions offering the courses should investigate innovative ways of improving integration of real estate topics in the curricula. The recommendation is based on the complaint raised by some respondents in the property industry that students treated real estate topics separately and failed to relate them and show how they complemented each other at the workplace. To achieve this real estate faculty should introduce innovative ways to integrate topics in the curriculum.

7.5 Further research

The study was intended to offer an overview of current industry requirements in connection with postgraduate real estate education in South Africa. Due to limitations of time and resources it was not possible to investigate all problems linked with postgraduate real estate education and the industry. Therefore, specific studies on education and curriculum

development to address diverse educational needs of the industry are recommended since the industry will always remain in transition. Areas of particular importance for continued research in South Africa include:

- More detailed assessment of individual Masters Real Estate curriculum offered in South Africa to investigate methods of how the individual programmes can be improved since they are all unique. In this study, the curriculum assessment was addressing all existing postgraduate real estate programmes in South Africa and was general in its approach.

- Determination of specific sub-topics preferred by the industry to be included in the important postgraduate real estate topics identified in the study. Sub-topics were critical because they indicated actual study themes covered in the course. Differences in sub-topics could equally produce different educational products from the real estate programmes in terms of industry expectations. This study only investigated the topics and not their contents.

- Assessment of employer perceptions on abilities of postgraduate real estate graduates which must be addressed in the curriculum.

- Investigation of appropriate teaching and learning environments to meet student and industry requirements.

- Investigation of optimal real estate staff qualifications, training, selection and career development requirements.

- Investigation of innovative teaching techniques which would support students to integrate separate real estate topics.

- Assessment of the shifts in political, social, economic and cultural changes in society impacting on real estate curriculum.

- Investigation of newly emerging real estate profession specialisations and tasks to be supported by postgraduate real estate education.

7.6 Contributions to knowledge

In the past no research was undertaken to determine if industry requirements were being met by postgraduate real estate curricula in South Africa. This study was intended to address that gap by offering insight as to how postgraduate real estate education can be made to remain relevant to the industry. This section highlights some of the contributions to the existing body of knowledge on the subject.

- Contribution towards the discovery of contents of real estate curriculum and extending literature on real estate curriculum in the global context. This was particularly important because to date no consensus has been reached with regard to a common body of knowledge in real estate studies (Epley, 1996; Black and Rabianski, 2003; Weeks and Finch, 2003; and Gallupo and Worzala, 2004).

- Identification of important elements influencing changes in real estate education and industry.

- Determination of the importance of postgraduate real estate topics to the real estate industry in South Africa.

- Establishment of real estate industry requirements to be considered for incorporation into postgraduate real estate curriculum.

- Development of an educational model, which demonstrates a process to be followed in the production of an acceptable postgraduate real estate education programme in line with industry requirements in South Africa (see Chapter 6).

7.7 Summary

Conclusions and recommendations made in this study have been reached from findings of two original surveys (curriculum survey and property industry survey) and relevant literature sources. Based on these findings, postgraduate real estate education requirements for the industry were determined scientifically.

The study found out that existing postgraduate real estate curricula in South Africa were applauded by the industry for preparing real estate professionals well by exposing them to relevant traditional areas of real estate expected by the profession. However, due to changes which have taken place in the industry and society a gap has been created between education required by the industry and education provided by the existing postgraduate real estate curricula. The factors which have introduced challenges and changes in the industry and society include deteriorating socio-economic conditions; environmental concerns; public-private sector concerns; urban decay; globalisation; technology advances; and government and political factors. Evidence was also gathered through the study from the industry that new professional tasks were growing which were being inadequately addressed by the existing curricula, like Project Management.

The process of change does not stop and will always introduce new conditions and challenges which will be required to be addressed in the future. Change is also not predictable. Therefore, for postgraduate real estate education to remain relevant to industry and society with the evolving requirements, continued research aimed at solving new problems will be the appropriate solution in the future. The influential elements pointed out earlier, which are causing change in the industry and curricula were critical areas of research that required to be monitored. However, since change is continuous there could be other new influential elements merging in future, not mentioned in this study requiring further investigation. Under such circumstances, consistent research studies will support the processes of curriculum development to accommodate important changes required by the industry and society in the curricula in future. Lack of continued research will widen the gap between education required and education provided.

Finally, it is hoped that this study will contribute significantly to the improvement of postgraduate real estate education in South Africa and that it will stimulate further research in this important area in the future for the benefit of students, universities, society, industry and the country.