

CHAPTER 1

THE PROBLEM AND ITS SETTING

1.1 Introduction

It is important to ensure that postgraduate real estate education in South Africa remains relevant to the real estate industry and adapts to changes in society. Based on changes that have taken place in South Africa in the recent past, new patterns of real estate education and investment, political, social and economic trends have emerged (Ghyoot, 2002; and Chikafalimani and Cloete, 2006b). Following from this, it is important that these changes and demands are understood and be incorporated into the postgraduate real estate curriculum of the country's future real estate professionals (Chikafalimani and Cloete, 2007). The specific area of concern is relevance of the nature of course content of postgraduate real estate education and to what extent it is appropriate for the real estate industry, clients and consumers.

The real estate business can be viewed as a market-oriented game (Wurtzebach and Miles, 1994). In real estate markets, as in all business, change is constant; the "rules of the game" are also ever-changing; and the winner of the game usually is the person who can anticipate future change and act on the opportunity it presents (Wurtzebach and Miles, 1994). In addition to the above, real estate as an asset affects most of the world's economic and financial activities. Greater real estate effects are even seen in the physical and social dimensions of many lives (Wurtzebach and Miles, 1994). For these reasons, it is important that the understanding of the effects of real estate and changes taking place in the real estate industry are an integral component of the postgraduate education of real estate professionals if they are to remain effective in their different real estate involvements.

Many factors including culture and changing tastes of the society are responsible for shaping the real estate business (Gibler and Nelson, 2003). Therefore, it is imperative that real estate education provide a comprehensive understanding of these factors if real estate decisions and services are to be relevant to the clients and consumers who pay for the services and live with the end products and their effects for relatively longer periods.

Means and methods of understanding the influential elements that are causing and bringing change in the real estate industry should be emphasised in the future education of real estate professionals. Advanced technology and research methods are supporting the industry to understand and analyse factors which make real estate business a challenge. Kinnard (1968) noted that the application of new techniques of forecasting and analysis has made real estate decisions to be more effective and less uncertain. It is therefore important for real estate educators to make sure that the relevant advanced analytical tools are investigated and be incorporated into the postgraduate real estate curriculum.

Real estate has several constituents which include: property development, property management, property valuation, property economics, property finance, property investment, property marketing and property law (Black *et al.*, 1996). The understanding of the importance of constituents of real estate, which are interlinked, is fundamental, as it will assist in the design and development of real estate curriculum, which will produce more competent real estate practitioners for the industry.

It must also be pointed out that it is significant for real estate educators to seek input from real estate practitioners in the industry in curriculum development processes to ensure that real estate professionals that meet industrial requirements are produced (Butler, Guntermann and Wolverton, 1998; and Galuppo and Worzala, 2004).

1.2 The statement of the problem

The aim of this research is to determine if the course content of postgraduate real estate education in South Africa is relevant to the real estate industry. Its underlying purpose is to investigate the challenges that have emerged in the real estate industry and promote the development of postgraduate real estate curriculum which will support the production of competent real estate professionals, who will easily adapt to new industrial challenges. In addition, the dissertation will investigate the requirements of the real estate industry which will improve academic research and real estate practice.

As a discipline, the real estate profession is responsible for supporting the delivery of products and services in different real estate activities which include property development, property management, property valuation, property finance, property investment, property

marketing and property law with the purpose of improving the utilisation of real estate as an asset. The profession has an important role to play in the better utilisation and management of society's land and its improvements, which are a scarce resource. The study will ensure that postgraduate real estate curriculum remains relevant to continue fulfilling this significant role for the society.

Due to the rapidly changing conditions in South Africa it is important that the university curriculum for postgraduate real estate education remain relevant to changing economic and societal demands all the time. The nature of university education is aimed at higher quality of learning (Manning and Roulac, 2001). However, over time the course content can become out-of-date and irrelevant to the industry. Therefore, it is appropriate to consider processes of systematic review of the course content and evaluating current requirements of the industry and society as a means of intelligently incorporating new insight into education programmes to maintain their objectives and quality. Any system that ignores prevailing public concerns and priorities risks becoming irrelevant (Manning and Roulac, 2001). As a consequence, one of the major motives of this research is to ensure that postgraduate real estate education programmes in South Africa remain relevant to the industry and society. Finally, based on the conclusions drawn by the investigation, recommendations will be made which will support the improvement of postgraduate real estate curriculum in South Africa.

The main research question is outlined below as follows:

- **What is the most appropriate nature of course content for Masters Real Estate Education in South Africa that will effectively support the training and production of competent real estate professionals for the industry in the future ?**

1.3 The sub-problems

To provide solutions to this research question four sub-problems (research objectives) were identified to provide the structure of the study. The objectives are sequential and linked by offering support to each other in progression order in the process of critically assessing existing postgraduate real estate curricula and in providing specific recommendations for curriculum improvement. The sub-problems are as follows:

1.3.1 Sub-problem 1

- **What are the important elements influencing real estate education in South Africa?**

To solve this sub-problem, a detailed investigation of the characteristics of real estate as a discipline was done. Influential factors causing change in real estate education and industry were also examined. This was achieved by a comprehensive review of relevant literature in Chapter 2 of the study (Literature Review).

1.3.2 Sub-problem 2

- **What is the nature of course content of existing postgraduate real estate curricula offered in South Africa and other parts of the world?**

This sub-problem was solved in Chapter 4 of the study (The Curriculum Survey) by conducting a survey of postgraduate real estate curricula world-wide as well as in South Africa to identify and compare real estate topics included in the existing curricula which supported the industry.

1.3.3 Sub-problem 3

- **What are the current requirements of the real estate industry in South Africa with respect to the content of postgraduate real estate curricula?**

To solve this sub-problem, a property industry survey was undertaken in Chapter 5 of the study to identify curriculum requirements of the industry and to determine the importance of real estate topics from industry perspective.

1.3.4 Sub-problem 4

- **What is the content of a postgraduate real estate curriculum that satisfied the real estate industry in South Africa?**

After establishing the current requirements of the real estate industry it was possible to formulate curriculum requirements to meet those needs in the future. Based on this, it was now possible to develop a postgraduate real estate education model curriculum which satisfied industry requirements identified in objective three to complete the research process. This was achieved in Chapter 6 (The Model Curriculum).

1.4 The hypotheses

Development of a successful postgraduate real estate education programme is based on the establishment of supportive relationships among several players in the real estate industry and society including practitioners and educators responsible for postgraduate real estate education (Galuppo and Worzala, 2004). Mutually beneficial relationships between postgraduate real estate education and the industry can best be maintained by a systems approach in the process of improving postgraduate real estate curriculum to meet industrial and societal requirements. The three interrelated assumptions, upon which a systems approach could be based, in the process of improvement of postgraduate real estate curriculum as identified by Ackoff (1981) are as follows: (a) that the behaviour of each element of a system has an effect on the behaviour of the whole, (b) that the behaviour of the elements and their effect on the whole are interdependent, and (c) that the elements of a system are so connected that independent subgroups of them can not be formed. In addition, the essential characteristics of a system are derived from the interaction of its parts acting as a whole and not the parts acting separately (Capra, 1996). As a result essential characteristics of a system will be lost if it is broken apart. The parts of a system can also only be understood if they are studied in their systemic context. Consequently, to improve postgraduate real estate education in South Africa, the process should be comprehensive by involving the industry which it intends to influence.

A systems or holistic approach in the process of improvement of postgraduate real estate curriculum which meets industrial requirements involves understanding, arranging and managing the interrelated elements that impact on real estate education and industry. Due to changes which have taken place in South Africa in the recent past the real estate profession has also changed to adapt with social, political, technological and customer demands. The important question at this juncture is whether postgraduate real estate curriculum in South Africa has similarly adapted to industrial and societal requirements and changes.

It is believed that if postgraduate real estate education stays behind the developments in the industry, the development of real estate profession will retard as client and societal requirements cannot be met by insufficiently trained and educated real estate professionals.

It will be pointed out by the findings of this research that new challenges and requirements have merged in the real estate industry in South Africa in recent years. As a consequence, it will be appropriate to examine the existing postgraduate real estate curricula to adapt them to current requirements in the industry. To test the premise whether the existing postgraduate real estate curricula are meeting the requirements of the industry the following hypotheses are postulated:

1.4.1 Hypothesis 1

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

1.4.2 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 Estate curricula in South Africa.

1.5 The assumptions

The main assumption of this research is that postgraduate real estate education in South Africa will benefit from an improved awareness of the requirements of the real estate industry. It is further assumed that greater understanding of industrial requirements would lead to the development of postgraduate real estate curriculum that would be desired by the industry. In addition, it is further assumed that a desired curriculum in terms of its balance in meeting the requirements of different players in the real estate industry would contribute to further development of the industry in South Africa by producing well educated, trained and competent future real estate professionals.

It is again assumed in this research that its findings and recommendations will provide the improved understanding of various players in the real estate industry and that this would lead to the continuing process of postgraduate real estate curriculum assessment and feedback from the industry and society; resulting in improved postgraduate real estate education for the industry all the time.

1.6 The delimitations

The selection of curricula which were used for critical assessment of postgraduate real estate education in South Africa was restricted to curricula which are completed by course work and are offered in English and whose details were accessible.

Another major limitation for the research is its inability to directly create changes in the postgraduate real estate curricula offered in South Africa. Any appropriate adaptations in the curricula would originate from outcomes of deliberations and decisions to be taken by appropriate university administrations and their lecturing staff.

1.7 Definitions of terms

Adapt – To become adjusted to new conditions (Oxford Advanced Learner’s Dictionary of Current English, 1995).

Appropriate – Suitable, acceptable or correct in the circumstances (Oxford Advanced Learner’s Dictionary of Current English, 1995).

Change – The action or an instance of becoming different (Oxford Advanced Learner’s Dictionary of Current English, 1995).

Community – The people living in one place or district, considered as a whole (Oxford Advanced Learner’s Dictionary of Current English, 1995).

Core subject – A course subject which is compulsory for a student to complete a course (see Urban Land Institute Directory of Real Estate Education Programs, 2005) (10th edition).

Course – Means the whole degree (common in the UK and other British Commonwealth countries) (Baum and Lizieri, 2002).

Course subject – Means a subdivision of course (Baum and Lizieri, 2002).

Credit – The value assigned to ten notional hours of learning and assessment for a student (University of Johannesburg – Diploma in Education, Training and Development Practice Study Guide, 2005).

Credit hours (notional hours of learning) – The learning time that is conceived to be adequate for a student to complete the defined outcomes for the curriculum to obtain a qualification, and includes concepts such as contact time and time spent on individual learning (University of Johannesburg – Diploma in Education, Training and Development Practice Study Guide, 2005).

Curriculum – The subjects included in a course of study or taught at a particular school, college or university leading to a qualification. From comprehensive point of view, a curriculum includes the documented objectives, learning themes, course subjects, evaluation techniques and their integrated organisational pattern designed to impart knowledge in a particular area of study (Oxford Advanced Learner’s Dictionary of Current English, 1995; and Murphy, 1999).

Curriculum development – The conscious effort of putting together subjects to be taught in a course of study in response to needs of the industry and students, most often for the first time; or the process of improving an existing course of study in response to opportunities, or emerging needs and new challenges the industry was facing (see Galuppo and Worzala, 2004).

Education – The process of training and instruction for students which is designed to give knowledge and develop skills (Oxford Advanced Learner’s Dictionary of Current English, 1995).

Examination – Means a formal student assessment, conducted within an officially designated examination session, usually invigilated, and bound by time constraints (University of KwaZulu-Natal, Faculty of Engineering Handbook, 2008).

Globalisation – The process of covering or affecting the whole world (Oxford Advanced Learner’s Dictionary of Current English, 1995).

Holistic – A comprehensive way that leads to an understanding of the relationships among system components as well as an understanding of the individual components themselves (Murphy, 1999).

Needs – Things required by people because they are important or useful (Oxford Advanced Learner’s Dictionary of Current English, 1995).

Paradigm – A set of beliefs forming a pattern or model of reality that provides the basis for judgements (Oxford Advanced Learner’s Dictionary of Current English, 1995).

Practitioner – A person who regularly does a particular activity, especially one requiring skill (Oxford Advanced Learner’s Dictionary of Current English, 1995).

Profession – A vocation or calling in which the members render a service to society. The service rendered is reliant upon a pre-existing body of knowledge, the skilful application of procedures, and for which there is a responsibility to observe standards of conscientious and ethical conduct on behalf of those who are recipients of or are affected by the service (Murphy, 1999).

Professional – A person qualified or employed in one of the professions (Oxford Advanced Learner’s Dictionary of Current English, 1995).

Property – Term used interchangeably with real estate and it means land and its improvements (Wurtzebach and Miles, 1994). This term is popular in UK and other British Commonwealth countries (Baum and Lizieri, 2002).

Property industry – Encompasses all parties and things involved, influencing, and affected with property at local, national and international levels including: property professionals and practitioners; property users; property owners; property developers; property investors; attorneys; estate agents; building contractors; building material suppliers; land resources;

government; and financial institutions (see Roulac, 1996; Hauptfleisch, 1999; and Schulte, 2003).

Real estate – Term used interchangeably with property and it means land and its improvements. This term is popular in the USA (Baum and Lizieri, 2002).

Relevant – Appropriate in the circumstances and for the society (Oxford Advanced Learner's Dictionary of Current English, 1995).

Society – A community of people living in a particular country or region, sharing similar values (Oxford Advanced Learner's Dictionary of Current English, 1995).

Student – A person usually over the age of sixteen who is studying at a university or college (Oxford Advanced Learner's Dictionary of Current English, 1995).

System – A set of interacting elements in which the behaviour of each one has an effect on the behaviour of the whole (Capra, 1996).

Systems approach – The concept that elements of a related set (or a system) must be addressed as a unified and integrated entity in order to understand their interrelationships or predict their purpose and function (Ackoff, 1981).

Topic – Means a course subject or a subdivision of a course. The term is common in the USA (see Black and Rabianski, 1999 and 2003).

Transformation – The process of changing the appearance or characteristics of some thing completely (Oxford Advanced Learner's Dictionary of Current English, 1995).

University – The highest level of educational institution, in which students study for degrees and academic research is done (Oxford Advanced Learner's Dictionary of Current English, 1995).

1.8 Abbreviations

AACSB – Association to Advance Collegiate Schools of Business
AIDS – Acquired Immunity Deficiency Syndrome
APC – Assessment of Professional Competence
ARES – American Real Estate Society
ARICS – Associate of the Royal Institution of Chartered Surveyors
BBA – Bachelor of Business Administration
BBS – Bachelor of Business Studies
CBD – Commercial Business District
CEEC's – Central and Eastern European Countries
ERES – European Real Estate Society
FRICS – Fellow of the Royal Institution of Chartered Surveyors
ETQA – Education and Training Qualification Authority
IRES – International Real Estate Society
IPD – Investment Property Databank
IT – Information Technology
MAVPM – Master of Arts in Valuation and Property Management
MBA – Master of Business Administration
MBP – Master of Business (Property)
MBSVPM – Master of Business Studies (Valuation and Property Management)
MLERE – Master of Land Economics and Real Estate
MP – Master of Property
MPLE – Master of Philosophy in Land Economy
MPS – Master of Property Science
MRE – Master of Real Estate
MREC – Masters Real Estate Curriculum
MRED – Master of Real Estate Development
MREE – Masters Real Estate Education
MRICS – Member of the Royal Institution of Chartered Surveyors
MSBE – Master of Science in Built Environment
MSc – Master of Science
MSEM – Master of Science in Estate Management
MSLMRE – Master of Science in Land Management and Real Estate
MSP – Master of Science in Property
MSPDM – Master of Science in Property Development and Management

MSPS – Master of Science in Property Studies
MSRE – Master of Science in Real Estate
MSREBM – Master of Science in Real Estate and Business Management
MSRECM – Master of Science in Real Estate and Construction Management
MSRED – Master of Science in Real Estate Development
MSREULE – Master of Science in Real Estate and Urban Land Economics
NMMU – Nelson Mandela Metropolitan University
NPEC – National Property Education Committee
NQF – National Qualifications Framework
NSB – National Standards Body
OBAU – Obafemi Awolowo University
RICS – Royal Institution of Chartered Surveyors
RMIT – Royal Melbourne Institute of Technology
RQS – Registered Quantity Surveyor
SA – South Africa
SAPOA – South African Property Owners Association
SAQA – South African Qualifications Authority
SGB's – Standard Generating Bodies
TEGOVAFA – The European Group of Valuers of Fixed Assets
UCLAS – University College of Lands and Architectural Studies
UCT – University of Cape Town
UFS – University of Free State
UK – United Kingdom
UON – University of Nairobi
UP – University of Pretoria
USA – United States of America
UW – University of Witwatersrand

1.9 The importance of study

Real estate education deals with a significant sector of the economy called the real estate industry. The importance of real estate to the national economy in South Africa can be viewed from different perspectives.

Firstly, the importance of real estate can be viewed in terms of its value contribution to the national economy. Based on information supplied by Investment Property Databank (IPD) South Africa, as of the year 2007 the total market value of commercial property in South Africa was over R100 billion (www.ipd.com/southafrica) (15.09.2008). According to South African Property Owners Association (SAPOA) (which is a recognised representative body and official voice of the commercial and industrial property investors in South Africa), its members own a combined portfolio in excess of R150 billion (www.sapoa.org.za) (15.09.2008). SAPOA members control approximately 90% of all commercial and industrial property in South Africa. These figures show substantial contribution of real estate to the wealth, social and economic development of the country. It is also important to note that the quoted figures do not include the value of residential property.

Secondly, the importance of real estate can be viewed from employment creation point of view. Real estate is strongly linked to the construction industry. In 2001, as many as 520,000 people were employed by the construction industry (CIDB, 2004) while in 2007 the figure increased to 966,000 (Statistics SA, 2007). This trend reflects the increased reliance on subcontracting and particularly on labour only subcontractors (CIDB, 2004). From these statistics, it is noted that real estate education has an important role to play in producing competent professionals who will be able to competently safeguard and look after this significant sector of the economy which is worth billions of Rands. The study will contribute towards this role through postgraduate real estate curriculum improvement.

Thirdly, the importance of real estate can be viewed from its social and economic impact on people's lives and society in general (Wurtzebach and Miles, 1994). Real estate offers shelter to human beings, business and social activities. Further, the study of real estate involves land issues. Economically, land is regarded as one of the four major factors of production along with labour, capital and management (Appraisal Institute, 1992). Unfortunately, the supply of land is fixed. From this it is evident that real estate is a scarce resource and plays a crucial role in society and people's lives.

South Africa is a culturally diverse country consisting of people with different values and aspirations regarding real estate. By mid-year of 2008, the total population estimate of people increased to 48,687,000. This figure is comprised of 38,565,100 Africans (79.2%); 4,379,200 Coloureds (9%); 1,243,500 Indian / Asian (2.6%); and 4,499,200 Whites (9.2%) (Statistics

SA, 2008). Its cities are experiencing urbanisation problems just like other cities in the world which include: urban decay, crime and increasing travel times from residences to work places (Ghyoot, 2002; and Prinsloo, 2004). Increasing democratisation, the AIDS pandemic, and diminishing environmental quality are also prevalent. With all these new challenges being experienced in society, it is appropriate for higher education in real estate to adapt accordingly as these have equally affected the real estate industry.

It has also been observed that institutions of higher education tend to develop curricula that are similar to other peer institutions irrespective of geographic, cultural, historical and political differences within their respective localities (Murphy, 1999). This may have to be checked as it may lead to the development of curricula that are incompatible with the needs of the local community and industry if the process is not handled properly. This study will address this criticism by ensuring that postgraduate real estate education in South Africa is also relevant in the local context.

Furthermore, it has been observed in the USA that universities to some extent are not preparing the students adequately for the work they will likely be required to do when they join the industry (Butler, Guntermann, and Wolverton, 1998; and Manning and Roulac, 2001). This observation may also be applicable to South Africa. This is undesirable at a time when the industry and society are facing numerous new challenges that require professionals to intervene with the objective of developing solutions to improve people's lives. The findings of this study will support to change postgraduate real estate curriculum so that it adequately prepares the future professionals to deal with problems at the workplace more competently.

The purpose of professional education is to make a lead in developing solutions for society's problems with the objective of improving the quality of people's lives (Manning and Roulac, 2001). This study will contribute towards the discovery of ways how postgraduate real estate education could be made more focused in its mission to address real estate related problems in society as well as improve effectiveness of real estate professionals. Hoppe (1967); Patterson (2000); McCrea (2001); and Shelton (2002) applauded education in real estate for making real estate professionals better practitioners.

Of importance, the results of the research will support the improvement process of postgraduate real estate education course content through continuing research and dialogue in the future. In that process, suitable postgraduate real estate curriculum could be developed to create a basis of debate among educators, practitioners in the industry and other interested parties. It is believed that critical assessment of postgraduate real estate education in South Africa will create the beginning of more research in related areas that will lead to more discoveries as to the ways of making higher education more relevant to the industry and society in general.

To complete the research process, a postgraduate real estate education model has been developed based on industry requirements. The model which will be made available to the universities offering the courses shows how a socially acceptable curriculum can be produced to meet student and industry requirements in the future. The intention is to illustrate to the institutions delivering the courses a scientific process which can be followed to make postgraduate real estate education remain relevant to industry and society. The actual responsibility of improving the curricula rests with the universities offering the courses.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

The property discipline today is subjected to extraordinary forces that redefine its attributes and introduce new expectations for those with property involvements (Roulac, 2002). Some of the prominent factors (forces) which have caused change in the real estate industry include: urban form changes and problems; globalisation; information technology advances; environmental concern; political, legal, social, and economic factors. These forces can be viewed as influential elements of university real estate curriculum development processes. A comprehensive understanding of these factors can support real estate educators in the processes of curriculum review and development.

In this chapter the following relevant areas are reviewed in order to set out the theoretical framework underpinning the study:

- Real estate discipline
- Critical issues of real estate education
- Influential elements of real estate curriculum development

2.2 Real estate discipline

2.2.1 Definition and characteristics of real estate

Wurtzebach and Miles (1994) defined real estate (traditionally) as physical land as well as structures and other improvements that are permanently attached. This concept of bricks-and-mortar is probably the most common approach to the definition of real estate. However, the space or the void is the essence of real estate and not the solids. In addition, the three-dimensional concept of real estate (i.e. as artificially delineated

space) is important to the understanding of the nature of real estate (Graaskamp, 1977; and Pyhrr *et al.*, 1989). Furthermore, this concept becomes more relevant with the introduction of time as a fourth dimension. Consequently, real estate as a product is today appropriately viewed as a space-time unit. It is also significant to note that the investor in real estate is very interested in money. Therefore, it is appropriate to correctly conceptualise real estate as conversion of space-time into money-time, or money flows over time. Viewing real estate investment as conversion of space-time into money-time is fundamental to investors since it shows the perishable nature of real estate. As space-time can not be stored, it is therefore essential for real estate investors to avoid vacancies (Graaskamp, 1977; and Pyhrr *et al.*, 1989).

The main characteristic of real estate is its association with land. All the features that distinguish real estate from other assets originate from this association. Some of these key features include: immobility, unique location, scarcity and high acquisition costs of real estate. In addition, lack or incomplete information and poor education characterise real estate markets (Pyhrr *et al.*, 1989; and Wurtzebach and Miles, 1994). As a consequence, most property investors either expend considerable effort in time-consuming research or delegate responsibility to an expert since they lack the interdisciplinary education required to make sound investment decisions. It is these essential characteristics of real estate which have contributed to the existence and development of real estate education into an area of specialisation in order to produce knowledgeable professionals who will support the industry and society to effectively deal and manage this complex asset.

2.2.2 Changing real estate discipline

2.2.2.1 New values

The pressure which extraordinary forces have exerted on the property industry and society over the past years has caused the property discipline to change. These forces have changed people's and organisations' values which represent the foundation of the property discipline (Roulac, 2002). Values are essential in property involvements because they dictate property outcomes which are eventually reflected in societal spatial patterns. The societal spatial patterns emerge from: the how, where, when, which, what and why questions people and organisations ask about property in society and industry. Roulac (2002) added that the societal spatial patterns represented the penthouse of the property discipline. It is also significant to realise that property outcomes are the by-product of how values are translated into societal spatial patterns through a multitude of institutions, processes, regulations, practices, as reflected in the multiple elements of the property discipline. Seventeen elements which formed an edifice of the property discipline, built floor by floor, starting from values and ultimately leading to societal spatial patterns were identified by Roulac (2002). These elements are: values; world view; political economy; environmental institutional context; stakeholders; technology; paradigms and framework; theory, concepts, tools, and techniques; information; players and decision makers; property functions and decisions; markets: property, services, regions, capital, and market space; form of the built environment; places and spaces; interests in property; real property and virtual property; and societal spatial patterns.

With changing values which have resulted from emerging forces in society and industry, different trends of societal spatial patterns manifested in new property investment decisions have equally emerged. Further, the dynamic forces of change realigning the environments in which the real estate professional operates are similar to those occurring within society, the global economic system, and the financial services markets in particular (Roulac, 2002). As a consequence, the real estate professional has similarly been forced to change since there are new demands on the part of those delivering property goods and services. These new pressures include the need to “bridge” the traditional world of property and the cultures of the new participants. Thus, those who would be effective in their property involvements in the future must blend the traditional with the innovative, the entrepreneurial with the fiduciary, private sector initiative with public sector policy concerns, and the immediacy of specific project focus with the continuity of going concern enterprise and institutional time horizons (Roulac, 2002).

2.2.2.2 New decision makers

To complicate matters, the types of people making property decisions in the property industry have also changed. Roulac (2002) noted that previously, the property discipline was dominated by real estate people who knew little of business, finance and technology. In the twenty-first century, by contrast, real estate is increasingly dominated by finance and technology people who have much less knowledge of real estate. Indeed, one author describes corporations’ space use decisions as dominated by “people who hate real estate” (O’Mara, 1999 cited in Roulac, 2002). However, not appreciated sufficiently by these people is that property, rather than being an aggravation or even an irrelevancy, can be the means to achieving extraordinary business outcomes.

Of significance, the property discipline embraces a multitude of stakeholders in property decisions, beyond the primary decision maker who initiates and controls the decision. However, Roulac (2002) argued that while sensitivity to the system consequences of property is of great importance to both the success of a specific transaction and also to society broadly, stakeholders' concerns were not often explicitly considered in the property decisions.

2.2.2.3 Required knowledge

The evolution of the property discipline embraces multiple perspectives of licensing, professional designations, university-based education, adult continuing education, applied courses, theoretical research, applied research, multi-faceted application of theory and learning as well as multiple public interest concerns (Roulac, 2002). Further, the contemporary orientation of the discipline is reflected in the different paradigms employed for considering property, including economics, finance, geography, engineering, highest and best use, city planning, brokerage, legal, corporate decisions, the consumer transaction, and a multidisciplinary approach.

However, in the twenty-first century a larger view of the requisite knowledge for the property discipline is significant considering changes which have taken place in the property business and in particular given the changing composition of decision makers who exert the most influence upon critical decisions concerning the design, creation and use of the built environment. Roulac (2002) noted that the fundamental disciplines, which can be considered to embrace the tools, theories and concepts that a real

professional must know as a precondition to be effective in property involvements are: accounting, managerial accounting, valuation, architecture, archaeology, behavioural economics, computer science, computer technology, construction management, decision science, decision theory, ethics, environmental science, economics, managerial economics, engineering, finance, geography, history, history of design, history of science, humanities, information theory, institutional economics, investment, land economics, landscape, law, management, management science, marketing, philosophy, planning and control systems, political science, project management, psychology, public administration, quantitative methods, regional and urban planning theory, religious studies, sales, science, sociology, spirituality, strategy, statistics, transportation, and urban land economics. In addition, for a real estate professional to be effective in property involvements exposure to certain allied sectors of the economy, whose goods and services are utilised and employed in creating real properties and delivering property services is also required (Roulac, 2002). These critical allied sectors are: advertising, agriculture, building materials, communications, energy, equipment and appliances, furniture, health care, hospitality, insurance, mining, security, transportation, timber, and utilities. Additionally, to be effective in the property sector it is necessary to have an understanding of institutional relationships, the technical tools necessary to perform fundamental tasks, and the personal style and attributes necessary for effective performance. Further, knowledge of the basic business environment – who the players are, how transactions work, the major forces that influence decisions, the fundamentals of the business – is a necessary condition for effective property participation for a new property professional. At the same time, superior application of managerial skills and techniques should go hand in hand with such business environmental knowledge. Critical for a real estate professional to be effective in

property involvements in the twenty-first century is also to appreciate the importance of the global context. Of significance, real estate encompasses the physical structures that house society's personal, commercial, recreational and institutional involvements and interactions. As a consequence, any factor relevant to the human condition is relevant to property. This knowledge can be acquired by real estate professionals from schools, by personal inquiry, and through experience (Roulac, 2002).

This picture of necessary knowledge in a changing property discipline requires a real estate professional to understand history of the property discipline, including knowledge of forces that have shaped contemporary places, spaces and urban form. Indeed, effective property involvement then employs multiple perspectives and skill sets to address the crucial questions for effective property involvements, and applies the capacity to reframe questions, select appropriate methodologies and tools, gather the requisite information, and be self-educating to learn what one needs to know to address the problems one encounters (Roulac, 2002).

The required knowledge attributes which a real estate professional need to balance and integrate in order to be successful in the property sector in the twenty-first century and in the global context are summarised and adapted from Roulac (2002) as follows:

- **Business environmental knowledge:** Understanding of the “territory” fundamental to successful participation in any business is particularly crucial in the property sector.
- **Strategic outlook:** As rapidly accelerating pace of change within the structure of the property business is causing traditional relationships to crumble and new power alliances to emerge, positioning one's self and one's organisation strategically assumes importance.

- **MBA technical skills:** The skills that are developed through the MBA learning experience – particularly the analytical methods for problem solving, systems and procedures to achieve economy of operation and control of performance, and forecasting techniques to plan future operations and facilitate capital budgeting decisions – have an important role in the “tool kit” of the property manager.
- **Entrepreneurial initiative:** The property business is inherently entrepreneurial.
- **Institutional style:** The increasing dominance of the role of capital control by institutions mean that an important prerequisite for effective operation in the property sector will be appropriate “presence” in the institutional settings. This requirement is both a departure from past practices and alien to many who are involved in various facets of the property business.
- **Managerial orientation:** More competitive conditions, larger organisations and higher expectations of more sophisticated participants place a premium on a managerial orientation to the business. A structured approach emphasising planning systems and controls is becoming increasingly important.
- **Marketing flair:** The property business is ultimately concerned with the merchandising of space in the context of the relationship of supply and demand. A manager’s ability to perceive the unrecognised opportunity, to structure creative purchase terms, and to perform effectively the many functions involved in the property process determine his capacity to answer such critical questions as: What do people want? What factors influence decisions? What else is available? How does our space compare to that of the competition? How can we differentiate and merchandise our product to achieve a premium return? Marketing flair can be instrumental in promoting space and achieving superior returns.
- **Personal skills and people orientation:** While the “people factor” is important in any number of businesses, it is especially important in property, given the influence that property decisions have on one’s personal and organisational life, as well as the role that emotional factors play in many property decisions. Thus, creating the appropriate personal rapport can often be fundamental to achieving good property results. At the same time, such basic personality traits as creativity, integrity, persistence, persuasiveness, diligence and attention to detail, are all factors that increase one’s likelihood of success in the property business.

Unfortunately, the perspectives of property knowledge requirements mentioned above transcend the scope of the majority of undergraduate and graduate real estate curricula and some are not even part of the property discipline. As a consequence students graduating with a specialisation in real estate are not exposed to all these topics and skills. The challenge today is then to determine what relevant knowledge is but not part of the property discipline and what is in fact part of the property discipline. Roulac (2002) concluded that many approaches to the discipline are overly narrow in focus and limited in scope, and more specifically, the traditional approaches.

2.3 Critical issues of real estate education

Gallupo and Worzala (2004) indicated that real estate education has been taught since the early 1890s. Another author (Davies, 1958 cited in Nourse, 1995) noted that formal education in real estate began with a lecture course at the West Side YMCA of New York in 1904 resulting from activity by the Real Estate Board of Brokers of New York. This means that real estate has now been taught for nearly a century. Therefore, in the context of this research, a review of literature on critical issues of real estate education offers useful insights on real estate curriculum development over the past years as well as curriculum requirements for the future.

In this section the following relevant areas are reviewed:

- Education
- Real estate education approaches
- Real estate curriculum
- Guides for real estate education
- Real estate body of knowledge

2.3.1 Education

2.3.1.1 The definition of education was given by the Oxford Advanced Learner's Dictionary of Current English (1995) as a process of training and instruction that is designed to give knowledge and develop skills. Education is more concerned with exposing students to theory and principles and providing fundamentals necessary for application to a wide variety of activities while training presents techniques and methods of approaching specific problems (Brown, 1981). Real estate education is differentiated from other types of education in that it refers to courses that specialise in real estate topics or contain a substantial element of real estate material (Baum and Lizieri, 2002). From society and industrial point of view, the definition of education identifies the need for university real estate education to instruct and provide appropriate training to real estate professionals that will develop their knowledge and skills by offering well designed curriculum.

2.3.1.2 The demand for education by individuals has reasons. Hakfoort, Berkhout and Manshanden (2003) questioned why individuals spend time and money on education when there are obvious opportunity costs to this behaviour. Neo-classical economic theory provides a possible explanation. It assumes that individuals are utility maximisers. If education would not provide utility, there would be no demand for it and the market for education would not exist. As a result, education must have some benefits. According to the so-called human capital theory, the utility derived by participating in education is partly enjoyed in the short run; there is a consumption element in education derived from the pleasure of learning. In addition, the demand for education is also motivated by dynamic considerations. Education can be regarded as an investment of current time and money for future (additional) income that is the result of an increase in productivity. Further, education may also serve as a signal to employers of the innate capabilities of an individual, or as a selection mechanism of employees for different positions in the firm.

Based on the considerations for alternative approaches to the demand for education, it is therefore possible to abstract four different motives for participating in education programmes. Education can either be a consumption good, an investment, a signal to employers, or a selection mechanism for employers (Hakfoort, Berkhout and Manshanden,

2003). In reality, these motives which drive the demand for education are likely to go hand in hand.

2.3.1.3 The role of university education in society is significant. Aroni, Gradus and Lazin (1988) edited studies that investigated the reasons for the existence of universities and university education. The three editors together with the late James S. Coleman of the University of California at Los Angeles brought together scholars studying the impact of universities on various aspects of development from less developed countries of Africa, Asia and South America and the more developed nations of North America, Europe and the Far East at a conference on the role of universities in developing areas at the Hubert H. Humphrey Institute for Social Ecology at Ben Gurion University of the Negev in Beersheva, Israel in December 1983. Over forty scholars from fourteen countries presented papers on diverse subjects including the role of the universities and university education. Participants came to the conclusion that many universities perform similar functions in their respective environments despite the significant differences in economic development, culture, and standard of living between countries. In addition to the traditional function of disseminating knowledge and education, universities as institutions of higher learning supported the society to cope with certain social and environmental needs, the training of professionals, regional growth and development, and nation building (Aroni, Gradus and Lazin, 1988).

However, Manning and Roulac (2001) argued that while it is appreciated that a number of innovations have been introduced to improve university education to serve society and the industry, it is widely recognised that university education is being slower to respond than other institutions in society to recent social, technological and economic changes. The lesson to be learnt from this is that university real estate educators should constantly find ways of adding value to university education so that it can remain relevant to the students and industry in future.

2.3.1.4 Motives for professional real estate education to the real estate industry and professionals were outlined by Hakfoort, Berkhout and Manshanden (2003) who did a study on the demand for professional real estate education in the Dutch real estate industry. The research was based on a survey among managers of six types of real estate firms, alumni of the main postgraduate course in The Netherlands and persons that had shown an interest in following such a course. The results suggested that human capital and signalling arguments

are the most important motives for real estate professionals to take part in real estate courses, while firms are motivated by screening and firm capital arguments. Hakfoort, Berkhout and Manshanden (2003) outline the motives for attending professional real estate education from the viewpoint of firms and individuals as follows:

- a. The knowledge deficiency motive: there is a gap between the knowledge of the employee or the firm and the knowledge and skills that are perceived as necessary.
- b. The network motive: employees add to their network by following a course with employees from the same industry, which may benefit both the employee (in terms of job opportunities) and the firm.
- c. The perks motive: for many specialised positions in the real estate industry, only a few persons are “in the market”, and in this segment head-hunters approach people on a regular basis.
- d. The labour market motive: following a course allows individual employees to increase their opportunities in the labour market. Implicitly, the education is used as a signal to employers, showing the abilities of the individual and their likely productivity.
- e. The selection or screening motive: firms use the results obtained in courses or the degree obtained in the course as a selection argument to promote “high potential employees” from middle to top management.

The significance of the study by Hakfoort, Berkhout and Manshanden (2003) to real estate educators is that it offers insight for the reasons why students and employers are interested in their course offerings. Based on these motives real estate educators can strive to design relevant curricula.

Anderson and Webb (2000) also conducted a related study to determine if education of real estate salespeople maximised the expected value of the real estate brokerage firm. The results of their study support the general observations noted by Hakfoort, Berkhout and Manshanden (2003) that investing in education and professional development has the potential to yield great benefits to individuals, firms and the real estate sector as a whole.

2.3.2 Real estate education approaches

Real estate education approaches are different throughout the world. Schulte and Schulte-Daxboek (2003) differentiated the approaches as: (a) the “interdisciplinary

approach” (which is practised in Central Europe); (b) the “surveying approach” (which is typically in the UK and other countries of the British Commonwealth); and (c) the “investment and finance approach” (which dominates in the USA). To add, Schulte (2003) indicated that in the future the interdisciplinary approach of real estate education and research will strengthen due to some of the following reasons:

- In continental Europe, including the transition economies and in developing countries in Africa, Latin America and South-East Asia, real estate is seen not only from the perspective of an investment vehicle. The influence of researchers from these countries within the IRES network will become stronger in the years to come. This will have an effect on real estate education and research focuses worldwide.
- The other factor pointing in the same direction will be “the export of the chartered surveyor to the USA.” An American Association of Chartered Surveyors was founded in 2003. As the chartered surveyor dedication gets more and more attractive worldwide, other USA universities will seek RICS accreditation for their real estate programmes but this requires a broader approach to real estate education than investment and finance.

Gallupo and Worzala (2004) indicated that it was in the late 1970s and early 1980s when a major debate began to take place and real estate education began to take two separate paths: multidisciplinary approach (Graaskamp 1977, 1978, and 1984) and financial management approach (Dasso and Woodward, 1980; and Boykin, 1985). These thought leaders started to challenge whether dominance of the finance perspective is the appropriate and preferred paradigm for property involvements. Real estate educators were in disagreement on the state of the discipline. It is in the last quarter of the twentieth century when a clear schism between the British and American perspectives to education concerning real estate emerged (Roulac, 2002). By the end of the twentieth century, a disproportionate number of American real estate academics placed a primary emphasis on finance in their approach to the subject while the British approaches continued to reflect a property primacy, with a broader view of the discipline. However, certain real estate education programmes in continental Europe seek to bridge the property emphasis of the UK and the financial emphasis of the USA. An interdisciplinary approach, bringing together the multiple perspectives of business management, finance, and the school of the built environment, prospectively offers a more balanced and richer course of preparation (Roulac, 2002).

It is significant to note that real estate education approaches are critical to students and employers in the sense that they determine the type of real estate education a graduate will receive in the end. If a student pursues real estate studies in the USA, most likely will take courses from and study predominantly with professors housed or affiliated with the department of finance in a college of business. Such a curriculum can provide a comprehensive exposure to the multiple disciplines of business, which exposure is very relevant, for each property is itself a business. However, a business school of study will omit the learning that could be obtained through a UK School of the Built Environment, with its heavy emphasis on the classic surveying curriculum, involving an orientation to basic close-to-the-land disciplines. Consequently, strange as it might seem, the majority of graduates of USA real estate programmes may be blissfully ignorant of the subject of geography, generally, and how it relates to issues of property and place specifically (Roulac, 2002).

On the other hand, if students have chosen to study real estate in UK, they will have much exposure to the real of real estate, following from the classic surveying tradition. These students in the school of built environment will have much more particular knowledge of the tangible than would their American counterparts. This background better prepares such students for hands on involvement with land and buildings. However, the disadvantage of emphasis taken by the classic School of the Built Environment is that graduates tend to have much reduced exposure to business administration and international context. An interdisciplinary approach offers a compromise between the American and British perspectives to the study of real estate (Roulac, 2002).

By comparison, Roulac (2002) concluded that real estate curricula of major institutions that aspire to educate people (a) to make informed decisions concerning society and (b) to assume management and leadership positions within society, would do well to have a programme that

emphasises property. This priority suggests, then, that the higher level orientation of the British system should be emphasised over the lower level of the American system.

Black *et al.*, (1996) also described real estate education as being both multi-disciplinary and interdisciplinary in nature. It is multidisciplinary because competent understanding requires reference to a combination of disciplines e.g. civil engineering, architecture, marketing, economics, finance, law and management. It is interdisciplinary because it joins concepts and theories of several disciplines to create a new whole e.g. discounted cash flow analysis is the result of interdisciplinary melding of accounting, finance and economics. As a result, it is recommended that real estate should be taught as a process of dynamic interactions, rather than as functional areas and historical numbers and facts. In support of the multidisciplinary approach to real estate education, Graaskamp (1977:63) stated that “through this approach the University of Winsconsin programme expects to produce a master who has the creativity of Leonardo da Vinci, the sensitivity for the natural world of John Muir, and the political humanity with cash management for profit of James Rouse”.

2.3.3 Real estate curriculum

Black *et al.*, (1996) emphasised that any well-rounded real estate curriculum should reflect the interdisciplinary and multidisciplinary nature of the field, although a curriculum can be designed in many forms. In addition, a real estate curriculum has to recognise the different constituents whose needs and concerns must be met. Furthermore, the aim of the curriculum should be to provide effective real estate decision makers, managers armed with the concepts, techniques and skills required to solve the problems of today and tomorrow.

As society moves into twenty-first century, property, as well as who work within it and are influenced by it, will undergo singular changes. Therefore, central to property involvements in the future will be the capacity to recognise, adapt and lead change. According to Roulac (2002), these changes will:

- Modify traditional patterns of space use and the functions within types of property;
- Introduce new influences on space locations decisions;
- Redefine the parameters of real estate value;

- Change the basic structural demand, resulting in less, in the aggregate, in different locations and of different types;
- Impact the strategies, structures and systems of organisations serving those involved in and using real estate;
- Create new needs for professional services;
- Elevate to a new standard the requisite knowledge, skills and style of professionals working in the real estate sector; and
- Render obsolete many of yesterday's accepted principles and practices.

Any property curriculum that fails to prepare professionals for the implications of these changes, by definition is, dysfunctional (Roulac, 2002). The rest of this section identifies a number of significant issues in relation to the real estate curriculum.

2.3.3.1 Real estate curriculum change

In reviewing the literature concerning demands for real estate curriculum change, two basic issues are most conspicuous. The first concerns the curriculum paradigm (What knowledge and skills should be taught) (Butler, Guntermann and Wolverson, 1998). The intention of a curriculum is to graduate students who are better prepared to assume responsible positions in the real estate industry. To address this concern it is important for real estate educators to seek input from leading real estate practitioners to assist in defining knowledge and skill goals of a curriculum. Some of the key skills and knowledge needed as part of a real estate curriculum, which were identified in a study of real estate professionals in the USA are summarised from Black *et al.*, (1996) as follows:

Skills:

- a. Negotiation - a critical skill needed for professionals to utilise in dealing with internal bureaucracies of an organisation as well as in handling external relations.
- b. Information processing - abilities associated with identifying information needs, obtaining information, and transforming information into models for decision making.
- c. Management - needed in managing people and processes, mustering resources and handling administrative tasks.

- d. Communication - needed to perform tasks involving persuasion as well as presenting information and materials to others.
- e. Problem-solving - involves applying abilities and skills to resolve unique situations that require innovative solutions as well as to efficiently resolving common challenges encountered in the field.

Knowledge:

- a. Market evaluation
- b. Corporate and business environments
- c. Physical aspects of real property
- d. Laws, regulations and legal procedures
- e. Financial dimensions of real property

The second issue concerns the learning paradigm (How should the curriculum be taught) (Butler, Guntermann and Wolverson, 1998). One approach has been identified as the text book model which involves adopting a text book and teaching whatever is in the book (Epley, 1996). The typical learning environment for this approach is passive in nature, built upon the lecture-discussion model, which may or may not get students involved in the learning process depending upon the interest and skill of the instructor. This approach to learning has been criticised as to whether students can be prepared well to function successfully in the industry due to its limited ability to confront reality. Those who hire graduates expect their new hires to be able to work in an active environment of changing concepts, new technology and collaborative relationships. To address this challenge Butler, Guntermann and Wolverson (1998) suggested that the learning paradigm requires a change from the traditional passive educational delivery system into the disquieting arena of active learning and real-world experience.

2.3.3.2 Composition of real estate curriculum

Black *et al.*, (1996) provided a blueprint for 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 field required to produce a competent real estate professional. Courses that cover specific subjects add knowledge in the field by embracing concepts, theories, factual information, techniques, and skills. Each course focuses primarily

on one or two of the cornerstone elements but links with knowledge found in other environments.

Four cornerstones or fields of study for a comprehensive real estate curriculum are summarised from Black *et al.*, (1996) as follows:

a. The market environment

The market-oriented portion of the curriculum generally focuses on the broad topics of market analysis and valuation. Specifically, the student must learn the underlying economic theory to understand the major variables affecting demand and supply for each type of property market. This knowledge allows the student to analyse the markets and make judgements about further directions of market indicators such as quantity of space demanded and supplied, price, rent, absorption, occupancy levels, and vacancy levels.

b. The financial environment

The finance section of the curriculum is perhaps the easiest to define, given the traditional link between real estate and finance as well as the proliferation of available teaching text books. Courses cover the mechanics of finance, such as time value of money, together with descriptive elements, such as the various types of mortgage instruments. Real property finance encompasses both the analysis of debt and equity instruments.

c. The legal and public policy environment

Courses focusing on the legal and public policy environment embrace both the regulatory aspects of government involvement in real estate operations and the total role public institutions play in the operation of real property markets.

d. The physical and development environment

That portion of the curriculum focusing on the physical and developmental environment involves subjects dealing with land resources, site development, design, engineering, management, developmental processes, and environmental impact. Some courses are designed to teach such topics as site and structural analysis, development design, construction management or environmental management.

2.3.3.3 Real estate curriculum presentation

Real estate courses can be presented by real estate educators by using one of the three available options. These options are summarised below from Black *et al.*, (1996) as follows:

- a. The first option is a service orientation that involves a one or two-course package. It provides a broad approach to real estate analysis with business and professional applications. This option is the most realistic for many business schools and can be handled by one faculty member trained in real estate analysis.
- b. A second, more pragmatic option involves the development of four to six real estate courses presented as a major of concentration for BBA or MBA students. Besides a principles course, this type of programme should include other basic courses covering real estate topics such as investment analysis, mortgage finance, real property law and public regulation, market analysis and real property asset management. These topics should be focused on preparing the business manager or executive to deal with real estate, an approach that more clearly identifies real estate as an integrative function of management. Four faculty members in real property are needed to staff this type of arrangement, or at least two full-time faculty members and access to several qualified part-time faculty willing to teach on a regular basis.
- c. The third option is a comprehensive real estate programme offered and administered by a full academic department, and may include coursework both within the college of business and from other academic units such as engineering and architecture. This option involves the creation of a full programme to prepare business managers in making real estate decisions and also prepares professionals for a variety of real estate specialisations. In addition to courses offered in the pragmatic option above, advanced coursework for example in asset valuation, commercial property management and international real estate investment can be offered. To implement such a comprehensive curriculum, access to a faculty of eight to ten real estate specialists and to a pool of part time instructors active in real estate practice is required. Clearly the third option is optimal for the professional constituency of the field and to delimit boundaries that define the breadth of real estate studies.

Black *et al.*, (1996) also highlighted problems related to curriculum implementation and presentation. In this regard, they noted that the ability to implement a comprehensive curriculum might be constrained in various academic environments by financial resources, faculty manpower and institutional structure.

2.3.3.4 Real estate curriculum review

Real estate curriculum review is relevant in order for real estate education to continually meet industry requirements (Callanan and McCarthy, 2003). This is achieved through continuing change and development of real estate teaching programmes. The property industry is a changing environment with new regulations and requirements being introduced regularly. For the graduates to be at the leading edge of the industry, the educators need to maximise the use of the student's time and prepare them to be adaptable to a changing workplace. This requires regular curriculum review in order to ensure that educators are delivering the best programmes possible.

In order to meet industry needs through curriculum review, Callanan and McCarthy (2003) conducted a study on property education and industry requirements in New Zealand. The survey was part of regular evaluation and curriculum review process of valuation and property management education at Massey University. They indicated that the most appropriate way of obtaining feedback on the valuation and property management course was to survey past and present students and their employers. Final year Bachelor of Business Studies (BBS) (Valuation and Property Management) students at Massey University were surveyed on their perceptions of the property professions and their preferred area of employment. Recent graduates were also surveyed to determine how the BBS (Valuation and Property Management) degree prepared them for a career in the property industry. Finally industry employers were surveyed to assess the theoretical and practical knowledge of recent graduates. The research revealed that graduates feel that more practical fieldwork should be included in their programme, whereas employers feel that graduates lack sufficient practical expertise to be able to relate theory to practice. The results were in accord with the current paradigm shift in university teaching to producing learning that recognises the importance of industry involvement. Furthermore, the research was an ongoing study, undertaken every three to five years to ensure that any new initiatives are accepted and that the curriculum is achieving the result; a well-rounded adaptable property professional. It is important to note that the focus of this study tends to identify the need to appropriately balance theory and practice in the curriculum to best serve industry and hence the discipline. As such Callanan and McCarthy (2003) identify a need to revisit a programme's balance of these two key issues on a three-to-five year cycle.

2.3.3.5 Real estate curriculum development

Real estate curriculum development processes require consideration of important elements. This was demonstrated in a study by Galuppo and Worzala (2004) who described the process followed to develop curriculum for Master of Science in Real Estate (MSRE) degree at the University of San Diego's Burnham-Moores Centre for Real Estate. The study emphasises the potential alternatives and describes the choices made by Centre faculty regarding the type of programme, the desired topics and skills to be taught, course content and delivery. The results of their study indicate that the essential need of any graduate real estate programme is to provide up-to-date, high quality real estate education that fosters the development of technical, social and technological skills.

Galuppo and Worzala (2004) mentioned that the faculty and staff of the University of San Diego's Burnham-Moores Centre for real estate relied on the academic literature concerning real estate education, discussions with several focus groups and a task force, as well as results from two surveys: graduates of an established real estate programme (graduates of the University of Wisconsin – Madison real estate programme) and real estate professionals from the San Diego community to develop the MSRE programme. By making use of the information from these sources, a programme and curriculum was created for graduate studies in real estate. The research methodologies employed demonstrated that real estate is a complex asset and that the real estate industry is a multidisciplinary field. A relatively unique programme, the MSRE at University of San Diego borrows from the University of Wisconsin – Madison programme, but is differentiated by an emphasis on developing socially responsible real estate professionals. Galuppo and Worzala (2004) further noted that as stewards of a finite natural resource, communities and individuals involved in the real estate industry have social, moral and ethical responsibilities to balance the needs of the individual with the needs of the community at large. This is necessary to ensure that the needs of all constituents are recognised and addressed.

The significance of this study is that it identifies some of the important issues that must be considered and followed by the universities in the process of creating and developing a relevant and socially acceptable real estate curriculum for students, local communities and real estate industry.

2.3.3.6 Real estate curriculum analysis

Brown (1979) and Epley (1996) recommended research within real estate education as a solution to in-depth understanding of diverse real estate education content. Analysis of real estate curricula supported educators in the processes of curriculum development by discovering coursework offered in the curricula; extending literature on real estate curriculum; and providing insights to be considered in the establishment of new or improvement of existing real estate programmes (Finch and Weeks, 2003). Apart from supporting educators, results of curricula analysis supported students and industry in the processes of selecting suitable real estate programmes which are meeting accreditation requirements and other needs by comparing the courses offered.

The benefits of curriculum analysis were demonstrated by Finch and Weeks (2003) in a study they conducted for all business schools in the USA accredited by AACSB International to determine the depth and breadth of curriculum requirements for concentrating or majoring in real estate. The results provided surprising insights into the variety of coursework completed by students either concentrating or majoring in real estate. It was revealed that the education product that constitutes a real estate concentration is much different than that of a real estate major. Carn and Rabianski (1986) identified five classes beyond the Real Estate Principles course that should constitute a real estate curriculum: Investment Analysis, Real Estate Finance, Market Analysis, Appraisal, and Policy and Law. Many real estate majors were required to study these topics, while students pursuing real estate concentrations were not.

2.3.3.7 Traditional real estate curriculum

Traditional real estate curricula are based on simply accumulating knowledge and passive learning (Butler, Guntermann and Wolverton, 1998). Roulac (2002) criticised traditional curricula for being biased, narrow and restricted in their approach to the study of real estate; and characterised by misplaced emphasis and insufficient attention to critical issues that should be considered in this new era and in the global context. More specifically, Roulac (2002) described the traditional curriculum approaches as weak by:

- **Viewing property involvements primarily from an outmoded deal-making transaction approach, without sufficient consideration of the important policy and portfolio issues;**
- **Failing to address how large scale political and economic forces generally and capital flows specifically drive markets and therefore property values and returns;**
- **Ignoring the profound implications of advances in information and communication technology concerning how society relates to space and place; and**
- **Paying scant attention to corporate management issues associated with the second largest expense line item on the income statement.**

Based on weaknesses highlighted above, graduates of prevailing traditional real estate programmes are unlikely to possess the required knowledge and skills needed by the industry. With these complaints, university faculty are being challenged to rethink their course and programme offerings to bring them in line with the diverse needs of the student population and the changing demands of the workplace that students eventually enter (Butler, Guntermann and Wolverton, 1998; Manning and Roulac, 2001; Marcus and Mehdi, 2001; Hoyt, 2002; Roulac, 2002; Born, 2003; and Burton and Rutherford, 2007). To achieve this real estate educators are required today to challenge traditional real estate curriculum and learning paradigms by introducing innovative learning approaches.

As universities and their faculty faced challenges, some have responsibly redesigned their curricula to keep up with marketplace change and need. These initiatives are observed within goals, efforts and design of the majority of recently upgraded real estate programmes for some of the business schools (Manning and Roulac, 2001). Some of the important innovations in real estate education aimed at addressing weaknesses associated with the traditional curricula which were identified in this literature research are outlined below.

a. An integrated real estate programme was developed at Arizona State University following the criticisms on the traditional real estate programme from the students and workplace (Butler, Guntermann and Wolverton, 1998). As a solution, the integrated real estate programme has tremendous potential to enhance the education experience of students but it requires an enormous commitment of time, effort and resources on the part of faculty, the business community and the university. The programme emphasises on both skills and knowledge in an attempt to enhance the educational experience of students. An active learning approach is used in the classroom with students gaining experience by applying concepts through actual projects that require students to work in teams (Butler, Guntermann and Wolverton, 1998). In addition, the greatest advantage to students of the integrated programme is that concepts are not learned in isolation and compartmentalised but are reinforced and integrated through “real-world projects”. Emphasis on team building is combined with communication and computer skills and offers students the opportunity to go beyond simply accumulating knowledge by applying what is learned to real-world projects.

However, the use of cooperative and collaborative learning techniques in class requires considerable re-education of the faculty (Butler, Guntermann and Wolverton, 1998). Numerous issues must be resolved for an integrated programme to be successful, such as students who lack experience working in teams, developing an assessment system based on evaluating skills and personal responsibility as well as knowledge, and significant limitations on academic freedom associated with the need for classroom activities related to mutually agreed team cases and projects. While the time commitment is substantial on the part of affected faculty and administrators, there can be tremendous benefits to students and faculty from an integrated programme.

b. Problem-based learning is an educational technique that employs real world problems, scenarios and cases in order to enhance the problem-solving and critical thinking skills of real estate students (Anderson, Anthony and Webb, 2000). It is another method which can be used by real estate educators to solve some of the deficiencies associated with the traditional approaches to teaching and curriculum but which appears to have been overlooked or underemphasised. As a technique, problem-based learning promotes active learning environment in real estate courses. Along with its well-known counterpart, the case studies method, problem-based learning may be broadly classified under the category of “cooperative learning”, a pedagogy that relies on collaborative problem-solving through the use of teams

whose members share interdependent goals (Anderson, Anthony and Webb, 2000). Delaney and Rose (2007) argued that case studies have long been recognised as an important pedagogical tool in real estate education. Whether derived from a real-life situation or constructed as a hypothetical scenario to illustrate a teaching point or an analytical technique, case studies go beyond end-of-chapter problems to provide a superior application-based link between academia and the real world (see Bao and Sweeney, 2008).

Anderson, Anthony and Webb (2000) further noted that problem-based learning has a five-stage learning process, which include: (a) introduction of a problem; (b) inquiry and formation of hypotheses; (c) self-directed research, including data collection; (d) testing of the hypotheses; and (e) evaluation and conclusions. In the introduction the facilitator presents the class with a succinct problem that gives the students a well-defined role that they can easily relate to. In the inquiry stage, the facilitator guides the student toward the issues that need to be resolved and where information on the issues may be found. Third stage requires students to commit to the hypotheses that they wish to test, which will involve collection of data and other information. Students then revisit their hypotheses and share information about the outcome of their research, followed by an evaluation of the problem and their success at solving it. As students work through each stage, the facilitator oversees the problem-solving process to ensure that they are modelling it correctly.

2.3.4 Guides for real estate education

Published literature on real estate education has revealed two guides which are supporting the study of real estate. These guides together with the available real estate text books have supported real estate educators to disseminate real estate knowledge and skills during this difficult time the academic field of real estate is struggling to find a niche within the academy. These guides are “strategic real estate framework” by Roulac (1996) and “house of real estate economics” by Schulte (2003). The guides are reviewed next.

2.3.4.1 Strategic real estate framework

Based on the fact that currently the real estate discipline lacks coherence and concurrence about what is the essence of real estate and what are the operative paradigms for comprehending and making order of the discipline (Roulac, 1996), the strategic real estate framework offers an alternative guide for the study of real estate. The strategic real estate framework which is simultaneously synthesizing, integrating and comprehensive; provides a comprehension of the multifaceted, multidimensional, and substantial segment of the real estate economy. The objective of the strategic framework is to give a contemporary perspective for an understanding of the real estate markets that can guide the participation and decisions for all sectors of society's direct and indirect involvements with the real estate process, resources and market participants (Roulac, 1996).

Central to the strategic real estate framework is consideration of the decision processes and strategy elements of critical segments of the real estate market. Roulac (1996) identified six major segments of the real estate discipline as follows: space users, investors, owner/managers, service providers, developers, and the public interest. He added that basic to the strategic real estate framework is the interdependency between market segments/participants and their actions as they interact in the real estate market directly with each other, both within and between categories, and especially directly with the property and through the property to other market participants.

The real estate market reflects a series of strategy interactions between users and suppliers of space, resulting in real estate transactions. The terms of these transactions reflect the implementation of the strategies of the decision makers. Among the factors motivating transactions by market participants are (Roulac, 1996): values; objectives, rational and irrational; risk tolerance; strategies; relocation; business expansion/contraction; changing space needs; market perceptions; needs/requirements; resources; decision models and criteria; time horizons; condemnation; and change in circumstances, i.e., bankruptcy, divorce, and death.

Another inherent concept fundamental to the strategic real estate framework is that of the life cycle of involvement with a particular real estate transaction, both at the property and enterprise levels. The real estate life cycle is comprised of four elements (Roulac, 1996): policy decisions that initiate the transaction; origination, following the acquisition of the property; operations, embracing the management of the property; and conclusion, involving the disposition and completion of the property involvement.

Overriding and occurring prior to the implementation of property-specific real estate involvements is consideration of the enterprise or investment programme life cycle. Roulac (1996) explained that the investment programme life cycle involves the discreet elements of investment policy, implementation and monitoring.

Further, Roulac (1996:345) said: “that the concept of the real estate strategy framework provides both the basis for getting insights into the real estate discipline and also represents a means to connect a strategic approach to real estate with the act of real estate deal-making. By understanding the real estate process, those strategic influences on transactions that follow from the real estate process can be identified. These strategic influences in turn, for each participant in the real estate process, are a function of that participant’s real estate strategy, which in turn is derivative of that participant’s overall enterprise strategy. For organizations directly involved in the real estate business, enterprise strategy and real estate strategy are one and the same. For organizations where real estate is not their primary business, but rather an input to another primary activity, the real estate strategy derives from and is influenced by the primary strategy.”

In conclusion, Roulac (1996:345) noted that: “Real estate deal-making involves a multitude of choices in terms of how specific transaction elements are prioritised, addressed, and implemented. Just as each property is unique, so also is each transaction unique. Indeed, extraordinarily different approaches and outcomes can result from different participants’ interactions with the identical real estate interests. These different approaches and outcomes from the application of a common process to the same real estate interests are the consequence of divergent real estate strategies that in turn reflect very different primary – enterprise strategies. This framework can enhance the quality, reliability and prudence of real estate decisions. By understanding these interdependencies and linkages, more effective

decision making that concerns real estate interests and the objectives of participants in the real estate markets can be achieved.”

2.3.4.2 House of real estate economics

Schulte (2003, 2007) offered a clear prescription to guide real estate education called the “house of real estate economics”. The guide illustrates the interdisciplinary approach to real estate studies and differentiates interdisciplinary, typological, institutional and management aspects. Its foundation consists of *business administration* which is supported by *interdisciplinary studies*, i.e. economics, law, spatial planning, architecture and engineering. The two pillars of (a) *real estate types* (commercial, residential, industrial and special real estate) and (b) *institutions* (real estate developers, real estate investors, construction companies, financial institutions, consultants, real estate users, and others) supported (a) *strategic studies* (real estate portfolio management, corporate real estate management, and public real estate management); (b) *functional studies* (real estate analysis, real estate valuation, real estate finance, real estate investment, and real estate marketing); and (c) *phase specific studies* (real estate development, construction management, and facilities management) which are *management aspects*.

2.3.5 Real estate body of knowledge

Epley (1996) noted that the chosen area of teaching and research labelled “real estate” has struggled for many years to determine its body of knowledge and obtain a consensus of opinion. He chronicled a two-year commitment made by the Board of Directors of the American Real Estate Society (ARES) to study the current state of a body of knowledge of real estate. After surveying the ARES academic membership and available publications, it was observed that the existing real estate curriculum paradigms were:

- Four-course “text-book” model in real estate. This approach follows the traditional four-academic-course approach for an undergraduate degree. It includes a course in real estate principles, finance, law, and appraisal.

- Two-to- four course model with an emphasis / tract / concentration in real estate without a major. This approach is the same as the one above except that a major does not exist, which means that fewer courses can be justified in the budget.
- Elective area within the MBA. If the MBA is structured to allow electives, one to four courses can be offered.
- Specialization with MSc in real estate.
- Terminal degree in real estate. A wide variety of concentrations can be found in terminal degree requirements i.e. PhD degrees.

Other paradigms also existed which may or may not be implemented in the existing curriculum. These included: emphasis on development, emphasis on land economics, emphasis on analysis and decision-making, emphasis on a systems or management approach, emphasis on an employer need approach, and emphasis on AACSB requirements. Weimer (1956) advocated the teaching of real estate to shift emphasis away from land economics towards real estate administration. Based on these different paradigms, Epley (1996) concluded that the real estate area has not evolved through the detailed debate that is required to delineate the topics and receive consensus among educators about the necessary knowledge and skills required. He further indicated that these paradigms are so diverse that the task appears too large for one person to address or resolve.

Epley (1996) further argued that a number of authors tried to define body of knowledge for real estate based on their opinions rather than survey approach (Brown, 1981; Lahey and Webb, 1987; and Black *et al.*, 1996). Additionally, apart from calling for the body of knowledge in real estate, Black and Rabianski (1998) also called for the creation of a body of knowledge in real estate brokerage.

Carn and Rabianski (1986) emphasised the lack of agreement over a common body of knowledge among academics by noting that Real Estate Principles, the entry level core course covering a variety of real estate topics, remained an elective in many programmes. Furthermore, Finch and Weeks (2003) found that there was no single real estate class which was offered uniformly by schools offering an undergraduate major in real estate.

An attempt to define a body of knowledge for real estate in the global context by asking real estate educators and practitioners about the importance of various real estate topics worldwide was undertaken by Black and Rabianski (2003). They too noted that defining a body of knowledge in real estate is extremely difficult, since there appears to be no clear cut consensus on the boundary lines of the discipline, either academic or professional. Academic real estate programmes in the United States are often housed in business schools and most often have a finance and investment focus, while programmes in the United Kingdom, Australia and New Zealand may be housed outside the business school and focus on the built environment, a broader programme that encompasses physical as well as financial concepts. Further, programmes in other parts of Europe are centred on the physical aspects of real estate, such as construction technology and engineering. Real estate professions in the USA include brokerage, asset management, property management, construction, planning, law, investments, finance, government regulation, forestry and natural resources, architecture, housing policy, and numerous other jobs related to the consumption of space overtime. To conclude, Black and Rabianski (2003) indicated that the results of their survey showed that the field of real estate has a broad perspective and that no global consensus on what constitutes the body of knowledge prevailed. However, they noted that while there were many areas of disagreement, there is also substantial agreement on most important topics in real estate. Black and Rabianski (2003) pointed out that in future the understanding of a body of knowledge will not fully emerge until the activity nodes are defined, participants identified, and the attitudes, practices, research and academic teaching are collected within the resulting sample frame.

Black *et al.*, (1996) indicated that real property is sociology, psychology, geography, environmental science, design, engineering, construction, architecture, planning, management, economics, finance, law, and many more. They added that it also involves market analysis (examination of supply and demand forces), physical analysis (examination of site and structure), spatial analysis (examination of location and sites), and legal analysis (examination of rights and obligations of real property ownership). Next Black *et al.*, (1996) posed a question: “But if real property is so many things, is it not in danger of becoming nothing at all?” Indeed, the lack of a consensus about the boundaries of the field leads to an easy conclusion that real estate is not a discipline, but rather an ill-defined mutation that steals its identity from other disciplines such as finance and management that have well-defined paradigms, focused research efforts and the desirable boundaries that give an

academic/professional field its shape and substance (Black and Rabianski, 2003). However, Diaz (1993) has argued that real estate is analogous to engineering. Real estate is not defined by paradigms, but by activities (consuming, lending, governing, etc). Following from this logic, an attempt can be made to identify a body of knowledge by surveying the participants in the activity nodes of real estate, even though the identification of nodes to be included presents the next problem (Black and Rabianski, 2003).

2.4 Influential elements of real estate curriculum development

A review of literature on elements influencing the development of real estate curriculum provides real estate educators and researchers a comprehensive understanding of factors which have affected real estate, real estate education and the industry. The understanding of these factors would support real estate educators in the processes of developing relevant curriculum for students and industry. This would contribute towards further improvement of real estate education and industry. The rest of the section reviews important influential elements identified in the study which have affected the development of real estate curriculum and education.

2.4.1 Accreditation bodies

Real estate education accreditation bodies are established to enforce and regulate laws responsible for governing issues related to real estate professionals including: registration of professionals, observance of professional ethics, and continuous professional development (Isakson, Rabianski and Schulte, 2003). They are also responsible for accreditation of real estate courses. In so doing they scrutinise real estate curricula to ensure that the curricula are always of high quality in order to produce competent graduates who would serve the public well. As a result, accreditation bodies' suggestions during accreditation exercises are influential in real estate curriculum development processes. Internationally, the RICS is a good example of a professional body which has enormously influenced the development of real estate curricula in different parts of the world (Schulte, 2003).

Accreditation of real estate programmes is a significant development in real estate education. Its objectives include assurance that quality standards were met in education programmes and to guard against unacceptable practices (Isakson, Rabianski and Schulte, 2003). In addition,

accreditation raises the reputation of the real estate discipline, academic staff, the graduates and the students of an accredited real estate department of a university. Student exchanges between universities in different countries were also gaining importance. Therefore, for quality reasons, credit points which students earn at universities abroad should only be accepted if the foreign partner university is an accredited institution. Furthermore, it is also important to note that in nearly every other country higher education is more or less controlled and monitored by the national government, which promulgated higher education policy (Isakson, Rabiński and Schulte, 2003).

Countries with more developed accreditation systems are the USA and UK. The driving forces behind this process have been professional bodies which have defined the minimum standards of qualification for their members. In the UK the most important accreditation body is the RICS (Isakson, Rabiński and Schulte, 2003).

In the UK and many countries of the British Commonwealth, RICS has a long tradition of accreditation of real estate programmes. This professional body is committed to upholding standards of competency and integrity among its members (Schulte, 2003). Standards in two main areas are set and enforced: education / training and professional conduct. In addition, the RICS Accreditation Policy is very successful which demonstrates that the idea of accrediting real estate programmes is widely accepted (Isakson, Rabiński and Schulte, 2003). Further, it is important to note that internationally, the designation of a chartered surveyor is a very prestigious attainment in the professional areas of the real estate industry, and to become a chartered surveyor, the first step for a student is to pass an RICS accredited programme at a college or university (Schulte, 2003).

In South Africa, real estate courses at universities are also subject to scrutiny for accreditation by local and international bodies for example the RICS (Cloete, 2002). Locally, the South African Council for the Property Valuers Profession and Estate Agents Board look at issues related to qualifications and courses for property valuers and estate agents, respectively. These bodies ensure that the quality of education and registration of professionals is up-to-date and in line with industry requirements. In addition, government established national qualifications framework (NQF) which is administered by the South African Qualifications

Authority (SAQA) to promote quality of higher education in South Africa, including real estate education. Cloete (2002) noted that some of the guiding principles of SAQA and NQF are to standardise all education and training, recognise learning skills which may have been acquired through experience, facilitate mobility and progression within education, training and career paths and provide a framework for life-long learning. The emphasis throughout is to test competence in the various learning fields by means of defined outcomes.

Professional associations both local and international have also supported efforts of accreditation bodies to improve and develop real estate curriculum. In South Africa, at local level bodies like SAPOA and the South African Institute of Valuers have contributed to curriculum development for property education. Through member interaction, professional associations share experiences and challenges in the real estate industry. In that process they recommend new issues to be added in the curriculum so that the curriculum can remain relevant to the real estate industry. Internationally, the International Real Estate Society together with its affiliate member societies in different continents of the world: American Real Estate Society, European Real Estate Society, Pacific Rim Real Estate Society, Latin America Real Estate, and African Real Estate Society have played a significant role to develop real estate education in different parts of the world.

2.4.2 Buildings, climate and environmental concerns

Real estate development process partly involves the creation of artificial space for human beings to live comfortably in different climatic conditions. To achieve this, real estate professionals have a critical role to play in the formulation of appropriate design criteria for buildings (Hauptfleish, 1999; and Cloete, 2001) depending on the specific local climatic conditions. In addition, real estate professionals have a duty to design for clients buildings which offer other advantages, for example minimisation of future building operational costs and building maintenance works arising from adverse effects of weather as well as wear and tear. These issues are required to be covered in the curriculum for real estate professionals.

Further, today buildings which are energy efficient are desired in society for being friendly to the environment by reducing air pollution (Milford, 2008). Worldwide, 30 to 40% of all primary energy is used in buildings (UNEP, 2007). While in high and middle income countries this is mostly achieved with fossil fuels, biomass is still the dominant energy source

in low income countries. In different ways, both patterns of energy consumption are environmentally intensive, contributing to global warming. In addition, the pattern of energy use in buildings is strongly related to the building type and the climate zone where it is located. For being part of the building professional team, real estate professionals have an important role to play in reducing building energy consumption by suggesting remedies at design and operational stages of the building cycle. These solutions include: thermal insulation, high performance windows and solar shading, air tight structural details, ventilation and heat / cold recovery systems, and integration of renewable energy production in the building (UNEP, 2007).

Like in the other sectors, today environmental concerns are significantly affecting the real estate industry. The UNEP (2007) noted that while construction, use and demolition of buildings generate substantial social and economic benefits to society, they are contributing serious negative impacts on the environment. Milford (2008) pointed out that construction which is linked to real estate is viewed as one of the major contributing factors to global climate change and environmental degradation. Furthermore, with more people placing greater emphasis on spirituality and environmental sustainability, considerations of property as a commodity are becoming less and less accepted (Roulac, 2002). These concerns together with pressure from lobbying groups around the world against global warming and to protect the environment and endangered species, have forced the real estate sector to adapt. For example, in South Africa, regulations requiring that environmental impact assessment reports accompany proposals for new property developments are being implemented by local authorities. In that way, the real estate curriculum is being challenged to accommodate relevant climate and environmental issues. Milford (2008) suggested that educators should consider incorporating the following significant climate and environmental issues in the curriculum: regulatory and control instruments such as building codes and appliance standards, energy efficiency standards, environmental management systems, assessment systems, and new technologies and materials. Depending on the way the curriculum is structured topics on buildings, climate and environmental concerns could form part of the physical subjects of the real estate curriculum (Black *et al.*, 1996).

2.4.3 Client needs

Real estate clients can be categorised into two main groups: public and private clients (Cloete, 1994). The objectives of these two types of clients are different. The private client is more interested in maximising profit while the public client is motivated by meeting social needs of the society. The real estate profession is characterised by giving professional services to these clients. Historically, the client has demanded high quality services from a real estate professional to meet: time, cost and quality parameters specified for a real estate activity to be executed. Satisfaction of client needs is crucial as current and future prospects in the real estate industry depend on the extent to which clients are satisfied by real estate professionals (Storms, 2000; and Mbachu, 2003).

In the twenty-first century real estate clients are experiencing new challenges. Of significance are financial and economic problems. At the moment the world is experiencing the worst financial and economic crises in history which started in the USA and spread to other parts of the world (http://en.wikipedia.org/wiki/Economic_crisis_of_2008) (8/10/2008). Negative effects accompanying these crises are: decline in house market prices; a sub prime mortgage crisis; high oil prices; rising inflation; high food prices; a substantial credit crisis leading to the bankruptcy of several large and well established investment banks; increased unemployment; and global recession. With increasing financial, economic and social problems, the budgets of real estate clients globally have become tighter, and their real estate needs have all over a sudden changed due to mainly unaffordability reasons. Adding to the negative effects of the global financial and economic crises, the South African economy has also recently experienced increasing mortgage interest rates and building costs. One of the noticeable consequences of these negative effects has been government's failure to deliver projects and other infrastructure services which were promised to the poor people, including housing. This has forced the poor masses in some townships to protest for poor service deliver.

These new challenges which the clients are going through have created new needs and expectations for services from real estate professionals (Roulac, 2002). This has three important implications on the curriculum. Firstly, educators will have to conduct research to identify relevant factors which are challenging clients to meet their real estate needs and goals. Secondly, educators should investigate possible causes of the crises which clients are going through. Thirdly, educators should immediately investigate important services which the clients will expect from real estate professionals to support them to come out of the

current problems and to avoid repetition of similar crises in the future. Two immediate expectations from real estate professionals to support clients over-come the crises will be improvements to be made to real estate investment risk analysis process, and the development of new real estate lending regulations. Real estate educators will be forced to address these issues in the curriculum in order to support the professionals and future graduates to competently deal with client needs.

2.4.4 Demographic factors

Important demographic factors which have influenced real estate in South Africa include: population size, population group composition, population income distribution, migration, family size, mortality, and fertility (Prinsloo, 2004). These factors influence the demand and supply of real estate, and play a significant role towards the success of real estate investments in different locations and real estate markets. The patterns of demographic factors in society are changing. These changes are giving real estate professionals challenges in the processes of real estate investment decisions, which have necessitated more care in decision-making to ensure real estate investment success than before.

Roulac (2002) identified demographic factors including an older population, maturing baby boomers, continuing immigration, and more lifestyle diversity as part of the elements responsible for redefining societal spatial patterns. As it was indicated earlier societal spatial patterns arise from: the how, where, when, which, what and why questions of the role of property in society asked by the population; and they determine the need for property goods and services. Ultimately, societal spatial patterns are manifested in the decisions that influence economic regions, property types, investment forms, business strategies, services offers, public services demands, and government fiscal outcomes through the population (Roulac, 2002). As a result it is essential for educators to constantly study the influence of demographic factors on real estate and get them updated in the curriculum. Depending on the way the curriculum is structured, study themes involving the impact of demographics on real estate can form part of the Property Economics course subject of the curriculum (see Prinsloo, 2004).

2.4.5 Economic development

This element is maybe the major influential factor differentiating the development of real estate curricula offered in developed countries from those offered in developing countries. Africa is the least urbanised continent, contributing only one percent of worldwide industrial production (Ghyoot, 2002). Not surprisingly, agriculture, fisheries and related education are well represented on this continent mainly in the poorest countries on the continent. Furthermore, due to underdevelopment and low literacy, the concepts of real estate and property industry as a business are unfamiliar in some countries (Ghyoot, 2002). As a consequence, the sizes of property industries and real estate business in the African countries are smaller when compared with developed countries. Based on this, fewer real estate programmes are offered in African countries than in the developed countries.

In addition, Africa is different from developed countries in many other ways including real estate needs, tastes, services, technology, and infrastructure. Real estate in developing countries is also not only viewed from the investment perspective (Schulte, 2003). All these factors have contributed to the differences between real estate curricula offered in Africa and in developed countries. Emphasis of curricula differed. With the exception of few programmes offered in South Africa, generally in Africa real estate curricula contained more subjects touching on agriculture and rural land development issues. Therefore, it was important for real estate educators to understand the economic developmental level needs of their countries so that appropriate real estate technologies and topics are incorporated in the curriculum. Inclusion of developmental considerations would lead to the production of real estate professionals who would make sound decisions with regard to real estate technologies to be procured for their specific locations and countries. This relates to considerations of ease of maintenance and management of those technologies particularly in the developing countries where certain technologies were introduced and later got abandoned because of failure to sustain them resulting in huge losses being incurred in those real estate transactions.

2.4.6 Employers

Employers recruit the graduates from real estate programmes. Therefore, real estate programmes are only validated and legitimised when companies hire their graduates (Richards-Wilson, 2002). Furthermore, employers test the competence of students who have graduated. They want their new hires to be able to “hit the ground running” (Gallupo and Worzala, 2004). As a result employers can direct educators which areas of the curriculum require change or addition to improve the quality of graduates. In addition, employers have

real estate industrial experience and are aware of the challenges real estate is facing as a profession. In that way they are in the right position to recommend real estate knowledge and skills that require emphasis (Black *et al.*, 1996; Butler, Guntermann and Wolverton, 1998; Bridal and O’Callaghan-O’Brien, 2003; Galuppo and Worzala, 2004; Ford and Elkes, 2008; and Yiu, 2008).

Real estate educators can be directed by the employers on many other relevant issues connected with improvement and delivery of real estate education. These issues could be picked up in real estate education forums organised with industry players which focus on industrial challenges with the intention of improving education. For example, in 2002 representatives from two dozen of the top real estate firms participated at the Institute of Real Estate Management’s Corporate Education Leadership Forum in Chicago, USA to discuss education challenges they faced (Druckman, 2002). Compensation trends, learning contracts, knowledge management, career paths, online education and training were key concerns of today’s top real estate companies which real estate educators noted that could contribute significantly towards the development of the curriculum and teaching programmes for the industry in future.

2.4.7 Entrepreneurship

Entrepreneurship relates to activities undertaken by individuals and organisations to start and manage businesses. This adventure is a risk undertaking and is linked to financial gain or loss. Diaz (1993) argued that at the heart of the real estate system lies entrepreneurial activity. In real estate, entrepreneur activity involves creating, managing, and trading space over time. Entrepreneurship is not only for private individuals or organisations. Even government entities may engage in entrepreneur activity, for example, revitalisation of CBD’s in the cities. Roulac (2002) added that the property business is inherently entrepreneurial in that it marshals resources and influences behaviour patterns in settings that are largely unstructured and where precedents may be few if any. Entrepreneurship, as it is related to business activity is always experiencing new challenges and change. Roulac (2002) commented that those who need order, structure, and predictability; and who are uncomfortable with uncertainty, ambiguity, pressure and volatility in real estate involvements, would do well to apply elsewhere. Further, as the tenants of non-residential buildings are businesses, the more students know about business, the more effectively they will interact with those tenants after

graduation. As a result, it is important for real estate educators to improve the curriculum by accommodating new entrepreneurship skills and developments to maintain the production of successful real estate entrepreneurs who are required by the industry in this new era.

2.4.8 Finance

Historically, real estate asset has been treated as a financial asset (Black *et al.*, 2003). As a result, finance has been a major influential element in changing real estate curriculum. The importance and emphasis of finance came to the scene when financial crises lead to the huge losses in property investments in America, Europe and Asia (Dasso and Wood, 1980; Black *et al.*, 2003; and Nappi-Choulet, 2003). Many financial institutions and investors became bankrupt. A major lesson learnt from these financial crises was to introduce a strong component of real estate finance in real estate studies. In America the loss was so much felt that the approach to real estate education changed to become more finance focused until today (Schulte, 2003).

Emergence of real estate education in French business schools with real estate finance as one of the subjects being emphasised is new evidence where finance has influenced development of real estate curriculum (Nappi-Choulet, 2003). The change of French real estate education from a curriculum of urban management, law and town planning to one considering issues of real estate finance reflects the importance of finance in real estate and the need to best serve the industry. Recently, Tu *et al.*, (2009) conducted a study on perceptions of the stakeholders on elements of successful graduate real estate programs. One significant finding of the study was that respondents considered finance as the most critical subject in the graduate real estate curriculum.

However, the dominance of finance in real estate has recently been questioned. In a study by Schulte (2003) it was noted that currently real estate finance and investment play an important role in real estate education and research, but this importance will decrease in future. To establish the importance of finance and investment, he conducted a study on the different topics of papers for the programmes of the conferences of two largest regional societies: the American Real Estate Society (ARES) and the European Real Estate Society (ERES), held in the years 1999, 2000 and 2001. Papers for the programme of International Real Estate Society (IRES) World Congress 2001 were also included. Overall 31 percent of

all papers presented at the IRES, ERES and ARES conferences were focused on real estate finance and investment. This finding stood for the paradigm of real estate as a finance and investment vehicle. However, Schulte (2003) argued that in future dominance of finance and investment will decrease partly because real estate educators and researchers not coming from America and Canada, whose participation in the continental and international real estate conferences is going to grow, view real estate broadly and not only from the finance perspective. This will change real estate education and research focuses in the future.

Black *et al.*, (2003) also commented on the present dominance of finance in real estate that must be balanced with other courses. They noted that academic and professional real estate research in the USA has finance as its primary focus. There are several reasons for this concentration, including the alliance of USA real estate programmes with finance following the criticism of academic real estate programmes by the Ford and Carnegie reports in the 1950's. However, while the link to finance has proved to be a beneficial one, it has also resulted in the setting of artificial boundaries on real estate research. Real estate programmes patterned after the built environment programmes in the UK have not been as severely restricted, but have a broader focus (Black *et al.*, 2003). The authors propose a broader look at real estate and the lowering of disciplinary boundaries. In addition, if every real estate problem is seen as a finance problem, researchers miss the opportunity to use tools and thoughts from other disciplines. Black *et al.*, (1996) further argued that real estate is not finance, but it is much more though it has a distinct finance dimension. The observations noted by the authors propose to real estate educators to balance finance and other courses in the curriculum in order to produce competent well-rounded real estate professionals for the industry.

2.4.9 Globalisation

Schulte (2002) noted that internationalisation is gaining importance in all sectors of the economy including the real estate sector. As a consequence, internationalisation of real estate education has also gained importance. Today it is common to see students going to study real estate courses in foreign countries either because in there countries no such courses are offered or merely to gain international exposure in real estate education and transactions (Schulte, 2002; and Chikafalimani and Cloete, 2006a). The interest expressed by real estate

schools to have their programmes accredited by the RICS has also grown (Schulte, 2003). To be accredited, the RICS insists on certain standard requirements to be met in a real estate curriculum. This has partly contributed to the acceleration of internationalisation of real estate education.

In addition to globalisation of real estate education, there is an increase in the globalisation of real estate transactions being undertaken by investors in different real estate markets of the world (Roulac, 2002; and Schulte, 2002). Roulac (2002) noted that with business enterprise expanding the scope of its geographical concerns, drawing resources from distant markets and selling throughout the world, physical proximity no longer is the primary defining guideline or constraint to access labour and customers. Therefore, it was important today that real estate education convey the knowledge required for property involvements in the global context. Some of the reasons why today global orientation in real estate education is significant were highlighted by Schulte (2002) as follows:

- Institutional investors can no longer afford to restrict their investments to one country.
- Leading developers have long ago set the trend towards global engagements.
- Banks are forced through competition and the expanding business of their customers to finance real estate internationally.
- Real estate consultancies and brokers merge across national borders and continents, bundling international know-how and experience in growing entities.

Global orientation of real estate can be achieved by including international aspects into the curriculum and by initiating international exchange programmes between the real estate departments of universities (Schulte, 2002). In addition, the international exchange of real estate knowledge was important as the field of real estate education and research was a young discipline and many aspects of real estate have not yet been investigated sufficiently. As different countries have focused their real estate education and research on different issues it turns out to be even more important to internationalise real estate education (Schulte, 2002). Some of the subjects with international contents which can be incorporated into the real estate curriculum are: foreign real estate markets, international real estate investment, globalisation of real estate markets, and comparison of international standards and practices in real estate.

Roulac (2002) emphasised that fundamental to effective property involvements in the twenty-first century, then, is appreciation for the importance of the global context and multiple geographies and levels of concern. He argues that the orientation of the majority of participants in real estate is predominantly parochial rather than global. Such an orientation is increasingly vulnerable to miscalculation, disappointment, financial reversal, if not overt failure, in a time of globalisation in which local outcomes are largely influenced by far distant decisions and actions (Friedman, 2000 cited in Roulac, 2002).

Juxtaposed to the importance of the global orientation is the imperative of sensitivity to and emphasis upon the inherent localness of real estate (Roulac, 2002). Indeed, Gair (2001) commented that today's real estate companies operate locally and think globally. Therefore, to be global but to ignore sensitivity to the localised perspectives of real estate is equally risky. Roulac (2002) advised that global and local perspectives in real estate investment decision-making can be reconciled by considering that property embraces many discrete segments or levels of involvement, orientation and experience. He noted that effective property involvements derive from consideration of the most macro to the most micro as well as the many intermediate concerns. One framework that has proven useful is to consider that every property involvement consists of 16 attributes of place and space relationships (Roulac, 2002). Place embraces the 12 critical elements of continent, country, county, state/providence, region within state/providence, metropolis, city, region, community, neighbourhood, street, and site, which in aggregate are the attributes of location. Space embraces the four critical elements of site, building structure, interior design/floor plan, room and personal space, which collectively comprise the particulars of the built environment personally experienced. Place and space intersect at and share site, and each is influenced by the attributes of the other. Effective property involvement is informed by knowledge of the forces that influence each of these 16 levels, and how each of these 16 levels influence specific property interests, functions, decisions and involvements (Roulac, 2002). As a consequence, it is important today that real estate educators design curricula which convey the knowledge required for property involvements both in the local and global contexts.

2.4.10 Government and political factors

Government and related institutions influence change to real estate curriculum. The responsibility of government and related institutions is to set and enforce laws which include property laws for the benefit of the country and society. Generally, countries with good legal systems which offer assurance and security to property ownership rights are conducive to property investment. Importantly, South Africa has sophisticated land surveying and property ownership registration systems which have minimised disputes of property ownership (NPEC, 2004). It is significant for real estate students to be exposed to these systems and laws in the curriculum for them to function competently when they graduate. Real estate educators should regularly up-date the curriculum to incorporate new laws and government regulations which are important to real estate students and industry. In addition, countries practising good governance and exercising rule of the law, and which are politically stable are regarded by investors as good destinations for property investment. This stimulates growth of real estate industries and development of curricula to meet educational needs in such countries.

In the USA, most States determine competency of licensed real estate agents by administering an examination (Pancak and Sirmans, 2008). The purpose of real estate licensing is to safeguard the interests of the public by ensuring that persons engaging in the real estate agency business are competent to do so. By law, the examination must cover current real estate practices and licensing laws. In so doing government is influencing curriculum development for real estate agents.

Following political stability and election of a democratic government in South Africa in 1994, property markets and real estate education are equally transforming to accommodate government and society concerns (Chikafalimani and Cloete, 2006b). Blacks prior to 1994 were excluded from property education and never experienced the benefits and responsibilities of property ownership due to racially discriminatory policies and laws. To address inequalities of the past, government introduced new laws and policies which include: involvement of blacks in property education; introduction of property and construction charters; and land transformation policies. With respect to property education, a significant development after 1994 has been the increasing participation by blacks and women in real estate education programmes. A noteworthy aspect within the land transformation process is land restitution. Land restitution is an ambitious attempt being implemented by government

in this new democracy to restore land expropriated (compulsorily purchased) in the past under racially discriminatory laws (Ghyoot, 2002). The volume of work is daunting, with about 40,000 claims to be settled. This has created a significant source of work for the property valuation profession in this new democracy.

In the new democracy, the South African government has also implemented laws to liberalise the economy. Liberation of the economy has enabled life companies and pension fund asset managers to invest offshore since 1995 (Kriel, 1999 cited in Ghyoot, 2002). Combined with more short term investment objectives, this will reduce their dominance of local real estate investment as they liquidate some assets. State organisations have also started selling surplus real estate (Ghyoot, 2002). In future, asset divestment by state organisations, life companies and pension funds will create opportunities to the general public for acquiring and securitising portfolios of investment property in South Africa. It is the duty of real estate educators to take note of these new real estate educational needs and developments in the property market which have come with the new democratic government in South Africa and get them incorporated in the curriculum.

Another area of emphasis taken by the new democratic government in South Africa which has affected real estate practice is occupational health and safety. Laws have been passed to make sure that building contractors and property owners provide health and safety measures to protect workers and people using buildings in order to reduce accidents. This is being monitored by asking building contractors and property owners to comply with the provisions of Occupational Health and Safety Act, No.85 of 1993. Real estate educators are required to identify such new legal requirements and include them in the curriculum for the students to know in order to promote health and safety on construction sites and buildings.

Political stability and changes have also influenced real estate education in other countries of the world. For example, the transformation of political situation in Central and Eastern European Countries (CEEC's) from socialism (controlled economy) to capitalism (market-related economy) changed real estate expectations of societies and educational needs of property valuers (North (1997). Government and local professional associations had to organise property valuation courses and training to equip property valuers with new skills on how to approach market-based valuations more especially due to high volumes of work arising from privatisation processes in the new political era. Education and training support

had to be sourced from professional bodies and companies from the Western countries (North, 1997).

2.4.11 Information technology advances

Bill Gates, Chairman and founder of Microsoft Corporation, the world's largest computer software company, identified real estate as one of the industries which will be revolutionised by technological change (Bridal and Laing, 1998). The change, accelerated by the internet and other forms of information technology has already started and is moving at fast pace. Bridal and Laing (1998) noted that those who realise this change and welcome it will ensure survival in the profession. This revolution has indeed influenced the adaptation of real estate curriculum to equip students with relevant information technology skills (Redman, 2001; and Wolverton and Wolverton, 2003).

The real estate brokerage sector in particular has radically been transformed by the cyberspace technology (Jud, Sirmans, and Winkler, 2002; and Larsen, Coleman, and Gulas, 2008). The flow of information in the real estate market is increasing quickly because of the proliferation of company websites, email, cellular phones, personal digital assistants, online linkage to financing sources and other technological advances. In addition, the new technology is transforming established institutions and opening up new venues, as many traditional brokerage activities can be delivered more quickly and with more efficiency.

Other real estate professions and sectors have also been affected by advances in information technology (Gair, 2001) either negatively or positively. Just like real estate brokerage, real estate appraisal is one of the real estate professions under threat due to the rising predominance of information technology. With the growth of structured databases, more appraisals will be automated, resulting in fewer appraisers who will be paid less money to complete more appraisals in less time, Bridal and Laing (1998) lamented. In South Africa, property valuers offering private property valuation services to banks for home loan purposes are going through similar threats. Appraisers face two options to survive: become generalists and diversify their reliance on other aspects of real estate; or become specialists, focusing on one exclusive niche in appraisal or on some other innovative way to add value (Brown, 1965; and Bridal and Laing, 1998). Bridal and Laing (1998) recommended to the Appraisal Institute of Canada to move rapidly towards introducing a new programme to train candidates to be

competent over the whole range of subjects related to real estate. They added that today's competitive environment due to advances in technology demanded professionals who are innovative, creative and adaptable.

Roulac (2002) indicated that in this new era advances in telecommunications and information technologies are some of the major forces which have introduced powerful implications for property demand. These advances in telecommunications and information technologies have dramatically transformed the means and location of work, changing what activities happen in physical spaces and where those physical spaces are located. Additionally, these technology advances have simultaneously introduced very different patterns of organisation, which in turn lead to different physical forms of working, shopping, living, and leisure. Furthermore, there has been a shift of business transactions occurring at the time, place, and convenience of the vendor to the time, place, and convenience of the consumer (Roulac, 2002).

With separation of transaction from physical environments as a consequence of non-store shopping as well as redefining the role of corporate headquarters as a consequence of pervasive non-office working arrangements, a very different agenda of location factors are introduced (Roulac, 2002). In addition, the combination of sophisticated electronic telecommunications and advance logistics delivery systems, have dramatically changed the proximity parameters of workers and customers to the work place. Information technology advances have also altered relationships of store purpose to the retail space function. With all these implications, it is important for real estate educators to address the changes information technology advances have introduced to real estate business in the curriculum in this new era.

2.4.12 Land

Real estate studies in different parts of the world are influenced to a great extent by land issues. In the USA, the Appraisal Institute and Urban Land Institute are the two important bodies which have continually supported a curriculum paradigm which puts emphasis on land. Significantly, Epley (1996) added that the educational material and body of knowledge of the Appraisal Institute was based on land economics. Worthy noting is also that the mission of Urban Land Institute is to provide leadership in the use of land in order to enhance the total environment (ULI, 2005). Further, Graaskamp (1977) supported the perception that

land economics had influenced real estate curriculum when he noted that land economics was a basis upon which the subject of real estate was built at four-year universities.

Land has influenced real estate studies because it is a major resource in the real estate industry and society (Appraisal Institute, 1992). Uses of land are many, including: agriculture, commerce, industry, habitation, and recreation. In addition, land use decisions are influenced by a number of factors like: climate, topography, distribution of natural resources, population, and industry. Economic conditions, technological practices, and cultural influences have also affected land use. Over the years it has further been observed that changes in land use patterns, economics, laws, and management practices have influenced the development of real estate curricula differently in different parts of the world. For example in South Africa, following the abolition of apartheid laws in 1994, real estate course content has adapted by accommodating relevant new land issues and laws.

2.4.13 Local communities and professionals

Local communities and professionals have an influential role in the development of real estate curriculum because they also benefit from a relevant curriculum offered by a university within their vicinity. Ferguson (1975) noted that a successful real estate education programme must meet diverse community demands. Therefore, it is important for real estate educators to take into account real estate needs of local communities and professionals in the processes of curriculum development. In that way the curriculum also supports local communities in the processes of solving their real estate problems. This issue also relates to the social and moral obligations universities have to undertake by serving their local communities.

Local professionals can be very helpful contributors in the process of real estate curriculum development because most of the time they support, employ or work with real estate graduates from a local university. They are also in constant touch with new developments in the real estate industry. As result they are in a good position to recommend topics and other relevant issues to be considered in curriculum development. Based on this, it is advisable for real estate educators to involve local professionals in the processes of curriculum development. The University of San Diego involved local communities and professionals in

the process of developing a socially acceptable MSRE programme (Galuppo and Worzala, 2004).

2.4.14 Publications, research and textbooks

Recommendations for curriculum development which are based on scientific research findings provide strong justification for introducing changes in real estate curriculum. This is in line with university culture whereby changes to education are normally based on concrete evidence and facts, rather than on hearsay (Murphy, 1999). Finch and Weeks (2003) noted that findings of real estate education research gave insights for new or revision of existing real estate programmes. Noteworthy is a relatively unique and socially acceptable MSRE programme at the University of San Diego which was developed by making use of academic publications concerning real estate education and results from surveys (Galuppo and Worzala, 2004). This investigation is another practical example where academic literature and results of a survey of the property industry have supported to develop a model curriculum to be used for improvement of Masters Real Estate Education in South Africa. It is therefore advisable for real estate educators to continuously investigate useful research findings and publications which they can make use in curriculum development.

Research by South African academics covers the entire spectrum of real estate topics encountered in the international journals (Ghyoot, 2002). However, the small number of real estate academics restricts their contribution to the field. This weakness is noted in the local built environment and construction conferences where few papers in real estate and more specifically in real estate education are presented. To make matters worse, South Africa has no accredited real estate journals (Ghyoot, 2002). Academics have to publish in business and other journals. This was undesirable state of affairs as it hindered research progress in real estate whose findings could have supported real estate curriculum improvement which could have in turn further promoted the development of real estate industry.

Internationally, a number of organisations have supported development of real estate education through research and publications. For example, the American Real Estate Society (ARES) launched a number of journals including Journals of Real Estate Research, and Real Estate Practice and Education to promote the development of real estate industry, research, curriculum and instruction through a number of ways which include the exchange of

instructional methods and materials, and discussion of the nature of real estate field (Black *et al.*, 1996; Urbancic, 2007; Gibler, Sah, and Chen, 2008; Harrison and Manning, 2008; and Allen and Dare, 2009). Furthermore, internationally, academics today have several other journals they can use to publish. However, as the number of refereed scholarly journals grows, authors have to choose among a wider range of outlets for their work. Gibler and Ziobrowski (2000) conducted a study to investigate factors which academic real estate authors considered when choosing where to submit a manuscript for publication. They found that in the USA, academic real estate authors perceived quality of a journal as most important in choosing where to submit a manuscript. Faculty at doctoral degree-granting institutions and AACSB-accredited schools place more importance on promotion and tenure considerations, while faculty at teaching colleges are more concerned about the ease and fairness of the editorial process (Gibler and Ziobrowski, 2000).

Souza (2000) questioned the direction of real estate research to be followed in the future. He noted that the majority of academic real estate research has been criticised for being out of touch with the reality of the marketplace and for conflicting with what the industry truly find useful. Souza (2000) also argues that professional real estate research has similarly been criticised for being too basic and out of touch with the rigors and theoretical discipline of the academy. As a compromise, he recommends that for real estate research to be much more meaningful in the future a combination of academic and professional approaches with more scientific and rigorous in nature and a fundamental foundation will be appropriate for the real estate discipline.

In addition to academic journals, the intellectual foundation on which the knowledge structure of the real estate subject is built is also presented in the textbooks that are used for teaching real estate as a principle course (Roulac, 1994). Consequently, the efforts of those involved in creating real estate textbooks and the choices made by those who select which real estate textbooks to be used assume great significance. It is also important to note that all subsequent course offerings at the undergraduate level, advanced work at the graduate level, doctoral study, research, teaching, and knowledge-based professional practice build on the core body of knowledge presented in real estate principles textbooks (Roulac, 1994).

To promote the development of real estate education, a number of academics have sacrificed valuable time in their lives by producing real estate textbooks to be used for teaching real

estate. Roulac (1994) reviewed twelve important real estate books which have supported the development of real estate education: *Real Estate Principles and Practices* (Jerome Dasso and Alfred A. Ring); *Real Estate: Analysis and Strategy* (Gary Eldred); *Principles of Real Estate Decisions* (Donald R. Epley and Joseph Rabianski); *Real Estate Principles and Practices* (Edmund F. Ficek, Thomas P. Henderson, and Ross H. Johnson); *Real Estate Principles* (Charles P. Floyd); *Real Estate Principles* (Bruce Harwood and Charles J. Jacobus); *Real Estate Principles and Practices* (George R. Karvel and Maurice A. Unger); *Real Estate* (James B. Kau and C.F. Sirmans); *Managerial Real Estate: Corporate Real Estate Asset Management* (Hugh O. Nourse); *Real Estate Perspectives: An Introduction to Real Estate* (Halbert C. Smith and John B. Corgel); *Real Estate* (Larry E. Wafford and Terence M. Clauretje); and *Modern Real Estate* (Charles H. Wurtz bach and Mike B. Miles).

Locally, the South African Property Education Trust has made a significant contribution to the development of real estate education in South Africa and other African countries by producing about 16 property education textbooks under the National Property Education Series for tertiary education.

2.4.15 Real estate educators

Real estate educators can also be viewed as very influential in the process of real estate curriculum design, review, quality control, development, and delivery (Butler, Guntermann, and Wolverton, 1998; Callanan and McCarthy, 2003; Gallupo and Worzala, 2004; and Musil, 2005). Responsibilities of real estate educators include: introducing new innovations in the traditional curriculum, applying high quality teaching techniques, and teaching relevant material. Additionally, real estate educators are always required to investigate needs of the industry and students, and to conduct relevant research so that curricula are regularly updated based on those needs and not necessarily based on their personal desires and satisfaction (Manning and Roulac, 2001; and Callanan and McCarthy, 2003). Weinstein (2002) (cited in Gallupo and Worzala, 2004) believes that for a programme to be competitive and successful it must possess several additional attributes such as a faculty who understands business and dedicated to research and publications, strong industry ties, provide conferences, scholarships, and career opportunities. As a result, hiring of experienced and well qualified educators is fundamental to improved real estate curriculum delivery and development (Hardin III, 2000; and Finch, Hardin III, and Weeks, 2007) and programme success.

Educators also investigate course contents of peer institutions offering similar curricula to ensure that they are offering competitive programmes. A unique MSRE programme at the University of San Diego was developed by borrowing ideas from the University of Wisconsin-Madison programme (Gallupo and Worzala, 2004).

The historical background of real estate professors, schools and departments also plays an influential role in curriculum development. Brown (1979) identified differing backgrounds of real estate professors as a contributing factor to the variation of content in real estate curricula. In Africa, many academics were trained in American or European universities (Ghyoot, 2002). When combined with local influences and legal systems, the result is a wide variety of terminology, analysis methods and philosophies in the curricula. Real estate schools and departments in the British Commonwealth countries tended to design and develop curricula following the British property education system partly due to the past educational influence (Schulte and Schulte-Daxboek, 2003).

One important area which is desired by the industry where educators can be influential through the curriculum is the teaching of real estate decision making. The challenge facing real estate educators today is how to produce graduates who will be competent real estate decision makers in the industry, considering the weaknesses which come with the traditional curriculum. However, Kelly (1990) argued that it was still possible for universities to prepare real estate students for real estate decision making as long as certain precautions were to be followed by real estate educators. To undertake this challenge Kelly (1990) offered a four stage logical process normally followed by real estate professionals in decision making which can be adopted by educators. These four intellectual steps are: (a) referring to experience; (b) developing understanding; (c) arriving at a judgement; and (d) making a decision. For this to be imparted in students, it requires innovative real estate educators.

2.4.16 Real estate constituents

As indicated earlier, the real estate industry comprises of a number of constituents including: real estate development, real estate valuation, real estate management, real estate finance, real estate economics, real estate investment, real estate marketing and real estate law. Black *et al.*, (1996) argued that real estate educators should be guided by constituent needs in the processes of real estate curriculum development. They added that a discipline which fails to meet constituent needs loses its support and is doomed. Unfortunately, research findings have revealed that there was a glaring separation between constituent needs and curriculum requirements (Wells and Williams, 1993). As a consequence it is significant for educators to create a system that continuously assesses needs of the constituents to be used as basis for curriculum improvement.

Closely related to real estate constituents are real estate institutions, real estate functions, real estate types and real estate markets. These too are similarly influencing real estate curriculum development. Important real estate institutions that exist are: real estate developers, real estate investors, construction companies, real estate finance institutions, real estate service companies, and real estate users (Schulte, 2003). These institutions play different roles in the real estate industry. As a result they are also in constant search of specific real estate topics and knowledge which can assist them to handle different challenges they encounter as they deal with real estate. When these educational needs are identified by real estate educators, they could be incorporated in the curriculum.

The function-specific aspects of real estate include: real estate valuation, real estate management, real estate finance, real estate investment analysis, real estate marketing, real estate conveyance, and real estate development (Schulte, 2003). Functionally, real estate is facing new challenges due to changes taking place in the real estate industry. For real estate professionals to remain relevant for the real estate industry, they must continuously develop themselves to adapt and cope with new changes. Good example relates to the challenges the property valuation profession was facing due to the advancement of information technology (Bridal and Laing, 1998). The duty of real estate educators was to identify the challenges real estate professionals were facing from functional point of view and consider them in the processes of curriculum development to support their survival and improve their effectiveness in the industry.

Main types of real estate are: commercial, industrial, residential, and special real estate. Different types of real estate require different methods of analysis, problem-solving and management requirements (Schulte, 2002 and 2003). In addition, as society needs are changing, new demands had emerged which necessitated modification to the design, development, analysis and management of real estate types. Educators are required to update the curriculum to accommodate these new real estate typological developments for the students.

Real estate markets can be categorised into: commercial, industrial, residential, and special real estate markets. Unlike markets for the other commodities, real estate markets are not visible and centrally managed. In addition, it is so difficult to obtain information in real estate markets. The behavioural pattern of real estate markets is also changing all the time (Roulac, 2002). For real estate marketers and investors to survive they have to continuously understand what is happening in the markets. To deal with this they need to be equipped with new ideas on how to understand, analyse and solve problems in the market. It is the duty of real estate educators to identify new challenges which have emerged in different real estate markets and incorporate them in the curriculum.

2.4.17 Real estate consumer behaviour, social and cultural factors

Concepts of real estate consumer behaviour, social and cultural factors including beliefs, religion and heritage are also critical for the real estate professional to make appropriate real estate decisions in the industry. It is therefore relevant for real estate educators to consider these issues in the curriculum. Gibler and Nelson (2003) did a study on the significance of consumer behaviour applications to real estate education. They noted that most real estate study is based on neoclassical economics. However, Gibler and Nelson (2003) argue that human elements of decision making which include all aspects of non-financial decision factors normally called “tastes and preferences” should not be ignored in the study of real estate. By integrating the study of consumer behaviour with the economic approach to real estate, students, teachers, researchers and practitioners can benefit in their real estate decision making processes. In addition, great knowledge of real estate consumers and their behaviour will lead to better understanding and prediction of decision makers’ actions in the real estate market, and as a result, greater success in the marketplace

The study of consumer behaviour involves trying to understand complex human beings and the reasons why they act the way they do in the marketplace (Gibler and Nelson, 2003). It recognises that consumer decisions take place inside a person who has a distinctive personality and attitudes, yet is similar to other consumers exposed to the same external influences of society. The consumer behaviour perspective is identified as shifting real estate study to one with more consumer focus.

In this new era, social concerns have also a huge influence on real estate business and decision making. Today the co-operation of politicians and government with property developers, investors and providers of capital is gaining increasingly important by ensuring that economically viable property development projects are at the same time socially acceptable (Schulte, 2003). This is popularly being described as public-private sector partnership or concerns. In addition, Roulac (2002) noted that in the twenty-first century, the nature of major property developments, involving linking of public policy objectives and private sector motives, requires partnerships that blend the social and financial attributes of the property. Consequently, it is relevant for educators to develop a curriculum in such a way that it produces graduates for the industry and community who are socially, morally, and ethically responsible (Gallupo and Worzala, 2004). This is necessary because the community requires socially sensitive real estate professionals.

2.4.18 Real estate cycle

South Africa experienced a property boom from 2001 to 2006. During this period real estate activities increased, with a concomitant increase in real estate course enrolments. At University of Johannesburg for example, which is one of the largest universities in the country, total number of registered students for real estate and other built environment courses increased from 1,091 in year 2004 to 1,451 in year 2005, representing an increase of 33% (Chikafalimani and Cloete, 2006b). This demonstrated that a booming real estate sector influenced real estate curriculum development. It is up to the educators to identify specific real estate educational needs which come with a boom or a downward swing of the real estate sector and incorporate them in the curriculum for the students.

The impact of real estate cycles on the development of real estate curriculum in different countries of the world had similarities and differences. Susilawati (2002) noted that in

Indonesia the real estate cycle influenced the number of students who registered for real estate courses. When the property business declines, few students enrol for real estate courses because they believe property graduates will not have prospects in the future. Further, Susilawati (2002) indicated that as a result of the economic crisis in Indonesia, some real estate programmes had to be terminated. For example, a Masters in Real Estate programme offered jointly by The Real Estate Indonesian Association and Centre of Architectural and Urban Studies had to be closed due to the economic crisis which happened in the country. In contrast, Susilawati (2002) noted that in developed countries practitioners send staff back to school in times of recession and when property markets were down, believing such times were ideal for training.

In Hong-Kong, (Wong *et al.*, 2008) found out that student intake quality was strongly positively correlated with the performance of the real estate market. This presented difficulties in real estate curriculum design to suit different cohorts of student quality.

2.4.19 Students

Students have a significant role to play in the process of real estate curriculum development. Together with scholars, programme directors, administrators, students are interested in the assessment of teaching, research and service (Hardin III *et al.*, 2006). They are also influential in curriculum development because they investigate what skills they need to be able to function well in the workplace (Manning, 2002; and Callanan and McCarthy, 2003). In addition, feedback reports received from student assessment exercises can support educators in the efforts of improving real estate curriculum at the universities. However, Manning (2002) lamented that when it comes to the selection of specific course content, many faculty place little or no importance on suggestions from students because their students (particularly undergraduates) are too inexperienced and unfamiliar with the “bigger picture” to be a good judge of what specific topics would be better to include within a particular course. While this is true, real estate educators should not underestimate the value of getting today’s students more involved in their own education.

While prospective employers obviously possess valuable knowledge that can assist faculty to select more useful and relevant course content, students are also in an excellent position to assist faculty to improve their courses for at least four reasons (Manning, 2002):

- a. First, many students (particularly graduate MBA and executive MBA students) have had substantial work experience and already know much about what skills and knowledge they need in order to be successful at work or in a new career.
- b. Second, getting prospective employers to describe in detail (as well as in a useful form) exactly what knowledge and analytical skills they wish their future employees to possess, selected from among course content possibilities available to an instructor, can be difficult. Furthermore, since most prospective employers graduated from college some time ago, many are not familiar with the latest theory and analytical techniques, nor are they aware of how much class time or student effort is required to successfully teach different course content alternatives that an instructor may be considering.
- c. Third, many students (even undergraduates) seek out the knowledge of what skills, software, analytical techniques and theoretical understanding will be required of them to become successful in a particular employment area.
- d. Fourth, while some students may not be familiar with what specific knowledge and skills would help them become successful (particularly undergraduates with little work experience), virtually all students can assist faculty with an evaluation of the effectiveness of their teaching materials and pedagogy and thus improve the quality of future student learning in a particular course.

Allen and Carter (2007) also argued that students' performance in core real estate courses taken in the earlier semesters of their studies is critical in curriculum improvement since it can act as an early signal in predicting students' future academic success. By making use of the records of grades obtained, real estate educators might be able to identify students who could benefit from early intervention in the processes of curriculum improvement to increase the probability of academic success in real estate studies. This research evidence supplements findings of previous research which suggest that both intellectual and non-intellectual variables may serve as useful predictors of a student's academic success.

Another way in which students can contribute towards real estate curriculum development could be viewed from the type of training real estate professionals would require. Kohnstamm (1995) posed a question: "What type of training will real estate professionals need in the twenty-first century? What sort of people will be required?" To address this question, real estate educators need to undertake detailed research on the type of students to

be taught so that suitable curricula are developed to meet their needs. For example, Epley and Manning (2006); and Manning, Seal, and Weinstein (2007) attempted to understand learning needs of chief executive officers (CEOs) of real estate companies. Results of their studies revealed that CEOs prefer to learn differently from other adult learners and require a different set of skills. This finding has implications on the way university real estate executive education programmes should be developed.

Furthermore, Kohnstamm (1995) noted that the big debate in the UK was about whether future real estate professionals should be given undergraduate training (full-time or part-time) immediately after secondary school or whether the profession has more need of people who have had a different academic education at degree level and need to be given extra training in real estate later at postgraduate level as a conversion route. A single answer cannot be given to this question. Both routes are possible. The significant point to be learnt from this is that students with different backgrounds will influence real estate curriculum development differently so that their unique educational needs are addressed.

Student entrance requirements could also influence the nature of postgraduate real estate curriculum. One of the admission requirements for most universities in South Africa offering Masters Real Estate programmes is that applicants should have at least two years relevant work experience to be admitted for the course. This requirement has an influence on the nature of curriculum. Real estate educators may allocate less hours for some activities like real estate practicals because it is assumed students have experience and are already exposed to most real estate practices demanded by the employer. In this case the real estate educators may consider allocating more time to other relevant subjects required at Masters Real Estate level like research, policy making, and management skills.

Undergraduate real estate education can have a huge influence on the nature of postgraduate real estate curriculum. A Masters programme for students who did Bachelor's and honour's degrees in Real Estate will be structured in a way that repetition of courses done already is avoided. Such programmes may consider only inclusion of advanced real estate subjects to make the course relevant and attractive to students. On the other hand a Masters Real Estate programme which is considered as a 'conversion route' for other built environment professionals would include both basic and advanced real estate courses.

2.4.20 Urban form changes and problems

Today many cities in the world are experiencing different challenges due to the effects of urbanisation. Problems which have emerged in urban areas that have influenced real estate include: traffic congestion, pollution, crime, urban sprawl, and increasing travel times from residential areas to work places (Prinsloo, 1994; Ghyoot, 2002; Roulac, 2002; and Ott and Read, 2005). These challenges have affected urban real estate and society negatively and the response has resulted in many cases into changes of the urban form and real estate business.

In South Africa, decentralisation of commercial real estate development, a global phenomenon, is being exacerbated by crime levels in major city centres (Ghyoot, 2002). For several years, centralised office and retail rentals have been decreasing and vacancies increasing. The effect on property values has been severe so much that in the present climate, central city investment should be evaluated carefully. Furthermore, since the election of a democratic government in 1994, decentralisation of residential real estate development has also increased. The main contributing factors to this trend are traffic congestion and increasing crime in the cities. To respond, city authorities have embarked on urban renewal schemes to stop urban decay and attract residents and businesses back to main city centres. These issues which have affected urban real estate and society in the recent times have influenced real estate educators to introduce new research initiatives for urban areas and redevelop curriculum to address challenges cities were facing.

2.5 Summary and application

2.5.1 Real estate discipline

Over the past years, the real estate discipline has changed due to several forces which have merged in society and industry. These forces have changed people's and organisations' values which represent the foundation of the real estate discipline (Roulac, 2002). With changing values, different trends of societal spatial patterns manifested in new real estate investment decisions have emerged in the industry. To complicate matters, the types of real estate decision makers in the twenty-first century have also changed. In response to these changes, the real estate profession has similarly been forced to change since there are new demands on the part of those delivering real estate goods and services.

A larger view of requisite knowledge for the real estate discipline in the twenty-first century due to the forces and changes which have taken place in the industry is relevant (Roulac, 2002). To be effective, the real estate professional requires exposure to several topics including: accounting, architecture, computer science, construction management, psychology, economics, engineering, and many others. In addition, the real estate professional requires knowledge of allied sectors in the economy relevant to real estate which include: advertising, agriculture, building materials, security, transportation, furniture, and many others. Furthermore, for the real estate professional to be effective a balance and blend of the following attributes is required: business environmental knowledge, strategic outlook, MBA technical skills, entrepreneurial initiative, institutional style, managerial orientation, marketing flair, and personal skills and people orientation.

Unfortunately, the majority of existing real estate curricula do not present the knowledge and skills required by the industry today and in the future, meaning that most students graduate without being exposed to meaningful topics (Roulac, 2002). To make matters worse, some of the required knowledge and skills are not even part of the real estate discipline. In addition, another challenge today is then to determine what relevant knowledge is but not part of the real estate discipline and what is in fact part of the real estate discipline. Furthermore, with the continuity of new developments taking place in society and industry, it is clear that the process of change in the real estate discipline will accelerate. This will similarly require a permanent process to be put in place within the university real estate education system to assess real estate education continuously in order to remain relevant to society and industry.

2.5.2 Critical issues of real estate education

South Africa as a developing nation and the new democracy is facing enormous challenges. To address the needs of a developing nation as well as eradicating inequalities of the past due to racially discriminatory policies and laws, government (together with the private sector) faces a huge challenge to improve quality of life of people. Most of these needs require real estate products to be provided to house the desired socio-economic services and functions as well as the people. Examples of these needs are: health facilities, schools, sports facilities, government offices, and housing. In addition, before 1994 blacks who are the majority of the population were excluded from property education and never experienced the benefits and

responsibilities of property ownership due to apartheid. Therefore, to solve some of these problems, transformation of education and land were required. Further, these challenges clearly illustrate that real estate education in South Africa has a large part to play towards the improvement of the quality of life of people, more especially of the previously disadvantaged groups of the population through promotion of property ownership and education. This can partly be achieved by strengthening and improving the existing real estate curricula so that they are capable of producing effective and well qualified real estate professionals to support the society, industry and government in addressing the challenges highlighted above. In order to establish an effective real estate education system in South Africa to deal with these challenges, a number of lessons can be learnt from the findings of literature review on critical issues of real estate education, which can be applied in the processes of improving the existing Masters Real Estate curricula in future (Chikafalimani and Cloete, 2009).

The first lesson to be learnt is that individuals and organisations are motivated to attend professional real estate education due to the following motives: the knowledge deficiency motive; the network motive; the perks motive; the labour market motive; and the selection or screening motive (Hakfoort, Berkhout and Manshanden, 2003). The overall understanding of the motives which drive the appetite to participate in education will support institutions offering the courses to develop programmes which will satisfy the needs of students and organisations attending the courses. Even though university education has been criticised for responding slowly to accommodate recent needs of society in the curriculum (Manning and Roulac, 2001), in future it will be necessary to check this weakness if universities will still wish to maintain their credibility as institutions of higher of education.

A second lesson to be learnt by institutions offering the curricula is that real estate education approaches are different throughout the world. Three approaches can be distinguished: the interdisciplinary approach (which is practised in Central Europe); the surveying approach (which is typically in the UK and other countries of the British Commonwealth); and the investment and finance approach (which dominates in the USA) (Schulte and Schulte-Daxboek, 2003). The interdisciplinary approach brings together the multiple perspectives of the investment and finance approach and the surveying approach to offer a more balanced and richer course of preparation for real estate professionals (Roulac, 2002). It is critical to notice that choice of a real estate education approach determines the quality and type of real estate graduates that are produced by the education system at the end. For universities that

aspire to educate people to make informed decisions about real estate in society, the surveying and interdisciplinary approaches are recommended because of their broader approach to the study of real estate.

A third lesson to be learnt is that any well-rounded real estate curriculum should recognise the different real estate constituents whose needs and concerns must be met (Black, Carn, Diaz and Rabianski, 1996). Its aim should be to provide effective real estate decision makers, managers armed with the concepts, techniques and skills required to solve the problems of today and tomorrow. Worth noting is that a comprehensive real estate curriculum offers a solution by covering all relevant topics required by a real estate professional at the workplace. It adopts a four-cornered approach, to cover the many specific topics in the curriculum which are required to produce a competent real estate professional. The subjects that form the four cornerstones of a comprehensive real estate curriculum are: market subjects; financial subjects; legal and public policy subjects; and physical and development subjects. Further, a real estate curriculum which fails to prepare professionals in readiness for changes taking place in the society and industry is dysfunctional (Roulac, 2002). As a result, when addressing the issue of curriculum change two concerns are dominant (Butler, Guntermann and Wolverton, 1998). First concern is what knowledge and skills should be taught. To address this concern it is important for real estate educators to seek input from employers and students. The second concern is how the curriculum should be taught. One approach to teaching is the text book model which is the traditional passive educational delivery system that has been criticised for not preparing graduates adequately to meet industrial requirements (Epley, 1996). In addition, traditional curriculum has misplaced emphasis and gives insufficient attention to critical issues that should be considered in the twenty-first century in general and more specifically in the global context (Roulac, 2002). To address these weaknesses a change from passive to an active learning environment of real-world experiences, changing concepts, new technology and collaborative relationships is recommended (Butler, Guntermann and Wolverton, 1998).

A fourth lesson to be learnt by the institutions offering the courses is that depending on education objectives and needs of students and organisations, real estate curricula can be presented by following one of the three available options: (a) service orientation that involves one or two-course package; (b) a more pragmatic option that involves four to six courses; and (c) a comprehensive programme that exposes graduates to a variety of real estate topics

(Black *et al.*, 1996). The third option is optimal for the professional constituency of the field and to delimit boundaries that define the breadth of real estate studies. Ability to implement a comprehensive curriculum might be constrained in various academic environments by financial resources, faculty manpower and institutional structure.

A fifth lesson to be learnt is that real estate curriculum review is extremely relevant for real estate education to continuously meet industry requirements (Callanan and McCarthy, 2003). This was in line with current paradigm shift in university teaching to produce learning that recognises the importance of industry. Review of the curriculum on a predetermined cycle (e.g. three-to-five year cycle) is required; more especially to ensure that the theory and practice in the curriculum are appropriately balanced in order to best serve the industry. In addition, a new socially acceptable real estate curriculum can be developed by making use of relevant academic literature on real estate education and involving real estate professionals from industry in curriculum development processes (Galuppo and Worzala, 2004).

A sixth lesson is that research on real estate education and more specifically curriculum analysis are significant because they supported educators in the processes of curriculum development by discovering coursework offered in curricula; extending literature on real estate curriculum; and providing insights to be considered in the establishment of new or improvement of existing real estate curricula (Finch and Weeks, 2003). Further, research activity should be encouraged and supported since it is a key factor which differentiates the status of universities as institutions of higher learning from other ordinary education providers particularly in postgraduate studies.

A seventh lesson to be noted by the institutions offering the curricula is that two real estate education guides are available which are supporting the study of real estate. These guides are “strategic real estate framework” (Roulac, 1996) and “house of real estate economics” (Schulte, 2003). The guides together with available real estate text books are supporting real estate educators to disseminate real estate knowledge and skills during this difficult time the academic field of real estate is struggling to find a niche within the academy. Central to the strategic real estate framework is consideration of the decision processes and strategy elements of critical segments of the real estate market. In this framework six major segments of the real estate discipline are identified which include: space users, investors, owner/manager, service providers, developers, and public interest. Basic to the strategic real

estate framework is the interdependency between market segments/participants and their actions as they interact in the real estate market directly with each other, both within and between categories, and especially directly with the property and through the property to other market participants. On the other hand, the “house of real estate economics” illustrates the interdisciplinary approach to real estate studies. Its foundation consists of *business administration* which is supported by *interdisciplinary studies*, i.e. economics, law, spatial planning, architecture and engineering. The two pillars of (a) *real estate types* (commercial, residential, industrial and special real estate) and (b) *institutions* (real estate developers, real estate investors, construction companies, financial institutions, consultants, real estate users, and others) supported (a) *strategic studies* (real estate portfolio management, corporate real estate management, and public real estate management); (b) *functional studies* (real estate analysis, real estate valuation, real estate finance, real estate investment, and real estate marketing); (c) *phase specific studies* (real estate development, construction management, and facilities management) which are *management aspects*.

The final lesson to be learnt by the institutions offering the curricula is that the area of teaching and research called “real estate” has struggled for many years to determine its body of knowledge and obtain a consensus (Epley, 1996). As a result, real estate has not yet evolved through the detailed debate that is required to delineate the topics and receive consensus among educators about the necessary knowledge and skills. While there were many areas of agreement as to the most important topics in real estate, there is also substantial disagreement. To support the establishment of real estate body of knowledge, research is one of the significant tools to be relied on in these difficult times the field was struggling to obtain a consensus. Despite this problem, real estate education is currently required to support the country, society and industry to manage this precious asset and to deal with real estate challenges being encountered. Therefore, while the debate about the body of knowledge is in progress, institutions offering Masters Real Estate curricula are encouraged to continue strengthening and improving the quality of the existing curricula by introducing relevant innovations for the benefit of students, society, industry, and the country. This is significant because no matter what changes may be required in the curricula, the existing curricula will provide sound base for good education in the future.

2.5.3 Influential elements of real estate curriculum development

Today the society and real estate industry are subjected to extraordinary factors and forces which have introduced new expectations for real estate professionals (Roulac, 2002). These factors and forces which have introduced changes in society and real estate industry can be viewed as influential elements of real estate curriculum development. Accreditation bodies; clients; buildings, 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, research and textbooks; real estate educators; real estate constituents; real estate consumer behaviour, social and cultural factors; real estate cycle; students; and urban form changes and problems are some of the important influential elements of real estate curriculum development which were identified in this investigation. With regard to the magnitude of these influential elements, it has been proven that real estate is a complex asset and multidisciplinary in nature. Therefore, the production of competent graduates who will meet society and industrial requirements can only be achieved by exposing students to several issues and concepts in the curriculum. Apart from the traditional real estate course content, a competent real estate professional also requires exposure among others to the effects of information technology advances; environmental concerns; globalisation; social, cultural, and political factors in the curriculum. Consequently, it is advisable for real estate educators to conduct holistic investigations by considering all relevant factors affecting real estate and education in the processes of curriculum development. The magnitude of influential elements of real estate curriculum development has also revealed that the real estate industry is going through a lot of challenges and change. As a result, it is the responsibility of real estate educators to update the curricula regularly in order to accommodate the new requirements and concerns from the society and industry.

It is recommended in this investigation that research in the related area continue so that more elements influencing real estate curriculum development are discovered and get considered in future education. However, the following questions will constantly be asked through out this investigation:

- What are other influential elements to be considered in real estate curriculum development?
- How can these influential elements be accommodated in the future curriculum?

Next, the curriculum and property surveys were undertaken to establish some of the answers for the important questions raised above.