INFORMATION AND GUIDANCE FOR ADULTS RETURNING TO HIGHER EDUCATION IN HONG KONG: A CASE STUDY

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PREFACE

This research is about the information-seeking process for educational decisions. My interest in matters of quality management is the driving force to this study. I take 'Do it right the first time' and 'Factual approach to decision making' as basic principles. The extent to which prospective returnees to higher education take a factual approach to their educational decision-making process and make the right decisions the first time seems to be questionable and hence they may be suffering from not obtaining what they expect to obtain upon completion of their study programmes. Being a Chinese female living in Hong Kong, I, just like many Hong Kong citizens, support the core values of Hong Kong: liberty, democracy, human rights, rule of law, fairness, social equity, care and compassion, openness and transparency, plurality, respect for individuals and upholding professionalism (Hong Kong Core Values, 2004). Openness and transparency are important in information provision; otherwise fairness and social equity is difficult to achieve when individual people make their educational decisions, pursue their further studies and obtain the returns on their educational investment later on. As an educational practitioner, I have been teaching people in the workforce in higher education for several years. My background and life experience permit me to use a holistic approach to interpret the data and analyse from the perspectives of different disciplines in understanding how prospective returnees to higher education in Hong Kong seek information and make their educational choices.

ABSTRACT

All investors aim at maximizing the returns on their investment. Many individuals in the workforce invest in themselves by the pursuit of further studies on a part-time basis in order to better equip themselves, face the challenges ahead and map out a brighter career path. Yet, they may make their educational decisions without adequate data and support, which leads to a less-than-optimal choice. They sometimes overestimate the potential of salary increase and career advancement upon finishing the programme. This research is undertaken to examine how individual people in the Hong Kong workforce seek information to make their decisions for their part-time education programmes.

A combination of quantitative questionnaire survey and qualitative semi-structured interviews was adopted in this research. A questionnaire survey was carried out with a sample size of 55 university students in part-time evening classes. Then, a sub-sample of 16 students took part in the semi-structured interviews. Using grounded theory, I identified eight different themes from the results: motivation to study; information-seeking process; information needs and obtainment; difficulties in information-seeking process; perceptions of returns on human capital investment; comparison between human capital investment and financial investment; career guidance services and labour relations in Hong Kong. The quantitative data from questionnaires are analysed for better triangulation, verification and contextualisation of the research findings.

There are several findings in this study. First, the returnees to higher education who participated in this research were motivated by a wide range of factors. Secondly, educational institutions and peers were their key information sources. Thirdly, they would rather focus on the details relating to their interested programme than aim at a broader view including information on the current labour market situation and the possible outcomes upon accomplishment of their programme. Another point is the insufficient information they obtained. This could not fulfil their genuine needs. Moreover, different obstacles existed in the returnees' intrinsic characters, information sources and interactions between the returnees

and the information sources during their information searching process. Following that, most returnees perceived that information on projections of returns on human capital investment was generally important in their educational decision making. Besides, they believed further studies were of low risk with long-term benefits but financial investment was of high risk with short-term benefits. In addition, they showed misunderstanding and lack of awareness about career guidance services. Furthermore, self-efficacy in educational decision making is determined by a number of factors affecting maturity. Finally, it is found that the labour relations in Hong Kong have been showing signs of deterioration.

A number of implications for policy based on the findings are identified in this research. To begin with, guidance services catering for the special needs of individuals in the workforce and part-time students should be developed and widely promoted. Besides, past cohorts can be invited as informal mentors and volunteers to answer questions from the prospective returnees. Following the point mentioned above, partnership programmes can be established between lecturers and guidance officers in educational institutions to create a win-win situation. Information providers can pay more attention to ensure that quality of information provided is accurate, up-to-date and specific. What's more, projections of returns on human capital investment and risk management are necessary to be included as part of the basic programme information. Last but not the least, a credit accumulation and transfer system should be developed among institutions of higher education in Hong Kong.

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CHAPTER 1 INTRODUCTION

Many young people in the Hong Kong workforce are enthusiastic about pursuing further studies to better equip themselves with knowledge, skills and academic qualifications to cope with the changes in the requirements at work (Plath, 2001; Carnevale and Desrochers, 2002). Their participation rate in higher education has been increasing steadily (Hong Kong Census and Statistics Department, 2005a). However, insufficient information, which is one of the major career decision-making difficulties, may have hindered them in making appropriate educational decisions, resulting in less-than-optimal choices (Gati, et al., 1996). Without the adequate support of data, they are often found to have unrealistic expectations over the returns on their human capital[1] investment in terms of potential salary increase and career advancement. This research is undertaken to study how those Hong Kong returnees to higher education seek out information for making their educational decisions. It is targeted at those who are already in the workforce and currently attending part-time award-bearing programmes as an investment.

Context

First, the development of the educational systems in Hong Kong is discussed to provide background information on adult learning and continuing education. Secondly, the local economic environment is reviewed in order to consider its effects on the incentives and the returns of human capital investment. Thirdly, career guidance services are studied in line with their historical development in Hong Kong because provision of information is central to their work.

Educational system and policy

Britain seized Hong Kong in 1842 and had taken it as a colony before the transfer of sovereignty to China in 1997. Therefore, the educational system of Hong Kong followed a British model (Hong Kong Government Secretariat, 1981). The education structure is pyramid-like with nine-years of compulsory free basic education as a base. Following that, the participation rate gradually declines in two marked stages. The first stage is during the

1 The working definition of human capital was the competence, knowledge, skill and attributes of a person. It could be produced through investment in training and education and yields income and other useful outputs over long periods of time. Human capital is discussed further in Chapter 2.

two years of senior secondary education in years S4 and S5, which prepare students for the Hong Kong Certificate of Education Examination. The second stage of decline happens during the two years of post secondary matriculation education in years S6 and S7, which get students ready for the Hong Kong Advanced Level Examination and for higher education.

The above long-established model used in Hong Kong has been undergoing reforms. The Hong Kong Education Commission (2000) proposed to convert the existing educational system into a '3-3-4' academic structure. Under this scheme, in addition to the current six years of primary education, three years of junior secondary, three years of senior secondary and a four years of university course will be offered. The purpose of the new scheme is to defer the process of specialisation and to broaden the scope of learning in universities. Another purpose of this reform proposal is to align local higher education with that of China, as well as an increasing number of countries with similar structures. The public response is generally positive. The Hong Kong Special Administrative Region (HKSAR) government plans to implement this reform from September 2009 (Tsang, 2005; Hong Kong Education and Manpower Bureau, 2005a). This new academic structure is intended to provide multiple pathways for students either to work or to pursue further studies upon completion of their senior secondary education (Hong Kong Education Bureau, 2008a). In the future, more development choices will become available for individual students, thereby impacting their educational decision making.

Higher education

In the 1990s, higher education in Hong Kong underwent several reforms. In the 17-20 year olds cohort, enrolment rate on undergraduate degree programmes expanded rapidly from 8% in 1989 to 18% in 1996. This surge subsequently stabilised in the early 2000 (Chan and Yue, 1997; UGC, 2005). The competition between senior school leavers remains fierce. Most young people have gone through years of schooling and several public examinations before they are ready to take up higher education (Leung, 2002; Cheng, 2000). The former Chief Executive of the HKSAR, Mr. Tung Chee-hwa, in his 2000 Policy Address proposed that the number of senior secondary school leavers receiving post-secondary education would be

increased to 60% within the next decade. The HKSAR Government has encouraged the development of community colleges to provide new options such as professional diploma and sub-degree courses (Hong Kong Education Commission, 2000). The availability of continuing education is an indispensable element for lifelong learning for any knowledge economy and is critical in expediting the transformation from a manufacturing to a knowledge or service economy (Tung, 2000). Many professional and non-academic bodies, for example the Hong Kong Management Association and the Hong Kong Productivity Council, offer many training and qualification programmes and courses to the public for career development and lifelong education (Hong Kong Management Association, 2008; Hong Kong Productivity Council, 2008). Most universities in Hong Kong have an extension arm for continuing education, for example the School of Professional and Continuing Education (SPACE) at the University of Hong Kong and the School of Continuing Studies (SCS) at the Chinese University of Hong Kong (UGC, 1999). By 2002/03, there were 11 members belonging to the Federation for Continuing Education in Tertiary Institutions, offering a total of 5,634 courses for lifelong learning, ranging from general self development, art and leisure, to formal academic and professional programmes (Federation for Continuing Education in Tertiary Institutions, 2005). The Hong Kong Education and Manpower Bureau (2005b) estimated that more than 220,000 students were attending adult education, tutorials or vocational courses in the academic year 2004/05. Both the opportunities and the choices of learning on offer are breathtaking. As a result, the educational decision-making process becomes more difficult and complex.

Moreover, in many recent government policy addresses, education is highlighted to be developed further as one of the key industries in Hong Kong. In this respect, the change has already occurred. Students from Mainland China and neighbouring countries in Asia are encouraged to come to Hong Kong to study. Hong Kong has begun to position itself to become the education hub of the region (Tung, 2003; Tung, 2004; Tung 2005; Tsang 2007). Many higher education institutions in Hong Kong have accelerated their marketing in line with the orchestrated direction from the Government. Keen competition among higher education institutions is already well underway.

Ironically, whilst stressing the importance of higher and further education on the one hand, the HKSAR government chooses to cut its funding budget to local higher education institutions on the other. University funding was reduced by 10% and 4% in the two recent budget trienniums 1998-2001 and 2002-2005 respectively (HKSAR Government, 2001). This meant that higher education institutions have to do more with less where the butter is in danger of being spread too thinly on the toast. The government started promoting the 'user pays' principle to continuing education (Hong Kong Education Commission, 2000, p.133). Apart from cutting cost through downsizing and lowering overheads by relying more on part-time faculty members, higher education institutions strive to obtain funding resources by commercialisation of research and revenue generation from the donor community: alumni, business tycoons or members of the general public. Besides, they collaborate with overseas institutions to extend their networks and draw the resource pool of teaching staff and potential student recruits. As a result, they can capitalise on the international reputation, ranking and standing of their partners. Even some originally government-funded programmes and courses that are popular have undergone significant commercialisation. Many of these courses are forced to run on a self-financed basis (Mok and Lo, 2002; Shuen, 2000). As a result, higher education seekers are required to shoulder the financial burden and bear the risk of their educational investment to an extent which has never been seen before. However, the HKSAR Government does provide limited supporting funds and rebates for takers of certified courses, in order to alleviate these burdens.

Qualifications framework

From 2007 onwards, a new pathway for achieving academic and vocational qualifications has been offered. The HKSAR Government has been working to establish a seven-level Qualifications Framework to encourage continuing education and to provide learners with a clear articulation ladder of their qualifications (Tung, 2004). 'The Accreditation of Academic and Vocational Qualifications Bill' was passed on 2 May 2007 in the Legislative Council (Hong Kong Qualifications Framework, 2008a). Various Industry Training Advisory Committees have been established in stages to set out the competency standards in their respective industries. Recognised qualifications can be obtained through academic and

training attainment as well as other means (Hong Kong Qualifications Framework, 2008b). This is very likely to create a new demand and supply of programmes under the Qualifications Framework. As far as individual people are concerned, the difficulties of choosing an appropriate pathway and programme are intensified as more options become available.

Credit accumulation and transfer system

A credit accumulation and transfer system is available under the Qualifications Framework. Credits which are convertible and collectible can be earned from learning or training gained from various courses and then can be accumulated into a recognised qualification (Hong Kong Qualifications Framework, 2008b). However, this system is difficult to implement across the board among widely different specialities and professions. It is immensely hard for the tertiary educational institutions in Hong Kong to come up with a standard across widely different disciplines. Students in these institutions continue to suffer from lack of convertibility between programmes and from the inflexibility of the system.

Once an individual has finalised his or her educational choice and has been admitted to a particular programme or course, he or she is bound and prevented from switching an academic major, even within the same institution. Needless to say, transferring from one higher education institution to another one is rare. The recognition of credit awarded is patchy between institutions. In general, even transferring or switching within the same higher educational system is difficult. Consequently, unless they force themselves to carry on their studies irrespectively, individuals who have chosen the 'wrong' academic major or higher educational institution must either drop out or restart from scratch (Leung, 2002; The HKACMGM, 2004).

Initially, there were plans to develop a credit accumulation and transfer system in higher education, because the transfer of credits between educational institutions within Hong Kong and between degree courses was 'virtually unknown' (Butler and Hope, 2000). The report of the University Grants Committee (UGC) in 2002 suggested allowing students to attend courses at different institutions and leaving educational resources to be shared equally among

institutions (Sutherland, 2002). Nonetheless, the controversy surrounding the proposed merger between the Hong Kong University of Science and Technology (HKUST) and the Chinese University of Hong Kong (CUHK) makes integration unlikely in the near future. Strategic alliances and deep collaboration across institutions are encouraged (UGC, 2004; Institutional Integration Working Party, 2004; Yung, 2004). It shall be after long years before a comprehensive credit transfer system can be worked out and fully implemented among tertiary institutions in Hong Kong. Until then, decisions on educational choices remain almost irreversible. Young people who wish to make a change to their original educational choices are faced with forfeiting the time and money already invested in the original programme or course.

Economic environment and human capital situation

In the last decade, Hong Kong experienced serious economic turmoil. Shortly after the 1997 handover, Hong Kong was confronted by a long period of economic recession including the Asian financial crisis, from which it had only just recovered by 2006. Thus, the per capita gross domestic product (GDP) shrank from HK$210,350 in 1997 to HK$183,449 in 2003, before gradually returning to HK$215,238 and HK$232,836 in 2006 and 2007 respectively (Hong Kong Census and Statistics Department, 2008a).

Economic background

From the 1970s up to the late 1990s, Hong Kong went through an uninterrupted period of industrial and commercial prosperity. During the 1970s, with a vast supply of cheap labour, the economy of Hong Kong expanded and developed to become one of the Asian tigers in industrial production. Economic growth continued in the 1980s, with Hong Kong becoming one of the world's most dynamic cities in trade and finance. Investment in human capital was one of the driving forces contributing to the prosperity, which in turn supported a high return of educational investment. Hence, economic growth was very rapid (Tilak, 2001). In the 1990s, the unemployment rate of Hong Kong hovered around two to three per cent, which represented only the natural rate of unemployment, due to a temporary labour market mismatch. In these three decades, full employment occurred in Hong Kong (Hong Kong

Census and Statistics Department, 2008b).

Then, the economy of Hong Kong was badly struck after 1997 by several economic events including the extremely influential Asian financial crisis, which in turn triggered the subsequent property slump in Hong Kong. Bursting of the worldwide dot-com information technology bubble, and an outbreak of the SARS respiratory disease both caused havoc in Hong Kong's economy. The economic downturn harmed the overall business environment and set off spirals of salary cuts, layoffs and company closures. Unemployment faltered, private consumption and expenditure and the internal economy suffered in turn. Then, a mutually reinforcing loop between unemployment and deflation was set in motion. The unemployment rate reached a record high of 8.8% between May and July 2003 (Hong Kong Census and Statistics Department, 2008b; Leong, 2004). Unemployment might also be attributed to the weakening of the manufacturing sector over the last two decades. Many labour intensive manufacturing jobs have been permanently lost after factories relocated in Mainland China and other Asian countries, so as to exploit the lower costs on labour and land. Even the zero tariffs and favourable tax incentives on Hong Kong products under the Mainland and Hong Kong Closer Economic Partnership Arrangement (CEPA) launched in early 2004 did little to alleviate unemployment and boost general business confidence. Meanwhile, Hong Kong tried hard to change from a manufacturing economy to a service oriented one focusing on finance, logistics, telecommunications and business commercial services (Bank of China, 2004; Wong and El-Abd, 2003; Hong Kong Census and Statistics Department, 2005a).

Actually, the transition from a manufacturing base to a service hub began in the late 1980s, but the process needed to accelerate dramatically under the impact of the economic recession and jobless recovery after the transfer of sovereignty over Hong Kong from UK to China in 1997. Furthermore, Hong Kong's role in serving the regional needs in finance and trade has been eroded by the rapid development of mainland China. In competition with other countries in Asia, Hong Kong has lost much of its comparative advantage. Facing various threats, the HKSAR government has been sadly in a serious lack of long term planning and has been

proved to be reactive rather than proactive.

Manpower situation and the HKSAR Government policy

In 1996, the estimated social rate of return[2] to education was around 10% in Hong Kong (Hong Kong Education and Manpower Bureau, 1999). This showed the HKSAR Government that it is worth investing in education and regulating its education and manpower policy in order to expedite the economic transformation. The demand for a well-educated, well-trained, capable and versatile workforce continues to rise because of the structural economic changes and, thus, the occupation market as identified in the report of Manpower Projection to 2007 (HKSAR Government, 2003). The HKSAR government has adjusted its human resource policy in order to face the challenges that ensue and has emphasised that individuals ought to be adaptable to such changes through managing their skills needed for the knowledge and service economy.

The HKSAR government aims to increase the percentage of 17-20 years old secondary school graduates receiving higher education to 60% by 2010, to meet the demand of a knowledge-based economy. In fact, this age group of cohort pursuing further studies has already increased from 38% in 2002 to 53% by 2005 (Sutherland, 2002; Tung, 2005). In line with the recent reform of the educational system, the HKSAR government provides training subsidies such as the SME Training Fund, Continuing Education Fund, and supporting services like Skills Upgrading Scheme, the Employees Retraining Scheme (Tung, 2001; SME Committee, 2001; Employees Retraining Broad, 2005; Hong Kong Government Information Centre, 2005). This is implemented in order to delay young people from entering the already depressed labour market and to help businesses partially meet their training costs during transition. These government funds and schemes do alleviate some of the problems associated with the economy's transformation. Obviously, only a high tax rate will generate sufficient funds for generous welfare benefits. In general, Hong Kong taxes are low. In the financial year 2006-2007, the standard salaries tax rate and the corporation profits tax rate were only 16% and 17.5% respectively. As a result, the HKSAR Government encourages the taxpayers to build a self-help concept for enhancing their individual skills and educational needs (Tung, 2004).

[2] Social rate of return was calculated based on the full range of public and societal costs and benefits accrued to society of investment in human capital. In principle, it should include both monetary and non-monetary costs and benefits. In practice, the published estimate rested heavily on a wide range of measurable factors.

The HKSAR government is attempting to address the discrepancy between the skill sets of school leavers and the demand of the new industries in a number of ways. There are 12 job centres and one careers information centre within the Labour Department, providing employment services, career information and guidance to individuals. A number of government training initiatives have been developed targeting young people with limited practical skills or work experience in order to improve their employability in a slack job market. These include the Youth Pre-employment Training Programme, Young Work Experience and Training Scheme, Youth Self-employment Support Scheme, Graduate Employment Training Scheme, Project Yi Jin, Information Technology (IT) Assistant Course, Tourism Orientation Programme and Youth Sustainable Development and Employment Fund. Most of the target participants in these programmes, except those in the Graduate Employment Training Scheme, are unemployed teenagers or those with low educational attainment (Hong Kong Legislative Council Secretariat, 2004). However, for those employers and employees already in the workforce, they are expected to rely on themselves to enhance their competence and survive in the economic downturn. Government sponsored assistance for these bodies is largely absent as compared with that for the low skilled unemployed groups.

Response of employers and employees to the economic downturn

Increasingly, employers are aware of the power of learning within the workplace (Watts, 1995; Senge 1990). However, it is essential for the employers to move cautiously with regard to resource allocation during a recession. The 2002 Establishment Survey on Manpower Training and Job Skills Requirements showed that for employers in Hong Kong, only 13.1% have training plans and 11.2% have training budgets for their employees. Moreover, the same survey indicated that the preferred training mode is self-learning. The report further mentioned that the small and medium-sized enterprises are less aware of the need to devise training plans (Hong Kong Census and Statistics Department, 2003a). Thus, many individuals are required both to think about in what area and how they should go about upgrading their knowledge and skills independently, rather than passively waiting for assistance and guidance from their employers in addressing their training needs.

A second survey indicated that a significant numbers of working people are facing challenges of a heavier workload (43.8%), salary or wage cuts (32.0%) and longer working hours (27.5%), during the recession. Corporate downsizing, contraction of business, cost reduction and fierce competition among rival companies within the sector are cited factors about which most employees worry (Hong Kong Census and Statistics Department, 2003b). Business downsizing and advocacy of smaller government and thus the reduction in government funding, are part and parcel of a global trend that impacts on communities and adult education (MacKenzie, 1997). Many people seek ways to improve their job security in a difficult environment especially when the unemployment rate is riding high. In order to improve themselves, these working people, who include those have experienced drastic downsizing of the Internet industry in Hong Kong in 2000, are shown to be more prepared to take education and training courses at their own expense (Chu and Ip, 2002). They may decide to pursue further studies on a part-time basis as part of their self-development and enrichment. It goes without saying, that when making educational decisions, they need to seek information, advice and guidance from different resources.

Career guidance services

Education guidance can be either formal or informal, or a combination of both. The formal education guidance as a professional service sets out to provide their clients with the information and advice on the best way to invest in their own career pathways, to make decisions on suitable kinds of institutions and types of programme. Usually, these services are provided with prior assistance with evaluation of the individuals' interests, strengths and current career performance. Generally, they are grouped under career guidance or counselling (St. John-Brooks, 1996). The informal approach may include casual discussions with peers or seniors to obtain general information and educational advice.

Historical development

The history of formal career counselling in Hong Kong is relatively short when compared with that of the developed countries. Zhang (1997, 1998) categorised it as comprising three stages. The first stage was the rise and development of vocational guidance from 1958 to 1977. A

Working Party was set up in 1958, and then Director of Education recommended that a career teacher should be appointed in each secondary school to help young people prepare themselves for employment. Thus, the Hong Kong Association of Careers Masters was established in 1959, to collect and disseminate information about employment and careers, to provide vocational guidance at school and to help students find suitable employment. Then in 1968, the Hong Kong Government followed the United Kingdom model to establish the Young People Careers Guidance Group under the Labour Department in order to assist young graduates and alumni in preparing for employment and job placements. Most of the activities during this period were related to careers information dissemination and career talks.

The second stage was from 1978 to 1990. It was characterised by the transition from vocational to careers guidance. In 1978, nine years of free and compulsory education was introduced. By the end of the ninth year, or when students completed the third year of secondary education, they had to decide which educational stream or vocational route they would follow. Those continuing their education would have another two years of study before they arrived at the matriculation milestone. During this period, the Education Department had put in additional resources and counselling teachers to support careers guidance, which helped students choose their educational and vocational routes as well as look for employment opportunities.

The third stage is referred to as the consolidation period of career guidance, covering the years from 1991 to the present day. In 1990, the Whole School Approach to guidance was recommended by the Education Commission in its Report No. 4 'The curriculum and behavioural problems in schools' and was intended to provide pastoral care in order to improve student learning and emotional well-being, to alleviate behavioural problems and to provide students with opportunities for guidance and counselling throughout their school career (Hong Kong Education Commission, 1990). Over the last few years, the proportion of young people choosing to continue their studies in higher education has expanded progressively. Currently, more organisations are working together to strengthen their career guidance services to meet with new requirements and increased demands. While schools have

played a key role, many other organisations have worked proactively to assist teenagers in the transition from school to the world of work. These include the Government for example, the Education Department and the Labour Department, professional bodies such as the Hong Kong Association of Careers Masters and Guidance Masters, and a number of voluntary associations like the Hok Yau Club. However, there are major gaps between the advocacy under the Whole School Approach and the actual delivery. The basic principles and the content of the guidance given remain basically the same as those offered in the second stage, but there is a shift from a remedial approach towards a more developmental and preventive one. There is still much room for improvement in Hong Kong's guidance services (Zhang, 1998; Yuen, et al., 2000; Gysbers, 2000; Hui 2002).

Guidance at educational institutions

For the most part, existing career guidance services in Hong Kong have been conducted in secondary schools, with some limited services at the community level. Generally, these activities are limited to programmes such as career talks and visits for information dissemination (Leung, 2002). Similarly, the services in the universities are mainly focused on job placement and provision of career information (Chan and Yue, 1997). The functions are used "rather narrowly and instrumentally" (Lau, 1995, p.219). At school level, few skills have been developed to help students make informed educational and career choices (Leung, 1999). Undoubtedly, this will put them at a disadvantage later in life.

The Applied Learning courses (formerly known as Career-oriented Curriculum) have been piloted since 2003 and are only fully implemented in the senior secondary curriculum under the new 3-3-4 academic structure in 2009. The curriculum aims at providing students with the opportunities to explore their orientation for life-long learning and career aspirations in specific areas (Hong Kong Education and Manpower Bureau, 2006). The change in the guidance education and their impact will take an even longer time to evaluate.

Guidance at community level

After young people have graduated from schools to join the workforce, the problems that

have been caused by the under-developed skills for making informed educational and career choices become alarmingly apparent. When the economy is healthy, this inadequacy is not critical because opportunities are generally abundant. During recession, the lack of skills becomes more serious. Except for the free services offered by the Hong Kong Labour Department discussed previously, organised career and education guidance for working people at community level is very limited (Leung 2002). As matters stand, the private individual career counselling services for working individuals are neither readily available nor popular in Hong Kong.

On one hand, the skills for making informed educational choices are under-developed in school and are not available later in community. On the other hand, working people would rather return to higher education with the primary aims of obtaining better career opportunities and higher potential salary. Then, they will experience difficulty in maximizing the returns on their educational investment by choosing an 'appropriate' programme or course. This hypothesis is central to the present study.

Rationale for this research

Many people are obliged to change jobs several times during their working lives. Otherwise, they may not adapt to the changes caused by economic structural transformations, advancement of technologies, birth of new products and markets or the disappearance of others and increased competition due to quickening globalisation (Butters, 1996; Borchard, 1995; Carnoy, 1994). In 1981, 42.6% of the Hong Kong labour force was involved in the manufacturing sector but by 1991 the percentage fell to 26% and further to 8.9% in 2001. In contrast, the labour employment percentage in the service sectors (which include restaurants and hotels, financial and business services, community, social and personal services) have gradually climbed from 40.6% in 1981 to 54.4% in 1991, and then to 79.8% by 2001 (Ma, 2004). From then onwards, many individuals in the workforce are faced with increasing threat of worsening job security and therefore are eager to pursue further studies to brush up their knowledge and skills, so as to enhance their employability. Those wishing to advance their careers or to switch to another trade rely heavily on higher education and further training as

the means to achieve their aims. At least some may decide to take university programmes on a part-time basis.

Further studies can be viewed as either consumption or an investment. Some take further studies in pursuit of interest and leisure. As a result, it is considered as consumption. Others may be driven by the sole consideration of increasing earning power through the acquisition of knowledge and qualifications. The idea that education is all empowering and an assured means to the acquisition of wealth and success is deeply entrenched in the Chinese culture. It is widely accepted that positive returns on human capital investment are guaranteed. This attitude towards further education is so deeply rooted in most Hong Kong Chinese that rational judgements are affected. All in all, this assumption of high returns, ranging from material wealth to personal prestige, fits in the human capital theory that education is an economic investment (Becker, 1993; Schultz, 1971).

An extreme but good illustration of the possible risk of human capital investment happened in 2000. Those who studied Information Technology (IT) with a view to entering the field could only witness the subsequent bursting of the IT bubble. For that reason, returnees to higher education should obtain as much information as they can to support their decisions before choosing from the numerous educational programmes on offer. In this way, they can maximise their private rates of return[3] as well as to minimise the risk involved. Moreover, many similar courses are offered by different institutions. It is difficult to differentiate one from other. Projections on the likely returns of the associated human capital investment will probably be the most valuable information that the prospective returnees need.

Some returnees to higher education may not have received adequate help at school to fully develop their skills in career and educational planning. They may actually need professional guidance to help them through the labyrinth of information and to extract the necessary information to make the final choice in their studies. It is especially crucial in Hong Kong for working people to make the right decision the first time round, because switching academic majors or educational institutions is extremely problematic and less supported by the

[3] Private rate of return was estimated based on the full range of private costs and post-tax earning over a lifetime (OECD, 1998). In principle, it should include both monetary and non-monetary costs and benefits.

infrastructure of the current educational system. The Government seems not to have offered a policy, direction, practice and assistance to working adults. It provides generic career information mainly aiming at the general youth, whereas career guidance services in the universities are almost solely to undergraduates. In addition, private individual career counselling services to working individuals are not common in Hong Kong except for outplacement counselling services by some large companies.

There are conflicting views on whether people in the workforce should be given more guidance in making their educational decisions. One camp of thought considers that if further studies are taken as an investment, these applicants should be provided with enough information. Ideally, when these individual returnees wish to obtain information and career guidance, it should be readily available. The other disagrees and argues that working individuals should be competent enough to take their own responsibilities to seek information and handle their educational decision-making matters. Thus, educational and career guidance should not be a handout, regardless of whether it is proactively sought or not. The above has spurred my interest in conducting further studies in these associated topics.

Aim and purpose of the research

The aim of this research is to study the information-seeking process for the Hong Kong young people making educational decisions. It is hoped that the results of this research will provide the implications for policy relating to career guidance services. As a result, prospective returnees to higher education will be able to make better educational decisions. Moreover, education institutions will be able to recruit motivated learners and achieving higher retention rates. In this way, the deployment of social resources might be improved in the future. Ideally, if everyone is provided with adequate information and skills to make educational decisions in a rational way, fewer people will be handicapped by insufficient information and the lack of education guidance.

The research title and questions

The title of this research is:

> Information and guidance for adults returning to higher education in Hong Kong: a case study

A set of questions are developed under this research title.

1) What are the factors that motivate working individuals in Hong Kong to decide to pursue further studies on a part-time basis?
2) How do the returnees seek information for making educational decisions?
3) What are the information gaps between what the returnees perceive as obtainable and what would be needed to make their educational decisions?
4) What difficulties do the returnees encounter during their information-seeking process?
5) How do the returnees perceive the returns on human capital investment to their educational decisions?
6) How do the returnees compare human capital investment with financial investment?
7) What opinions do the returnees have on the career guidance services in Hong Kong and self-efficacy in educational decision making?

This research is founded on the human capital theoretical premise that education is an investment rather than consumption (Becker, 1993; Schultz, 1971). It is focused on the returnees to higher education who are employed and pursuing further studies on a part-time basis. They aim at increasing their earning power at work after they have acquired the knowledge and qualification from the programmes and courses they complete. These returnees to higher education, except those who have obtained financial support from their employers or who have won scholarships, are solely responsible for their own educational decisions. They use their own money rather than others' money to carry out their own educational investment. If that is the case, the expected returns on human capital investment such as career advancement and salary increase will be one of the determinants for them to pursue their further studies.

The research is designed to focus mainly on the demand side of the information and career guidance required. First of all, the research starts by seeking a general understanding about what drives individuals to pursue further studies on a part-time basis, as background information for the analysis in the later stage. Following on, an investigation is carried out on the information-seeking process taken up by these prospective returnees to higher education, before their educational decisions are made. The idea is to estimate whether there are any gaps between the demand side and the supply side of the information flow. In view of this idea, the difficulties encountered by these prospective returnees will be brought to the fore. Moreover, the research covers these returnees' perceptions on the returns on human capital investment, in support of their educational decisions and how they view human capital investment in comparison with their perceptions on financial investment. Finally, various opinions concerning the career guidance services in Hong Kong and self-efficacy in educational decision making are gathered and studied.

Scope of this research

A key focus of this research is on the individual level rather than on the government and the organisational levels because in most circumstances returnees to higher education are required to manage their own career development in order to sustain their employability (Watts, 2000; King, 2001). In the rapidly changing twentieth-first century, both the self-employed and the employed alike should consider themselves as self-employed and take full responsibility for their own lifelong self-development (Bridges, 1995; Hakim, 1994). The human capital investment at the levels of government and corporation is not considered in this research. In addition, this study is about the reasons for working adults returning to higher education on a part-time basis rather than a full-time basis. Part-time studies are a common approach used in Hong Kong, because they reduce the disturbance to daytime jobs and allow the pursuit of further studies. Moreover, this research is targeted at those taking further studies as an investment, that is, primarily aiming at better career opportunities and higher salary. In Chapter 3, the criteria for the selection of participants are discussed in detail.

Human capital theory, information-seeking behaviour and career guidance are used as the

basic concepts this research. Nonetheless, other career development theories relating to psychological aspects ranging from person-environment, developmental, to social cognitive and social learning theories are not reviewed in depth (Flores, et al., 2003). With respect to the information-seeking process, special attention is paid to projections of returns on human capital investment such as expected salaries and potential job opportunities. Such information is needed by prospective returnees to higher education to consider as part of the returns on their educational investment under human capital theory. However, the private and social rates of return on educational investment are neither being calculated nor verifiable, due to the comparatively short duration of this research.

Another point worth highlighting is the timing for providing the career guidance, which could be at any of the three stages namely: entry, on-programme and exit (Further Education Unit, 1993). Obviously, an educational decision is usually made before enrolment on a programme rather than during or after the programme is taken up. It is exactly at this stage where career guidance is most needed. Once a programme starts after enrolment, money and other resources will have been committed to the education investment. For that reason, this research is only concerned with the guidance services that are provided prior to enrolment of a programme.

Thesis outline

This thesis begins with an overview of the research in Chapter 1. It sets out to look into various aspects of the local educational system and policy, economic environment and the prevalent human capital conditions and the career guidance services in Hong Kong. In this Chapter, the rationale, aim and purpose of this research are spelled out with the detailed description of the research question and the study's boundaries. In Chapter 2, the review of literature includes references relating to human capital investment, the information-seeking process for educational choices, financial versus human capital investment and finally, career and education guidance. In Chapter 3, the details of the adopted research methodology are laid out with justifications for its selection. The details of the fieldwork, research difficulties, and analysis methods are also addressed in the same Chapter. The mainstay of this thesis or

its principal arguments and discussions are presented in Chapters 4 and 5. In Chapter 4, the data collected in this chapter are grouped under seven areas: motivation to study; information-seeking process; information needs and obtainment; difficulties in information-seeking process; perceptions of returns on human capital investment; comparison between human capital investment and financial investment and career guidance services. Then thorough attempts are made in Chapter 5 to look into the research data. Finally, in Chapter 6, the 'Conclusions' of this study are presented along with the policy implications for career guidance in Hong Kong.

CHAPTER 2 REVIEW OF LITERATURE

A review of literature relating to the research question is necessary to position the study in the field and its purpose is to consider what others have done on this research topic, their methodologies and their findings. The educational system and policy, economic environment and human capital situation, and career guidance services in Hong Kong are presented in the previous chapter to provide a picture of the local context. This chapter continues to examine human capital theory and the impacts of education on identity, psychological, social and cultural capital. Then the knowledge generated from previous research on the area of information-seeking process in educational decisions is explored. It covers the topics of career development and the processes in career decision making, educational decision making as well as information seeking. Besides, characteristics of financial investment are looked into for comparison with that of human capital investment. Moreover, the future trends of career and education guidance in Hong Kong are discussed in reference to the development of the same in the United States (U.S.). Guidance services that are tailored for those in higher education and as working individuals are examined. Self-efficacy in educational decision making is briefly reviewed as well. Finally, the gaps in knowledge to be filled are identified at the end of this Chapter.

Human capital investment

Human capital theory

Human capital has been defined as "the knowledge, skills, competencies and attributes embodied in individuals that facilitate the creation of personal, social and economic well-being" (OECD, 2001a, p.18). Many practitioners in economics consider education as an investment in human capital (Becker, 1993; Schultz, 1971; Smith, 1976). The positive relationships between human capital and national economic growth and development have been drawn much international attention (Tilak, 2001; OECD, 2001a). On the individual level, it is increasingly evident that lifelong education is almost a must. The report published by OECD (2000a) showed that the nature of work and the distribution of employment opportunities are rapidly changing under the aggregate pressure of globalisation, trade

liberalisation, increased competition and an aging population. Many unskilled jobs are disappearing and more frequent job switching is expected. In OECD countries, roughly 18 percent of workers have been in their present jobs for less than a year and workers are required to renew their knowledge and skills at a greater pace than before (OECD, 2000a). In the industrial era, people usually developed their careers in a hierarchical and bureaucratic organisation. However, this concept has been broadened in the post-industrial era. The individual employees are working as professionals and entrepreneurs within a flexible and flattened organizational structure. Thus, they are required to learn throughout life so as to take charge of their career development independently and enhance their employability (Kanter, 1989; Collin and Watts, 1996). Through education, training or other means, people invest in themselves to improve their knowledge, skills, competences and other attributes to obtain a higher income or improve their lifetime earning over the duration of their working life. At the same time, they can enjoy benefits including higher levels of saving, increased professional mobility, better quality of life for their offspring and probably more hobbies and leisure activities over time (Institute for Higher Education Policy, 1998; Porter, 2002).

Many resource inputs are involved in such human capital investment. Monetary resource is one of the most critical elements. Money are spent on tuition fees, foregone earnings (opportunity cost) and other inevitable associated costs such as from stationery and books to transportation. Generally speaking, financial aid programmes are continuing to fail part-time and adult students (Fisher, 1997). In Hong Kong, individuals can resort to taking personal loan from banks for their financial investment. Likewise, they can apply for an education loan for their human capital investment. Most local banks do not distinguish between the two types of loans because they are not concerned with how the money is to be used. In 2004, simple personal loan programmes became more attractive to borrowers (South China Morning Post, 2004). The study by Fletcher (2001) found that, in circumstances where an academic programme offers the prospect of high returns to students as well as the combination of fees and other participation costs are substantial, the availability of loans becomes a major factor affecting whether the academic programmes shall be pursued. Another study in Germany showed that the enrolment probability is influenced by cost and expectations of returns to

higher education as well as social origin, in particular parental education and occupational position (Lauer, 2002). On the non-pecuniary side, no one can study or learn on behalf of others. Thus, time is another critical resource to be invested by individuals (Davies and William, 2001; Greenberg, 2000; Gammon, 1997).

The measurement of the inputs and outputs in human capital investment is far from comprehensive and is fraught with many controversial assumptions (OECD, 1996). Belfield (2000) investigated the earnings, both pecuniary and non-monetary, between two individuals with different education levels over a lifetime. There is a strong positive correlation between education levels and income. The methodologies used in human capital studies can be classified into three major approaches: the production function, the measurement of the returns and the aggregate accounting approaches (Sweetland, 1996). The rate-of-return analysis is one of the most widely used approaches in estimating the returns on investment in education (Psacharopoulous, 1981; CERI, 1998; Hartog, 2000; Psacharopoulous and Patrinos, 2002). However, both private and social rates of return are difficult to calculate. To a layman, academic qualifications and credentials are more popular means of measurement.

Many employers use credentials as a screening tool to select their required personnel. They believe that high calibre individuals can obtain better educational attainment in any case. Therefore, education can award an individual the necessary certificate which helps him or her obtain a well-paid job without improving his or her knowledge and competence (Woodhall, 1997). Ronald Dore supported this by saying in his book *The Diploma Disease* (1976) that "more qualification-earning is mere qualification-earning – ritualistic, tedious, suffused with anxiety and boredom, destructive of curiosity and imagination – in short, anti-educational."

It is a subject that has generated much debate to what extent the human capital theory holds against the idea that credentials are merely a convenient screening tool. Many studies have addressed the debate using different approaches. Some results supported the human capital theory. For example, employers regularly pay better educated workers more than less educated ones throughout their working lives (Psacharopoulos, 1979). Moreover, additional

years of education, even if they are non-qualification bearing, do have a positive effect on earnings (Groot and Oosterbeek, 1994 and Heywood, 1994). On the other hand, some evidence backed the screening hypothesis by pointing to lower returns on non-credential years (Jaeger and Page, 1996) and by showing that workers who possess a credential can earn between 10% to 19% more than those of same ability but without a credential (Tyler, et al., 2000). Others demonstrated that the screening effects do exist but fade out as workers have aged and become more experienced (Belman and Heywood, 1997).

The magnitude of the screening effects seems to vary with hiring practices among different firms in the private sector as well as how their employment bargains with individuals (Belfield, 2000). If the subject of study is relevant to the occupation, the outcomes are consistent with the human capital theory. Otherwise, screening effects are found to be present (Gullason, 1999). Although there is no widely accepted single conclusion in the debate, it is almost impossible to rule out completely either the existence of screening effects or the productivity enhancement effects of education.

Impacts of education on identity, psychological, social and cultural capital

Pursuing further studies helps individuals improve their ego and self-image, which is called identity capital. Côté (1996, p.425) denoted what individuals 'invest' in 'who they are' as identity capital. His study found that identity capital increases for those of lower social class background after they have studied two years of university (Côté, 1997). Similarly, Luthans, et al. (2004) proposed that education brings returns on psychological capital beyond human and social capital. Improvements are obtained in four psychological capacities, namely confidence, hope, optimism and resilience. These are useful for work motivation.

Furthermore, human capital investment is related to social capital which is defined as "the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalised relationships of mutual acquaintance and recognition" (Bourdieu, 1997, p.51). Having invested in human capital, the government, community and individuals can obtain gains in social capital by building trust, norms,

networks, relationships and hence improving the efficiency of society and productivity (Coleman, 1997; Putnam, 1993; Becker, 1993). Moreover, career guidance and public policy interventions in human capital investment are often designed to reduce social exclusion and to support individual progression and development within the societal structures (Watts, 2001; OECD, 2002a). They help in enhancing educational participation and achievement, reducing incidence of long-term unemployment, improving access to opportunities, providing a gateway to education and work and reducing the potential of social fall-out (Killeen, et al., 1999b). These public policy strategies have also impacted the institutionalised cultural capital of individuals and educational institutions, which found their bases on academic qualifications and history, location and reputation respectively. Schooling expansion and the inflation of qualifications affect the monetary value of any given academic capital in the labour market (Bourdieu, 1997).

Information-seeking process involved in educational decisions

Foskett and Hemsley-Brown (2001) stressed the importance of knowing the local market of education to understand the available choices. Local geography and history shape the market in such a way that individual people are affected by their socio-economic characteristics, personal biographies and cultural factors. Although the context in each education market shall be different and the economics of supply and demand shall work differently, the common principle of choice and decision making is still applicable. The term 'vigilance' is used to refer to "the pursuit of evidence-based decision making which brings together all relevant information to support the choice process" (p.33). Nonetheless, it is also suggested that a rigid vigilant decision-making rather than sub-vigilant approach is impracticable and undesirable due to its unproductive confusion, unnecessary delays and waste of resources. Conner, et al. (1999) put forward that certain groups of potential applicants to higher education apply a more vigilant approach than the others. Such types of potential applicants include females, those already in higher socio-economic groups, with higher academic achievements and applying for science-based courses. Their research showed that the information-seeking and educational decision-making processes vary among different groups of people.

Career development and decision-making process

Educational decision making is an integral part of the career development and decision-making process. Some people start their information-seeking process at an early stage which can be seen to influence their later career development. For instance, some seek information relating to the labour market and its prospects, start to assess and compare the projections of returns on human capital investment in different fields, and thus use the information to decide on their career path and educational choice. Occupational goals are closely linked with their educational choices being made.

There are several theories and models on which career development and guidance services, with education guidance inclusive, are often framed (Killeen, et al., 1999b; Zunker 1998). For example, Parsons (1909) developed an understanding of vocational guidance by studying the individual's traits in association with a survey of occupations. He matched the two to build the trait-and-factor theory. This theory has been used in the study of job descriptions and job requirements against job-related traits. Nonetheless, it does not account for how interest, values, aptitudes, achievement and personalities grow and change in career development (Sharf, 1996). In Ginzberg's theory, occupational choice is a developmental process through three stages: fantasy, tentative and realistic periods. It begins around the age of 11, ending after the age of 17 or in young adulthood. Later, Ginzberg modified and emphasised that occupational choice is a lifelong process and it coexists with a person's working life (Ginzberg, et al., 1951; Ginzberg 1984). This theory is descriptive rather than explanatory of the developmental process. It provides a few strategies for facilitating career development and guidance services (Osipow, 1983). Super (1972, 1990) introduced the self-concept theory in vocational behaviour and formalised the cycle and recycling of developmental tasks throughout the life span. This theory describes the process of career development and its model covers different biographical, psychological and socioeconomic determinants. These variables have been applied in the study of the career counselling process. Under their learning theory of career counselling, Mitchell and Krumboltz (1996) summarised the factors affecting the process of career selection and development into four areas, namely, genetic endowments and special abilities, environmental conditions and events, learning experiences

and task approach skills. Several trends in career counselling are identified and suggestions are made based on this theory (Mitchell and Krumboltz, 1996). Brown (1996) suggested that values, which result from the interaction of inherited characteristics and experience, are considered important in career decision-making processes. They play a dominant role in human development. This value-based theory links the concept of values with careers and hence applies to the practice of career counselling. The aforementioned theories generally focus on the psychological aspects of career development whereas this research is mainly on educational decisions as human capital investment. Further review and survey of these theories are beyond the scope of this research.

Some research findings showed that the information-seeking process is related to part of the career development studies. Hoff (1997) interviewed ten adult students in order to study their career development needs, their perceived obstacles in completing higher education and the information with which they were concerned in their career choices and life decisions. One of the conclusions was that adults are not necessarily knowledgeable about occupational requirements or environment, nor do they know where to find appropriate information. Gati, et al. (1996) developed the Career Decision-Making Difficulties Questionnaire Model for the taxonomy of difficulties in career decision making. They tested the empirical structure of career decision difficulties model with a sample of 563 respondents (including 259 applicants and 304 students). Two out of the three major categories of difficulties centre on the lack of information (including the lack of information about self, occupations and ways of obtaining additional information) and inconsistent information (including unreliable information, internal conflicts, and external conflicts). Lucas (1999) analysed the problem-checklist and the scale of 'My Vocational Situation' inventory (Holland, et al., 1980) completed by 53 individuals who were aged from 21 to 49 years to explore the kinds of problems encountered by working adults when they sought career counselling. She found that there is a need for information on careers. These three researches illustrated that information is one of the most important elements contributing to career development needs. The lack of information and inconsistent information cause difficulties in decision making.

Educational decision-making process

Several researches are more directly related to how students make educational decisions. Moogan, et al. (1999) applied the Kolter's (1999) three phased consumer decision-making model: problem recognition, information search and evaluation of alternatives, to analyse the decision-making behaviour of potential students of higher education in the Northwest of England, UK. They performed a longitudinal study of a sample of 19 students and then interviewed these students in groups of four or five. In addition, the students were asked to fill in a fifteen page questionnaire (incorporating sixty-one questions). The results illustrated that applicants do follow the general phasing of Kolter's consumer decision-making model but there is a gap in the information needs to be satisfied. The study showed that the key information sources are 'word of mouth', career officers, handbooks or prospectuses, friends and parents.

Using the same model, Moogan and Baron (2003) conducted another large scale survey with a sample size of 674 the sixth formers based on a convenience-based sampling method. Their research results indicated that prospectus is the most important source of information and participants are most concerned about course content and reputation. One of the entry requirements named as grade expectations in the research is the most critical factor in causing apprehension to applicants.

Hodkinson (1998) interviewed 115 students who considered taking training programmes, and then selected a small group of trainees to track them through 15 months of the training process. The research showed that when young people select their training leading up to their chosen career, they are strongly influenced by close relatives or neighbours who work in the same fields, their own past part-time work experience as well as their perceptions of job enjoyment. They rely heavily on these sources of information, which provide a rational basis for deciding whether to choose a particular programme or switch to another one. These seemingly rational decisions, though pragmatic, are in fact restricted and partly inadequate because of undue influence from localised partial information, the family background, the culture, their life histories, the opportunities they have already encountered and the timing when educational

decisions are made. In the above-mentioned research, the participants involved are full-time students rather than working individuals intending to return to higher education on a part-time basis. These findings can be used as a reference for the basic understanding of the educational decision making.

There are other researches targeting at mature students. Sandford and Torres (1997) carried out a questionnaire survey with a sample size of 38 students with an average age of 26 who were enrolled in the first semester course in a community college to explore factors that influenced their enrolment decisions. The results showed that friends are the largest single source of information for students to get aware of the basic knowledge of the academic programmes concerned. At the same time, enrolment decision is influenced by the subjects that students are interested in.

Davies and Williams (2001) considered that the decision-making process of mature students is fraught with fragility and risk. Out of a total of 865 respondents to the 'entrants questionnaire', 220 potential entrants participated further in focus groups and together with 187 interviews with individuals. Their research showed that some students are strongly committed to higher education but at the same time some potential entrants of an academic programme are shown to lack confidence. The complexity of the investment, the relative newness of the identity as a learner in higher education and the accessibility of higher education provision and services are shown to have made their decision fragile. In addition, there are risk and uncertainties associated with the future rewards, personal achievement, financial burdens, time arrangement as well as resources and services provided by the educational institution. Educational decision making for individuals is complex and multi-dimensional.

Fleet, et al. (2001) surveyed 300 mature students (with 99 responded) and interviewed 12. Their study showed that educational decision making is affected more significantly by institutional influences than by personal influences. Institutional influences include the subject matter of the course, its availability, delivery mode, the mandatory requirement for the

programme, the current grades of the adult, the type of examinations and forms of evaluation used in the course, quality and type of teaching, personal contact with professors and teaching assistants, counselling and other student support services. Personal influences include the personal and career goals, level of confidence of the individual in his or her ability to succeed in the course, current money concerns, time needed for other non-study activities such as family and friends, demands of current job, personal health and levels of interaction with friends and peers at the university. Additionally, this research suggested preliminary course information and increased accessibility to courses and services as areas for improvement.

The educational decision-making process is the core of the above six researches. However, these researches did not focus on the information-seeking process nor the projections of returns on human capital investment specifically. For that reason, the information-seeking process is explored further in this literature review.

Information-seeking process

During career development and educational decision making, individuals may be driven to info-mania. In this way, they tend to idolise information and to willingly succumb to facts during information seeking. Under the 'new laws of information', "the information you have is not what you want; the information you want is not what you need; the information you need is not available" (Gelatt, 1993, p.12). If that is right, the individuals will be chasing for non-existent information.

Labour market information, which will dictate projections of returns on human capital investment, is often confusing. It is important to know how to go about finding and using workforce information including aspects of labour market demand projections, business lists, current job vacancies and others (Sommers, 2000). Killeen, et al. (1992), Sweet and Watts (2004) and Sommers (2000) found that the career information available for educational decision making is more provider-driven rather than user-driven. Such information is quite fragmented, opaque, incomprehensive and disconnected between providers and users. Some prospective returnees in the labour market may find that the information is inadequate and

cannot be located easily for their particular purposes. This means that they are not able to derive the potential returns from their human capital investment when making their educational choices.

In the field of library and information science, there are models developed on information-seeking behaviour, such as Krikelas's model and Dervin's sense-making model (Harris and Dewdney, 1994). Krikelas (1983) established the transmission model of communication and considered information as a commodity that can be acquired, stored, retrieved, transferred and disseminated through the process of information seeking, gathering and giving between sources and needs (Varlejs, 1987). In his sense-making model, Dervin (1992), based on the inquirer's perspective, identified three universal dimensions of information-seeking behaviour: situation, gaps and uses, to clarify the information need to bridge the gaps. Some time back, Faibisoff and Ely (1976) had made observations on the information-seeking behaviour, which include: information needs arise from the help-seeker's situation; the decision whether to seek help is affected by many factors; people tend to seek information that is most accessible; people tend to first to seek help or information from interpersonal sources, especially from people like themselves; information seekers expect emotional support and people follow habitual patterns in their information seeking. However, the concepts of these models and principles are founded on a systems approach and the research targets are likely to be habitual users of formal information systems, such as libraries. Moreover, what is underlying in these models is a lack of consensus on the definition of information (Harris and Dewdney, 1994). As these models and principles are not directly applicable to this research, interdisciplinary research on the relationship between information-seeking behaviour and career or educational decision-making process is considered below.

The number of interdisciplinary research is found to be limited. Julien (1999) conducted an interdisciplinary research to review the barriers to adolescents' information seeking for career decision making by taking nearly 400 written questionnaires and then carrying out 30 semi-structured interviews. The results showed that nearly 40 percent of the youths did not know where to get help in their decision making and needed to go to many different places to seek

information. Furthermore, the trustworthiness of the information sources was crucial to the ultimate usefulness to the respondents. Menon (2004) investigated the degree of information search in students' choice of higher education. Questionnaires were returned by 120 college students. The findings indicated that the extent of information search conducted by students is less than what is expected of a rational consumer in traditional economic theory. Low socioeconomic status students and those who perceive the decision as important are found to be more likely to engage in information search. Moser, et al. (2003) investigated the demand for information for educational decision making (in the District of Columbia) by analysing 155 responses from prepared questionnaires and through focus group discussion. As far as higher education was concerned, the results indicated that the respondents would be most likely to have accessed information on certificate programmes and on tuition assistance grant. The respondents were most concerned with information on standardised achievement tests, student and school characteristics and the related comparisons among different schools. Then, they were next concerned with teacher-quality issues, such as teaching staff qualifications information. Although this research was specifically based on the pragmatic side of information needs in a particular geographic area, the findings would still be of general significance and could serve as a reference in many other areas.

In short, the aforementioned researches on educational decision making and information seeking do provide knowledge for the further understanding on the characteristics of these processes. Projections of returns on human capital investment, such as salary increase and career advancement potentials are the type of information that may affect the educational decisions. If the prospective returns are deemed not attractive, people will choose financial investment over human capital investment. Following on, the characteristics of financial investment are reviewed and compared with those of human capital investment.

Financial investment in comparison with human capital investment

For most people, the basic idea of investment is to put money and efforts in a certain area so that they can gain more money in return in time. Different people may be interested in investing in different areas. They can invest by running a business, trading in stock and share

market, buying real estate and properties and saving money in a bank. This also applies to the case in Hong Kong, one of the major international financial centres with massive activities in trade and finance. It is rather common for the residents here to get involved in financial investment with the aim of gaining positive returns on it.

There are many instruments such as stock, derivatives, foreign exchange and precious metals exchange, readily available in the financial markets for investors (Hong Kong Government Information Services Department, 2005). With the current life expectancy above 80, Hong Kong faces the issues associated with a rapidly aging population (Hong Kong Health, Welfare and Food Bureau, 2005). From 2000 onwards, the HKSAR government introduced the Mandatory Provident Fund (MPF) scheme, under which monthly contributions made by individuals and their employers have to be invested in the financial markets via the scheme administrators. Some individuals carry out additional financial planning and investment so as to obtain comprehensive protection in order to maintain the quality of life after retirement (Mandatory Provident Fund Schemes Authority, 2005). In 2004, 24.4% of individuals were estimated to be stock investors (Hong Kong Exchanges and Clearing Limited, 2005). As a result, many individuals have been investing in the financial markets directly and indirectly.

For financial investment, money is one of the most critical resources needed and its importance may outweigh expertise and time. If people are too busy to invest by themselves directly, they can use agents of their choice to carry out investment on their behalf. Furthermore, the rate of returns on financial investment can be worked out quite directly such as by using spreadsheets.

In Hong Kong, the financial market is basically open to all different types of investors. Local non-institutional individual investors account for the majority number in the Hong Kong listed securities and derivatives markets (Lee and Yan, 2002; Tsoi, 2004). Generally, these retail investors are positive about the securities and derivatives market in terms of their fairness, availability of trading information and effectiveness of the regulatory environment (Hong Kong Exchanges and Clearing Limited, 2005). For those investors who can only bear low risk,

there are still plenty of choices, such as a time deposit in a bank so that they gain almost full protection of their capital investment but understandably at low rate of returns. The risk and rate of returns are often positively correlated. High rate of returns are associated with high risk in financial investment and vice versa. It is obvious, particularly applicable in Hong Kong that the physical capital in financial investment is very transferable.

Watts (1999a) discussed the relationship between career guidance and financial guidance. Strong similarities are found between the tasks involved in managing one's career and those managing in one's finance. Both involve life-style choices such as managing key life-events, making changes, risk assessment, coping with crises and long-term planning. In both cases, the skills required are similar too. Those skills include the ability for self-assessment, networking, decision making, self-reliance, research, learning 'how-to-learn', negotiation, problem-solving, entrepreneurship and accessing and using guidance. The main differences between career guidance and financial guidance are in the field of knowledge and understanding.

Focusing on the individual level, I compare further the different characteristics of human capital investment with those of financial investment as shown in Table 1. Individual people will take a longer term perspective when preparing for their lifelong careers and pursuing further studies. On the contrary, they will focus on the life after retirement when considering investing in the financial market. The vehicle in human capital investment will be the individual himself or herself as no one can study, learn or directly benefit from the investment on his or her behalf. In other words, delegation is impossible in the case of the human capital investment. In financial investment, the vehicle can include physical capital and many different forms of financial instruments. Financial investors can also authorise a second or even third party to carry out and execute the investment on their behalf. For the same reason, the key resources deployed in human capital investment are more varied from money, personal effort to time. Nonetheless, the key resource to be deployed will be more singularly money in financial investment. In education, the market information is more provider-driven with unequal access (Killeen, et al., 1992; Sweet and Watts, 2004; Sommers, 2000).

Table 1: Comparison of Human Capital Investment and Financial Investment at the level of individuals

Aspects	Human Capital Investment	Financial Investment
Aims	To prepare for the careers throughout life	To prepare for the life after retirement
Vehicle of investment	The individual himself or herself	Physical capital and financial instruments
Delegation	Impossible to study on behalf of others; could not be delegated	Possible to use agents of their choice; could be delegated
Key resources	Money and Time	Money
Supply and Demand in Market	Supplier predominant with unequal access	Fair market with regulations control and equal access
Measurement of Returns	Calculation of rate of returns is difficult. Credentials are commonly used.	Calculation of rate of returns is relatively straight forward.
Protection of Capital	Rarely available except those with job-place guarantee after learning	Available among choices
Relationship between risk and returns	No definite relationships	'low risk, low return' and 'high risk, high return'
Alienability and consumer sovereignty	Non-transferable directly	Transferable directly

Comparatively speaking, the financial market is more regulated to protect equal access to market entry and information. Calculating the exact rate of returns is relatively more straight-forward in the case of financial investment. Since there are more modes and thus more choices for investment in the financial market, people can follow their preference under the basic rule of 'low risk, low returns; high risk, high returns'. In fact, certain low risk capital investment form can enjoy protection of investment principal and gains such as fixed deposits in bank. However, few lifelong education activities can be guaranteed job placement, returns in the form of salary increase or improved career thereafter. This implies that the protection of human capital is not guaranteed. There is little assurance that people can get back what they have put in. Thus, there is no general relationship between risk and returns. Finally, the outcome of the human capital investment in the form of knowledge gained will definitely be embodied in the individuals for life. Although individuals can sell their service through applying their acquired knowledge or pass on their know-how to others through teaching,

human capital itself cannot be transferred or sold directly to others (OECD, 2001a). This is another distinct characteristic in human capital investment.

Before individuals make any investment, careful planning will be essential in order to minimise the risk and maximise the return. In Table 2, an analogue is presented to compare the key professionals available to provide advices on financial investment as against human capital investment at three different levels from public sector or governmental, private sector or corporation to individuals. The key focus of this research is on the individual level.

Table 2: Analogue to compare the key players or guidance providers in financial investment planning against that in human capital investment planning

Level	Finance	Education
Government	Financial Secretary	Secretary for Education
Corporation	Financial Controller / Accountant	Human Resource / Training Manager
Individual	Personal Financial Planner	Career Guidance Practitioner / Career Counsellor

On such level, the guidance services in financial investment are listed as financial planning, which is to help individuals articulate their financial goals (Certified Financial Planner Board of Standards, Inc., 2005a). There are many services provided in financial markets, for example, tax planning and preparations, portfolio review, estate planning, retirement planning, investment planning, cash flow analysis and drafting and execution of wills and legal documents filing (Hira, et al., 1986). Plenty of financial data and related information are often used as objective references for investors or their service agents to analyse the risk and feasibility of various choices. At the same time, professionals like chartered financial planners, accountants and insurance agents specialising in their expertise respectively, are available to provide specialized advice on financial matters (Certified Financial Planner Board of Standards, Inc., 2005b). In human capital investment, the guidance services are often referred to career guidance or career counselling. The services include education, career and personal and social counselling (St. John-Brooks, 1996). Although education usually precedes career, these guidance services usually gravitate round the latter. Furthermore, these services are beset with problems of information deficiencies and difficulties in integrating information from the labour market, which make the returns on human capital investment hard

to obtain (Killeen, et al., 1992). Recent trends in career and education guidance is discussed further in the next section.

Career and education guidance

In a broad sense, career counselling or guidance services focus on three areas, namely education guidance for the selection of courses and assistance with learning problems, vocational guidance on matters such as choice of occupations and work roles, and personal and social guidance for relational and behavioural issues (Watts, 1994). In order to minimise confusion in the guidance field, it is important to pay attentions to several concepts. For example, personal, educational and vocational guidance are only part of the full set of activities. Directive approach uses assessment and giving advice whereas non-directive approach facilitates the individual's decision-making processes and develops their own decision-making skills. Separate approach in which guidance is viewed as being outside mainstream educational provision but the integrated one with guidance permeates into the curriculum may be a better choice. Issues like reactive approaches versus proactive approaches and guidance versus placement should be considered seriously (Watts and Kidd, 2000; Bartlett, et al., 2000). According to St. John-Brooks (1996), the characteristics of guidance systems in most OECD countries are "incoherence, gaps and unnecessary overlap – or even a lack of any real system at all" (p.19).

When the guidance service is confined to education guidance, additional opportunities for improvement can be identified. Pre-entry education guidance can facilitate access: helping individuals make better choices among the variety of courses on offer and taking into account the career opportunities that the courses may lead to (Bartlett, et al., 2000; Watts and Van Esbroeck, 1999). If working adults consider further studies, they may not be able to easily obtain adequate information, advice and guidance when making educational decisions. As a result, they may be inhibited from making thoughtful decisions. Eventually, this may lead to less-than-expected returns on their human capital investment. If they drop out of their chosen academic programmes after they have already commenced the study, they will most likely incur a significant loss in time and money. At the same time, the educational institutions

concerned will need to carry out additional administrative works on the drop-out matters. For the part-time programmes or courses in Hong Kong, the educational institutions seldom recruit other students to fill up the available vacancies left after students quit because the new comers may have difficulties to catch up on the progress of the programmes or courses. Thus the educational resources cannot be fully utilised.

Reference to the development of guidance services in the U.S.

In Chapter 1, the career guidance services in Hong Kong are discussed. The development of career counselling can be associated with major societal changes and economic activities. The United States has greatly influenced the world in these areas since the twentieth century. Pope (1997 and 2000) and Zhang (1997) claimed that career guidance in Hong Kong may be experiencing similar developmental stages that the U.S. has experienced. For that reason, the history of career counselling in the U.S. is elaborated further for reference.

Pope (1997 and 2000) summarised the history and development of career counselling in the USA into several stages and each of which stage has been associated with a major societal change. In the first stage from 1890 to 1919, career counselling started as placement services to cater for an increasingly urbanised and industrialised society as well as for the returning veterans from World War I. Parsons (1909), often called the parent of career counselling, established the Vocation Bureau at Civic Service House in 1908 (Ginzberg, 1971). Then, the economic depression of the 1930s helped to bring vocation guidance into elementary and secondary schools. Between 1920 and 1939, educational counselling became the main emphasis in providing training and employment opportunities for the unemployed youths. The third stage was from 1940 to 1959 during which period the World War II happened and the USSR successfully launched the first space probe on to the moon surface (Zak, 2006). The former event resulted in the return of a vast number of veterans. The latter led to a space race and an emphasis on the scouting of gifted students through funding for development and provision of career interest testing programmes. Thus, the professional practice in career counselling began in colleges and universities.

Between 1960 and 1979 covering the Vietnam War era, young people began to rethink the meaning of life and wanted to have jobs that could do something to make the world better (Borow, 1974). Organisational career development programmes commenced. After that, the information technology experienced rapid growth. During the period from 1980 to 1989, a lot of jobs in industrial sectors were lost due to structural changes in the industry and economy. Demand for knowledge and technological skills of employees were raised dramatically. Outplacement counselling was launched to provide career counselling to layoff or due-to-be layoff workers. At the same time, lifelong career development and private career counselling had made a start. The latest stage is from 1990 to the present, key factors of change such as globalisation, change in demographics, heightened awareness of women and racial rights as well as social ethics all take eminence. Career counselling has become internationalised and multicultural. From the above, it can be seen that career counselling has developed and undergone transformation in response to and in times of societal changes and changes in the labour market. In Hong Kong, economic progression and societal changes seem to have mirrored those in the United States. Nonetheless, cultural factors should be taken into account.

Ma and Yeh (2005) studied how intergenerational family conflicts and relational-interdependent self-construal (defined as the tendency to think of oneself in terms of close others) have influenced the career decision of Chinese youths in America. They conducted a questionnaire survey with a sample of 129 Chinese American youth respondents. Their findings provided evidence that a cultural framework is vital for understanding how Chinese American youths make career decisions. Family dynamics are a key factor affecting these youths' career decision. One of the researchers' recommendations to career guidance services is to build in a relational component so that clients are able to discuss family and interpersonal issues relating to their career during counselling. In Taiwan, Tien (1997) investigated the help-seeking behaviours of college students by collecting and analysing questionnaires of a sample of 137 respondents. The results showed that five out of the top eight items that motivate college students to seek help are career planning and development problems and none of the top eight items is related to personal problem. The above two studies showed that one should make allowance for the role of the family and the reluctance in disclosing personal

problems in the Chinese culture when career guidance is considered.

Guidance services in higher education

Generally speaking, career guidance services are often focused on undergraduates. In Hong Kong, Lau (1995) studied the undergraduates' perceptions and evaluations of career guidance by using questionnaires with a sample of 526 respondents. The questionnaires were originally developed based on the inputs that were obtained from two focus groups and seven individual interviews. One of the findings in the research suggested that students choose services which are perceived as specific in content and information-based in nature. In addition, a lot of attention in career counselling is paid to the transition from school to work instead of educational decision making in the very beginning (OECD, 1999 and 2000b; OECD and CPRN, 2005). In the UK, Watts (1997) suggested that the core roles of career services in higher education are to balance between individual and group guidance, to provide information efficiently and effectively and to reshape employer liaison and placement activities. One of the key assertions is to provide information resources on careers and the labour market for customised use as it is deemed critical to the career services.

Furthermore, with the rapid advancement of information technology (IT), practices in educational and career guidance become increasingly electronic and internet-based. The IT application enables a wide range of activities including greater access to information, computer-assisted guidance, remote individual guidance, career education, professional networking and support through electronic mail, newsgroups, the World Wide Web, file transfer and intranets. However, it is a two edged sword. On the one hand, information may be obtained easily at low cost. On the other hand, such information is usually unstructured, unorganised and may take more time to process. Quality control, security and confidentiality are concerns as well (Offer and Watts, 1997). Some governments and private agencies provide funds for knowledge management and computerised decision support system to integrate and coordinate the educational and career guidance services as one-stop centre (Eberts and O'Leary, 2002; and Groff, 2001). In Hong Kong, the Education and Manpower Bureau funded the development of a computer-assisted programme selection kit for school

leavers and adult learners. A list of academic programme categories will be recommended to the users after they have completed the questionnaire in this kit (Zhang and Ng, 2006). Although the means and ways of information and guidance provision are changing, the contents will still remain the key.

Guidance services for working individuals

Adult learners who have received some form of information, advice and guidance (IAG) often find it helpful and will have significantly higher levels of satisfaction with their learning experience (Hillage, et al., 2006). However, the guidance services to adults are far less developed than those for youths (OECD, 2003a). The 2005 White Paper in the UK, *Skills: Getting on in Business, Getting on at Work,* mentioned that "information and guidance must be widely available for all adults who want it, to help them make sense of what is on offer, and the best way of linking skills, training and jobs" (Department for Education and Skills, 2005, p.17). Impartial guidance for adults considering full-time or part-time education is largely inadequate to fulfil the potential demand (The Times, 1993). In the UK, the information, advice and guidance on further education as provided to part-time adult learners in mainstream educational institutions is believed to be inadequate (Plant, 2006). At the same time, Zhang and Ng (2006) also found the needs of lifelong learners in Hong Kong for practical services in educational and career guidance inadequate. Many individuals are fraught with trepidation and uncertainty when they make their educational decisions. They are said to be in want of "more information, and call for greater advertising, by institutions and government" (Osborne, et al., 2004, p.306).

On the other hand, career guidance service providers are under pressure due to scarcity of resource. They may need to limit their publicity for fear of over-running budgets (Sweet and Watts, 2004). Productivity in the delivery of career guidance services is another rising concern in face of call for increased public accountability and greater access to services without massive increase in resources (Watts and Dent, 2006). Hence, full expansion of the guidance services to all people in the Hong Kong workforce will be debatable and hard to achieve.

Self-efficacy in educational decision making

Individuals may be able to make educational decisions on their own without resorting to education guidance, at some points. This is related to the expectations of self-efficacy, which are beliefs in one's ability to perform specific tasks or conduct behaviours (Bandura, 1977). Hackett and Betz (1981) applied expectations of self-efficacy on career decision making, and suggested that self-efficacy may have an important cognitive influence on career decision. Taylor and Betz (1983) developed the Career Decision-Making Self-Efficacy (CDMSE) scale for assessing the extent to which students have confidences in their ability to engage in educational and occupational planning and decision making. Five sub-scales: self-appraisal, occupational information, goal selection, planning and problem-solving are included in their model. Each sub-scale consists of ten items. Items in this CDMSE scale can provide ideas about factors affecting educational decision making. If the factors and criteria determining self-efficacy in educational decision making are identified, the extent of career guidance provided to working individuals can be estimated.

Gaps in knowledge

The above literature review shows that there are a number of researches related to the processes in career development, educational decision making and information seeking. However, most of them are solely on one single process, rather than across disciplines, between information seeking and educational decision making. In the limited interdisciplinary researches, the participants were mainly youths and full-time college students. This research tries to fill the gaps of knowledge on how working people returning to higher education seek information and guidance to make their educational decisions, as well as how they consider the projections of returns on human capital investment to their choice of study. At the same time, no previous study directly comparing human capital investment against financial investment is identified. Hence, this research is also targeted at the perceptions on these two types of investment. Moreover, the review of literature indicates that guidance services to part-time prospective returnees in higher education are limited. For that reason, the various ways that guidance services can support working individuals to seek information and advice for their education choices are included in this research.

CHAPTER 3 METHODOLOGY AND METHODS

As stated in Chapter 1, the purpose of this research is to study how prospective returnees seek information to make their educational choices. In this Chapter, the epistemological position of the research is explored in the beginning. Then, it gives justifications for the methodological approach taken, explaining why the research tools are fit for the purpose and how they are built on and complemented to the previous research done in this field. Finally, details of the fieldwork and the adopted analytical approach are elaborated towards the end of the Chapter.

Epistemologically, I believe that all people can brighten their future prospects by the pursuit of further studies through the acquisition of knowledge and qualification from the programmes and courses they have completed. Economic growth and development can be achieved through aggregating improvements on individual, organisation and country levels. Also, this is the central premise in the human capital theory. Returnees especially those who are self-financed are in effect become the investors in their own human capital, in addition to being consumers of education services. Then, they are expected to seek adequate information for making educational decisions under the utilitarian assumption. The rationality of this assumption is commonly considered to have been founded on Adam Smith's (1976) description of human beings as seekers of economic self-interest. Rationality is usually taken as the basis for human motivation and decision making (Bentham, 1907; Mill, 1844). It is envisaged that all prospective returnees to higher education are human capital investors. They will seek adequate information and use it to evaluate the level of utility and returns from various academic programmes available in the market. Ultimately, an optimal programme choice will be arrived. The expected returns on human capital investment can be reasonably forecasted. For that reason, prospective returnees to higher education can spend their money, time and other resources on human capital investment in a rational way. Being a pragmatist, I understand that the rationality assumption does not necessarily hold. The educational market is supply-driven and educational institutions play a predominant role (OECD, 2003b). Information is asymmetric and opaque about the education and labour market (OECD, 2001b). The information-seeking process can be inhibited and the risk involved in human capital

investment may actually be increased. Thus, this research is intended to add value to the existing knowledge of the information-seeking process for making educational choices by using both induction and deduction methods to explain phenomena and draw conclusions from the data gathered.

Justification for the adopted methodologies in this research

The combination application of questionnaire survey and semi-structured interviews

According to the literature review in Chapter 2, research on the information-seeking process, career decision-making process and educational decision-making process were conducted in at least three different ways. The first is the quantitative approach. Some researchers used questionnaires to verify the theoretical model of career decision difficulties (Gati, et al., 1996); to explore the problems in seeking career counselling (Lucas, 1999); to study enrolment decision (Sandford and Torres, 1997); to apply Kolter's (1999) consumer decision-making model in educational decision making (Moogan and Baron, 2003) and to examine the degree to which students search information when they made choices in higher education (Menon, 2004). The next approach is the qualitative method based on interviews. For example, Hoff (1997) interviewed ten adult students in order to understand their information requirements for their career development needs as part of his research. Hodkinson (1998) interviewed 115 students who intended to take training programmes and tracked a small group out of these 115 students through a 15 months period of their training process to study how these young people made career decisions. The third approach is a combination of the quantitative and qualitative methods. Still applying Kolter's (1999) consumer decision-making model, Moogan, et al. (1999) performed a longitudinal study of a sample of 19 students to understand their decision-making behaviour. Within the different phases, these students were interviewed in groups of four or five and each student completed a fifteen page questionnaire (incorporating sixty-one questions). Fleet, et al. (2001) concluded a number of themes on educational decision making based on the results of 100 questionnaires and 12 interviews. Julien (1999) analysed nearly 400 sets of written questionnaires and 30 semi-structured interviews in a research on information seeking for career decision making. Similarly, Davies and Williams (2001) used a combination of approaches to explore the educational decision-making process of mature

students through a total of 865 responses to the 'entrants questionnaire', focus group discussion involving 220 potential entrants and 187 interviews with individuals. Moser, et al. (2003) investigated the demand for information in making educational choices (in the District of Columbia) by analysing 155 sets of questionnaires and the conduct of focus group discussion. No single approach was predominantly adopted by the researchers as evident in the literature review.

The quantitative method emphasises causality, variables and a heavily pre-structured approach. Its advantages are that the degree to which people feel for an issue can be better revealed through structured ratings provided under a questionnaire environment. Causal relations and correlations between factors can be better achieved through analysis of pre-designed questionnaire using numeric or quantitative measure. However, the structured quantitative method may lead to and suggest answers to respondents and hence it introduces bias (Reichardt and Cook, 1979; Bryman 1988; Cohen, et al., 2000). The qualitative method is concerned with the elucidation of subjects' perspectives, process and contextual detail. It can be more free-formed and is often able to reveal facets of truth or reasons not previously thought of by the researchers. Some of the unmeasurable phenomena or elements may be easier and better captured through qualitative methods (Reichardt and Cook, 1979; Bryman 1988; Cohen, et al., 2000). Yet, Bryman (1988) pointed out that there are three potential problems relating to qualitative research: the interpretation by the researcher; the relationship between theory and research and the problem of generalisation. For the above reasons, if a single method, either quantitative or qualitative, is selected in this research, its shortcomings cannot be easily overcome.

A mixed method is common in educational research where both quantitative and qualitative data are used to answer different questions in a complementary fashion (Patton, 2002). It can provide conditions for multi-dimensional verifications of premise and opportunities for the results obtained from each approach to complement areas that are not easily covered by a single method (Reichardt and Cook, 1979). This complementary function explains why a combination of quantitative questionnaire survey and qualitative semi-structured interviews

has been adopted in this research. A questionnaire is efficient in getting to the 'structural' features such as the causal relationships between the demand and supply of information in making an educational choice and against different demographic factors in this study; whereas semi-structured interviews are stronger in the 'process' aspects of providing in-depth information about the information-seeking process for making educational choices (Bryman, 1988). Furthermore, Webb et al. (1966) suggested that the social science researchers may have greater confidence in their findings if they are derived from more than one method. In addition, Denzin (1978) identified that the variety of data sources and data sets can be used in a study as data triangulation. Thus, the mixed approach in this study can obtain both quantitative and qualitative data, which are analysed to allow for data triangulation, verification and contextualisation of the research findings and to correct for the inevitable biases existing in each method.

Furthermore, a sequential mixed method design was applied in this study. A quantitative questionnaire survey was completed first and then qualitative semi-structured interviews followed. The two phases were clearly distinct. The advantage of this design is that I can avoid the difficulties using both approaches simultaneously in this study. Also, a questionnaire survey in the first phase can facilitate the selection of interviewees for semi-structured interviews in the second phase (Bryman 1988). The research topic is about the individual perceptions of the information seeking. This may be deeply entrenched in the individual's sub-consciousness that it is worthy for further exploration. A strong emphasis is placed on the qualitative semi-structured interview results because they will provide valuable information especially on perceptions and attitudes that may not be obtainable through other data sources such as questionnaires (Strauss and Corbin, 1998; Tierney, 1991). Thus, the method design is a dominant-less dominant approach with more emphasis on qualitative semi-structured interviews and less emphasis on quantitative questionnaire survey.

Application of grounded theory

As evident from the literature reviews that most of the conducted researches relating to this research topic, except three of them, did not use any specific model or theory in their research

design framework (Sandford and Torres, 1997; Menon, 2004; Hoff, 1997; Hodkinson, 1998; Fleet, et al., 2001; Julien, 1999; Davies and Williams, 2001; Moser, et al., 2003). The first exception is the Career Decision Difficulties Questionnaire (CDDQ) model used by Gati, et al. (1996). The model, as its name suggested, is aimed mainly at the career decision-making process rather than on the information-seeking process. At the same time, it only emphasises on the difficulties encountered by the respondents. Different aspects of the information-seeking process, namely types of information, sources of information, ways of obtaining information and perceptions on returns on human capital investment as well as career guidance, are not explored in depth.

The second exception is the inventory scale of My Vocational Situation (Holland, et al., 1980) used by Lucas (1999). The focus of the inventory scale is to analyse the psychological aspects of career interests, talents and goals. Information-seeking process was not its key concern. The third exception consists of the researches using the first three phases of Kolter's (1999) consumer decision-making model (problem recognition, information search, evaluation of alternatives) to review the educational decision-making process (Moogan, et al., 1999; Moogan and Baron 2003). The results indicated that applicants do follow the phases of Kolter's consumer decision-making model but there is a gap in the information needs to be satisfied. This framework is generic and the part on information search does not cover the perceived projections of returns on human capital investment. At the same time, the study by Menon (2004) showed that the rationality of consumer decision-making behaviour is less evident in the students' choice of higher education programmes and that both economic and non-economic variables should be taken in account to explain the human behaviour. As a result, none of the above three models or theories were used in this study.

The other researchers did not indicate any specific design frameworks in their studies (Sandford and Torres, 1997; Menon, 2004; Hoff, 1997; Hodkinson, 1998; Fleet, et al., 2001; Julien, 1999; Davies and Williams, 2001; Moser, et al., 2003). Nonetheless, they had drawn themes and theories from the data they collected. Grounded theory was implied to be used. Grounded theory is a hypothesis-free approach to data collection and fact-finding, but some

theoretical pre-understanding of the research topics and literature review on the subject matters are acceptable and assumed (Strauss and Corbin, 1994). Then, theory or themes emerge from and are grounded on the data generated by the research act (Glaser and Strauss, 1967). Miller and Fredericks (1999) considered that grounded theory has become the 'paradigm of choice' for qualitative researchers in education and other disciplines. This research topic, which is related to educational decision making, falls into the same category. Moreover, grounded theory is particularly useful for research where little theory has previously been developed and its purpose is to improve professional practice through gaining new found better understanding (Darkenwald, 1980). As evident from the literature review, little theory has been developed in the interdisciplinary research relating to information-seeking and educational decision-making processes. Furthermore, one of the advantages in using grounded theory is that this approach will be more "likely to offer insight, enhance understanding, and provide a meaningful guide to action" (Strauss and Corbin, 1998, p.12). As a result of this study, a number of implications for the development of education guidance policy in Hong Kong are able to be worked out based on the findings. For all these reasons, it is appropriate to use grounded theory for this research.

Generally speaking, grounded theory is generally depicted as an approach to the analysis of qualitative data. It provides a framework for researchers to cope with the unstructured complexity of social reality and carry out analytical induction. However, as Glaser and Strauss (1967) had also made clear that both quantitative and qualitative methods and data can be employed in generating grounded theory. They wrote that "There is no fundamental clash between the purposes and capacities of qualitative and quantitative methods or data…… We believe that each form of data is useful for both verification and generation of theory, whatever the primacy of emphasis" (pp.17-18). For that reason, a combination of quantitative questionnaire survey and qualitative semi-structured interviews can still be used for data collection in this study with grounded theory providing the research framework.

Details of the fieldwork

Participants

In this research, the operational definition of 'returnee to higher education' is any person under 45 and who has successfully completed upper secondary school and has already been pursuing an award-bearing programme in higher education on a part-time basis purportedly for investment. Individuals in their 30s and early 40s show a similar participation rate in continuing education and training as the younger ones, such as those in their 20s, but the participation rate for those aged 45-65 is somewhat lower (CERI, 1998). These individuals under 45 are in the first half of their typical working lives and their motives for the pursuit of further studies are more likely aimed at career development and higher salary. The older the individuals, the more likely they study for leisure. Culturally speaking, they may feel odd and obtrusive to tell others that they are studying rather for leisure than investment purpose. This may introduce bias to this study if the older participants are included. As a result, the age boundary of the participants was set as under 45 in this research.

Part-time learning as opposed to full-time learning is considered to be "a more common avenue for individuals, as the investment is not as time- or resource- intensive and is more compatible with working" (OECD, 2003b, p.26). In this research the data were collected from part-time students because interestingly most of them used their own money for investment purpose. This would contrast the results from the previous research on full-time students, who were usually financially supported by their families, the Government or similar. Understandably, the concerns of the part-time students about the expected returns on human capital investment are likely to be higher than that of the non self-financing full-time ones. Pragmatically, award-bearing programmes in higher education and further education are appropriate in this research in preference to other means of learning primarily because there are clear-cut indications concerning the completion and qualification recognition of their studies. Uncertainties and errors created by misunderstanding about the achievement of learning and the subsequent projections of the returns on the human capital investment can be minimised. For the ease of writing and reading, the term 'returnees' is used thereafter to describe the 'returnees to higher education' as defined above.

Sampling size and sample method

Operationally, a total of 241 sets of questionnaires were sent to part-time evening university students who were taking my subject, and 16 of which were interviewed individually in the second stage. The chosen sample size for the questionnaires in this research had been made reference to the previous researches as reviewed in Chapter 2. Moogan, et al. (1999), Sandford and Torres (1997), and Lucas (1999) conducted a questionnaire survey with a sample size of 19, 38 and 53 respectively. Fleet, et al. (2001), Menon (2004), and Moser, et al. (2003) analysed 100, 120, and 155 returned questionnaires respectively studying students' educational decision-making process and their information needs. Some others had carried out extensive researches with sample size ranging from 400 to 865 (Gati, et al., 1999; Julien, 1999; Moogan and Baron, 2003; Davies and Williams, 2001). On one hand, a large scale of quantitative research is not feasible under the constraints of time and resources in this study.

On the other hand, a very small scale study will cause difficulties in the analysis of the quantitative data collected since a sample size of 30 is usually taken as minimum number of cases if some forms of statistical analysis are planned for the data. With considerations of practicalities of things where the quantitative part and the qualitative part of the research were mutually complementary to each other, the questionnaire survey in this study was targeted at the final number of responses ranging between 50 and 100. Convenience sampling was chosen although it might be considered as "a cheap and dirty way of doing a sample survey" (Robson, 1993, p.141). The 241 part-time evening university students taking my subject were selected as potential participants of this research because they were readily at hand and fitted for the monetary constraints of the study. Brewer and Hunter (1989) pointed out that "if convenience samples are employed for exploratory purposes or with the appropriate statistical controls for testing hypotheses, they may be quite valid within certain limits" (p.115). The ultimate aim of this study is to explore the opportunities in improving career guidance through the understanding of the information-seeking process in making an educational choice. Moreover, statistical tests are performed on the quantitative data collected. It is justified to adopt this convenience sampling strategy under the pragmatic situation. It was hoped that a higher response rate ranging from 20% to 40% would be achieved. The questionnaires were

distributed electronically and three follow-up reminders were issued.

Table 3: Information of the discarded questionnaires

Total number of returned questionnaires	67				
Quality of questionnaires	Completely Filled		Filled with 4 or less missing data		Filled with 5 or more missing data
	40		18		9#
Age	<25	25-34	35-44	>45	Missing Data
	10	37	18	1*	1#
Attitude on Further Studies	Solely for Leisure	Mainly for Leisure	Mainly for Investment	Solely for Investment	Missing / Confusing Data
	0	1*	56	8	2*#

Remarks:
* They were not the same participants.
# One of them was the same participant whose questionnaire was filled with 5 or more missing data. Another one selected both "Solely for Investment" and "Solely for Leisure".

Eventually, the number of the returned questionnaires was 67 and the overall response rate was 27.8%. Twelve were discarded because the participants stated that their intention for further studies was for leisure, they were over 45 or there were more than 5 items of missing or confusing details on the questionnaires (see Table 3). The remaining 55 questionnaires were used in the analysis and discussion. The relating demographic information is summarised in Table 4 on the next page. In fact, some unenvisaged difficulties were encountered during the questionnaire survey and they are discussed later in this Chapter.

The sample size of the interviews varied widely from research to research as shown in the literature review. There were some researches using relatively small sample size. The following are the ones: Hoff (1997) and Fleet, et al. (2001) interviewed ten and twelve adult students respectively; whereas, Moogan, et al. (1999) performed interviews purposefully in groups of four or five among the total sample of 19 students, and Julien (1999) conducted 30 semi-structured interviews. However, Hodkinson (1998) and Davies and Williams (2001) extensively interviewed 115 and 187 students respectively. Initially, I did not fix the number of semi-structured interviews. Interviews were conducted until I was confident about the relevance and range of the categories for the research setting. This meant that the stage of 'saturation' was reached in grounded theory (Bryman, 1988). The

Table 4: Demographic information of the questionnaires used in the statistical analysis

Total number of the questionnaire used	55			
Gender	Male		Female	
	44 (80.0%)		11 (20.0%)	
Age	<25 years old	25-34 years old	35-44 years old	
	10 (18.2%)	33 (60.0%)	12 (21.8%)	
Number of year out of school before studying the current programme	<5 years	5-9 years	>9 years	Missing Data
	27 (49.1%)	9 (16.4%)	9 (16.4%)	10 (18.2%)
Educational Attainment	Without degree		with degree	
	43 (78.2%)		12 (21.8%)	
Attitude on Further Study	Mainly for Investment		Solely for Investment	
	47 (85.5%)		8 (14.5%)	
Career Plan	Definite	Tentative	Undefined	Missing Data
	11 (20.0%)	34 (61.8%)	9 (16.4%)	1 (1.8%)
Plan to Change Jobs	Yes	No	Not Sure	Missing Data
	34 (61.8%)	4 (7.3%)	17 (30.9%)	0 (0.0%)
Improvement on Job Security	Yes	No	Not Sure	Missing Data
	32 (58.2%)	7 (12.7%)	15 (27.3%)	1 (1.8%)
Expectations on Career Advancement	Yes	No	Not Sure	Missing Data
	44 (80.0%)	4 (7.3%)	7 (12.7%)	0 (0.0%)
Having subsidies from company	Yes	No	Missing Data	
	1 (1.8%)	52 (94.5%)	2 (3.6%)	
Amount of subsidies (HKD)	Maximum	Minimum	Medium	
	90,000	0	0	
Total amount of tuition fees (HKD)	Maximum	Minimum	Average	Medium
	172,800	77,275	137,485	153,600
Amount of expected salary increase (HKD)	Maximum	Minimum	Average	Medium
	30,000	0	4,822	3,000

interviewees were volunteers who had indicated in their returned questionnaire their willingness to participate in further interviews. In addition, the snowballing technique was adopted. The first few interviewees were asked to suggest or recommend other classmates as interviewees (Oppenheim, 1992). Finally, 16 respondents (ten men and six women) took part in the semi-structured interviews to provide elaboration on the questionnaire response and further information about the information-seeking process for their educational choices.

Instruments

With reference to the "Adult Students' Career Development Needs Questionnaire" developed by Briscoe (2002), I designed an initial 14-question and three-page questionnaire. Significant modifications were made to confine the questions to career information for making educational decisions because Briscoe's questionnaire is mainly on career needs and its scope is much wider. In contrast with Briscoe's questionnaire which is mainly focused on information needs, the questionnaire used in this research is adjusted to cover both the degree of needs and the degree of obtainment for different types of information. Therefore, taking Briscoe's questionnaire as a reference for the development of questionnaire should not affect the use of grounded theory as a framework in this research. Grounded theory does not preclude the use of the basic knowledge in other related fields (Strauss and Corbin, 1994).

The questionnaire covers 14 items under four main categories of information. The first category of information is related to the labour market conditions including five items: employment trends, expected salary scale in their field, work environment, skills requirements and academic qualification requirements of their current job and their intended next career move. The next category is the information that prospective returnees may consider when they make their career-related decisions. The items include: the specific factors that they will need to weigh out various options, the criteria they should use in assessing their career move and the understanding of their own competence against their career goals. Then the possible impacts on their careers upon completing their programme are categorised into three items: potential salary range, career advancement opportunities and likelihood of achieving their career goals. Another three items concerning social capital are placed in the last category: how to identify individuals employing in a career field that they are interested in pursuing; how to meet others to learn about the careers and how to have volunteer or work opportunities to test the match their interest, skills and values against the career move.

The questionnaire includes the above 14 different types of information with a 4-point Likert scale from 1 to 4 (with 1 signifying none is needed or obtainable and 4 signifying a lot is needed or obtainable). Culturally speaking, the Chinese tend to centre their opinion in the mid

point. Therefore, it is more appropriate to use an even-point Likert scale than an odd-point one to ensure that the respondents would decide on their positions. In addition, the demographic information of the participants and their expectations upon completing their studies were asked. A question on whether the participant pursued further studies for leisure or for investment was included as a screening tool to identify only those students who treated their further studies as human capital investment.

A small scale pilot study participated by five students was conducted prior to the commencement of the full scale field work to test clarity, validity and length of the questionnaire. Besides, a feedback mechanism was installed to rectify misunderstanding and the reasons for non-completed items by the respondents and any other aspects that could improve the response rate (Cohen, et al., 2000; Oppenheim, 1992). Seven areas for improvement were identified from the pilot study. On the page of 'Demographic Information Sheet', the fields that required the participants to fill in exact figures were highlighted because some participants in the pilot study did not notice these fields. In Question 5 which relates to the purpose for further studies, the given options were revised to enable ease of analysis in the later stage. The phrases 'net increase' and 'in 12 months' were added on Question 10 to improve the clarity of the question. In addition, the formula for calculating the total tuition fees of the entire study programme (fee per credit multiply by number of credit) was included to avoid misunderstanding. One extra question was added to check whether there were any education subsidies from the employer. On the page of 'Career Information Needs in Educational Decision Making Questionnaire', Question 2 was rephrased to put the focus on the general salary scale in the field to avoid the confusion with Question 6 on the same page. Some formatting changes were made so that the words of 'Need' and 'Obtain' were in bold type to allow participants distinguish between the two columns more easily. After the refinement as mentioned above, the questionnaire was sent out and collected via email for extensive sampling. Three follow-up email reminders were issued to boost the response rate. The final version of the questionnaire can be found in Appendix A.

A list of short open-ended questions was prepared to follow up on the questionnaire survey

and used to guide the semi-structured interviews. "In grounded theory, the analysis begins as soon as the first bit of data is collected" (Corbin and Strauss, 1990, p.6). This list of questions was continuously adjusted according to themes arising from the analysis of data, which was carrying out in parallel with the interviews. The final version of the question schedule for the semi-structured interviews can be found in Appendix B. Cantonese, which is a Chinese dialect most predominantly used by the local population in Hong Kong, was used in the interviews. The interviewees were given opportunities to tell their stories and elaborate on their opinions as much as possible. With written consents from the interviewees, the interviews were audio taped (see the Participant Consent Form in Appendix C). Summary reports were prepared and passed back to the interviewees for confirmation as to the accuracy of the understanding of the interviews. The anonymity of participants has been guaranteed through the use of fictional names which are ordered alphabetically from Aaron to Peggy.

Ethical considerations

Prior to the commencement of the fieldwork, the planned methodological framework was submitted to the School of Education's Research Ethics Committee at the University of Nottingham for approval. The guideline for all staff and student research at the School are based on the British Educational Research Association's (BERA) Revised Ethical Guidelines and can be found on the School's website at:

http://www.nottingham.ac.uk/education/information-for-students/research-ethics/

There was only one ethical concern – the participants who were going for different programmes attended one unit which was a subject taught by me. This concern was addressed in a number of ways. First, the topic of research – information seeking for educational decision making was not directly related to the participants' areas of study. Secondly, it was made amply clear from the beginning that participation or non-participation in the questionnaire surveys and interviews would have no implications – positive or negative, for the individuals whatsoever. As the research was founded on a voluntary basis, all participants were guaranteed the right to withdraw from participation any time without risk or prejudice. In line with good housekeeping practice, written consent from the interviewees was obtained

before the interviews (see the Participant Consent Form in Appendix C). Thirdly, the agreement from the Department Head of the University at which I am employed was also secured prior to the collection of the research data. Objective methods to assess the students' performance of the subject taught by me have been structured and used for several years and are not expected to change in the foreseeable future unless otherwise being requested by the Head of the Department. In this way, the ethical considerations are addressed in this project.

Other concerns relating to the research

Understandably, risk will be involved in all investment. Human capital investment is of no exception. Past performance is no guarantee for future returns. There is a time lag between enrolment and graduation. Labour market condition is dynamic and not static. The actual situation may deviate significantly from the forecasted one. As such, professional advice on human capital investment returns should still provide evaluation and analysis of the demand concerning the labour market as well as the economic development trend.

Difficulties encountered during the fieldwork

Several difficulties were encountered during the course of the fieldwork. In terms of the timing, the formal questionnaire survey could not be carried out before the semester break in May 2006 as planned originally. Various approval procedures involved took longer period than expected with final clearance being secured well after early May. Hence the pilot study was delayed. Instead of being able to send and collect the questionnaires in person, distribution of the questionnaires to the students could only be sent through emails during the summer holidays in order to make up for the lost time. Understandably, the students did not regularly check their university email account during this recess period. As a result, the response rate was affected.

In the interviews, many participants used quite a lot of slang and figurative speech. This could create interpretational difficulties and thus further difficulties in preparing the summary reports and in analysing the results. Fortunately, most of the interviewees were willing to clarify their thoughts after interviews when being requested. In order to be prudent, summary

reports of the interviews were passed back to the interviewees for confirmation to ensure accuracy of the understanding of the interviewees' view.

Analytical Methods

"Data collection and analysis are interrelated processes" is one of the canons in grounded theory (Corbin and Strauss, 1990, p.6). The analysis of the data collected as soon as all questionnaires were returned and the first interview were completed. The seemingly relevant issues were incorporated into the questions in the next interview. Open coding, which is "a process of breaking down, examining, comparing, initially conceptualizing and categorizing the research data" (Strauss and Corbin, 1998), was carried out to mark conceptual labels on the summary reports. Then, the next step was axial coding in which "categories are related to their subcategories, and the relationships tested against data" (Corbin and Strauss, 1990). A spreadsheet table was used to organise the themes and sub-themes on different rows against the extracts from the summary reports of the interviews filled in different columns. The seven main themes are identified and are used as a framework for the next chapter.

The data gathered from the returned questionnaires were analysed and used as inputs to the development of semi-structured interviews questions. After the research themes via the examination of the data had been developed and defined, further complementary data and evidence were used to support or refute these themes. The findings from the questionnaire survey were applied to supplement the themes and sub-themes in association with those drawn from the qualitative data.

The maximum, minimum and medium values of the expected monthly salary increase, which shall represent the projections of the returns on the human capital investment within 12 months after completing the individual's study programme, are shown in Table 5 on the next page. Median values instead of arithmetic means are used in order to reduce the effects from the two extremes. As the value of tuition fees varies from programme to programme, the figures are normalised in units of HKD100,000 so that the expected amount of salary increase is to be divided by the tuition fees with the result being multiplied by 100,000.

Table 5: The maximum, minimum and medium expected monthly salary increase for every HKD100,000 tuition fees paid

	The corresponding expected monthly salary increase = A (HKD)	The corresponding total tuition fees paid = B (HKD)	Expected monthly salary increase for HKD100,000 tuition fees paid = A / B x 100,000 (HKD)
Maximum	30,000	108,000	27,778
Minimum	0	165,000	0
Medium	2,000	102,600	1,949

When considering the method to analyse the quantitative data collected by the questionnaires, I reviewed a number of statistical tests including Student's t-test, Chi-square test, F-test analysis of variance (ANOVA), Spearman rank order, Mann-Whitney U-test and Kruskal-Wallis analysis of variables (Cohen, et al., 2000; Montgomery, 2001). The questionnaire data of this research, which were based on a 4-point Likert scale, were ordinal and non-parametric. The nature of the data did limit the choice of statistical tests. The first three statistical methods are not suitable to use in the analysis of this research because they should be applied only to parametric data. Eventually, the last three types of statistical tests were chosen.

First, Spearman rank order correlation at 5% confidence level using a one-side test is used to measure the degree of association between two nonparametric sets of variables (Cohen, et al., 2000; Wessa, 2008). The two variables being tested in the research are the need and the obtainment of information with reference to the fourteen different types of information. This analysis method is considered appropriate because the data from the questionnaire are available in ordinal form and there are neither assumptions of normal distribution nor a particular nature of the relationship between the variables (Lieberson, 1964). Secondly, these two variables are tested further by Mann-Whitney U-test (two-tailed at 5% confidence level), which is a statistic tool to measure any significant difference between two independent samples (Cohen, et al., 2000). Mann-Whitney U-test is often viewed as the nonparametric equivalent of Student's t-test when the data are made on an ordinal scale which is not normally distributed (Hart, 2001; Bergmann, et al., 2000). The application of U-test is made to detect if the information obtainment can fulfil the need for the fourteen different types of information.

Following that, the effects of the demographic factors were analysed further. Mann-Whitney U-test (two-tailed) and Kruskal-Wallis analysis of variables are used dependent on the number of alternatives in the demographic factor. Similar to the above section, Mann-Whitney U-test (two-tailed) is used again when the number of alternatives in the demographic factors is two; whereas Kruskal-Wallis analysis of variables by rank test is used as a statistical measure to highlight any significant difference between three or more independent samples (Cohen, et al., 2000). Kruskal-Wallis analysis of variables is selected because it is a non-parametric method applicable to calculate the ordinal level of the data and does not depend on the shape of the population distribution (Chan and Walmsley, 1997). If significant difference is detected in the Kruskal-Wallis analysis of variables, Dunn's Multiple Comparisons Test will be carried out. The confidence level is set at 5%. Finally, the fourteen different types of information on the questionnaire are divided into four categories. Kruskal-Wallis analysis of variables, and Dunn's Multiple Comparisons Test when necessary, is applied again to find out if there are any significant differences among the types of information within each category.

However, the limitations in applying statistical tests are related to the number of questionnaire samples. Generally speaking, the larger the sample size, the more powerful the statistical tests. It is worth mentioning that the sub-group size was turned out to be very small in some cases. For example, there were only four participants showing that they had no plans to change jobs (see Table 4 on Page 51). Although the statistical tests can still be performed to test the effects of intentions to change jobs, attention should be paid to these cases to avoid over generalisation of the conclusions.

The results of questionnaire survey and that of the interviews are used to verify against each other, wherever applicable, to strengthen the authenticity in the interpretation of the data. Additionally, documentary reviews are carried out to test the findings and the conclusions are then drawn from the analysis. The qualitative and quantitative data are organised in the next chapter.

CHAPTER 4 PRESENTATION OF DATA

The data are presented in this chapter based on the research questions in Chapter One. Main themes are identified during the analysis of the data and are grouped under seven categories: motivation to study; information-seeking process; information needs and obtainment; difficulties in information-seeking process; perceptions of returns on human capital investment; comparison between human capital investment and financial investment and career guidance services. These major themes are used as a framework for this chapter.

Motivation to study

It is worth understanding whether working individuals perceived pursuing further studies is an expense or an investment. This research shows that most participants took further studies as an investment to improve their careers. There were 67 returned questionnaires in total. Eleven sets were excluded due to confusing and serious missing data or out of the sample criteria. Fifty-five out of the 56 remaining returned questionnaires (98%) indicated that the participants studied mainly for career development and lifelong investment (see Table 6).

Table 6: The returnees' attitude on further studies

Attitude on Further Studies	Solely for Leisure	Mainly for Leisure	Mainly for Investment	Solely for Investment
	0	1	47	8

Therefore, it is appropriate to accept that further studies are regarded as human capital investment in this research. The only one unique set of questionnaire showing leisure was her or her sole study purpose has been excluded in the further analysis. Only 55 questionnaires were used later.

Career plans are a key factor linking to further studies. However, the career plans of the interviewees varied widely in nature. Opal's case demonstrated thoughtfulness in her career plan as she divided every five years as a phase in her career planning. The first five years were for learning and the second five years were for development. Her career plan was well-structured and systematic. Understandably, this was only hypothetical and might not

reflective on her actual career path.

A few interviewees aimed to be entrepreneurs and to have their own businesses as their long-term career goals. Unlike employees under employment, there were fewer requirements for entrepreneurs and business owners to flaunt their qualifications or 'academic badge'. However, pursuing further studies was still important to them. Namely, Betty claimed,

> "Pursuing further studies is a must. Before I can have my own business, I need to get employed to get experience and business capital. When I am an employee, academic qualifications other than work experience will significantly help me in changing jobs or further career advancement within a company. This is a factor usually considered by management."

Also, Peggy said,

> "Studying will not be a waste. Even if I cannot establish my own business eventually, I expect others will perceive me to be more knowledgeable in the areas I studied than others who have not taken such programme or qualifications. In material terms, I would also have better chance for some salary increase."

Other interviewees saw the pursuit of further studies very differently. They regarded it as a vehicle to achieve a simple, stable, secure and happy life. For instance, Fred and Lisa said:

> "After getting a degree, I would like to see if I can change to another firm or do another kind of work in the same company ……The key focus of my career plan is to earn more money and to have better living conditions and a happier life." (Fred)

> "Plain and ordinary life of having a job, some money and income are okay…… I think if you have a higher academic qualification, some companies will buy the point of academic qualifications and will give you a higher salary." (Lisa)

Another typical career plans were shared by Aaron and Charles, who were proceeding along their existing paths. Yet, both of the interviewees would like to be exposed to new opportunities in their working life. Aaron made his decision to pursue further studies on the basis of his employer's human resource qualifications framework. He said,

> "There is a system in my company. If you want to reach a higher rank, you need to have a degree. Then, if you want to get promoted to the even higher rank, a master degree is necessary. For that reason, I plan to pursue further studies."

Charles intended to explore new working opportunities within his company. He explained,

> "Working in company A or company B will not make much difference. I prefer to work in the same company but to explore new opportunities. I selected the programme in order to better position myself for such future option …… "

Other interviewees expressed that they did not have a clear career plan and had just developed ones along via their further studies. For example, Eric said,

> "I have just begun working. I did not have special interest in any particular field…… I have not thought about career plan in the last two years. It is mainly because I want to acquire a degree first. By having a degree, I think it will be easier to find other jobs."

One interesting case involved David, who had a pessimistic view of his field of work. He had chosen to take up further studies to effect a change. With interest in quality, he planned for a complete switch from his original field of work. He said,

> "At the time of applying for this programme, I was working in the building services. Upon completion of Year One, I tried to find a QA[Quality Assurance]-related job and then I got it….. I formulated my career plan in the past and I am realising it now."

Despite of the nature of their career plans, many participants were motivated to pursue further studies by their wishes for career advancement. During the interviews, they explained that their further studies for a degree were closely linked to their career plans because a degree was perceived as a basic requirement in society. Cases such as David and Opal were:

> "A degree can be treated as a basic entrance ticket….. By having a degree I can have a better chance for promotion." (David)

> "Having a degree is a trend in society…… Improving my education level and adding as much value to myself as possible can help my prospect of promotion and career advancement. All these are directly proportional." (Opal)

Forty-four out of 55 participants (80%) in the questionnaire survey showed that they expected to have some form of career advancement after the completion of their studies (see Table 7).

Table 7: The returnees' expectations on career advancement after the completion of the programme

Expectations on Career Advancement	Yes	No	Not Sure	Missing Data
	44 (80.0%)	4 (7.3%)	7 (12.7%)	0 (0.0%)

Many interviewees believed that academic qualifications played an important role when an employer made a decision about promotion. For example, Ida said,

> "When considering which employee is suitable for promotion or for taking up some key projects, my company will review whether an employee has the competency, related work experience and academic qualifications (before making a decision)."

George echoed,

> "Individuals always want to advance to higher (positions). If you do not pursue further

> studies for a degree and a master degree, you cannot move forward. No matter how smart you are and how good your performance is, your employer may still think that if the academic qualifications are inadequate, then they are inadequate. There are no alternatives."

By the way, Betty had missed an opportunity for career advancement simply due to her lack of a degree qualification.

The most common and simple interpretation of career advancement is promotion to a higher position with salary increase, just like Fred said,

> "I know I ought to obtain a degree first and then there will be better promotional opportunities in the future. I do not think about it any more but just pursue further studies….. Salary increase will come with promotion."

Nevertheless, new responsibilities usually come along with the career advancement. Nancy wanted to be competent in discharging her new responsibilities in case she got promoted. She explained,

> "For instance, my employer may tell me that promotion to a particular post requires some knowledge in certain areas. If I lack the related knowledge, I will need to study further in those areas in order to be responsible to my employer as well as to myself."

The intention to change jobs or to seek new opportunities were the key factors closely related to career advancement in motivating the participants to pursue further studies. Thirty-four out of 55 respondents (62%) planned to change jobs upon completion of their current programme (see Table 8).

Table 8: The returnees' intention to plan for changing jobs after the completion of the studies

Plan to Change Jobs	Yes	No	Not Sure	Missing Data
	34 (61.8%)	4 (7.3%)	17 (30.9%)	0 (0.0%)

Under normal circumstances, people seek to change for the better either by staying in the same company or moving on to another organisation. A better job can mean different things to different people. In the first place, it can relate to direct career advancement and promotion, as discussed previously. In the second place, a better job can mean acquiring both tangible and intangible benefits simply by working in a sizable and well structured company. Betty elaborated,

> "When I graduate from the programme, I shall look for a better job. A better (job) is

defined as working in a company with better prospect, or in a bigger organisation."

Peggy thought that further studies could improve her chance of working for a larger company and hence widening her career choices. She said,

> "Large companies, I notice, are likely to have requirements in educational background. If I have taken up further studies, choices opening for me to choose a new job will be increased immensely."

In the third place, changing a better job can solely mean a higher salary. Horace's case demonstrated this fact. At the time of making his educational decision, he was waiting for a promotion opportunity in his former company and the post was the one he had been desirous of for a long time. However, he changed his job to work for another company. He said,

> "It was related to salary. My current salary is significantly higher when compared with my previous one. Hence, I changed job."

Similarly, when being asked about what he had been looking for at the time he considered a change of employer, James said,

> "It was only for money."

The intention to change jobs purely for salary increase could be traced back to their career plans. James aimed for a happy and simple life, and had no aggressive ambition for career advancement. He was concerned mainly with salary. As a result, he did not care too much about changing job or employer.

Additionally, an interesting phenomenon is observed. Nine out of 16 interviewees (56%) had changed employers during the first two years of their studies. The rate was close to 28% per year. In comparison with the average employee turnover rate in Hong Kong, which was 11.95% and 11.94% in 2005 and 2006 respectively (Hong Kong Institute of Human Resource Management, 2007b), this percentage, 28%, was relatively high.

Besides, more than half, 32 out of 55 respondents (58%) in the questionnaire survey believed that their job security would be improved upon completion of their studies (see Table 9).

Table 9: The returnees' expectation of improvement on job security after the completion of the programme

Improvement on Job Security	Yes	No	Not Sure	Missing Data
	32 (58.2%)	7 (12.7%)	15 (27.3%)	1 (1.8%)

Positive expectations on job security were the dominant and typical responses of the participants. For example, Lisa said,

> "If you can obtain a degree, learn more things, and can help the company, the employer can feel that it is worth keeping you in the company."

Since many factories and companies in Hong Kong have moved to the mainland China, Peggy felt that it imposed immediate threats on her job security. She explained,

> "Do individuals want to develop their careers in PRC? The number of job types in industrial and manufacturing sections remaining in Hong Kong is reducing gradually."

Some of the interviewees did not have immediate job security concerns. They were looking forward to the potential threats that might be anticipated in the future. For instance:

> "Even if I do not have a degree, I may not have threats within the coming ten years because I am still young. However, in less than ten years, degree-bearing (qualifications) will be so popular that those without a degree will definitely face greater threats in their job security and will have to worry about being out-competed." (Opal)

> "When considering job security for the long term, I need to secure a stable job with a stable income to cope with the future. Therefore, I need to study for a degree." (James)

Nine (13%) participants stated no expectation of any improvement on job security (see Table 9) and did not believe the positive effects of further studies on job security. Namely, Ken said,

> "Theoretically, there should be some (relationships between job security and further studies), but I do not think this is in fact the case. It is because when employers decide whether to keep you, their decisions are based on whether you can perform tasks well."

The above statements initiated by Ken made an interesting contrast with the earlier comments by George, who believed academic qualifications to be the most crucial keys to advancement of employment (see Pages 61 to 62).

It is noteworthy that pursuing further studies may jeopardise the short term career of a returnee. A few interviewees mentioned that job security could be lowered during their studies. It was rather an unexpected situation until one such interviewee, Betty, explained,

> "When you are studying, the degree of job security could be lowered. When you are attending a course, it can become an annoying issue to a company as your ability to work overtime will be inhibited. You cannot go on trips for a long period of time."

In the worst case, Opal faced a job security issue of being laid off during her study. She recalled the situation,

> "My previous employer often required staff to work till 11 p.m. or even midnight. These had been the earliest hours that I could leave the office. If I needed to attend classes three nights per week, the company considered it unacceptable. The company considered such employees were unsuitable for the company because they failed to make themselves available for overtime work."

Their wishes for career advancement, intention to change jobs as well as improvement on job security were the key factors driving the participants to pursue further studies. Understandably, they also wanted to be viewed in better light. David and Lisa talked about the intangible supports namely, encouragements from their company and family. Encouragement had heartened them to pursue further studies and made them enjoy their learning. David gave an example of how his direct supervisor supported him, and said,

> "For instance, he had already gathered further information for me because I had told him I would like to study for a master degree after finishing this programme. He collected the information and told me which master course would be suitable for me to study and would be helpful to my work in the future. He recommended courses to me."

In addition to encouragement from her company, Lisa received strong supports from her family. She said,

> "They give me mental support…… Actually, my course fee is shared between myself and some of my family members. They support and encourage me to pursue further studies."

At the same time, nearly half of the interviewees wanted to obtain a degree in order to fulfil their aspirations and the wishes for development in their life. Such aspirations drove them to pursue a degree and take further studies. For example, Nancy and Charles said:

> "I made obtaining a degree my target..... It is for my own satisfaction and self development as well. It is a wish that I have not yet accomplished and I'll try to make it come true." (Nancy)

> "The purpose of pursuing further studies is half (related to) my personal goal. Okay, I want to have a degree. I believe I should have a degree in my life." (Charles)

Besides, further studies could help Horace realise his aspiration to become a professional auditor and get intrinsic satisfaction in his career plan. He said,

> "I want to be an ISO9000 auditor. I know if I complete the study in quality management, I would fulfil part of the qualification requirements…… This can give me immense satisfaction."

Nancy, Opal and Peggy stressed that it was chiefly for the sake of their self-improvement that they pursued further studies. Both Nancy and Opal commented that learning could add value to them. In addition, Peggy said,

> "Investment in education is to make you feel better equipped for future."

A few interviewees pursuing a degree were out of a wish to substantiate their competence. At the same time, they could enhance their self-esteem and confidence in front of others. David made these points explicitly, and said,

> "My experience throughout my career is that if a person is a university graduate, the person will be able to speak louder. It is because he or she has the background and others will be convinced."

On the other hand, a few interviewees had remarked that pressures arose from their relatives or themselves with regard to their lack of a degree qualification. Ken said,

> "Sometimes my gossipy relatives may ask my parents. I don't want them to feel somewhat inferior…… It is better to have a piece of credentials. Some relatives are rather snobbish. They feel proud towards their own children, who already have got degrees. This forms one of the pressures. The fact that many of my ex-classmates already have a degree gives me another form of pressures……. When I examine myself, I am not stupider than they are. There is no reason why they have (a degree) while I don't have (one)."

Lisa said,

> "I graduated from IVE with a higher diploma and then started working. After two years, I started to notice that people around me all have higher academic qualifications than I do. I don't want to stop at this level."

They were driven partly by the views of others or their own self concepts to pursue degree course studies in order to reduce their dissatisfaction.

Probably, company support and obstructive stance are factors affecting people to make their educational choices. Only one out of the 55 participants in the questionnaire survey indicated that he had received subsidies from his employer in the sum of HKD90,000. All remaining respondents obtained no subsidies (see Table 10).

Table 10: The subsidies that the returnees received from the employers

Having subsidies from company	Yes	No	Missing Data
	1 (1.8%)	52 (94.5%)	2 (3.6%)
Amount of subsidies (HKD)	Maximum	Minimum	Medium
	90,000	0	0

The interviews showed that some companies did provide sponsorship. Six out of 16 (38%) interviewees could obtain educational subsidies from their companies but none of them secured the subsidies for a variety of reasons. George left the company because it had relocated to the mainland China. Both Ken and Ida planned to quit and change jobs. For that reason, they did not want to be bound by the obligation of serving the company for a certain period of time afterwards. Aaron did not apply because neither did he want to explain for his late application nor did he want to stay in the company for an extra year of service upon completion of his study. David was not eligible to apply for sponsorship because he had not yet worked for the company for over one year. James was rejected from the sponsorship as his supervisor claimed that there was no departmental budget reserved for such an expensive course.

George showed the positive view of the company support and said,

> "Company support does have some influence over my decision to further studies in the beginning. When you have just started working, your salary is not high. You need to pay a large amount for the tuition fees. Unless the company sponsors you, you will not make such decision recklessly."

In contrast, James, who was rejected from the sponsorship, was discouraged and said,

> "Usually if an application requires money, my supervisor will reject it …… He does not care about my development in the future. He only focuses on how to obtain the maximum manpower resource from me and to exhaust my productivity at present."

The remaining ten interviewees had resorted to their own resources to support their further studies and there was no sponsorship provided by their company. They did not have any comments on this arrangement.

Company support for an employee's development apart from monetary resources can take many forms. An important one may be in terms of time release. Employers may give time off and agreement to flexible working schedules to their staff. This is the case especially for those forward-thinking small and medium enterprises, which have less resource to support direct sponsorship. For example, Martin said,

> "Actually there is not much (support). However, the company allows me to leave a bit

> earlier to attend classes. (Interviewer: Is it not just on time but really a bit earlier?) Yes, I can leave a bit earlier because my job is not too busy."

To a large extent, Aaron and Ken enjoyed some flexible working hours and leave compensation arrangements from their company. For a majority of the interviewees, they could only leave their company on time and were not forced to work overtime during their studies. Hence, they were able to attend classes punctually. This could be considered to be a form of support from their company as well. For instance, Ida and David commented:

> "When the supervisor knows you need to attend classes, they will let you go and not force you to work overtime…… It is easy for me to attend classes." (Ida)

> "On the days you need to attend classes, the company will allow you to leave on time. Actually such gesture is a great support." (David)

Interestingly, Peggy showed another attitude. She managed to reach an agreement with the company over overtime work especially during the peak season. It was understood that she had to keep a low profile in the company concerning her study. Peggy said,

> "I think it is unfair to say that the employer does not support (my study). The employer cannot help it …… Even if the company wants to support, it has no alternative. It is impossible to ask others to share all my work. The market situation is so difficult."

At the other end of the spectrum, some companies are obstructive to their employees' pursuit of part-time studies. Both Nancy and James were asked by their employers to complete all their work before they could go to attend classes. Nancy said,

> "The precondition is that you have to complete your work on hand before you can leave for your classes. Therefore, I find it quite difficult to attend classes on time."

James had been questioned by his former supervisor over his studies and recounted,

> "My former company required me to work overtime. This programme is part-time. My supervisor once said, 'Are your studying a full-time or part-time undertaking? If it is a part-time undertaking, then please complete all your full-time work before you tell me about your part-time obligations'…... "

Opal had even been terminated by her company as shown in the previous section (see Pages 64 to 65).

Support from employers can take a further form such as references given during course applications. The preparation of reference letter by their supervisor was viewed positively by four interviewees. For example, Charles said,

> "When I applied for this degree programme, I had discussed it with my supervisor who had written me a reference letter. I think it is a kind of support from my point of view."

Notwithstanding Charles' experience, Ken had a completely different feeling even he supported Charles' views. He related his story,

> "At that time, I had asked my employer to write a reference letter. However, the guy [employer] was too busy and hence he forgot. It was one of the reasons why I quitted."

Most interviewees were philosophical and did not take company support for granted. They did not expect company support as a must. Rather they considered their support as a bonus when they got it. Peggy was a case in point. She said,

> "Right from the beginning, I always assume my company will not support my study..... As a result, if there is support from the company, I shall consider it as a bonus."

Nevertheless, seven out of the 16 interviewees (44%) clearly indicated that with or without the support from their companies, their educational decisions would not have been affected. Fred said,

> "It [company support] does not affect my decision. I will have no way out if I do not study. If I study, there will be a better chance. Even if there is no support, I will still pursue further studies."

Four of them would change jobs or risk the chance of getting fired if their company did not support or allow them to pursue further studies. Eric said,

> "I think I need to take (the programme) anyway. I need to pursue further studies, no matter whether the company support or not. If worse comes to worst, I can change my current job."

In short, the employers' response is not a determination factor for people planning to return to higher education. Unsupportive companies can discourage their staff and consequently this leads to higher turnover of their workforce.

Information-seeking process

Once some initial ideas on pursuing further studies were formed following their career-related decisions, the participants would move onto seeking information for programme selection. It was however found that the interviewees had different views on the relevance of the subject of study to their occupations. These views could be broadly grouped into two positions and the difference primarily affected the preliminary programme selection. George was a

representative at one extreme. He thought that it was very important to select a programme in the appropriate discipline, and said,

> "If a person who has grown up and has already been working but had selected a wrong programme in his further studies, then other people would possibly consider that person not very smart."

At the other end of the spectrum, Charles expressed that he had just wanted a degree and did not care what discipline it was. He said,

> "Other people do not care what discipline your degree is in. I came across many people who were working in a field different from the field they have chosen to study for their degree."

The positions of the remaining interviewees fell in between these two ends of the spectrum.

A key factor affecting the preliminary programme selection was the extent of programme applicable to their work. For example, Opal described,

> "The subjects and the courses were quite related to my first job. In my first job, the company was in manufacturing and electroplating…… (The programme is) quite related to my first job."

In addition, Aaron selected the programme because it was relevant to his work. He said,

> "Before selecting a programme …… I certainly shall assess if it is practical. Right now my job involves product tests which are related to quality. In terms of specialisation within my company, my department is responsible for hard-line products. I need to have some understanding of product quality and the associated international quality standards for them. Therefore, I have selected the current programme."

However, the underlying reason of his selection was not for the reason of his interest. He further explained,

> "Actually my key interest is in linguistics. I want to study a course, available in the 'X' University on bilingual communication. However, for various reasons, my family did not support me in pursuing that study. Therefore, I have not selected the programme I am truly interested…… Having chosen the current programme, at least I can meet the demands of my work."

Aaron's situation brought out another factor affecting the preliminary programme selection. It was the interest of the interviewees. However, it was difficult to tell how interested they were in the courses they were studying. The only certainty was that all of them did not dislike their courses. James commented,

> "I chose a programme that I think is of general application and that I have interest in. (It is) because I don't want it to be very toilsome. Studying part-time evening courses has already been very toilsome to me. If I have completely no interest or no knowledge in the programme, I cannot make it."

Usually the interviewees expressed and explained their interest in their career plans rather than

in the programme they had taken up. For instance, Ida explained,

> "The reason why choosing this programme is the same as the reason for deciding to pursue further studies, I need to select and complete the related programme before I can become an engineer."

Types of information

Based on their interest and work requirements, the participants usually shortlisted a small number of possible programmes that they could take. Then they started to gather the information on these possibilities. The interviewees did care about what they needed to commit to the programme. The information relating to inputs to a study programme were mainly money and time. Obviously, they might ask directly about tuition fees, school hours, course duration and mode of study. A case such as Fred said,

> "On whether I should pursue further studies, the first thing I look at is its costs. This is very important. I need to know if I have enough money to study."

Affordability was a crucial issue as George explained,

> "When you have just started working, your salary is not high. You need to pay a large amount for the tuition fees. Unless the company sponsors you, you will not make such decision recklessly."

Despite the concern over tuition fees, many interviewees focused on time requirement and duration of the course. Charles said,

> "Time…… I think everyone in Hong Kong wants to be able to complete things in the shortest possible time. For me, I first checked how many credits were allocated to each subject and how many credits were required to obtain a degree. Then I calculated the shortest time that I would need to complete the programme. The most important thing is time. Over all those things I consider, I mostly think about time."

Peggy was concerned about another aspect of time which was the mode of study. She set out to check how many nights each week she would need to attend lectures and tutorials.

Besides, their concerns over money and time might appear in different forms. Indirectly, the participants paid attention to ways of obtaining exemption or credit transfer, workload of the programme and the teaching location. Several interviewees had emphasised the possibilities for credit transfer or exemption because the outcomes would have implications on the money and time required to complete an academic programme. For example, Ken and Opal said:

> "I have already studied some subjects previously. If they would be exempted, it would be better. I do not need to waste money." (Ken)

> "There is another thing which is very important. At that time, I had asked previous cohorts about how many subjects could be eligible for credits transfer for the sake of less money and time…… Yet, time is a bit more important than money." (Opal)

However, they claimed that they could not obtain much information in this aspect.

Moreover, the interviewees highlighted the importance of workload and relevance of their academic background. James had asked previous cohorts about how their previous studies were relevant to the programme. He said,

> "I asked how the course was related to my previous higher diploma course. Would it be easier for me to study?"

Similarly, Opal had asked previous cohorts about how demanding the programme was. She would like to know whether it was difficult to study or whether there were many assignments.

One of the interviewees, Lisa, chose the programme partly by elimination. After getting rid of those programmes that were too costly, she excluded some options due to the teaching locations. She said,

> "After crossing out the expensive courses on the list, I found that some of the remaining locations where the courses are to be conducted are too far away from my workplace."

Lisa was the only one among all interviewees mentioning location as a consideration factor because she was working in a remote area.

After the participants understood what they were prepared to pay for and to commit to the programme, they might then question about what they could obtain from it. Twelve out of the 16 interviewees highlighted that they needed to obtain information about the coverage of course contents or syllabus before making their educational decisions. Both Fred and Nancy remarked that the course contents were very important, and they said:

> "I need to consider what will be taught. Course contents are more important (than other factors). The universities may say a course will lead to certain prospects but you need to go over what will be covered in the course in order to decide if the course is really suitable." (Fred)

> "It will be the ideal if course contents will be described in details. That is, what subjects will be listed instead of just a few sentences on engineering and quality…… It will be useful to anyone contemplating what programme to go for." (Nancy)

At the same time, the interviewees cared a lot about external views on their potential status

after the completion of their programme. A few of them said that they paid attention to the reputation and public impression of the university that provided the programme as well. For example, Martin said,

> "Another factor is the university reputation. In Hong Kong, everybody knows about the general rankings of the universities. I shall choose the programme starting from the top one as long as my qualifications meet the admission requirements for that programme."

Betty discussed a subjective factor, namely her personal impression of the university, and said,

> "There are many subjective factors…… From my own point of view, some universities are strongly perceived to be not so good. I dislike them so much that I would not put them on the priority list."

She explained that she disliked the attitude of the alumni from that particular university.

In the same way, at least six interviewees were concerned about how well the programme was accepted by others. For instance, Eric wanted to find out how others felt about it before deciding on taking a degree course. He said,

> "I need to know how well graduates from the programme are recognised and accepted in general."

Likewise, Ken had considered but eventually did not take a distance-learning course due to his infertile search for information on the programme accreditation. He said,

> "There was a distance-learning programme for electronic engineering. I did not know whether it was accredited or not. The organisation gave out confusing signals which seemed to be yes and at the other time to be no…… Therefore, I did not choose it."

The qualification and the title to be awarded was a crucial factor for their selection of an appropriate academic programme. George and Martin revealed that they were influenced by the programme title when they made their educational choices, and they said:

> "In addition to the points expressed earlier, I would also look at the title of the programme. When people look at a degree, they will first look at its title." (George)

> "I selected this programme because I feel that the title of the programme sound impressive and……." (Martin)

Another type of information the interviewees collected was the connectivity with next level of studies or professional qualifications. Four of them indicated that they planned to study a master degree after the completion of their bachelor programme. They paid considerable

attention to how the programmes at the two levels were linked together and whether the output of their current level could become the input in next one. Ken and David said:

> "I did ask about which subjects would earn exemptions if I would study for a master programme in the future." (Ken)

> "If I complete this degree programme and still want to keep on further studies, say master degree, then what are the 'top-up' master courses available to me? If I complete a programme in engineering, would any professional body recognise that will meet the minimum requirement in becoming a chartered engineer? If I complete a programme in quality, what kind of association in quality can I register? I need information on all these." (David)

In short, the participants were also seeking possible information which included knowledge to be acquired, external views on their potential status and the linkage of the programme to their next further studies.

Even if the interviewees were satisfied with the potential yields and could commit to the required inputs of the programme, they still needed to comply with the admission requirements. In some ways, admission requirements could form one of the constraints in making their educational choices. A few interviewees preferred those programmes that set lower admission requirements so that it would be easier to get admitted. Nancy commented,

> "My background relates a bit to the programme. I may possibly get admitted in this programme. My decision is simply based on the ease of admission to this programme instead of how popular it is or what career prospects it gives graduates in the labour market."

The academic background of Ken caused him to consider the admission requirements of a programme in another way. He explained,

> "When I studied for the Higher Diploma course, my results for the Year Two were a bit poor. As a result, I could not pass with a credit in Year Three. Therefore, it is difficult for me to study for a formal government sponsored degree course……. I selected a self-financed course which was relatively easier for me to get admitted."

Another case was related to Martin, who had only possessed a higher certificate instead of a higher diploma. He chose the current programme because he could meet the lower minimum admission requirements and skip the higher diploma level. He said,

> "The minimum admission requirements in most part-time degree programmes are higher diploma. For this programme, applicants with either high certificate or higher diploma are still eligible. Therefore, I chose this programme so that I could skip the two years to study for a higher diploma."

Martin wanted to minimise the time used in getting to his targets for obtaining a degree

qualification, having a better job and earning higher salary.

The interviewees sought many different types of information related to their interested programmes: the amount of course fee; the time requirement and duration of the programme; the attainment of exemption or credit transfer; the workload of the programme; the locations of teaching; the award title; the recognition of the qualifications; the impression of the university and the prospect of being admitted to that particular programme.

Surprisingly, none of the interviewees proactively brought out the labour market information and the projected returns on their educational investment when being asked about the type of information that they sought for their educational choices.

Sources of information

Next, the different sources of information are discussed to understand how prospective returnees gather the information they need. According to the interview results, the sources were grouped into five types namely, service providers, published materials, employers and work contacts, personal contacts and their own methods.

When an organisation provides service, it will be obliged to provide information on the services on offer. This also serves a primary motive for attracting clients. Therefore, prospective returnees can obtain programme-related information from the educational institutions offering the said programme. On the other hand, labour market information such as trends and salary scale are collectively formulated by employers and official bodies such as the government. Recruitment agents and the Labour Department are providing information in this aspect in private and in public respectively.

There was nothing special about the interviewees securing programme information directly from the educational institutions. Fifteen out of 16 interviewees mentioned that the Internet and official websites of the educational institutions were their source of information. Most of them considered these sources were fast and convenient. For example, Fred said,

> "Certainly, the course information was obtained from the Internet. Nowadays, the Internet is the most convenient and the fastest way to search for information. Of course, the first access would be made at the official website of the university."

Only Nancy said,

> "The websites are not user-friendly."

A few interviewees obtained the application information and prospectus from the information counters of the universities in person as well. For instance, Opal said,

> "There was a counter for distribution of application forms. I got the information from the counter of the universities by actually paying a visit there."

Recruitment agents provide services and act as a bridge between employers and job seekers. Nonetheless, most interviewees did not take them as a resource of the labour market information. Only one interviewee, Ken, mentioned,

> "I obtain the expected salary range from JobsDB [magazine title and online recruitment and advertising portal website] and some recruitment agents."

In the same way, one of the functions provided by the Labour Department in the Government is similar to that of the recruitment agents. No interviewees regarded it as one of their information sources. Aaron used the references from the Labour Department to figure out the overall picture in the labour market but he believed it was not enough. He explained,

> "From all the available fields of work in the Labour Department website, I could only identify and review two to three particular advertisements that were close to my target post. It was not a formal survey …… There were no official figures and data to show the trend in that particular field."

Interviewees had made quite a number of comments on the services provided by the Labour Department. The comments are discussed later under the heading 'Career guidance services' in this Chapter.

Career magazines and newspapers, which present education programmes and labour market conditions, are another source of information. They differ from the others in that they mainly provide one-way communication from the giver of information to receivers. Career Times, Jiu Jik, JobsDB(HK), JobMarket and Recruit are examples of popular career magazines that are distributed free of charge in Hong Kong. They contain articles relating to job seeking techniques, workplace practices and labour market reports as well as advertisements for job

vacancies and study programmes. In general, many interviewees gathered career development information, labour market trends, salary survey from these magazines. For instance, James commented,

> "After reading these magazines, I can get the feeling of what sort of jobs are in demand in the market, and which are the ones declining. I can estimate the average salary by comparing several posts for a particular set of requirements and can draw some understanding of the market situation such as which type of persons is in demand and which is being over supplied."

Aaron also studied the recruitment publications but he got different results. He said,

> "I have tried to read Career Times [magazine title] and can only obtain some scrappy information. I cannot conclude if they are labour market trends or not."

Many of the interviewees were aware of the advertisements on study programmes in the career magazines. However, they found those advertisements not too attractive, such as Betty said,

> "For the career magazines, I do not read much……. I do not pay much attention to advertisements in those career magazines because they are not attractive to me. (Interviewer: Are they useful to you?) I have not read them, therefore I don't know. However, I think they are useful to let people know what courses are available."

Besides, nearly half of the 16 interviewees got information from other news media such as newspapers and television news. Once again, some of them focused on the market situation while others paid attention to university rankings. For example, David and Martin said:

> "Every year, the employment situation and average salary of fresh graduates are reported in the newspapers." (David)

> "Sometimes I get references from ratings giving in newspapers and television broadcasts. For instance, there is information such as university rankings." (Martin)

However, no interviewees mentioned about the career guidance services through radio programmes.

The participants in this research were all working during the daytime. They could engage their supervisors, colleagues, human resource colleagues as well as business contacts from customers to contractors in sharing information and advice for their educational decisions. Only a few interviewees brought out the point that their supervisor was one of their information providers. Betty was a case in point, and she commented,

> "The information from my employer is very factual. It was also practical. For example, I was told that after studying such course, I could work at what kind of position."

In general, an individual person may have only one supervisor but he or she will have several colleagues. Therefore, it can just be natural that the colleagues are consulted when necessary. For instance, Aaron and Fred did discuss with their colleagues about their studies and the labour market trends. Aaron said,

> "When selecting the programme in the beginning, I did not have many ideas. I started talking with my colleagues. I asked them if they had taken any study courses relating to our current jobs. Some colleagues have already been studying part-time programmes. I also asked about their opinions on which universities or institutions were good or famous in the field. I was able to choose them for further advice."

Similarly, Fred obtained labour market information through chatting with his friends and colleagues. He said,

> "If you are looking for information relating to career advancement, you can talk to both your friends and colleagues. I got the information about the amount of potential salary increment that one could get after gaining qualifications…… "

In Aaron's case, the Human Resource Department of his company provided a lot of information relating to the qualifications framework. It seemed to be very well-structured and contrary to most of the other cases. He explained,

> "With respect to my employer, the Human Resource Department was the best source of information I could get. In my discussion with them, they even disclosed the approximate salary range of qualified employees. Therefore, I was able to find out the salary and benefits I could get if I reached a certain grade in the company."

Some human resource or personnel departments might only provide the information on training courses and other study programmes. For example, Ida said,

> "My company is in contact with some universities and they will send some information on further studies to my company regularly. My company will then pass them onto the staff."

Work contacts are not just confined to the individual persons within the same company. Some people are required to liaise with customers, suppliers and other related parties in their trade. For example, Nancy and Charles said:

> "I have discussed with some of my customers and sometimes they can obtain information of the trends of salary and labour market." (Nancy)

> "To search the information on the labour market trends, I asked my contacts from my

> daily working levels as well as those in my private networks to compare and contrast." (Charles)

Therefore, their networks of contacts became another source of information.

Like anything, people often resort to their personal contacts and social networks to get things done and to obtain information. It is not surprising to find that the influence of peer groups among prospective returnees is great in this research. When interviewees referred to colleagues, they might also mean their friends as well. A case such as Ken showed this tendency. He said,

> "I shall ask my colleagues if they are of my age. If they are, they most probably have studied some programmes and might even have graduated. Therefore, I have no hesitation in asking them."

Thirteen out of 16 interviewees mentioned that they had consulted with their peer group for information before making their educational decisions. The peer group might include their friends, current and ex-colleagues and alumni. For example, Eric and James said:

> "For the actual situation of the programme, I asked my friends. Many of them are also my ex-classmates." (Eric)

> "Actually before I applied for the current programmes, some ex-schoolmates who also happened to be graduates of the same higher diploma course I have taken told me about the related information. Therefore, my major source of information was from the previous cohorts…… Some of the previous cohorts are also my ex-classmates as well as my ex-colleagues." (James)

Many interviewees chose their peers as a source of information. Opal suggested that the reason was good communication with each other. She explained:

> "I often consult with my classmates and my friends. It is because my classmates can understand me more and we are of similar background …… Yes, I consulted with them before I applied for enrolment in the programme. They are my ex-classmates in my higher diploma course."

In contrast, most interviewees did not identify their family members as a source of information. Only Ken and Lisa made reference to their relatives, and said:

> "Sometimes I asked other people. They included my classmates, my elder brother and my brother-in-law." (Ken)

> "I asked my cousin. At the time, my cousin was considering selecting the same programme." (Lisa)

Even though Lisa and Ken had discussed with their relatives, their consulted parties were of

the same generation in general, not someone senior such as their parents.

In addition, a few interviewees used their own methods to obtain information. They applied their observational skill and drew conclusions to formulate their understanding of the labour market and their personal needs for further studies. For example, Fred said,

> "I have really tried obtaining the information rather than by way of gut feelings. When I encountered and worked with managers, I often got their business cards. I was able to observe and deduce what sort of education level or academic background they possessed. So far, I have never seen a manager without a degree."

A number of other examples can be found in the previous sections, especially job security.

Peggy used another method to probe for salary information. She said,

> "I obtained the salary figures by ways of job applications…… The companies required me to state the expected salary. I put in my expected one. When there were feedbacks from these companies for interviews, I knew my quoted figure was near to their acceptable level."

She sent application letters for her targeted jobs to test the acceptance level on her quoted expected salaries based on the response in the form of interview invitations.

Information needs and obtainment

The participants used various sources of information to collect different types of information that they needed for making their educational decisions. Theoretically, the degree of information demand and supply, which means the needs and the fulfilment of needs, should be correlated to each other. However, only six out of 14 types of information listed in the questionnaire were shown to have significant correlation between the degrees of information needed and that of the obtainment (see Tables 11 to 12 on Pages 197 to 198). In addition, the participants were proven to have greater needs in all these types of information than what they could obtain (see Tables 13 to 14 on Pages 199 to 200). In other words, the information obtainment was prevalently insufficient to fulfil their needs.

Next, statistical analysis were carried out to identify if there was any difference in the information needs and acquirement based on four demographic factors, namely, gender, work experience, age and education level. As far as information needs are concerned, there were no

significant differences between the male and female participants and between degree holders and non-degree holders for all types of information listed in the questionnaire (see Tables 15 to 18 on Pages 201 to 204). However, those participants with less than five years work experience were shown to require more information in employment trends, expected salary scale regarding current job or next career move, potential salary range upon completion of the programme, as well as in social capital, than those in other two groups with five to nine years and those having ten or more years work experience (see Tables 19 to 25 on Pages 205 to 208). Besides, from the analysis of results of the returned questionnaires for those three age groups, namely under 25, between 25 and 34, and between 35 and 44, it shows that those under 25 demanded significantly more information on employment trends (than those aged ranging 35 to 44) as presented in Tables 26 to 30 on Pages 209 to 211. A similar phenomenon happened in the areas of expected salary range regarding their current job and the potential salary range after finishing their programme (than those aged ranging both 25 to 34 and 35 to 44). In the other words, the younger the participants were, the more information they needed.

With regard to information acquisition, the male participants obtained more information on potential salary range; whereas the female gained less information on identifying individuals from whom they could learn about the career they were interested in pursuing (see Tables 31 to 32 on Pages 212 to 213). Besides, the group with less than five years work experience obtained significantly less information relating to potential salary range than those in other two groups with five to nine years and those having ten or more years work experience (see Tables 33 to 35 on Pages 214 to 216). Yet, the analysis shows that there was no significant difference between the three age groups, namely under 25, between 25 and 34, and between 35 and 44, for the obtainment of all types of information (see Tables 36 and 37 on Pages 217 to 218). In addition, there was no significant difference for the acquisition of all types of information between degree holders and non-degree holders (see Tables 38 to 39 on Pages 219 to 220).

Further analysis was carried out to understand how the information needs and information obtainment were affected by the decisiveness of the returnees' career plans, their expectations

on career advancement, their intention to change jobs, and their perceptions of improvement on job security. Eleven respondents (about 20%) of the questionnaire survey viewed that they had a definite career plan. Their demands for information related to employment trends were significantly higher than those having no career plans (see Tables 40 to 42 on Pages 221 to 223). However, all participants had similar needs on different types of information regardless of the difference in their expectations on career advancement, in their intention to change jobs, or in their perceptions of improvement on job security (see Tables 43 to 48 on Pages 224 to 229).

For the information acquisition, the respondents of the questionnaire survey who had definite career plans could collect significantly more information about the likelihood of achieving their career goals; but those who claimed to have no career plans or undefined plans were shown to have acquired less information relating to the criteria on which they might base their career related decision (see Tables 49 to 52 on Pages 230 to 232). Moreover, those participants who were not sure about their career advancement prospects captured less information on academic qualifications than the group who expected to have career advancement. At the same time, those who expected no career advancement were shown to be able to obtain more information on how to understand their competence regarding their career goals than those who expected to have career advancement (see Tables 53 to 56 on Pages 233 to 235). On the other hand, the respondents in the questionnaire survey who stated they did not plan to change jobs set out to obtain much less information about the career advancement opportunities (see Tables 57 to 59 on Pages 236 to 238). In addition, the data showed that those who were convinced of the improvement in job security obtained significantly more information on career advancement opportunities than those who were not sure about the change in job security. Yet, those participants who expected no job security improvement were found to have obtained less information on factors needed to be weighed in career related decision (see Tables 60 to 63 on Pages 239 to 241).

Statistical analysis was carried out further to find out if the needs and obtainment were any significantly different among the types of information within each category. For the category

of information for career-related decisions, the need in identifying information for those specific factors necessary for weighing out various career-related options was significantly less than the other two considerations (criteria for career move and understanding the competence); whereas, the acquisition of information for understanding competence was significantly greater than the other two (specific factors and criteria for career move) (see Tables 64 to 67 on Pages 242 to 243).

On an analysis across these five types of information in the category of information regarding current job or next career move (namely employment trends, expected salary, work environment, skills requirements and academic qualifications information), the data of the 55 participants showed that there was no significant difference in their needs. However, their obtainment of these information types was significantly less in the area of expected salary than that of the academic qualifications (see Tables 68 to 70 on Pages 244 to 245).

The three aspects of the achievements after the completion of the study programmes, namely the potential salary, career advancement prospects and the fulfilment of their career goals, were believed to be equally important because there was no significant difference among them for both information needs and obtainment (see Tables 71 to 72 on Page 246). Similarly, there was also no significant difference in the information needs and obtainment among the different types of information associated with social capitals (see Tables 73 to 74 on Page 247).

Difficulties in information-seeking process

The results of various statistical tests are presented above. Next, the difficulties in information-seeking process are discussed. Obviously, unavailability is a significant issue in information seeking. Betty directly pointed out that it was an obstacle for her. She said,

> "What prevents me from getting more information? How can I get it if there is no such information? That is, the information is not available. Nobody has carried out such related research or simply there is no such information. Even if I want to, I cannot get it."

Similarly, several interviewees believed that the information was available somewhere, but they could not figure out which channels to use in getting them. The end results were the

same. For example, Charles and Horace commented:

> "I do not know from which channels I can capture the information. This is the main reason." (Charles)

> "The obstacle is that I do not know the ways to gain the information. Source, information source, is unknown. I cannot think of any way to get the information." (Horace)

Another situation might involve brand new programmes. George said,

> "For the programme I selected, there was no past performance of the programme available for my reference. This programme is almost brand new."

Many commercial companies in Hong Kong do not present the entire pay scale to their staff and hence the information is difficult to obtain. For example, Aaron said,

> "The information relating to the impact of the accomplishment of a degree on one's career and salary is really difficult to get. It is because all these are confidential in a company. Companies will not disclose much about their salary structure, such as how much would be paid to a specific grade."

Moreover, Ida said,

> "All those should be internal information for a company and are very difficult for me to find out. Similarly, other companies or those in the trade do not release to outsiders about the criteria of getting a promotion or attaining a new job offer."

Needless to say, it is useless to obtain information that is inaccurate, out-of-date or not specific. Interviewees lost interest in seeking it. Fred and Charles provided their comments and said:

> "The information provided by the Government is so out-of-date and inaccurate that I don't bother trying." (Fred)

> "Neither have I read any research materials nor have I relied on information from the newspapers. It is because I think much of information in the newspaper is wrong." (Charles)

This comment was not confined to the Government and newspaper information. Some interviewees criticised about the quality of information being posted on websites. James said,

> "I accessed information on websites. Often, the information posted was not up-to-date."

Another issue was related to the depth of the information contents. For instance, Nancy and James mentioned both the information was not specific and detailed enough, and said:

> "I believe just one page is not enough to introduce a programme. It is too brief and the information is inadequate….. There is not enough information for me to know if the programme is suitable for me." (Nancy)

> "The University had conducted a survey. I doubt how useful the information was. For example, the survey result stated that there was 100% employment rate for graduates. Was there any relationship between the job nature and the programme studied? It was not mentioned." (James)

Furthermore, an information-seeking process starts with the awareness of information needs by individual persons. However, many interviewees showed that they were not aware of the existence of particular kinds of information or were even not aware of their own needs. Ken gave a clear explanation about why he did not try to obtain the information related to his career path. He said,

> "Actually I have never known the meaning of career path before…… For something that you have never come across, you would not think of its existence. It is just the same as ancient people cannot think of aeroplane."

If the ideas of the labour market information and the prospects upon completion of the programmes failed to take roots in their mind, the participants might simply not draw on that knowledge even when they need to do so. When being asked what had prevented Eric from getting the information, he answered,

> "It is because I have not thought about it."

Some interviewees used their intuition to make up a salary scale they expected from the labour market situation since they could hardly name the information source, nor describe the method they applied to arrive at the figure. Hence, they could not substantiate their expectations. For example, Martin and Lisa expected they would have an absolute salary increase between HKD10,000 (USD1,282) and HKD13,000 (USD1,667) per month within 12 months after the completion of their study programmes. These figures seemed to be much higher than the ongoing rate shown in labour market for their work field. Martin and Lisa explained,

> "This figure is what I expected. I think only under this situation I can have a reasonable return. However, I am not sure if I can get it. The figure is what I intuitively get without resorting to any other information source." (Martin)

> "I want the figure to be higher. However, I have already taken into consideration my competence. The figure is estimated. I just think this figure should be about right." (Lisa)

Similarly, Peggy, who tested her expected salary through her new job applications, had in effect tried with only one figure. She said,

> "This figure is just playing safe. Really, I don't know why I did not try another figure. I only think that the figure I tried is reasonable."

A few interviewees showed lack of desire to seek information. Liza claimed that the information that she wanted to gain was available. She was in a position to get it but she did not. She explained,

> "Actually I applied for the course muddle-headedly without making much effort."

Another interviewee, George, noticed that some information he got was not detailed enough. Despite that, he stopped looking further due to his reluctance to make much effort. In answering the question what prevented him from getting the appropriate information, he said,

> "Human nature could be a factor. It was my own problem. The reason was laziness. I supposed I could not be bothered. I think having enough is okay."

Ken explained why he did not try obtaining more information and said,

> "At that time I was very busy and did not have much time. Yes, this was an obstacle prevented me from obtaining the right information. I was too busy at work."

When explaining why they did not consult others to obtain more information, a few interviewees presented a number of reasons. It was obvious that some of those reasons were based on wrong assumptions. For example, Ken said,

> "Actually I should consult my previous teachers. However, my previous study was on engineering. There were no reasons for me to ask them for their opinions on further educational decisions."

Likewise, Peggy had underestimated the functions of the concerned departments of the university. She said,

> "Is it really possible to ask the Department of the University? I always assume that I can only ask about administrative issues. I have never tried asking."

James worried that he was not in a position nor did he have the right to make direct enquiries with the teaching staff. He said,

> "I was not yet a student in this university at that time. If I go over there and approach the lecturers, I don't know what reactions they will have or whether they will discuss with me at all. What if they say, 'I don't know who you are. Why do you come here?'…… "

There may be no problem at the two ends of the information-seeking process, namely individual persons and information sources, but obstacles are existed in the interaction between the two. In the Chinese culture, generation gaps and hierarchy are pronounced. Nancy brought out such point. Her parents could not provide much information to help her. She said,

> "My family members cannot give much advice to me. Maybe it is because my Dad and Mom are of the older generation type and are not informed about the current system. They can only comment neutrally on something like: if you want to pursue further studies, then you just have to go for it as long as you can arrange your time."

Similar situation may also apply to employers. Horace cited his example that his department manager knew nothing about the programme. He said,

> "I had mentioned to my department manager that I would be studying this programme in the near future..… He queried if there was such course and if he should study the same programme. In my case, no information was provided to me."

Generally speaking, hierarchical barriers are difficult to break through. Only two out of all 16 interviewees proactively mentioned their employers while none had identified their parents as their information sources (see Pages 79 and 80).

A few interviewees confined strictly the relationships with their employer to business matters. For example, Lisa and Peggy commented:

> "I discuss with my employer mainly on business issues. I don't want to talk about my private issues with my employer. Perhaps he may notice that you are studying and would ask about what programme you have taken. The employer may say that they support your study. However, when over time work is needed, they may not like to let you attend the class then." (Lisa)

> "No, I have discussed with neither my bosses nor the HR department. I will ask only if I am familiar with the staff in human resource department. I shall consult them in private or just as good friends. If I have to formally knock at their doors and ask them, then I will not even try." (Peggy)

Another type of difficulties in effective information-seeking process is potential conflict of interests between information providers and prospective returnees. Eric explained the case having his employer as information provider, and said,

> "My supervisors concerned about practical issues. For example, they asked if one could meet more people, find more business and the like. As far as knowledge was concerned, they agreed that the more you studied, the more knowledge you could possibly gain. However, they had not mentioned anything specific about how further studies could help the job."

Eric received suggestions that he had to study some more practical courses as offered, such as by IVE, which might bring benefits to his job immediately. He pointed out the potential conflict. If his supervisor suggested him not to study a particular course programme and recommended another type of courses that he was not interested in, he did not know how to handle the situation preperly. There would be an irreconcilable conflict created if he followed

his employers' suggestion disregarding his own interests. If he followed his heart and made his own decision against the recommendation of his supervisor, a rift could be resulted between the two parties. In the worst case, he thought that his supervisor might be narrow-minded and unforgiving if his suggestions were not followed. That was what Eric worried about. Furthermore, another interviewee, David, highlighted the concerns of his employer over staff turnover. He said,

> "The company does not block the career development of its staff because it may fear that I will quit the job."

Career magazines and newspapers are another type of information provider. Their targeted customers are not just readers but also advertisers. Ken commented,

> "The magazines will post whatever paid advertisements and they don't care who the advertisers are. Newspapers are the same."

He discussed further that such conflict of interests also occurred when universities provided their programme information. He said,

> "The programme leaflets briefly state that the prospect of the trade is positive, but they are exaggerating the good side. They give out positive information. Surely, they would not impartially say that the field is declining and no one should take this programme. All programmes are promoting themselves. Therefore, it is useless to read those leaflets."

In addition, Fred highlighted that there was a small section on the university website to share opinion by the graduates. He said,

> "It is difficult to comment because such section is an advertisement anyway."

Perceptions of returns on human capital investment

Despite of the difficulties in the information-seeking process, the participants were asked to project the expected returns on their human capital investment. Out of the 55 returned questionnaires, 49 respondents had clearly indicated their expectation of salary increase within 12 months after finishing their programme but the other six did not answer this question. Other than a few of them who did not expect to receive any salary increase, over 87% (43 out of the 49 respondents) looked forward to various amounts of increase as shown in Figure 1 on the next page.

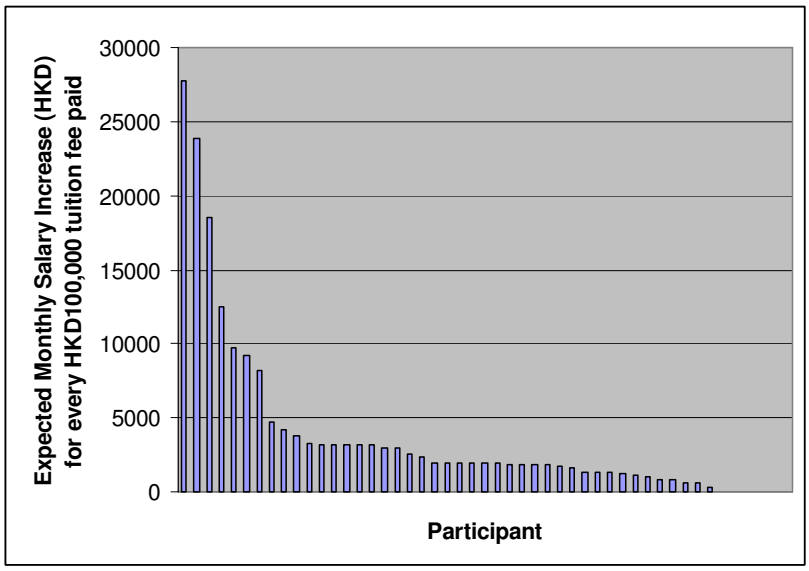

Figure 1: Distribution of the expected monthly salary increase for every HKD100,000 tuition fees paid

Similarly, Table 5 on Page 57 summarised the maximum, minimum and median values of the normalised figures of monthly salary increase for every HKD100,000 tuition fees paid. The median value was HKD1,949, which seemed to be quite a realistic expectation in general. However, there was a large variation in the expected returns in terms of monthly salary increase ranging from zero to HKD27,778.

A few interviewees thought that the projections of returns on human capital investment were very crucial. For instance, Aaron was positively driven to pursue further studies, and said,

> "They are quite important. If taking a course would cost me about one million dollars and; if I foresee my salary increase after the completion of this course would just give HKD2,000 to HKD3,000 salary increment per month, then I know it would take many years before I can break even in such investment. Certainly, I shall not take it. For my current investment, it is okay. I know I can quickly obtain a return that will cover what I have invested. This projected return is based on the salary scale in my company."

Another example was given by David, who chose a programme in a new area instead of following the field he had previously studied. The reason for his decision was because he realised that the returns on his human capital investment in his original field were not attractive. He explained,

> "The information on salary and career advancement is vital in affecting my decision on the pursuit of further studies as well as on my choice of study programme. In case I am very interested in a particular field but the salary is very low, then I shall consider if it is worth investing in it. Previously, I studied building services. When I decided to go for a degree course, I could have chosen the building services. However, I knew the salary upon accomplishment of the programme would not be significantly different from those

without a degree, so I decided not to take it."

Two other interviewees also considered information on the returns on human capital investment as essential in supporting their educational decisions. Otherwise, they might have made different choices. For example, Betty and James said:

> "The information on human capital investment projection was about 60% important to me. If there were no such information, I would not have decided to study resolutely..... If there were no such information, there were many other courses to study or in fact many other options I could take. Having such information, I was determined to make a decision to embark upon further studies and to complete it." (Betty)

> "Yes, the salary increase and the prospect and development in the field did affect me in my decision for further studies. The influence was significant in that it made me to decide to study. If there was no such influence, I might have decided not to study and might have used the money to do other things instead. For example, I might use the money to pay for the mortgage of my apartment." (James)

Several interviewees agreed that the projections of returns on human capital investment were important in supporting their educational decisions. However, they did have some reservations over various aspects, such as their personal abilities, specific difference in the individual's situations as well as labour market conditions being dominated by employers and economics. For example, Nancy highlighted that the projections were crucial but were not the sole factor. Personal ability was a concern. She said,

> "The prospect of graduates will affect my choice of programme I take but not my decision on whether or not to pursue further studies…… If the graduates in this programme can have an average salary increase to a particular level, certainly it is a factor affecting my educational decision. However, I also need to consider if I have the ability to take such programme. I know doctors earn a lot but can I make it? The projections on the returns do affect my educational decision, but they are not the most influential."

Several interviewees had reservation over specific difference in the individual's situations. Martin was a case in point. He agreed that the projections on the returns were vital to him in choosing a course. He said,

> "If I can see the history of the salary increase in the previous cohorts, I shall consider a programme with a relatively high salary increase."

Yet, he continued to say,

> "However, I shall challenge how they can obtain such detailed data. The information on salary increase is highly confidential. It can't be accurate. If there is such information, I will not believe it unreservedly. I shall see whether it can match my case."

Another reservation was the economics in Hong Kong. Charles projected that he would not have any salary increase within 12 months upon completion of the course. He explained,

> "It is not because I do not deserve a salary increase after finishing this degree programme. Instead, it is an issue related to the economic conditions in Hong Kong. Definitely it is not a problem with this degree. In the long term, I believe I can obtain returns exceeding my investment."

Furthermore, Ken believed that labour market was dominated by employers. He first explained why he considered the returns on educational investment were essential in general. He said,

> "Individuals usually study for money and honours. Honours are intangible but money is more concrete. Before I select a programme, I would like to know whether the money spent would be worthwhile. What is the possible position I will reach in the next ten years? It is good enough even just as a benchmark."

Unfortunately, he was discouraged by his experience at work, and commented,

> "All individuals are different. If you graduate from the Engineering Department, you may work as a technician, AE (Assistant Engineer) or engineer depending on what post is offered. I believe that the post is pretty much dependent on what employers would offer rather than the competence of an individual. It is because I could see a lot of dead woods (non-contributing people) in managerial positions..... The key point is whether the employers buy their ideas."

Three other interviewees indicated that the information was not of the essence and did not affect their educational decisions. They only focused on either long-term career goals or job security. For example, Horace wanted to become a professional auditor. He was looking for long-term returns instead of shorter term payback, and considered the projections on monetary returns were unimportant to his decision making. He said,

> "The information on salary increase and career path does not affect my educational decision. It is because I want to study towards achieving my goal. To a certain extent the amount of salary increase will be reflected in the future if I can be in such post."

Additionally, Fred indirectly estimated the returns based on chance of promotion. He said,

> "The effects on the amount of salary increase are not crucial to me at this stage…… If a person gets promoted, his or her salary will be increased accordingly. If a person does not get promoted, his or her salary will only increase marginally. Therefore, I must rely on education to get started first."

In addition, Lisa believed that the information on returns on the human capital investment was unimportant to her educational decision making. She said,

> "I feel it is not important…… The salary increase is mainly dependent on your work performance…… I don't expect any promotion unless I work in this company for a long

period of time. The company promotes the staff according to their years of services."

Another set of interviewees seemed to be confused about how vital the projections of the returns on human capital investment were. They changed their conclusions during the discussion. They did not have a clear position on the matter. For example, Peggy showed uncertainty about the importance of the returns on human capital investment by denying it first and then agreeing to it later. She said,

> "They are unimportant. All those are dependent on what opportunities and people you encounter. Even though you put in all your efforts, whether the returns can be obtained is out of your control. It is important only if there is available information on, say, how many percent or how much salary increase the previous cohorts manage to obtain after the completion of the programme. As you have said, it can be a reference. For example, the salary increase is not just HKD 2,000 but it can be HKD 4,000 per month."

Another interviewee, Opal, discussed the importance of the projections of returns on human capital investment in mixed feelings. She accepted it was crucial first, and then considered it was not important in her case. She said,

> "The information is crucial. However, it is difficult to obtain such figures and information in practice. A lot of things cannot be guaranteed. Nobody can promise you by how many percent of the salary can be increased or which post you can be promoted to after the completion of the programme. There is no guarantee. Anyway, I do agree it is crucial…… Different people joining the programme have different backgrounds. As far as I am concerned, it is not really so important."

In summary of how the participants projected the possible returns on their human capital investment, there was a large variation in the expected returns but most of them perceived that the related information was important. Nowadays, many courses are running on a self-financed basis. The tuition fees are expensive. People may obtain more attractive returns from the stock market. Next, human capital investment and financial investment are compared.

Comparison between human capital investment and financial investment

Pursuing further studies were perceived as a kind of investment by the participants in this research. Financial investment is also very popular in Hong Kong (Pang, 2007). Both are investments. Further studies and stocks are only two of the many vehicles available for investment, but one is on human and the other is monetary and financial in nature. Eric

pointed out,

> "The common point shared by financial investment and human capital investment is that they both gain monetary returns by using money to invest."

However, when being asked to compare these two types of investment, most of the interviewees said that they were different without commonality. First, investors in the financial market were aiming at monetary returns. In human capital investment, the returnees were aiming at career advancement, job security, changing jobs as well as identity and psychological capital as they mentioned about their motivation for taking further studies. At the same time, a few participants had sought for other types of returns on human capital investment. For example, Betty and Eric focused on the social networks that could be built from taking up further studies, and they said:

> "I need to put in extra time and effort in the financial investment. It is the same as further studies in which I need to put extra time and effort, too. However, I seem to have learned something more than just having a lump of money in return. Both types of investment can end up with money in return. The processes are different, even if I assume the end results are exactly the same…… I can develop my social networks, which are important intangible assets…… Studies can make me feel my life enriched and fulfilled." (Betty)

> "Other than just obtaining knowledge, I think further studies train my way of thinking to a certain extent. Sometimes I think further studies assist me in expanding my social circle. During my study, I meet some classmates who are in the same field as mine. Thus, I can get to know more people and my social circle can be enlarged. This is not found in financial investment." (Eric)

Therefore, social capitals were another type of returns on human capital investment that the participants expected to get.

Besides, most interviewees believed that their further studies were for their long-term benefit and the returns from financial investment were of shorter-term. For example, James and Martin said:

> "Investment in education is long-term, but investment in stock market is short-term." (James)

> "Pursuing further studies is more secure. Trading stocks is to gain money in a quick way. I don't oppose to trading in stocks or the likes, but they are different." (Martin)

George elaborated his opinion in detail and said,

> "For stocks and shares, they are out of my control. One can double the investment or lose them all just at a blink…… However, I can have my credentials built up once I have studied. The qualification will always stay with me …… If there are no major upheavals in my life, there will be steady progress in my career. I don't think I am the one to get

> rich overnight. However, if I work for 30 years, I can get the returns on my educational investment in the long run."

In addition, the risk involved with their investment was one of their concerns. Horace and Nancy associated the speculative financial investment in stock and share market with gambling. They commented:

> "Investment in education is much more secure than that in financial market. It is because once you obtain a degree it belongs to you forever. You can be sure of this. In financial investment, you can lose all your money in a day. It was a most obvious difference..... Financial investment is more like gambling." (Horace)

> "I don't know much about financial investment. Suppose I take someone's advice to invest in certain stocks. While others know when to cut loss and sell at the right time, I may not. I cannot stand to lose all the money. It is just like gambling." (Nancy)

This meant that the participants perceived much higher risk level in financial investment than in human capital investment.

Most participants seemed to have given higher priority to further studies than to financial investment. Ten out of the 16 interviewees had clearly indicated whether they had engaged in financial investment. Only three out of these ten interviewees said that they had already invested in the financial market and the other seven interviewees highlighted that they had not carried out financial investment. In all, they gave priority to further studies for various reasons. For example, Ken considered finishing study before he could earn extra money for financial investment. He said,

> "After studying, I can earn more. Then I can have more money to invest in the stock market. Yes, I will definitely give priority to further studies."

Similarly, James had the intention of investing in financial market. He explained,

> "I also want to get involved in financial investment such as in stocks or bonds. These investments can help me earn money directly. Currently, I have chosen to invest in my study and don't have extra money to put into the stock market. I have lost the investment opportunities."

In spite of all these cases, the assumption that human capital investment was given priority over financial investment did not hold out in the case of Lisa. She did not consider pursuing further studies was superior to financial investment in the beginning. To her, both types of investment were not suitable. She said,

> "Financial investment involves a lot of risk and I won't want to take it. Actually I have also queried why I should spend money on further studies. I have told my family members that studying was a waste of money and it would give me a lot of stress……"

Eventually, her family successfully convinced her to commit herself to human capital investment by providing subsidies for her tuition fees.

However, a caveat should be added to the observation that further studies were given a higher priority. All participants and interviewees in this research were already taking further studies. Thus, by way of their actions, they had all been involved in human capital investment. None of the participants had taken sole involvement in the financial market without taking further studies. Hence, this research has not taken into account of those people who have singularly chosen financial over human capital investments nor the individuals who have not chosen any form of investment on financial and human capital. The findings are not verified in the other direction.

Career guidance services

When individuals prefer pursuing further studies, career guidance would be most likely to be the first port of call in their attempt to seek information. Therefore, the interviewees were asked about their awareness, usage and perceptions on career guidance services. By the way, factors leading to self-efficacy in educational decision making were discussed towards the end of this section.

The interviewees generally showed poor awareness of the existence of the career guidance services. Seven out of 16 interviewees, nearly half of them, claimed that they had not heard about the career guidance services. Even though some of them had heard of the term, they knew nothing about it. For example, when being asked about the awareness of career guidance services, Peggy and Martin said:

> "No. I have just learnt about what career guidance services are when you told me just then." (Peggy)

> "My knowledge of career guidance services is practically nil. I have just heard about the term in brief." (Martin)

At the same time, the usage rate was extremely low. Only two out of the 16 interviewees had utilised the career guidance services. Aaron, who was one of the two interviewees used the career guidance service, approached the Human Resource Department of his company for guidance in making his educational decision. Aaron said,

> "I feel the career services provided by the Human Resource Department of my company are better than those provided by others because the former is more accessible to me."

Nevertheless, Aaron did not seek advice directly from his supervisor. His company's culture was such that the supervisors would avoid discussion with their subordinates on career development so as to minimise any risk of partiality towards any particular subordinate. Therefore, the Human Resource Department of his company was considered more neutral in providing sector-specific information and career guidance services for the development of its staff. Another interviewee, who had used the career guidance service, Betty said,

> "In my own case of career guidance, my employer provides most information."

In addition, she had consulted a professor in the university. She further elaborated,

> "I phoned the general office of the University to ask for general information on the course. When I asked further, they referred me to a professor for personal consultation."

The experience of these two interviewees in using career guidance services seemed to be smooth and positive.

However, all the remaining 14 interviewees did not report using any career guidance services from the government, universities, employers, private agencies or any other sources. At least five interviewees explicitly suggested that greater efforts should be made to promote the services. For instance, Charles said,

> "An area for improvement in career guidance services is to promote it more widely. That means they need to let other people know where the services can be obtained and what types of services are offered."

Many interviewees perceived career guidance services as not a target to them but mainly for fresh graduates who were about to begin job seeking. For example, Eric said,

> "I feel these services are designed for fresh graduates who have no ideas about careers. Maybe they are looking for job placement or are interested in a particular field. They can ask for career guidance to understand the nature of the field and the possible prospect. It is a guidance service for fresh graduates."

Fred also said he considered using the career guidance services only when he was going to

seek for a new job. He said,

> "…… I have not considered career guidance services before or during my studies. Maybe I shall consult the services six months before my graduation. At that time, I have already studied the programme for three years and have gained a more comprehensive understanding about the course. I would like to know what kind of jobs I can apply for or which companies are recruiting my type of person. In this light, the University may have more complete sets of information than I have….."

Moreover, nearly half of the interviewees considered that the services were mainly provided to full-time students rather than part-time students and working individuals. For example, James and Ida said:

> "I am sure there are career guidance services available for full-time students. However, I am not sure if such services are also available to part-time students…… So far, I have studied almost for three years part-time and I have not received any material introducing or promoting the services. I think the services are provided only for full-time students but not for part-time evening students." (James)

> "Yes, I had heard about career guidance services only when I was still in the secondary school…… Right now, while I am working, I cannot find any similar services offered to me." (Ida)

Furthermore, a few interviewees even believed that career guidance services were reserved for those who were uncompetitive. For instance, Ken had associated career guidance services with the 'Youth Pre-employment Training Programme'. He said,

> "I have never heard of the career guidance services for those at graduate level. It is only for those rather less qualified or less educated at the 'Youth Pre-employment Training Programme' level or something similar."

'Youth Pre-employment Training Programme' is a programme dedicated to help all young school leavers aged between 15 and 19 enhance their employability and competitiveness, to prepare them for entering the employment market and to help them draw up career plans (Hong Kong Labour Department, 2008). In general, these young school leavers are not engaged in employment, education or training. Many potential social and economical issues can be foreseen if they cannot properly enter the labour market. Similarly, Martin expected that the career guidance services were for those with poor academic qualifications, and said,

> "Those career guidance services are for people of low qualifications. It is for people with low academic qualifications such as Form 3."

Additionally, George gave a direct and blunt comment on his impression of the career guidance services provided by the Labour Department. He said,

> "The Labour Department gives me an impression that it only targets at those who have not received higher education, or cannot find a job, or are aged 40 or above."

Peggy even believed that the guidance services provided by the universities were mainly for students with psychological difficulties. She said,

> "I think the guidance centre is for those who have psychological problems and are facing difficulties."

At the same time, when being asked about their impressions of career guidance services, nearly half of the interviewees associated them with their experience with job seeking service and educational talks. For example, James said,

> "The Labour Department provides the services passively …… The information on their jobs listed is not clear …… It seems that the Labour Department does not care and just put all jobs under the same column …… "

A few interviewees considered the career guidance services generic and shallow. Fred may be a case to demonstrate such view. He had not used the education guidance services but believed that the services officers did not fully understand his field. He explained,

> "I am studying part-time and working. I have some basic understanding of my own field. University staff who are providing career guidance services cannot be as knowledgeable about the field as me."

Similarly, Betty commented that the advice she received was quite general when she consulted the lecturer for career guidance. It was better than none. She said,

> "For example, I work as a designer. I asked the lecturer about the career prospect after I completed the course. The answers and advices obtained were quite general. However, these were still better than just the leaflets and brochures."

Betty had high expectations on career guidance services from the University. Ideally, the counsellors should be knowledgeable in the field and be able to give specific comments on their cases. She tried to use the services but concluded that the guidance given was too generic.

Additionally, Lisa believed that the advice from the services would simply echo her preference. She said,

> "The guidance services are somehow simply based on my own preference to select a course."

Only one interviewee valued the objectivity of the services. Charles welcomed the opinion from another perspective, which was the only one positive impression of career guidance services identified in this research. He said,

> "If I have a chance to contact the career guidance services, I will ask them. I would like to hear the views from a third party."

It concerned the interviewees that the counselling process might not be helpful. Peggy highlighted one of the important facts that counsellors in career guidance services did not understand their users in-depth. As a result, the effectiveness of their assistance would be limited. She said,

> "The career guidance services can provide informative materials but the counsellors have difficulties in assisting a person making educational choice. Before providing any advice, the counsellor needs to know about the clients' strengths and weaknesses."

Another crucial fact was that the participants might be reluctant to divulge their personal thoughts and their background as well as their needs to counsellors. George could be a noteworthy case. He clearly brought out the point that he had difficulties in talking to a counsellor with whom he was not familiar. He said,

> "The career guidance services are rather personal. If I am not familiar with the counsellor, I won't discuss with him. It is difficult for me to confront a stranger and tell him about my life plan. The career guidance services should better be done by the current lecturers."

Therefore, George suggested that the lecturers could take up the role of the counsellors so that he could discuss his issues more freely. Similarly, Peggy said,

> "If I consider pursuing a master degree, I shall consult the lecturers. It is because I am more familiar with them. Sometimes the relationships are vital to me in counselling."

Last but not the least, time constraints also become an issue. Opal and James brought out a point that time was precious in particular for working individuals. Opal said,

> "If I were a full-time student and had a lot of spare time, I would attend career talks. However, I am working now. I do not have time to listen to these talks…… Therefore, I prefer other more convenient methods such as visiting websites or collecting small leaflets to study the information."

Similarly, James had not attended education talks or consultation sessions organised by some private organisations. He explained,

"I need to work and do not have time."

However, most of the interviewees believed that they could handle their own career and education at certain stage of life. At that time, their demands in career guidance services would be much reduced. Eric and Fred had pointed out that there was a condition to that. It only applied to the situation where the career and educational decisions did not involve entering a brand new field. Eric and Fred said,

> "I think if you have worked for two to three years, you can handle the career information and career plan without the need for guidance; unless you would like to enter a brand new field, for which you need to ask others about the details and the future prospects." (Eric)

> "After working for five years, you are familiar with the field where you work. The career guidance services will no longer be useful to you, except when you want to change to another trade." (Fred)

Apart from the number of years that had been mentioned, Eric and Fred had suggested that when individual people considered changing to a brand new field, career guidance services would be useful to them.

There may be several factors affecting prospective returnees' level of self-efficacy in seeking information and making educational decisions. Age was mentioned by seven out of 16 interviewees as a factor affecting when they would expect an individual person to be able to handle educational decisions without career guidance services. At one extreme, Nancy said that the age should be around 18 to 20 because a person by then should have his or her own views. However, she added later that it would be better if more information could have been provided as reference and guidance. At the other extreme, Ken suggested the age should be 35 and above because an individual person was likely to study for leisure than investment at that time. He clarified,

> "The individual people at that age usually no longer study for their career. If they really study for their career, they should be very clear about what to study. They should be in certain positions and their scope of choices will not be as wide. The choices available to them are limited."

Another five interviewees felt that the age should be around 25 to 34. Betty had given a detailed explanation for this view and said,

> "The age should be around 28 to 35. It is because a person in his or her early 20's may not be stable in terms of work and personality. Another concern is the financial situation.

> When the person just started to work, he or she may not have enough money for both their living expense and costs of studies. Therefore, he or she may not think about further studies. After gaining more life experience and working for a few years, he or she may realise the necessity of pursuing further studies …… Then he or she will start to seek for information. He or she can know what is useful to the job based on the experience being gained at work or in society."

From the results of questionnaires on Page 81, the younger the participants were, the more information they needed. However, their performance in information acquisition was not affected by their age.

Eleven interviewees indicated work experience as a critical factor for self-efficacy in educational decision making. Four of them suggested the duration of work experience that a person needed to handle career information independently should be from zero to less than five years. Nevertheless, seven interviewees thought that it should be five or more years. For instance, Aaron believed individuals needed to have six to seven years of work experience before they might be able to make such decision without guidance. Aaron elaborated,

> "In the beginning, a person uses the first two to three years to learn about the most basic things in the field. Then he or she can gradually understand the trends and the changes in the field. After that, it takes another two to three years to get familiar with and adjust to these trends and changes. That is why it takes about five, six or even seven years."

Aaron's discussion had focused on the elevation of ability to obtain information in the field and labour market through increased work experience. Similarly, Opal said,

> "It should be after a person has worked for ten years. By that time, the person will be more mature and with work experience and exposures to different types of fields. He or she will be in a better position to make better decisions."

Furthermore, James highlighted the hurdles that needed to be overcome during work. He said,

> "Maybe, it takes about five years of work experience. By that time, a person has experience of changing jobs and facing frustration and difficulties at work. He or she may learn and know how to handle and plan for his or her career during these five years."

Comparatively speaking, those four interviewees who had suggested less than five years of work experience took it for granted because they handled their own decision-making process without career guidance shortly after they started to work. Namely, Martin and Ida commented:

> "Ever since I started to work, I have always been able to handle all my career information and career plan without guidance." (Martin)

> "I think it should be around one year after I started to work. It is because I have had the

ability to understand the demand of the labour market from that time onwards." (Ida)

The questionnaire results on Page 81 supported the interviewees' viewpoint that at least five years of work experience were necessary for self-efficacy in educational decision making.

One interviewee, Horace, believed that the ability of the individual people in handling their own career and educational decisions without career guidance was related to their educational level. He said,

> "I think if I have attained a certain level of qualifications, then I would be competent enough to handle career information and career plan on my own. I think an individual achieving a master degree would be adequate…… When individuals have higher academic qualifications, they will have more job opportunities. The individuals can make entry to another level. Academic qualifications are more important …… They will obtain from different sources of information from their peers while they are studying. The more the people they meet, the more help they can obtain."

Horace referred to the social capital that individuals could gain from work and study after they attained a higher level of education. Although the questionnaire results (see Page 81) show that there was no significant difference on the information needs and obtainment between degree holders and non-degree holders, the next level of qualification, namely the master degree, was not covered in the questionnaire.

Another factor that had not been included in the questionnaire survey was marital status. Charles had brought out the issue of marital status having an influence on individuals' ability to manage their career and educational decisions. He explained,

> "Married individuals will experience a change in their mentality. Their plan will not be for themselves only, but also their spouse. They need to strike a balance between…… The married individuals are usually more mature and need to take care of their better halves. They would therefore be able to think carefully (before making a decision)."

In fact, work experience, age, education level and marital status can all influence the maturity of individuals. Half of the 16 interviewees used the word 'mature' to describe the stage when individuals could handle their career and educational decisions without guidance.

Summary

In short, this Chapter begins by presenting the career plans of the participants and the reasons why the participants wanted to pursue further studies. Their wishes for career advancement,

intention to change jobs and improvement on job security were the three key motivators to them. Encouragement from their employers and family were crucial. Their lack of a degree qualification might put them under pressure. Positively, they turned pressures into pursuing their aspirations. Company support or obstructive stance was indirectly motivating or pushing them to take up further studies. Then the focus of this chapter is moved on the information-seeking process. Diversified views were anticipated on the relevance of the subject of study to the occupations of the participants. The interviewees shortlisted a small number of possible programmes usually based on their interest and the applicability of the programme to their work. Next, a series of statistical analysis tests were performed on the information needs and obtainment based on the questionnaire results. After that, the various kinds of difficulties in information-seeking process are summarised. The participants encountered several key obstacles: unavailability of information, ignorance of the appropriate channels, private and confidential information, poor quality of information, lack of awareness on the returnees' own needs and conflicts of interests. At the same time, they showed different perceptions on the projections of returns on human capital investment in supporting educational decisions. There was a large variation in their expected returns in terms of monthly salary increase. The projection information was considered as important by most interviewees. They were also asked to compare human capital investment against financial investment. Towards the end of this Chapter, the career guidance services from which the interviewees might have sought help for their information-seeking and educational decisions are studied, in terms of the awareness, usage, perceptions and the barriers they encountered when the services were used. Finally, the stage of self-efficacy in which the interviewees could make their educational decisions on their own without career guidance is investigated. In the next chapter, the above data are discussed further.

CHAPTER 5 IMPLICATIONS OF THE FINDINGS

Following on Chapter 4, the seven identified themes are used as a framework in this chapter. In addition, an unexpected observation relating to the labour relations in Hong Kong is added as the eighth one.

Motivation to study

The nature of the interviewees' career plans varied more than expected (see Pages 59 to 61). Despite the differences in the details, most interviewees expected to secure a brighter future through the completion of their further studies. Brighter future could mean either economic or status acquisition and better still, a combination of both. The findings from the questionnaire survey demonstrate the similar phenomenon. Most of the participants gave a positive answer when being asked whether they expected improvement on career advancement (80%), planned to change jobs (62%) and wanted to elevate their job security (58%) after the completion of their study programme (see Tables 7, 8 and 9 on Pages 61, 62 and 63 respectively). Actually, 50 out of 55 (91%) participants showed at least one positive expectation on one of the three areas. The findings of expecting brighter future after further studies in this research are similar to that of the 'Pattern of study in higher education' survey done by the Hong Kong Census and Statistics Department (2005b).

This research results show that career advancement was one of the key motives to the participants to pursue further studies (see Pages 61 to 62). The proportion of the Hong Kong population of 17 to 20 age cohort with higher education opportunities has doubled in five years' time, from 33% in the 2000/01 academic year to 66% in the 2005/06 academic year (Steering Committee of Review of the Post Secondary Education Sector, 2008). As Hong Kong is transforming into a knowledge-based society, the local population, which include government and employers, stress a lot more on academic qualifications. The competition is fierce in the labour market. There are no reasons for them paying the same amount of salary but not employing or promoting somebody with higher qualifications. Therefore, most interviewees considered that possessing a degree would help their career advancement through

promotion to a senior position with higher salary. A degree credential seems to become a 'membership' badge for middle managers in Hong Kong. At the same time, the knowledge gained during further studies can improve the competence of the returnees in their new responsibilities. Working individuals who are committed to their professions will prepare themselves for the career advancement by taking further studies.

Comparatively speaking, there were fewer participants planning to change jobs (62%) after finishing the programme than expecting career advancement (80%) (see Pages 61 and 62). If there were career advancement opportunities in their working company, they might prefer to stay in the same company. Besides, if they were basically satisfied with their current job, they might not take the risk of changing jobs unless there would be a very attractive package available. People usually seek change to better ones.

Some interviewees also intended to change employer upon completion of their studies to a sizable and well structured company (see Pages 62 to 63). They explained that large companies could provide better compensation and benefits and more opportunities for learning and further career development to their staff. Being prepared to work in large companies became another motive for their study. Yet, some interviewees just changed jobs solely for better pay (see Page 63). Salary increase was one of the direct returns on their educational investment and their shared ultimate goals of study.

At the same time, the interviewees might feel the immediate threats in the labour market in Hong Kong (see Page 64). They took further studies as a precaution to ensure that they would be fit for survival in the future labour market. In this research, most participants had experienced the economic recession after 1997 in Hong Kong. The unemployment rate reached a record high of 8.8% in the May to July period of 2003 (Hong Kong Census and Statistics Department, 2008b; Leong, 2004). Obviously, their aims might not be just obtaining the credentials but also acquiring the knowledge during their studies to improve their competence, hence their performance at work. Some of them might think ahead to improve their knowledge, skill set and thus job security or stability for the future (see Page 64). Hong

Kong is a dynamic and competitive city. Lifelong education has become one of the ways the people in Hong Kong used to maintaining their competitiveness at work. Thus many working adults will link up their career plan with academic qualifications and return to higher education to pursue further studies on a part-time basis to improve their job security.

Based on the statements made by George and Ken, an interesting contrast is found. George believed that career advancement was directly based on the possession of credentials (see Pages 61 to 62) but Ken suggested competence and skills were the keys to job security (see Page 64). Academic qualifications are presumably not seen as a marker for competence nor good performance at work. However, when companies recruit new staff or consider promotion of existing employees, they put more weighting on academic qualifications. Probably it is because academic qualifications can be more easily appreciated than competence and abilities by third parties; and easily understood by the majority of people than just a reference to intangible skills and expertise. Therefore, qualifications are often used as an objective criterion for decision making in human resource management. As far as daily work is concerned, employers are shown to care more about real competence and skills of their staff, and hence job security of their staff will be enhanced. Therefore, both George and Ken were correct in their observations.

The participants were motivated to study by actualisation of their career plans, wishes for career advancement, intention to change jobs and improvement on job security. Encouragement from others was also important to support them to study (see Page 65). Most people want to be cared by others. Returnees usually get support from family. However, if support is from outsiders such as their supervisors, they may be moved. The strong feelings of support, regardless of spiritual or financial, can help prospective returnees become more proactive in seeking information, making their educational decision and pursuing their studies.

Additionally, many interviewees realised that they had aspirations to obtain a degree and fulfil their wishes for development in their life (see Page 65). Personal advancement is a crucial motivator (Woodley and Brennan, 2000; Woodley 2001). They can obtain intrinsic

satisfaction if their dreams can come true. People who aim to obtain a 'licence to practice' in a trade or profession will get a strong motivational force in their education and skill training (see Page 65). It is because they understand the field they are studying is something they have interest in. If they can fulfil the requirement, they can join the field in the future. Moreover, pursuing further studies allows individuals to understand and be aware of their own situation. The interviewees intended to self-improve and be better-equipped (see Page 66). The knowledge gained from further studies helped them enhance their mobility to the upper levels in society (Freire, 1970). Their confidence, self-esteem, and identity could be built up because academic qualifications were to be the proof of their competence (see Page 66). Taking further studies is beneficial to individuals, not just on the human capital aspect, but also on the identity capital aspect (Law, et al., 2002; Côté, 2005).

On the contrary, two interviewees were uncomfortable with the impression of lacking a degree qualification (see Page 66). They felt the pressures arise from how their relatives or they viewed themselves. Formal qualifications become so crucial that failure to have credentials can mean an inadequacy in one's life essentials. If people cannot obtain a degree, it means they are inferior and can be missing out or even be flawed. This situation can be referred to 'diploma diseases' that people believe and trust credentials (Dore, 1976). It is as if competence can only be represented in terms of credentials. Therefore, such pressures are converted to a driving force and individual people chase after credentials by taking further studies. More educational opportunities have become available to cope with increasing demand for educational credentials, which results in credential inflation. Problems in screening and recruiting competence persons are thus created (Belfield, 2000).

Another factor that may motivate or discourage returnees to study is the support or obstructive stance from their employers. Although the number of participants who could receive sponsorship was extremely low (see Page 66), an interesting dilemma in the educational subsidies is observed. If the company was willing to pay for their further studies, the interviewees planned to leave the company and did not want the binding conditions; if the company did not pay for subsidies, they planned to stay in the company and applied for the

sponsorship or intended to apply for it when they were eligible (see Page 67). Although the course fee is expensive generally, it is not up to an extent that most working individuals cannot afford it by themselves. As a result, the availability of sponsorships programme is perceived not to be a determining factor for taking up further education (see Page 69).

Furthermore, this research reveals that the participants took time allowance as one of the most critical supports that the companies could show to their pursuit of further studies (see Pages 67 to 68). The forms of support or obstruction given by employers vary widely from extra time allowance, early releases from work, to outright terminations. In Hong Kong, being allowed to leave on time from work is already considered a big support. The prevalent labour market condition has made it easy for companies to take extra working time from their employees for granted and staff working unpaid overtime has become a norm and an unspoken obligation. The Hong Kong working population often feels under stress from their supervisors directly or their own self-induced pressures equivalent when their peers stay and continue working after office hour while they are the only ones leaving on time (Chung, et al., 2007). Many working people choose to over stay the office hours even if they have already finished their day of work. Some companies view preparedness to over stay official work hours is a form of employee commitment. It is hard to draw a simple conclusion on how companies in Hong Kong differ in giving time arrangement support to their staff for their further studies. Anyway, the above findings support that time is a critical resource in human capital investment for mature students and this was demonstrated in other researches as well (Davies and William, 2001; Greenberg, 2000; Gammon, 1997).

Another support from employers is the preparation of reference letter (see Pages 68 to 69). The lack of reference letter can cause de-motivation to prospective returnees. Reference letter can be taken as a kind of symbolic document to represent the employers' commitment to the employees' part-time studies. Some employers may worry about the workload and time arrangement because these employees shall no longer be able to work overtime. Consequently, they may have hesitations when preparing reference letters to their staff.

For the sake of the employers' benefits, the companies may act differently by providing various kinds of supports or unintentionally creating obstructive stance to the returnees. Frederick Herzberg's two factor theory, or called motivator-hygiene theory, claims that motivated people in the workplace are separated into two types, namely 'hygiene factors' and 'motivators' (Herzberg, et al., 1993). Hygiene factors are those factors moving individuals from dissatisfaction to neutral state. Obviously, sponsorship programme, time release, references are hygiene factors identified in this research. When the 'hygiene factors' are not provided, returnees will have negative feelings to their employers. This may finally lead to high staff turnover rate. On the other hand, 'motivators' are those factors inspiring individuals from no satisfaction to satisfaction. Their existence provides positive satisfaction (Buhler, 2003). When prospective returnees receive encouragement from their employers, they enjoy their studies. These motivators can also improve employee loyalty and work efficiency.

Information-seeking process

When prospective returnees have some initial ideas on pursuing further studies, they start to seek information. Evidently, the process is affected by how they view the relevance of the subject of study to their occupations. Some interviewees thought that this was essential but some did not care (see Pages 69 to 70). Whether a programme taken up should be directly aligned with a career plan remains as an inclusive argument. The viewpoints of the participants might be dependent on the field in which they were working. For those working in a profession like information technology or finance, they were more likely to have pursued a degree in the same discipline because specialised knowledge and skills were essential to jobs in these fields. For those working in non-technical field such as customer service, they might have pursued further studies in a wide range of disciplines. As a result, there was a controversial view about the relevance of the subject of study to their occupations.

Regardless of the relevance of the disciplines, most interviewees focused on the relationships between their studies and their work (see Page 70). They might be pragmatic and would like to maximise the gains because they take pursuing further studies as an investment. The easiest area to reap substantial gains was from their work. Therefore, most of them were

eager to select the study programme that was applied to their work and career.

Programme pursued for further studies, career plans and interest seem to be indivisible and these three areas are mutually affecting one another. Sometimes, a person is interested in a field and then he or she chooses to go in to that field as his or her career. Afterwards he or she takes the related programme for further studies. Sometimes, an individual start working or studying in a particular field but know little in details about the field to claim interest. Somehow an individual may develop an interest after he or she has already embarked on their career paths. Therefore, it is difficult to tell which one among the three played a dominant role. However, when prospective returnees preliminarily select a study programme, the relevance of it to their work may override their interest sometimes. For example, Aaron, who was from a family with low socioeconomic status, might have thought about his survival at work first and foremost rather than the pursuit of a new field of his interest (see Pages 70 to 71). Similarly, many people still perceive their fields of interest namely fine art as leisure and not as career due to their pessimistic assessments of their interest fields. It is thought that fine art can hardly offer a decent earning prospect for a living. In short, the only certainty in this study is that the interviewees did not dislike their courses.

Types of information

The participants sought different types of information before they made their educational decisions. The types of information included courses fees, time requirement, syllabus, qualification, programme titles, credit transfer ability and prospect of academic exemptions, workload, relevance of their academic background, teaching location and admission requirements (see Pages 71 to 75). Their top four concerns were money, time, knowledge to be acquired and external views on their potential status.

Fourteen out of 16 interviewees mentioned tuition fees during the discussion (see Page 71). Certainly, money was a key input to their human capital investment. In general, the programmes in higher education are getting more and more expensive (Mok and Lo, 2002; Shuen, 2000). Many courses are not subsidised in any way in Hong Kong. At the same time,

for a variety of reasons only a few participants would obtain any form of educational subsidies from their employers or wanted to be financed by their employers as mentioned previously. Hence, many interviewees cared a lot on the exact amount of tuition fees because they needed to self-finance the entire undertaking. Affordability was an important issue. This was especially true for those who had just started working for a short period of time (see Page 71). For that reason, most prospective returnees will find out the exact amount of the tuition fees in the beginning of their information seeking.

Three other factors mentioned by more than half of the interviewees were time needed, knowledge to be acquired and external views on their potential status (including recognition and acceptance of the qualifications and title, the reputation and public image of the university and its graduates) (see Pages 71 to 73). When the returnees did not have enough money for the tuition fees, they could still find other ways of financing such as taking out loans. However, they had to find their own time to attend class, complete the assignments, prepare for and take the examinations. There were no replacement or delegation possibilities in this area. As a result, not surprisingly time was their next big concern in inputs. It is proven again to be a critical resource that returnees need to commit in their further studies as in other researches (Davies and William, 2001; Greenberg, 2000; Gammon, 1997).

Knowledge to be acquired was also an important consideration when the interviewees evaluated if the programme was of good value for their money and their time. Twelve out of the 16 interviewees highlighted that they needed to obtain course contents or syllabus before making their educational decisions (see Page 72). Knowledge to be acquired was one of their driving forces for fulfilling their aspirations and self-improvement. This is in line with the results of the survey done by Moogan and Baron (2003). Prospective returnees care about what knowledge they will be acquired. Subject matter of the course is an important influence on making educational choices (Fleet, et al., 2001).

Furthermore, many interviewees cared a lot about the external views on their potential status (see Pages 72 to 73). It seems to be frivolous that the title of the programme is important to

affect external views on the potential status of the returnees' further studies (see Page 73). Notwithstanding this, an impressive and eye-catching title can draw the attention from prospective applicants who will at least take next steps to find out other conditions about the programme. They do expect that an impressive programme title can put them in more favour positions during career advancement or when they apply for new jobs. Nowadays, many programmes include the term 'management' in their title because it is fashionable and the name exudes an air of currency in the job market. Besides, the interviewees made reference to the controversial league tables that were prepared by various agencies and educational bodies (see Page 73). It is generally true that individual people pay considerable attention to the ranking of the universities and their choice of institution is very responsive to changes in the ranking (Griffith and Rask, 2007). At the same time, they believe in 'word of mouth' (see Page 73), which are usually restricted to programmes they have already known well or that they have direct or indirect contact with graduates of the programme. Thus, the information can be limited depending on their social network. On the other hand, accreditation is reckoned as a good and objective official recognition of a programme (see Page 73). It was vital to the interviewees who wanted to continue their studies after finishing their current programme or to apply for memberships of professional bodies (see Pages 73 to 74). Additionally, the external views may include rational or irrational personal impressions of a university based on various reasons from performance to alumni achievement and prominence in society (see Page 73). In short, external views on the potential status are one of the valuable outcomes of the further studies.

As to the remaining types of information, most were related to the interviewees' top two concerns: time and money. Unclear credit transfer ability and prospect of academic exemptions produced uncertainties to the interviewees in estimating the time and money commitment for a programme (see Pages 71 to 72). At the time of writing, there is no credit transfer system that is commonly recognised by and among different tertiary institutions in Hong Kong. Students can apply for credit transfer and exemptions independently. Their applications are only considered on a case-by-case basis. This is a type of information that prospective returnees needs but cannot obtain during their information-seeking process. This

implies there is a need to establish a credit accumulation and transfer system among institutions of higher education in Hong Kong (see Pages 158 to 159 for further elaboration).

Furthermore, the interviewees also highlighted the workload of the programme and the relevance of their academic background (see Page 72). They were concerned about how much effort they were required to spend on their studies. The underlying reasons might be related to their uncertainty about their ability to follow the course or their difficulties in finding time to complete assignments, as well as their concerns over possible loss of money should they be forced to quit the programme. Location may also affect the time for travelling but only one interviewee took it as a consideration factor (see Page 72). Hong Kong is a city of 1,104 square kilometres. There is an efficient and multi-modal public transport system that includes mass transit railways, buses, public light buses, taxis and ferries (HKSAR Government, 2007). Generally speaking, the transportation system is so well established and efficient that most interviewees did not regard travelling distance and time as an issue. The different forms of information that are reviewed above are ultimately related to money and time that prospective returnees are required to spend on their studies.

The last type of information worthy of discussion is admission requirements. On one hand, it seems that several interviewees were taking a reactive or unprepared approach to adjust their educational choices so as to adapt to the admission requirements (see Pages 74 to 75). They had not planned ahead to acquire the necessary academic qualifications and work experience in a step-by-step approach to fulfil the admission requirements for application and get prepared for their further studies. On the other hand, more and more programmes in universities have lowered their admission requirements. This relaxation of admission requirements has opened up a lot of opportunities for individuals to pursue further studies. For this reason, the universities are forced to provide more varied support to the groups of students who are of widely different capabilities. In addition, the universities are required to implement different approaches in managing quality and adopt 'criterion-referenced' instead of 'norm-referenced' assessment to maintain the standard and quality of their graduates.

Sources of information

The participants obtained different types of information from various sources. Based on the findings on Pages 75 to 80, a long list of information sources is summarised as follows. It includes educational institutions, recruitment agents, the Labour Department, career magazines, news media, supervisors, colleagues, human resource department, business contacts, peers, family members and the returnees' own methods. In general, publications, service providers such as educational institutions, and news media supply informative facts about the programmes and labour market conditions to the prospective returnees; whereas employers, work contacts and personal contacts may offer advice and guidance along with information. Peer advice is one of the most popular sources of information but prospective returnees rarely consult their direct supervisors and parents.

In order to search formative facts, the participants often visited the Internet and the official websites of the service providers such as educational institutions, recruitment agents and the Labour Department to seek information (see Pages 75 to 76). The popularisation of the computer and the availability of broadband networks are so widespread in Hong Kong that almost all young people will surf the Internet when they seek educational information (Offer and Sampson, 1999). As a result, universities have put much effort into their official website designs as the promotion and marketing strategies in the recent decades. At the same time, many participants obtained information from the publications and news media (see Pages 76 to 77). However, not all the interviewees found the information and advertisements useful. The reason for their different results might be caused by the contents in the specific career magazines they read. Also, the different views might also be due to their different expectations as well as other factors such as their power of observation, analytical skills and preference. The commonality of these most popular information sources (including surfing in the websites and reading career magazines or news) is that prospective returnees can obtain programme information and labour market information without any direct interaction with other people. This form of information source is particularly suitable to those who have passive attitudes and rarely raise questions. It can serve the purpose of feeding information and bridge the gap in this instance.

Peers are another popular and influential source of information and advice to prospective returnees. Peer groups include their friends, current and ex-colleagues, alumni and even their other work contacts (see Pages 78 to 79). The Hong Kong workforce is generally subject to extremely long working hours and the average per person surpasses 2200 hours a year (International Labour Organisation, 2007). Their work contacts, especially their colleagues, can be easily accessible sources of information and guidance. The participants had built up their networks at work and had made some good use of this valuable asset. This could help them in many ways obtain the most up-to-date labour market information in their fields. Moreover, when individual people are working in a department dealing with external contacts such as purchasing, sales, customer service and after-sales service, they will have higher chances of establishing networks and hence secure more information sources (see Page 79). In addition, similar background and ease of communication were the reasons given by one of the interviewees to select peers as an information source (see Page 79). Prospective returnees and their peers are more likely to be influencing one another to make similar decisions for educational courses. This may lead to their mutually reinforcing decisions on where to go or aspire to go (Foskett and Hemsley-Brown, 2001). It is obvious that their peers may not know enough about the information. Their exposure to different types of information can be similar to theirs and thus is limited by nature. Peers are a popular source of information but may not necessarily be a reliable one.

There are still a number of useful but not popular sources that prospective returnees may seek information. Only one interviewee mentioned recruitment agents as a source of information (see Page 76). Recruitment agents have direct contacts with both employers and job seekers. Through them, prospective returnees can easily gain an understanding about trends in the job market and posts in demand. Besides, they are more informed about what employers are prepared to pay and what job seekers are prepared to accept. More importantly, the performance of recruitment agents is highly dependent on their ability to match the requirements of both employers and job seekers. This ability in turn relies on their thorough understanding of the labour market conditions. Thus recruitment agents are likely to provide accurate information.

In the same way, another interviewee sent application letters to probe the acceptable salary in the labour market (see Page 80). This is a useful method to obtain the labour market information based directly on the individual personal information although it is not totally reliable. It is because invitations for interviews are also based on the other considerations of the applicants' appropriateness for the job. When prospective returnees do not intend to change jobs, it is unlikely that they would think of such approach. In any case, if individuals have used this way of acquiring labour market information, they will need to spend a lot of time and effort or more than it is worth. In addition, some large companies may have a system to log and track job applicants to screen off and reject those from repeated applications in order to cut down the processing time of recruitment.

Regarding human resource department, two interviewees took it as a source of information and guidance (see Page 78). The scale and function of the department is highly dependent on how employers view the importance of their staff's development. The majority of the companies in Hong Kong are small and medium sized with limited resources. Therefore, most personnel departments are basically to provide recruitment and payroll services functions and are rarely playing developmental roles in training, education and career planning. A well-established planning and developmental function system in human resource is only typical in some large companies, which may have a longer view for human capital and consider their staff as an asset. Consequently, human resource department is not a common source of information and advice.

Three other under-utilised sources are supervisors, parents and radio programmes. Although one interviewee shared some good experience about her supervisor, most interviewees did not have such positive comments (see Pages 77 to 78). In general, supervisors do not automatically come to the minds of prospective returnees as a source of information. Within the hierarchies of a company, individual working adults invariably report to their immediate supervisors and their relationships depend on how trust is established between them. Often, they do not want to share with their supervisors their thoughts and plan of further studies. The possible reasons are manifold. First, prospective returnees may be afraid of being perceived

to be not working hard enough in that they still can have spare time and energy to pursue their further studies. Additionally, they may worry about what to do if their supervisors turn out to have completely different views from theirs (see Pages 87 to 88). It is also possible that their supervisors do not have appropriate knowledge on the latest education developments and programmes (see Page 87). It is, therefore, better not to ask to avoid embarrassment to their supervisors. The situation will even be more difficult if their supervisors do not have the academic qualifications that prospective returnees intend to pursue. Some supervisors may consider that as potential threats to their positions. Regarding further studies, the interests of prospective returnees and their employer are not necessarily complementary and can even be conflicting (see Pages 130 to 131 for further discussion).

Two interviewees had discussed with their relatives but their consulted parties were generally of the same generation but not their parents (see Pages 79 to 80). It is different from youths who take parents as one of the key sources of information (Moogan, et al., 1999). When individual people grow up, like the returnees in this research, they have formulated their own ways of thinking and decision making. Their reliance on their parents will be reduced. Although family members, especially parents, were not a typical source of information for the interviewees in this research, their influence might still exist candidly and importantly. Like father like son. Parents bring up their children with their values and perceptions. Prospective returnees may form their expectations and aspirations as to what level of educational attainment they should go for under the subtle influence of their family.

Some radio phone-in programmes in Hong Kong provide information of educational choice and guidance service. However, no interviewees seemed to be aware of their existence (see Page 77). One reason might be due to the lack of publicity. Another was related to the conflicts of schedule between the broadcasting time and the participants' working hours.

In short, recruitment agents, sending application letters, human resource department, supervisors, parents and radio programmes are under-utilised due to a variety of reasons. Whenever possible, prospective returnees should be encouraged to use them to enrich the

information gathered for making their educational decisions.

Labour market information is being neglected

None of the interviewees proactively brought out the labour marker information when being asked about the type of information that they sought for educational decisions (see Page 75). This situation also appears in the questionnaire results. The five types of the labour market information (including employment trends, expected salary scale in their field, work environment, skills and academic qualification requirements of their current and intended next career move) and the three types of possible impacts upon completion of their studies, (including potential salary range, career advancement opportunities and likelihood of achieving their career goals) were designed into the survey questionnaires. The needs in these eight types of information were all greater than what actually could be obtained (see Page 80). This means that the participants were used to make their educational decisions without adequate information to understand the current labour market situation and the projected returns on their educational investment. Inadequacy of the labour market information would impair their judgement upon their educational choices.

The participants had not explicitly gathered the labour market information because they might too focus on the details in selecting an appropriate programme from the resources they needed to commit, the possible yields they could obtain and the admission requirements for the programme. Subsequently, they might forget an analysis of the entire economic environment and labour condition. They saw some trees but missed the forest. Although the participants were working in the labour market and should have some perceptions about it knowingly and unknowingly, only a thorough review with adequate information back up could provide them a full picture to predict the potential returns on their education investment after completing the study programmes. This negligence of labour market information by the returnees seemed to be a common issue to their educational decision making and it might create long-lasting effects to their careers.

Information needs and obtainment

From the statistical analysis results, only six of the 14 types of information on the questionnaire were correlated (see Page 80). This might be explained by the non-synchronised demand and supply of information in the education and labour market (OECD, 2001b and 2002b). The supply of information was not in proportion to the demand. Moreover, the participants were proven to have greater needs in all types of information listed in the questionnaire than what they could obtain (see Page 80). In general, a gap between the information needs and the information acquisition for educational decision making exists and is required to be bridged because of the difficulties in the information-seeking process (see Pages 127 to 132).

The effects of various demographic factors on information-seeking process are also revealed by the statistical analysis results. As far as the information needs is concerned, the gender of the participants did not show any difference in their information needs (see Pages 80 to 81). Hong Kong is a well-developed city with equal opportunities between sexes. Both males and females need to work and earn a living for themselves in general. After getting married, or even having children, many Hong Kong females still continue to work. They are having no less desire to build up their career than males. Therefore, it is just natural that there is no significant difference of information needs between genders. Another area showing no significant difference of information needs is between degree holders and non-degree holders (see Pages 80 to 81). This result may reflect that competition in the labour market is so fierce that a lot of information is required in deciding their educational choices no matter prospective returnees are pursuing to obtain their first degree or another degree.

The participants with different amount of work experience had a number of differences in their information needs. Those with less than five years work experience were shown to require more information in employment trends, expected salary scale regarding current job or next career move than those in other two groups with five to nine years and those having ten or more years of work experience. At the same time, the information needs of this group for the projections of the returns on the human capital investment in terms of potential salary

range after completing the programme and two types of social capitals were also higher than the other two groups (see Page 81). This group of participants were new entrants to work. They needed a lot of different types of information to help them fully understand their interests, plan their careers, and support their decision-making. For instance, the employment trends were very important to foresee the prospects of the field that they were working. Furthermore, it could be linked up with the economic conditions in Hong Kong from 2002 to 2006 when these participants had just started to work. Shortly after the 1997 handover, Hong Kong had experienced a long period of economic downturn. In the period between 2002 and 2006, the economy was still in poor shape and most Hong Kong people were suffering from deflation. The unemployment rate reached the highest reading of 8.8% in May to July in 2003 (Hong Kong Census and Statistics Department, 2008b; Leong, 2004). As a result, these participants were suffering from either unemployment or low salary pay at that period of time. These could be the reasons why they were much more concerned about salary information than the other groups. Having endured the miserable experience during economic recession, they understood that they needed to survive and earned sufficient money in the labour market before considering other aspects. At the same time, the less work experience a person has, the less likely the person is exposed to different types of career, people and information sources. Therefore, it can be expected that individuals with less work experience require more information related to social capitals to build up their necessary networks. In the same way, there is a long way for young working adults under 25 to work and develop their career. They need to have a lot of information especially about employment trends and salary scale to reference in their planning for their long-term career moves and educational decisions (see Page 81). Some participants in this group might have started to work when they were in their teens. They might have quite a number of years work experience but they were still under 25. Thus, the higher demand of social capital information in the group with less than five years work experience as mentioned in the previous section did not appear to this group of returnees under 25. If prospective returnees are to get older, they will have gained enough understanding about their career development and the information in their field at their age. Unless they shall plan to change to a completely new field, otherwise their need will continue to reduce against age.

With regard to the information obtainment, the male participants obtained more information on potential salary range (see Page 81). In the research conducted by Duffy and Sedlacek (2007), the results showed that men are more likely to espouse extrinsic values for their long-term career choice. Potential salary range falls into the category of extrinsic values. In general, male individuals are concerned about making money or having high anticipated earnings. Therefore, they put lots of effort in acquiring the information they want. Furthermore, the male ones are usually the key money earners in their families in Hong Kong and most of the other places. Doubtlessly, they will pay lots of attention to gain the information about salary which is their main source of income in general. At the same time, salary is often perceived as a measure of their career success. Although Hong Kong is famous for equal opportunities between genders, the top management level in most organisations is still dominated by males. There are glass ceilings for the females in their careers. Except for a few, most of the females do not want to be labelled as business strongmen as that sounds threatening and unattractive, especially when they need to anticipate their future role as wives and mothers. Notwithstanding they still have the information needs as much as the males have, they may self-restrain their eagerness to capture the information so as to appear to be less aggressive. They do not proactively ask or identify individuals from whom they can learn about the career that they are interested in pursuing. Hence, the female participants also obtained less information in this area (see Page 81).

The participant group with less than five years work experience obtained significantly less information relating to potential salary range after the completion of their studies than the other two groups (see Page 81). For the same explanation above on Hong Kong's economic downturn (see Page 120), most Hong Kong young people have not faced such economic difficulties before. The situation can be even worse for those without much work experience. With no appropriate reference, this group of participants found difficulties in obtaining and forecasting information.

Originally, it is expected that the older the participants, the more life experience they had, and the more they would understand their own needs and the ways to obtain information.

Consequently, the oldest group of returnees had to have better ability to seek information and to make appropriate decisions. However, from the analysis of results of the returned questionnaires for those three age groups, namely under 25, between 25 and 34, and between 35 and 44, it shows that their obtainment of the information was not significantly different from the other two groups for all types of information (see Page 81). It seems that life experience of the participants could not help them overcome the difficulties and obstacles in obtaining more information. The questionnaire results reveal that age is a factor to make a difference in information need but not the one to affect information obtainment.

Besides, the difference in the education level of the participants did not affect their information obtainment (see Page 81). In spite of having a degree, the participants might improve their information-seeking ability and enlarge their social networks to include more classmates and lecturers. These changes seemed to be not significant. Therefore, the difference in education level of the participants showed no effect on information needs and information obtainment.

One interesting observation is that the participants' needs on the different types of information were affected only by the decisiveness of their career plans. However, their expectations on career advancement, intention to change jobs and perceptions of improvement on job security played no effect on their information needs (see Pages 81 to 82). Those who had a definite career plan demanded significantly more on employment trends than those having undefined career plan. The participants with definite career plans would have clearer overall goal(s) and objective(s), and hence they attempted to understand what study they had to go for and how they had to develop their career. They were more knowledgeable about what type of information they had to look for. Employment trends represent the prospects of different trades. Consequently, they were more eager to know about the trends. Once the information-seeking and career planning processes could get started, a positive reinforcement loop was formed to drive these participants to a brighter career future. However, most Asians are shown to have relatively more difficulties in their career decision making than other ethnic groups (Mau, 2004). One such local research showed that about 30% young people do not

have a goal for their life nor for their higher education study (Breakthrough Ltd., 2006). Therefore, a definite career plan plays a role in driving prospective returnees to seek information.

Career plans affected how the participants were motivated to study. Ultimately, no matter their motivation to study was for advancing their careers, changing better jobs or simply improving job security, the difference in the purpose of study did not affect their information needs. It could be because the different types of information listed in the questionnaire were fundamental for making educational decisions.

On the other hand, the decisiveness of the career plan and the career-related motivation factors affect to the results of information obtainment at a various degree. In the first place, the participants with definite career plans had demonstrated that they were more prepared to put in efforts on acquiring information on the labour market. Thus, this type of participants could obtain a clearer assessment of their likelihood of achieving their career goals and knowledge over the criteria necessary for their career related decisions, which in turn reinforced their decisions on further studies to realise their career plans (see Page 82). Those participants who claimed to have no career plans, or having undefined plans, lacked clear focus on what sort of information they had to collect. Nevertheless, it was again possible that based on other reasons they could not obtain criteria regarding their career-related decisions, which had caused their career plan to be less defined. The above are compatible with the findings in other researches that said individuals at more advanced stages of their career decision-making process in terms of degree of decidedness would have lower levels of difficulties in career decision making (Gati, et al., 2001; Amir and Gati, 2006).

In the second place, the participant group expecting no career advancement were shown to be able to obtain more information on how to understand their competence regarding their career goals than those who expected to have career advancement (see Page 82). This implies that they might be shrewder to understand the competency requirements in the labour market. At the same time, they might be aware of their own constraints that prevented them from career

advancement. Their limitations might be in other areas but not just academic qualifications and knowledge. Pursuing further studies might help them break down some, but not all, of the obstructions in their career path. Thus, they would still expect no career advancement after the completion of their study programmes. On the other hand, those who were not sure about their career advancement prospects were only able to obtain less information on academic qualifications than the group who expected to have career advancement (see Page 82). This can be viewed in two different ways. It indicates that if individual people cannot secure sufficient information to assess how academic qualifications can impact on their career, they cannot be sure about the possibility of their career advancement. It is also possible that they are not certain about the prospect of career advancement from pursuing further studies and thus they are less fervent in trying to obtain the necessary information.

In the third place, the group of participants who did not plan to change jobs obtained less information about the career advancement opportunities than those who were not sure about whether they would change jobs after finishing their programme (see Page 82). If people are basically satisfied with their current job, they may be uncertain about taking the risk of changing jobs unless there is a very attractive package available. In 2006, when the survey was done, the economy in Hong Kong was just recovering from the downturn (Hong Kong Census and Statistics Department, 2008b; Hong Kong Institute of Human Resource Management, 2007a). There were neither labour shortage problems nor lots of career opportunities in the labour market. As a result, there was no significant change in compensation and benefits packages for jobs available in the labour market. Also, the group who were determined to stay in the same company and had no intention to change jobs were less likely to proactively seek information for new jobs. Probably, they might be generally informed of the similarities and the difference of their company with the others. A close but self-reinforcing loop was then formed between no intention to change jobs and a lack of information about career advancement opportunities. Having no plans of changing jobs, this group of participants were not motivated to gather career advancement opportunities information. Another possibility was due to the lack of information on the conditions of work for similar positions in the labour market. All these factors failed to support and motivate

them to change jobs.

Finally, there were 15 (27%) participants who were not sure about the change in job security (see Page 63). This minority group of participants obtained significantly less information on career advancement opportunities than those who were convinced of the improvement in job security (see Page 82). The results reveal that they could not predict or draw a conclusion on whether there would be positive or negative effects on the job security upon finishing the programme. This group might understand the labour market thoroughly but were frustrated by the economic conditions in the previous few years. They had become less confident in forecasting the future. Perhaps it was not surprising that their eagerness to obtain further information for career advancement opportunities would be lower. The other possibility was that they did not obtain information on job security as that was not their real concern according to their career plans. Apart from this, those participants who expected no job security improvement were found to have obtained less information on factors needed to be weighed in career related decisions than those who were sure about the improvement in job security (see Page 82). Similar to those who were not sure about the change on job security, they might be seriously affected by the previous economic recession in Hong Kong. They might be more realistic by putting themselves into the shoes of employers and understand that some employers were forced to downsize or even close down the business during the economic downturn. Thus, they would think that they might get fired in business downturn no matter how good their skills, experience and academic qualifications are. At the same time, they might have already tried hard to get information about specific factors they needed to evaluate options regarding their career decision but in vain. This situation could reinforce their negative perceptions on job security again. Another possibility was that they had confidence either in their competence or in their company where they had already built up cultural capital at their workplace. They were basically satisfied with their current jobs and positions. Not being affected by this job security factor, they had less incentive to capture information on factors they needed to evaluate options regarding their career decision. Whereas, those individuals who believed that the pursuit of further studies could lead to the improvement of job security as a result of either or both of the knowledge being gained and

the qualifications being acquired would drive themselves to capture more information to improve the rationality of their educational choice. Hence, a better decision might be made.

Generally speaking, the view of prospective returnees on career advancement expectations, plan to change jobs and job security improvement may affect how much effort they put into collecting their information even though their information needs may be similar. How much information they get eventually can also be dependent on whether they can overcome the difficulties in their information-seeking process. In spire of that, the gathered information will be used to reinforce their views on the aforementioned motivation factors again. Consequently, the relationships of the motivation factors and information obtainment are interactive.

In the analysis of different information types related to the career-related decisions, the participants required less information in the specific factors that they would need to evaluate various options but obtained more information to understand their own competence against their career goals (see Pages 82 to 83). Specific factors are easier to identify than criteria because the former is just relational and the latter involves an element of magnitude that requires some quantifications. Similarly, individual people can understand their own competence against their career goals because they should know themselves directly. Although their opinion and judgement about their own competence or even their own goals may be misguided and questionable sometimes, most people will still think that they understand their own.

Across the five types of the current labour market information (namely employment trends, expected salary, work environment, skills requirements and academic qualifications information), the information needs of the participants were similar. Nevertheless, they obtained significantly less in the area of expected salary than that of the academic qualifications (see Page 83). In Hong Kong and most of the other places, salary is a kind of highly confidential and private information and such information is extremely difficult to get. On the other hand, academic qualification requirements are relatively readily available in the

labour market and can be observed and obtained easily. Being aware of the academic qualification requirements, many prospective returnees have decided to pursue further study in order to further proceed along their career paths. As a result, they obtain significantly less in the area of expected salary than that of the academic qualifications. The ease of obtaining the remaining three types of information (namely the labour market situation including employment trends, work environment and skills requirements of their current jobs and their intended next career move) lies somewhere between these two. The above findings can provide some hints to the career guidance services about the priority of which types of information are critical to offer.

The information needs in the three aspects of projected returns (namely potential salary range, career advancement opportunities and the likelihood of achieving the career goals) upon completing the participants' study were not different significantly (see Page 83). Since most of the participants wanted to change jobs (62%), to make career advancement (80%) and had a definite or tentative career plan (82%), they were eager to find out about the potential salary range and career advancement opportunities. Hence, their needs in these three aspects were similar. This reflects that when prospective returnees are making educational decisions, they focus on the potential salary, career advancement prospects and the fulfilment of their career goals equally. Money and status play important roles in the value system in Hong Kong. The information obtainment of the three aspects showed no significant difference because there were many obstacles in information-seeking process that the participants needed to face in getting the information.

Difficulties in information-seeking process

One of the most obvious obstacles in information-seeking process mentioned by the interviewees was unavailability of information (see Pages 83 to 84). Perhaps, information sources were waiting them to be collected from the market but they just could not figure out which channels to use in getting them. Without thinking thoroughly, they would give up and would not spend time on searching for a particular type of information. This point also extends to a newly established study programme in which no past history can be used as

reference. From the university's point of view, a programme shall be repeatedly organised every year. It is just natural that any new programme is needed to pass through the first few years before it can accumulate references or any 'word of mouth', regardless of positive or negative comments. Nonetheless, under normal circumstances, prospective returnees only take up degree courses, if not for once in their life, at most a couple of times in their lives. Past performance of the programme is important for predicting the likely yields that one may obtain from the programme. Hence, prospectus returnees can only make reference to other similar programmes organised by the same department. Some interviewees urged the Government or educational institutions to step up their promotional efforts or to provide guidance services proactively so as to allow students gain proper information or find the ways of obtaining information (see Page 96). This implies that more efforts should be put in the promotion of education guidance services (see Pages 155 to 157 for further elaboration).

Another obstacle is that several participants were unclear and unaware of their own needs or less well-informed about different types of career guidance service and the related source of information (see Page 85). Most of services which have been rapidly improving in the recent decades are provided during formal schooling. Even so, prospective returnees may never be offered the information. Others may miss the chance of knowing about the services for one reason or other. When they grow up, their awareness in this aspect may remain inadequate. Unless they have chances to detect and overcome such weaknesses, otherwise they can only use trial and error to lodge their career development and make their educational decisions. Subsequently, they may have to learn the lessons by pain and frustration along their career paths. Career guidance that is especially for prospective returnees should be provided to release them from such difficult positions (see Pages 154 to 155 for further elaboration).

Sometimes, individual people may already hold biased and misinformed preconceptions before making their decisions without factual support. Quite a number of interviewees had no idea of how their expected salary compared with the prevalent rate in the labour market. Their own expectations could be pure subjective wishes (see Page 85). Therefore, their conclusions drawn on the projected returns on their educational investment became subjective easily and

tended to be over-optimistic. A few interviewees might not be proactive enough in seeking information and they easily gave up trying to seek reference knowingly or unknowingly (see Page 86). Some of them simply admitted that they were lazy and others justified their non-action with heavy workload. They seemed to use some forms of reasoning to rationalise their inertia in seeking information. Besides, they might be based on wrong assumptions that limited assistance of others would be expected. Quite on the contrary, most of teachers can provide some sorts of advice or at least help by pointing to the appropriate directions where more information can be sought, if their current and previous students wish to consider their career development or make decisions on further studies. Thus, the subject to be studied should not be a key factor in deciding whether their previous teachers should be consulted (see Page 86). Moreover, officers in the departmental general office may not be able to answer all questions that prospective returnees wish to ask. However, the officers can direct them to the appropriate sources such as lecturers or programme leaders for further advice (see Page 86). The participants made excuses knowingly or unknowingly instead of overcoming their timidity in order to avoid any embarrassment during information-seeking process. They did not want to get rejected when they tried to seek advice or assistance (see Page 86). They were neither assertive nor earnest enough to the extent that they could overcome such limitation in their information seeking with their characters. Therefore, personalities of prospective returnees play an important role in enabling them to be proactive enough to gather the information they needed. During their information-seeking process, prospective returnees having self-confidence and positive thinking will have definite advantages over those with diffidence.

Another key reason why the participants did not seek information from the possible sources was related to their worries about the potential conflict of interests (see Pages 87 to 88). Some of them did not find the information provided by the media because the information was not up to their expectations as a reference for making their educational decisions (see Page 88). The interests of career magazines and newspapers are to maintain the volume of circulation of their publication to attract advertisers. Some media may use hyperbole to draw attention of readers. The credibility of the news media in Hong Kong was fluctuated between five and six

points (with ten representing absolutely credible, five half-half, and zero being absolutely not credible) in 2006 and 2007 (Chung, 2007). Whereas, the interests of educational advertisers in career magazines are to attract potential applicants as many as possible to their study programmes. Therefore, some educational institutions are likely to exaggerate the strengths and omit mentioning the weaknesses of their courses. The information tends to be biased. There are no much guarantee as to the accuracy and quality of contents in the advertisements. In the same way, educational institutions in Hong Kong also try their best to attract students. They had confronted financial cuts from 1998 to 2005 in the two budget trienniums (HKSAR Government, 2001). Financial pressure and fierce competition has been created since then. The participants might fear that educational institutions would show only part of the truths, but not all, about the courses and the prospect of the related fields for their own interests (see Page 88). Although they might not be very clear about what they wanted to know, they could still notice that it was impossible for courses to receive only compliments and no criticisms or complaints. Thus, their trusts in the information provided by educational institutions were diminished. If risk in taking a programme and its prospect for the related field are to be included, the entire picture shall be more complete. The information shall become more convincing. Undoubtedly, employers will also focus on the interests of the company. At the same time, it is obvious that resources shall be a concern for the employers in considering whether to provide the guidance services. Therefore, the participants questioned about the objectivity of their employers in providing quality information (see Pages 87 to 88). They considered how their employers could balance their interests and might be sceptical about the advice from employers that might not be entirely open and honest. A chasm between the focus of the management and the career aspirations of the staff may exist. Moreover, there are also threats of staff turnover (see Page 88). If there are plenty of internal opportunities for career development for staff, employers will be more willing to provide information and other supports to their staff. When such opportunities are rare due to company size, economic condition or whatever reasons, then employers may fear that their staff shall change jobs upon accomplishment of their further studies. Furthermore, a few participants simply believed that the relationships between bosses and their subordinates were built solely on business ground (see Page 87). They had not considered it to be their employer's obligation to provide

information or career development guidance nor had they expected them to do so. This aligns with the aforementioned company support aspects (see Pages 107 to 109). Therefore, prospective returnees may limit their queries over the advice of educational decision with their employers. Conflict of interests seems to be unavoidable. However, when both parties can keep open-minded to share comprehensive information and advice, trust, long-term relationship and win-win situation may be achieved.

Salary information, which is considered as private and confidential, is difficult to get (see Page 84). In Hong Kong, the practice of formally releasing pay scale information to employees is limited to the Government and a few large companies, but not most commercial companies. Besides, most individual people in Hong Kong do not talk about the exact figure of their salary with their friends or even family members as a respect for other's privacy. Likewise, career advancement opportunities are sometimes too sensitive to be discussed within a company (see Page 84). It is understandable for a company not wishing to divulge to its employees information on the salary pay scale and promotion opportunities in order to avoid employees forming false expectations and sources of conflict due to jealousy among staff. Therefore, prospective returnees should aim at obtaining the overall, not the individual, picture of salary pay scale and promotion opportunities in the labour market through appropriate information sources such as recruitment agents, human resource associations and the Labour Department.

Certainly, the quality of information is just as important. From out-of-date, inaccuracy, to downright wrong, there were differences in the degrees of quality problems on the information, as perceived by the interviewees (see Pages 84 to 85). This means that there are rooms for improvement for educational institutions, mass media and the Government to provide adequate, accurate and detailed information for prospective returnees to make their educational decisions (see Page 158). Actually, it is beneficial to these organisations in attracting the right students, readers, as well as being able to improve overall human capital efficacy. If employers want to build up long-term relationships with its employees, managing expectations on their career development is also important.

Last but not the least, hierarchical barriers and generation gaps between subordinates and their supervisors and between children and their parents are required to be overcome in order for effective communication to take place (see Pages 86 to 87). Hierarchical barriers and generation gaps exist culturally. Adults may not like to consult their parents nor working individuals concerning their personal matters with their superiors. Also, superiors do not necessarily have more information about their educational choices (see Page 87). However, they may be in a position to provide valuable advice based on their experience in other aspects. Unfortunately, the interviewees ceased seeking information and advice from them almost as soon as they had begun their discussion.

There are so many kinds of obstacles in information-seeking experience. Some of these obstacles can be minimised or eliminated through education and promotion and some are required to be addressed through guidance services. The implications for the Government policy are included in the next Chapter.

Perceptions of returns on human capital investment

Most participants expected a certain amount of salary increase within 12 months after their completion of the study because they had acquired knowledge and credentials for their work (see Pages 88 to 89). Certainly, their expectations were based on the background of the participants including education background, work experience, skills, competence and age. At the same time, their expectations were also affected by the information sources they used and the obstacles they encountered during their information-seeking process. Although the accuracy of their prediction is outside the scope of this research, there was a large variation in the expected returns in terms of monthly salary increase ranging from zero to HKD27,778 (see Page 89). It is very likely that those expectations on the high side were too optimistic for the participants to make appropriate educational decisions.

Projections of returns on human capital investment were objective supports to most participants when they considered taking their further studies (see Pages 89 to 91). It gave them confidence in making their educational decisions. If they had obtained the information

prior to their decision, the projections of returns on human capital investment functioned as a motivator for their further studies. If they had already made their decisions prior to their obtainment of information, the projections of returns on human capital investment served to reconfirm that their decisions are right. Anyway, the more information they obtained, the more likely they could make appropriate decisions and the more convinced they were with their human capital investment. A number of participants might have reservations concerning personal ability and specific difference in the individual's situations (see Page 90). These concerns were realistic and could be linked back to the admission requirements for the programme and the difficulties in information-seeking process. Economic cycle is another factor influencing significantly the accuracy of the projections of returns on human capital investment, and hence its importance cannot be ignored (see Page 91). The participants might accept that the difference between the forecasted and the actual situation, and take into account the economic conditions. They might even expect zero increase in salary but it did not imply they were not careful with the projections. It was simply because the returns of further studies had been transformed into the improvement in their job security.

One interview showed his reservations about the labour market being dominated by employers (see Page 91). This might reflect the mentality of some prospective returnees in general. On one hand, they believe that the projections of the returns are useful on the whole. They are confident about their own competence. On the other hand, when they confront their career paths, which may not work as planned, they form an opinion on their employers playing a dominating role in the labour market rather than reviewing their weaknesses or incompetence. Hence, they are in conflict with what they believe over their control of their careers through improvement of their competence against their awareness that employers can dictate their career destiny in some ways. As a result, they take further studies and agree on the importance of projections of returns on human capital investment, while they excuse themselves from the possibility of not achieving the projections by exaggerating the employers' role.

However, three interviewees indicated that the information was not important (see Pages 91 to

92). This group of returnees hoped that their further studies could serve as a stepping stone for their career development. They felt comfortable as long as they could proceed along their paths or towards their goals; and believed that the potential salary increase along the paths they mapped out would be reasonable. In harbouring the subjective beliefs of reasonable salary, these returnees might be over-optimistic in making their educational decisions. Lisa, who expected an absolute salary increase of HKD13,000 (USD1,667) per month within 12 months after the completion of her study programmes, showed a typical example in over-estimating the projected returns (see Page 85).

Peggy believed that it was a matter of fortune whether the returns on human capital investment could turn out to be true as projected (see Page 92). At the same time, she also believed the importance of the projections. It was hard to tell how much weight she would give to the matter of fortune and how much effort she would make to pursue further studies in order to realise their human capital investment returns. Certainly, it was unlikely the consequence would rely completely on one side or other. Sometimes confusion is generated among prospective returnees when they consider the importance of human capital investment projection. Moreover, another interviewee, Opal, accepted the importance of the projections of returns, but she immediately highlighted the difficulties in securing such information (see Page 92). She expected highly accurate forecast, even up to a level that was comparable to a guarantee. In Hong Kong, there are no guaranteed minimum on the salary increase in the labour market nor are there guarantees over the career paths after individual people are to complete further studies. The desire for unrealistically accurate information that is hard to come by can be said to be impossible to achieve. In the next section, the human capital investment is compared with financial investment to identify the similarities and differences.

Comparison between human capital investment and financial investment

Most participants perceived that the information relating to the possible returns on their human capital investment was crucial. Similarly, financial investment is also using money to invest and try to gain monetary returns at the end (see Pages 92 to 93). The interviewees viewed human capital investment and financial investment as two distinct things. In general

speaking, human capital investment is in favour with the participants (see Pages 93 to 94). Knowledge is the direct result captured from further studies and credentials are a form of confirmation on what is learnt. One can also gain pecuniary returns through improvement on job security and career advancement. Both knowledge and credentials are important returns in human capital investment and they can be comparable to, or even much more than, the direct monetary returns on financial investment. There is an old Chinese saying that "learning is the noblest of human pursuits." The participants had faith in further studies to help them generate a sense of confidence, satisfaction, security and improvement on self-image, as well as to build up social network. Social capital was an important outcome that a small number of interviewees valued a lot. While pursuing further studies, prospective returnees can build up relationship with and extend social networks to include their classmates and lecturers. Relationships are seen by many cultures but in particular for the Chinese culture as an important personal asset. Comparatively speaking, investors in the financial market will be less certain about gaining such kind of positive feelings unless they have gained such an enormous amount of money. In short, the returns of human capital investment are manifold.

The participants highlighted that the duration of returns on further studies could be life-long (see Pages 93 to 94). As individual people get to become more knowledgeable and to gain higher qualifications, they can improve job security, make advancement along their career path and be in a better position to change for better jobs should they wish to. Furthermore, education can have a positive effect on health, reduced loss of working time through sickness, increased birth weight of the offspring of the educated one; and it has a negative correlation with mortality, morbidity, rates of disability days, and hospital utilisation (CERI, 1998). As a matter of fact, education is well recognised by Chinese as one of the best ways to improve the quality of life and to rise up the social hierarchy. This belief attitude towards education can be traced back to the Imperial Examination System in ancient China. Research has shown the returns on human capital investment to be positive and this is true even for the persons concerned taking up jobs for which they are over-qualified (Belfield, 2000; Hartog, 2000). The calculation of such returns is complex. Conversely, the calculation of returns from the financial market is relatively simple and direct. Once the transaction is completed, the profit

or loss can be calculated. Although the duration of investment can vary from a number of minutes as in day trade to a number of years, confirming the returns in terms of profit or loss requires relatively a short time. For that reason, the impression of the duration of returns on financial investment is completely different.

Furthermore, many participants perceived financial investment to be highly risky (see Page 94). They focused a lot on the possibilities of loss in financial investment. Actually, financial investment can result in gain or loss, and the probabilities are dependent on many factors such as the type of products used, experience, and market situation. Comparatively speaking, their perceptions on returns on human capital investment were generally skewed to the positive side. They considered human capital investment as no or low risk and therefore, secure and long lasting. Nonetheless, it is not necessarily true. There are cases where the credentials of some programmes were not being recognised by the Government or professional bodies in Hong Kong. Additionally, the participants could get fired over their failure to commit to overtime work when pursuing further studies (see Pages 64 to 65). Though the risk in the human capital investment is often perceived as none, it is not true and is therefore being underestimated at times.

From the above, the differences in perceptions on human capital investment and financial investment could provide clues to why most interviewees gave priority to further studies (see Page 94). Some of them targeted at long-term earnings and chose to start off from human capital investment so as to cumulate a lump sum of extra money for financial investment later. Their perceptions about the risk involved in the two types of investments directed them to secure their earning power through taking up further studies first before they would get involved in the perceived 'highly risky' financial markets. However, Hong Kong is full of speculators. In the future, the observation that further studies are generally given a higher priority may not hold out in this ever-changing society. Many university students are getting involved in financial investment while they are still taking their full-time study nowadays (Reuters, 2008). With increasing number of self-financing programmes available for further studies and the rise in course fee, prospective returnees may more frequently be questioning

themselves whether they shall ever get adequate payback for their human capital investment or whether investing in the stock market yields better and faster returns than further studies. Only with the provision of adequate and accurate information for rigorous assessment, it will help in attracting and persuading prospective returnees the value of further studies. Consequently, it will be better to address the demand for information in order to facilitate prospective returnees to make their educational decisions.

Career guidance services

When prospective returnees lack information and advice in making their educational decisions, career guidance service should be able to help. However, the participants generally showed poor awareness of the existence of the career guidance services (see Page 95). Probably their age was a factor leading this phenomenon. One interviewee, who was over 35, was likely to have limited experience of career guidance services during his schooling because vocational guidance in Hong Kong has only just been started and been developed since 1958 up to 1977 (Zhang 1997; Zhang 1998). Three out of these seven interviewees were unaware of career guidance services and were aged between 25 and 34. Their school years approximately overlapped with the transitional period where vocational guidance had been broadened into career guidance from 1978 to 1990 (Zhang 1997; Zhang 1998). Despite the availability of career guidance at that time, their individual exposure to the services might vary a lot. In 1990, the Whole School Approach to the guidance services was recommended by the Education Commission in its Report 4. The career guidance services in Hong Kong then entered into a consolidation phase (Hong Kong Education Commission, 1990). For that reason, the younger interviewees should be in a better position to receive certain services on career guidance when they were in primary or secondary school. One may expect that the younger returnees should have been more aware of the availability of career guidance services in school and thus should have more experience in using these services; however this research reveals that it was not the case. The three interviewees who were unaware of career guidance services were under 25 meaning that their schooling fell into the period where career guidance services had generally taken roots in Hong Kong schools. They could not recall having this service being available to them. This implies that the career guidance services might not have

created a strong impression on these interviewees.

Furthermore, the usage rate of the career guidance services was extremely low (see Page 96). It is understandable that those seven participants, who were not aware of or clear about career guidance, would not seek it. Even for those nine interviewees who were aware of the career guidance services, only two had utilised it. The comments given by the interviewees on career guidance could provide clues why the returnees did not use the services.

The participants were concerned with a number of issues when they were encouraged to seek career guidance services to facilitate their decision-making process. Importantly, they did not consider themselves to be the target clients of the services (see Pages 96 to 98). Many of them perceived career guidance services as the monopoly of fresh graduates who was about to begin job searching. Presumably, they first came across career guidance shortly before their completion of secondary school or non-degree courses or when they were desperate in getting job placement or wanted help to decide which field of work to join. Their understanding of career guidance services had remained at the level of job matching and placements, and did not extend beyond that to include education guidance and further career planning. Hence, they did not think about seeking advices from career guidance services on their educational decisions. Moreover, they believed full-time students were the intended recipients. This perception was reinforced during their further studies because during that time they had never received any information about the career guidance services (see Page 97). As a result, the concept that career guidance services were only for full-time students was solidly formed. This became another barrier for them to seek help. Needless to say, the participants should never become proactive exponents of career guidance services when they were consulted for the course information by the next round of new cohorts or their peers for that matter. On the other hand, the career guidance service providers such as the Labour Department and the counselling officers of universities have not taken any concrete actions to address and change this perception. In addition, the target recipients of career guidance were somewhat wrongly expected to be those that were uncompetitive or at the fringe of society being excluded due to education level, age or even mental health reasons. The participants did not see themselves as

the uncompetitive or social outcasts nor did they want others to see them as such. Therefore, they did not want to use the services. The above implies that a lot of promotion will be needed to change the impression of career guidance and the services especially for prospective returnees in the workforce should be arranged (see Pages 154 to 157 for further elaboration).

Another concern of the participants was the service quality of career guidance. The first negative impressions were carried over from experience of vocational guidance (see Page 98). The participants were most likely to generalise and assumed that the other similar services were not good either. They might not even make an attempt to verify their perceptions on the new services due to their impression on the old services. A few interviewees also formed some impressions that the career guidance services from the universities were too generic and shallow in nature (see Page 98). They held high expectations on career guidance services from the universities. Ideally, the counsellors should have been knowledgeable in the field and be able to give specific comments on their cases. Some gave up their expectations on the career guidance services provided by the universities and confirmed their belief that the services would be superficial; and some tried to use the service but still found the guidance too generic. Comparatively speaking, employers may be in a better position to provide guidance services when compared to the universities and the Government because they are familiar with their employees and their working field. Unfortunately, the relationships between employers and employees have always been built on a certain degree of conflict of interests (see Pages 130 to 131). Furthermore, if prospective returnees consider changing to a brand new field, they may find it inappropriate to consult their current employers (see Page 139). Then the Government can be the most appropriate neutral bodies to provide such guidance services.

Additionally, one interviewee was worried about the advice from the services would simply echo their preference (see Page 98). While counsellors of the career guidance services consider the interest and preference of individual clients, they will also comply with appropriate codes of practice in education guidance services to ensure impartiality, accuracy and quality (Watts and Sadler, 2000; The Times, 1993).

At the same time, a few interviewees believed that many counsellors in career guidance services did not have much in-depth understanding about the ones who went to seek help (see Page 99). It is true that when advice is given to recipients without substantial understanding of the persons then they tend to be superficial. If career guidance services are handled in a professional way, counsellors should first make some evaluations or assessments of the prospective returnees in order to establish considerable understanding of their background and needs before facilitating them in their educational decisions. Personalised advice can be offered to improve the depth of the guidance services.

Another barrier was that the participants were hesitant to discuss with a stranger about their aspirations under the influence of the Chinese culture (see Page 99). This finding is the same as one of the help-seeking behaviours found in the research done by Tien (1997). Prospective returnees may feel shy and insecure unless they can build up trust with the counsellors. On one hand, the Government or other private agencies will need to overcome this barrier before the career guidance services can become a widely accepted and routine activity. It takes time and extensive promotion and education to change the mindset of the public relating to career guidance services. On the other hand, the lecturers, with whom some participants preferred to consult, may not have enough time and counselling techniques to provide guidance services. This implies that partnership programmes between lecturers and counsellors can be established. Furthermore, some other researchers focused on using Internet-based or computer-assisted system to assist and supplement face-to-face career decision-making counselling process (Offer and Sampson, 1999; Sampson, 1999; Gore and Leuwerke, 2000; Gati and Saka, 2001; Kleiman and Gati, 2004). Therefore, prospective returnees can minimise their discomfort of disclosing oneself face-to-face with counsellors by using the Internet-based or computer-assisted system. In addition, the electronic means can be a convenient way to provide the services because a few participants pointed out that time is precious in particular for working individuals (see Page 99 to 100). The above implications on the improvement of the quality of education guidance services are further elaborated in the last Chapter (see Page 157 to 158).

Career goals setting and career planning skills is unlikely to be an inborn competence to most individuals. Prospective participants may not have the skills developed adequately in their previous schooling nor by their families. They may be aware of their deficiencies and then start to carry out improvement. Therefore, they should be able to handle their own career and education at certain stage of life. Then the demands in career guidance services will be much reduced. The interviewees mentioned several factors (including age, work experience, educational level and marital status) that could affect their educational self-efficacy (see Pages 100 to 102). The questionnaire results also support that the participants who were under 25 or having work experience less than five years required more and obtained less information (see Pages 80 to 81). Hence, it was likely that these two groups of returnees were less ready for educational self-efficacy. The questionnaire results show that information-seeking process was not affected significantly by the educational level of the participants. Marital status is not included as a demographic factor in the questionnaire. Getting married is an important phase in life. Traditionally, Chinese will only consider those that are married as grown-ups. No matter how old a person is, if he or she is not married, he or she remains an adolescent. Moreover, prospective returnees may have more restrictions on their choice of lifestyle and career planning once they have married. Despite of the aforementioned factors, maturity is the key to determine the educational self-efficacy and the demand of career guidance service. Although there is no fixed line drawn to clearly define maturity, priority should be given to those under 25 or having less than five years work experience.

Other implications: labour relations in Hong Kong

In this research, there are a number of unexpected observations reflecting the current labour relations in Hong Kong. The first unexpected observation is the rejection of educational sponsorship (see Page 67). The participants with options for company sponsorship forewent such opportunities rather than accepted the restrictions and conditions of such sponsorships. It was uncertain as to which came first: whether the desire to leave the company had spurred the decision for the pursuit of further studies or after having taken up higher education had made the participants planned for departure from the current employment. It is apparent that long-term relationships and mutual trust have not been built between the employers and employees.

Educational subsidies are no longer an attractive benefit to employee and companies cannot use it to improve employee loyalty. Both employees and employers seem to hold expectations of short-term association with each other. The situation can be explained by the nature of Hong Kong's economy. During the so-called 'good old' days between the 1970s and 1990s, the economy in Hong Kong was rapidly growing. Most companies were under an expansion phase. Moreover, many people in managerial and professional positions had immigrated to other countries before 1997. As a result, most employees did not need to worry about opportunities for career advancement within the same companies. In the period immediately after 1997, most companies stopped growing or slowed down their growth in Hong Kong. Under the periods of economic recessions, people were worried about job security and would not change jobs easily. Mobility in the labour market almost halted. Consequently, the general atmosphere was gloomy and there were reduced opportunities for career advancement within the same company. Additionally, there have been some more major structural changes in the Hong Kong economy in the recent two decades. The labour force have been making adaptations and are more prepared to proactively seek new opportunities in the labour market rather than to stay in the same company. Hence prospective returnee may refuse the long-term commitment to their company by rejecting the obligations of the sponsorships programme.

Furthermore, it seems that job security may be lower if prospective returnees pursue further studies (see Pages 64 to 65). Companies employ staff to work in order to generate profit. In theory, individual people taking further studies in the evening or after work should not affect their company. However, employers expect much more from employees. Unpaid overtime work often becomes a norm in the employment scene in Hong Kong. Many prospective returnees are often caught between their expected overtime duties and spending time on realising their self-development and further studies. Frequent on-time departure from work will have an effect of lowering one's job security especially during their further studies. For that reason, individual people contemplating further studies are often required to weigh out the possible short-term effects on work against their long-term benefits from further studies. When employers are in a position to reap immediate benefits from the employees' improved knowledge and skill, they will be more tolerant to short-term disturbances. Otherwise,

employers will consider employment termination of their staff for extreme cases. Prospective returnees often have to include such possibilities of employers' possible reaction in the formula when they consider pursuing further studies. Actually, if mutual understanding and proper arrangement can be established between employers and employees, discontentment from either party can be minimised (see Page 68). The performance of employees can even be enhanced.

Another interesting phenomenon is that many interviewees changed employers for better jobs or career advancement during the course of their studies (see Page 65). The possible reasons for this phenomenon could be due to uncontrollable situations such as conflict of schedules between work and study or companies demanding relocation to the mainland China. Moreover, some participants changed jobs to improve their compensation and benefits packages and to secure better prospects in career development. As they were making progress in studies, they became more confident with their imminent acquisition of newfound knowledge. They might expect a better future with their credentials. All these possible factors might play a part in making them eager to seek career opportunities during their studies rather than to wait for the completion of their programme. Moreover, the positive impressions could be projected to prospective employers when they were told that the candidates had already been pursuing further studies. It gave an image of progressiveness and preparedness in taking on more, and this was a desirable character that most employers were looking for. At the time of the survey, the economy in Hong Kong started to recover in 2006 (Hong Kong Census and Statistics Department, 2008b; Hong Kong Institute of Human Resource Management, 2007a). The interviewees were keen to change jobs for higher salary to make up for the lower salaries in the previous few years when Hong Kong was under economic recession and salary cut was common in many companies.

The above three phenomena show the relationship between employers and employees appears to be more short-term. Mutual trust and harmony of the labour relations seem to be more difficult to build up. The previous economic recession after 1997 might have intensified their stress on their own economic benefits, which incurred a certain amount of rivalry between

employers and employees. The above discussion is only trying to explain the unexpected observations in this research. Additional research will be needed in order to explore the impacts of economic conditions or other factors on the labour relations. In the next chapter, conclusions are drawn on the above findings to answer the research questions and a number of policy implications are made.

CHAPTER 6 CONCLUSIONS

In Chapter 1, the research title 'Information and guidance for adults returning to higher education in Hong Kong: a case study' was posed. A number of questions were listed on Page 16 to guide this research in obtaining data for studying the topic. This final chapter summarises the findings in this research. Whilst the research topic is addressed directly, focus is made on these questions using them to provide structure for the chapter. Then, a number of policy implications for the development of the career guidance services in Hong Kong are made.

What are the factors that motivate working individuals in Hong Kong to decide to pursue further studies on a part-time basis?

This research reveals that a majority of working individuals pursued further studies as lifelong investment. They considered a degree as a basic requirement in society and a 'membership' badge for middle managers in Hong Kong. These returnees aimed for a brighter future in an economic sense as well as a status symbol for them after the completion of their further studies.

Most of the returnees participated in this research believed that they would advance their careers, change for better jobs, and improve their job security after the successful completion of their studies. They regarded credentials as a manifestation of their job skill and generic ability. Nearly half of the interviewees considered that having a degree and engaging in self-improvement were one of the aspirations in their life. Pursuing further studies would help them build up confidence, self-esteem and identity. A 'licence to practice' was a strong motivational factor for taking up further studies. A few interviewees obtained intangible supports such as encouragements from their company and family. On the other hand, a few other interviewees felt quite strongly about the pressures arising from the utter contempt their relatives expressed for the lack of a degree qualification and their inferior self image. All these factors motivated and reinforced their decisions on further studies.

Moreover, they considered that availability of time for study was one of the most critical aspects affecting the success of their further studies. This echoes the findings of the other studies (Davies and William, 2001; Greenberg, 2000; Gammon, 1997). Reference letter is a common type of company support but educational sponsorship is not always available. Nonetheless, the interviewees did not expect any company support. They viewed it as a bonus. Company support or obstruction played no part in their final educational decisions.

Furthermore, the only certainty concluded from the findings was that the participants did not dislike their courses. Their views on the relevance of the subject of study to their occupation varied a lot and could be much affected if they were working in a profession or non-technical business. Besides, they chose the programme mainly according to their practical needs and the applicability to their work.

In this research, there are three unexpected observations. The first is rejection of educational sponsorship. Several participants could have applied for educational sponsorship from their companies. However, a number of interviewees planned to change jobs while pursuing further studies. They were not willing to build long-term relationships with their employers. Hence, educational subsidies seem no longer be an attractive benefit from companies to enhance employee loyalty. Another point is that there was a possibility of having their job security lowered during their studies. Conflicts in time allotment between attending classes and unpaid over time work were potential triggers for bad feelings between the participants and their employers. In the worst case, Opal lost her job. The last unexpected observation is the propensity of the interviewees in job changing during their studies was higher than the average turnover rate for the same period in Hong Kong. All these unexpected observations may suggest that the labour relations in Hong Kong have been deteriorating, and the tough economic conditions in Hong Kong after 1997 have widened the chasm between the management and the career aspirations of the staff.

How do the returnees seek information for making educational decisions?

What was clear from the data was that the participants sought information from various

sources. They mainly focused on educational institutions to obtain information for making educational decisions. Besides, they read career magazines and newspapers for information on education programmes and the labour market situation. Although the interviewees spent much of their time on work, only a few of them took their supervisors and personnel staff as a source of information. Instead, most of them asked their colleagues and business contacts. Similar to the research done by Sandford and Torres (1997), the results show that peer group is an important source for prospective returnees to get basic information of the academic programmes concerned. On the other hand, only one interviewee mentioned recruitment agents and none referred to the Labour Department of the HKSAR Government or radio phone-in programmes as a source for help. In addition, family members of the participants were an information source that had been seldom asked for but their influence always existed. Furthermore, a number of interviewees studied the labour market situation and probed salary information through observation and making job applications. The above results are basically the same as those found in the research by Moogan, et al. (1999) on full-time students. The only difference is that career officers and parents are no longer the key sources of information in this study because the participants were working individuals instead of the youths.

Regarding to the methods of obtaining information, the results reveal that the returnees acquired information via chatting and discussion, observation and reading publications. The Internet was the most common medium that had used and mentioned by almost all interviewees in their information search.

The interviewees mainly looked for and gathered information on academic programmes to make their educational decisions. The types of information included: tuition fees, school hours, course duration, possibility of credit transfer and exemption, workload, travelling distance and time, knowledge, recognition and acceptance of the qualifications and title, reputation and public image of the university and its graduates, admission requirements and connectivity with next level of studies and professional qualifications. Their top four concerns could be summarised as money, time, knowledge to be acquired and external views on their potential status. The first two were related to the resources to be committed to further

studies and the remaining two were the possible yields from the programme. At the same time, the participants were especially concerned about the possibility of credit transfer and exemption in their application. Nonetheless, these were often considered by the university on a case-by-case basis. The situation will be improved if a more open and transparent credit accumulation and transfer system is established (see Pages 158 to 159).

Moreover, this research find that the returnees focused a lot more on the details relating to their interested programme than aiming at a broader view that includes information on the current labour market situation and the possible outcomes upon completing their programme. This shows a key pitfall when prospective returnees make their educational choices.

What are the information gaps between what the returnees perceive as obtainable and what would be needed to make their educational decisions?

Some types of information relating to the course fee, school hours, course duration, qualification, programme title and admission requirements for a programme are obvious and easily obtained. Thus, they are only discussed in general. On the other hand, the obstacles the interviewees encountered in obtaining the remaining types of information were summarised in the answer to the next question.

The questionnaire results indicate that only six of the 14 types of information on the questionnaire are correlated. The supply and demand of information is non-synchronised (OECD, 2001b; OECD, 2002b). Moreover, the participants were likely to have insufficient information on hand for all categories of information listed in the questionnaire. This is in line with the findings of the study done by Gati, et al. (1996). Adequate information should be provided for prospective returnees in making educational decisions (see Page 158).

The information-seeking process was also studied in association with four different demographic factors, namely gender, age, work experience and educational attainment. The questionnaire results reveal that the participants under 25 or having five years work experience required more on certain types of information. Neither gender nor educational

attainment was a factor affecting information needs at all. On the other hand, only gender and work experience influenced the obtainment of several information types. Unexpectedly, the older participants did not show any advantages in information obtainment based on their life experience.

Furthermore, the participants who had a definite career plan demanded significantly more on employment trends than those having undefined career plan. A definite career plan is vital to prospective returnees to understand clearly what study and career they should go for and hence their information need. Based on the questionnaire results, the other motivation factors (including their expectations on career advancement, intention to change jobs and perceptions of improvement on job security) do not significantly affect their information needs. Nonetheless, the decisiveness of career plan and these motivation factors did influence their eagerness to obtain information and hence their information obtainment at various degrees.

The information related to the career decision-making process included specific factors that prospective returnees needed to weigh in order to make their decisions, criteria they had to use in their career move and the understanding of their competence against their career goals. Among these three types of information, the respondents already had these specific factors in mind for their own particular situation and thus their information needs on it were less than the other two types. Besides, they obtained more information to enable them to understand and evaluate their competence against their career goals because the source of information for understanding their competence was directly available from themselves.

No significant difference is found in the information needs across the five parameters of the labour market situation: employment trends, expected salary scale, work environment, skills requirements and academic qualification information regarding the returnees' current jobs and next career move. However, they captured significantly less information of the expected salary scale than academic qualification requirements.

The possible outcomes of their completion of programme are linked in three areas namely:

potential salary range, career advancement opportunities and likelihood of achieving their career goals. These three types of information are believed to be equally important because there is no significant difference among them for both information need and information obtainment.

What difficulties do the returnees encounter during their information-seeking process?

This research shows that the participants faced many obstacles in their information-seeking process. Obviously, either the information is rightly or wrongly believed to be unavailable or routes to the information are not obvious or known to prospective returnees, they will not go about seeking for it. In addition, no history exists as reference when an academic programme is newly established.

Also, the interviewees showed a lack of awareness for their own needs and the existence of particular information. They might apply their own intuition because they could not name the information source or describe the method they used in arriving at the figure of their expected salary increase after they would have completed their programme. Some of them set invisible barriers to their information-seeking process as a disguise for their inertia and passiveness. A few interviewees did not consult others to obtain more information because they had made some faulty assumptions and were afraid of being refused when they tried to seek advice or assistance from people with whoever they were unfamiliar.

Sometimes, there is an issue of conflict of interests between providers of information and prospective returnees. Employers need to focus on the interests of the companies and the potential threats of heightened staff turnover. Also, prospective returnee may want to keep their relationships with their employers strictly to business matters only and will not discuss personal issues with them. Magazines and newspapers are most concerned with advertisers who contribute a majority source of revenues to them. For that reason, they are less inclined to guard readers' right to authentic accurate information. Educational institutions are trying their best to attract students. They may not always give a complete picture about the courses and the prospect of the particular industries relating to the programmes.

At the same time, many people consider salary as private and confidential information and believed career advancement opportunities are too sensitive to discuss within a company. Therefore, such information is considered difficult to get. Sometimes, information sources fail to provide accurate, up-to-date and detailed information for prospective returnees to make their educational decisions. Last but not the least, there are hierarchical barriers and generation gaps between subordinates and their supervisors and between children and their parents.

The above findings echo with the Career Decision Difficulties Questionnaire (CDDQ) model by Gati et al. (1996). With many different kinds of obstacles in the information-seeking process, prospective returnees may not have all relevant facts and the probability of making less-than-optimal choices will be increased to a great extent.

How do the returnees perceive the returns on human capital investment to their educational decisions?

There was a large variation when the participants predicted their expected returns on human capital investment. Although the accuracy of the prediction is outside the scope of this research, it was very likely that those expectations on the high side were too optimistic.

A few interviewees considered this information was important for them to make appropriate educational decisions; otherwise they would have made different choices had the return projections been not attractive. Several interviewees had more reservations although they agreed projections on returns were important. Their reservations were on personal ability to meet programmes requirements, applicability to oneself due to difference in each individual situation, dominating role of employers in the labour market and the fluctuating economic conditions. On the other hand, a few interviewees regarded the immediate returns on the human capital investment as unimportant because they looked for long-term returns and focused on improvement in job security. Two interviewees seemed to be confused and changed their conclusions about the importance of the projected information during the interviews. In short, prospective returnees may perceive the importance of projections of

returns on human capital investment differently because it is only one of the factors, but not the sole factor, affecting their educational choices.

How do the returnees compare human capital investment with financial investment?

A comparison between investments in human capital and finance is made in the literature review in Chapter 2 (see Pages 31 to 36). An interviewee pointed out that the commonality of financial investment and human capital investment in that the investors could both gain monetary returns by putting money into such investments. Many participants considered investors in the financial market were only aiming at monetary returns; whereas their further studies were after money, credentials, knowledge, social networks, increased confidence, satisfaction and security all at the same time. Furthermore, they expected that the payback period of human capital investment was over the long term and that of financial investment was over the short term. They perceived financial investment to be highly risky and two of them even associated it with gambling; whereas they believed that human capital investment was of low risk and they tended to be positively biased towards it. Rightly or wrongly, a few interviewees believed that financial investment required more initial capital than human capital investment. Also, most interviewees seemed to give higher priority to human capital investment than to financial investment when they were under financial constraints. This phenomenon might be related to the Chinese values and culture. Based on the above findings, prospective returnees are more likely to underestimate the risk involved in human capital investment and may make their educational decisions in a manner less rigorously than they make their financial investment decisions.

What opinions do the returnees have on the career guidance services in Hong Kong and self-efficacy in educational decision making?

This research reveals that the interviewees showed poor awareness of the existence of the career guidance services available to them in general. Many of them claimed that they had not heard of career guidance services or that they had heard of the term but knew nothing about it. It was also found that their propensity to using career guidance services was extremely low. Furthermore, many interviewees believed that career guidance services were provided only to

job seekers, full-time students and those who were uncompetitive in the labour market. They did not see themselves as target users of career guidance services. Besides, they generally held negative impressions on career guidance as it was expected for the uncompetitive or for those on the fringes of society in terms of education level, age or even mental health. As a result, they hesitated in using the service. Career guidance services especially for prospective returnees to higher education seem to be necessary (see Pages 154 to 155) and extensive promotion and advertisement should be carried out to change the above-mentioned negative perceptions (see Pages 155 to 157).

In addition, the interviewees speculated on the service quality of education guidance through making reference to their previous experience with job seeking service and educational talks. The guidance services were stated to be too general and to be in lack of in-depth coverage on specific fields of work. Also, guidance officers would ingratiate the clients by giving advice echoing their preference. Only one interviewee appreciated the opinion from another perspective provided by the guidance services.

Seeking information is one of the potential purposes for prospective returnees to use career guidance services and the relating obstacles are discussed earlier. Another concern with career guidance services mentioned by the interviewees was that counsellors might not have much in-depth understanding of returnees who sought their help. Hence, they would only provide limited assistance and advices. In addition, several interviewees clearly brought out the point about their unwillingness to discuss personal thoughts with a counsellor with whom they were not familiar.

Lack of awareness and misunderstanding about career guidance are two of the key problems that prevent prospective returnees from seeking information, advice and guidance. Prospective returnees in the middle and upper social classes will usually have a higher chance to make better educational decisions than those in the lower social classes because they and their family members are more likely to be in managerial and professional positions. They know more about the economy and the labour market and have better access to different kinds

of information. Hence, the returns on their human capital investment become more predictable. Social equity will be improved if the Government and other career guidance service providers can increase the returnees' awareness of the services through extensive advertising. Consequently, effective and efficient supports will be provided to all prospective returnees for their information seeking and educational decision making (see Pages 154 to 155).

The interviewees believed that they could make their own career and educational decisions at certain stage of life provided that they stayed in the same field. Half of them used the word 'mature' to describe the stage at which individuals could handle their career and educational decisions without guidance. Work experience, age, education level and marital status can all influence maturity of prospective returnees, and thus in becoming mature and self-efficacious in educational decision making. However, no fixed line can be drawn to clearly define maturity based on these factors. Career guidance service should be available to working people who have not yet reached the stage of self-efficacy. The services are also needed for those who intend to change their career to a brand new field.

Implications for policy

The questions listed on Page 16 are addressed in the above to answer the principal research topic. Next, through the findings of this research, a number of implications for policy are identified for the educational institutions and the Government in Hong Kong. They are namely: provision of guidance services especially for prospective returnees in the workforce; promotion of education guidance services; improvement of the quality of education guidance services; improvement in the provision of information and establishment of credit accumulation and transfer system.

Provision of guidance services especially for prospective returnees in the workforce

This research reveals that education guidance service was perceived to be mainly for full-time students (see Page 138). Although no service providers explicitly preclude the applicants and part-time students from using their services, it is generally understood to be so and there are

no specific education guidance services dedicated to these two groups. This implies that service providers, especially from educational institutions and the Government, are required to develop education guidance services to cater for the special needs of prospective returnees who are still in the workforce and being part-time students. On one hand, these service providers shall allow prospective returnees to obtain proper information or to learn the ways of obtaining information. By doing so, it can remove the obstacles of unavailability and negate the absence of channels to access different information sources (see Pages 127 to 128). They can also facilitate prospective returnees to analyse their situation when the returnees are making their educational decisions.

On the other hand, the Government and the educational institutions can get information on what potential students want during guidance services, and the information can be used as inputs to education policy in Hong Kong and for developing programmes respectively. The educational institutions can promote their programmes and eventually acquire suitable students from the competitive academic markets and reduce dropout. Such education guidance services may provide win-win solutions to both prospective returnees in the workforce and the service providers.

Furthermore, the Government, instead of employers, career magazines, newspapers, and educational institutions, can take an active role in the provision of the guidance services to prospective returnees in the workforce. By doing so, the prospect of the conflict of interests between different parties can be minimised (see Pages 129 to 130). Actually, private educational counselling services, for which clients pay to acquire their services, can also help in avoiding the prospect of conflict of interests. However, this type of service is not popular in Hong Kong. The general public may not be able to benefit from private educational counselling services due to the fees involved.

Promotion of education guidance services

This research shows that the awareness of guidance services was poor as discussed from Pages 137 to 138 of Chapter 5. Across different age groups, six out of those seven

interviewees who were unaware of career guidance services were below 35 years of age. It means that a large proportion of young prospective returnees have not taken note of the education guidance. Although the Whole School Approach to the guidance services was implemented in 1992, the services in career guidance did not seem to have taken roots in the students' mind. A gap existed between the policy of the Whole School Approach and the practice. Apart from the developmental and preventive focus of the Whole School Approach, improvement is still needed to let the current students know what guidance services are and how to seek them in the future. The above findings imply the Government is needed to remedy the situation by both short-term and long-term solutions. Brochures can be prepared to contain checklists and guidelines for making educational decisions (Indiana Career and Postsecondary Advancement Center, 1999). Prospective returnees can use such information as a quick reference. In parallel, the Government can put more emphasis on marketing to promote guidance services to the public as most individual people do not seem to know their purposes.

When the public can recognise the usefulness of education guidance, the utilisation rate of the services shall be improved in comparison with the poor situation found in this research where only two out of the sixteen interviewees did use the services (see Page 96). With wider publicity and better usage of education guidance, the obstacles relating to the returnees in information seeking discussed on Pages 127 to 132 of Chapter 5 can be reduced or even eliminated. Prospective returnees can become better informed about the existence of different kinds of information and ways to obtain information in making educational choices. Besides, they can more accurately predict the expected salary increase that can represent the potential returns on their human capital investment. Educational decisions will be taken more seriously with less inaction and passiveness when adequate information and education guidance become a norm. The returnees will no longer make any wrong assumptions nor fear that they will be rejected during information seeking.

Policy should be developed to change the impression of guidance services to the public. First, guidance services are not just dedicated for job seeking, but also include education guidance

(see Page 138). Secondly, the negative impression that such guidance is reserved only for the uncompetitive ones (see Pages 138 to139) is required to remove through educating the public. Finally, users of the guidance services can be anybody who wants to improve on his or her information seeking, to obtain a thorough review of his or her situation, and to generally make a better decision. A more harmonious society can ensue.

Improvement of the quality of education guidance services

This research reveals that many interviewees were concerned with the quality of education guidance service (see Pages 139 to 140). Education guidance services are expected to provide in-depth advice; otherwise the services are considered to be too general and superficial. This suggests specialist guidance may be necessary. The service providers can either identify counselling experts with comprehensive knowledge in different industries or provide training and support to them in order to increase their knowledge in different industries and to keep their knowledge up-to-date.

Furthermore, policies can be set to establish partnership programmes between lecturers and guidance officers in educational institutions to create a synergistic effect. Some interviewees mentioned that they were unwilling to discuss personal thoughts with strangers (see Page 140). The Government and universities can enhance their official websites to provide on-line counselling services so as to assist and supplement face-to-face career decision-making counselling process (Offer and Sampson, 1999; Sampson, 1999; Gore and Leuwerke, 2000; Gati and Saka, 2001; Kleiman and Gati, 2004).

Under the partnership programme between lecturers and guidance officers, prospective returnees are very likely to feel more comfortable in discussing their issues. In this way, they may seek information and guidance more proactively. Once they know and get familiar with this type of guidance channel, they will recommend this source of information and guidance to the next potential cohort through peer influence. With proper promotion to the public, the partnership programme can become a success. Educational institutions can have more opportunities to recommend suitable programmes to prospective returnees. Furthermore,

when returnees wish to pursue further studies for the next level such as for a master degree, the educational institutions should be able to explain their credit accumulation and transfer system in detail (see Pages 158 to 159). This will be another attractive point to prospective returnees.

Improvement in the provision of information

Quality of information is critical. Especially when prospective returnees are busy, they will only want to get precise and high quality information. The findings in Chapter 5 imply that at least five areas of improvement in the information provision are necessary. First, the information should be accurate and up-to-date. This research reveals that such a basic requirement was not always fulfilled (see Page 131). Secondly, it will be an ideal if the length of information is long enough to cover all vital points yet short enough to keep readers interested. Thirdly, peers are a key source of information to returnees (see Page 115). Educational institutions should consider inviting previous cohorts as mentors and volunteers to help in answering questions from prospective returnees and share with them their experience of the academic programme. This can help prospective returnees feel comfortable and assured of the programme and the information they get. Fourthly, many interviewees basically held convictions that projections on returns of human capital investment were useful in supporting their educational decision making (see Pages 132 to 133). For that reason, such information in the form of employment prospects and salary scale forecasts upon finishing the programme should be included as part of the basic programme information. Lastly, the Government can establish guidelines, or even make it compulsory that education providers declare the risk involved in the academic programme (for example, the recognition status by professional bodies) and provide information on the prospect of the related field of work associated with the programme. This can reduce the chance of prospective returnees being misled and will improve the reliability of the information. Hence the concerns over possible conflict of interests of educational institutions can be addressed in some ways (see Page 130).

Establishment of credit accumulation and transfer system

Many interviewees in this research expressed their concerns over possibilities for credit

transfer and exemptions (see Pages 112 to 113) because the doubts in this aspect increased the uncertainties of the time and money they needed to be committed for a programme. This means that a credit accumulation and transfer system should be developed among institutions of higher education in Hong Kong even though the development is expected to be a difficult and lengthy process. The operation of the system is needed to be transparent to applicants. Having such system, education institutions will need to be better organised in the evaluation of credit transfer and exemptions. Prospective returnees can estimate the time and money commitment needed for a programme accurately before they decide on applying for or enrolling in it. In theory, drop-out rate and wastage of any programme can be reduced and resources can be better utilised.

Recently, the Qualifications Framework was launched in Hong Kong. The Specification of Competency Standards developed under the Qualifications Framework is industry-specific. An independent corporate quality assurance body, Joint Quality Review Committee (JQRC), was established in August 2005. It was formed by the eight local institutions that were funded by the University Grants Committee to oversee the quality of the self-financing sub-degree programmes and to advise the institutions on the classification of programmes under the Qualifications Framework (Hong Kong Qualifications Framework, 2008b and 2008c). The peer review functions of the quality assurance processes on the self-financing sub-degree programmes can be extended further to other degree-awarding programmes and to the next level of courses and credits. The results of the peer review can become the first-steps in the establishment of the encompassing credit accumulation and transfer system. In the next section, the limitations and further studies are discussed.

Limitations and further studies

Prior to the final conclusion of this research, limitations to this research are worth considering. First, the study was carried out in the unique context of Hong Kong during the period from 2004 to 2008. It is possible that the findings, hence the associated policy implications, might be completely different for research done in other locations due to the difference in history, culture, educational system, economic environment, human capital situation, career guidance

services and other context. In addition, the economic conditions might significantly affect the returnees to make their educational decisions. The field work of this research was taken after the economy of Hong Kong was badly struck by the Asian financial crisis and an outbreak of the SARS respiratory disease. It was one of the worst moments in the economic cycle in Hong Kong. In accordance with changes in economic conditions, prospective returnees are likely to alter their information seeking activities and the expectations of the returns on human capital investment to their educational decisions from seeking career advancement to ensuring job security or vice versa. Another limitation is the possible bias in the interpretations and findings. No two people are alike. The individual differences of the participants might cause bias in the findings in the quantitative interviews of this research. However, the interviewees were the typical returnees to higher education in Hong Kong. Some were optimists and some were pessimists. Some were idealists and some were realists. It is observed that no particular group of individuals was dominant. In addition, the quantitative part analysed a limited number of questionnaires under the constraints of this research. The non-parametric data collected from the questionnaires were tested statistically using the Spearman rank order correlation, Mann-Whitney U-test, Kruskal-Wallis analysis of variables and Dunn's multiple comparison test. The findings were then subject to the risk of generalisation.

Economic conditions can be taken as a factor in information-seeking process for making educational decisions and studied thoroughly in future research. Also, longitudinal studies can be performed to examine how the information-seeking process exercised by returnees affects the accuracy of the final outcomes upon completing their programme. These further studies can intensify the understanding of information-seeking and educational decision-making processes.

Conclusion

The intent of this research is to study how working returnees to higher education in Hong Kong seek information when making educational decisions and; to identify areas for improvement in their educational decision making by using an evidence-based approach and to help them make decisions right the first time. When prospective returnees are intending to

pursue further studies as an investment, the projections on the returns on human capital investment are important especially for those having heavy financial burdens. Using a combination of the quantitative and qualitative methods, 67 sets of questionnaires were collected and 16 returnees were interviewed to analyse their perceptions on the information-seeking process and the available career guidance services for making educational decisions.

These 16 interviewees freely disclosed information regarding their career plans, difficulties, and views on their pursuit of further studies and the related information-seeking and decision-making processes. Together with the results from the returned questionnaires, this research suggests a list of policy implications. Although the provision of information for educational decision has been observed to have improved during the study period, other issues relating to credit accumulation and transfer system and education guidance services are still unchanged. It is hoped that this study would assist different education guidance services providers to acquire a better understanding of the thoughts of prospective returnees in their information seeking and educational decision making. Thereby the services offered to them will be improved in order to achieve a win-win situation for all parties concerned.

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APPENDIX A:

The questionnaire

INFORMATION SHEET

The aim of the project is to study whether there is a demand for profession guidance service on education decision making for young adults using human capital theory in Hong Kong. That is, the demand for financial information and capital investment projections such as expected salaries and potential job opportunities during educational decision making will be studied.

You (the participant) are asked to participate in the research by completing the attached questionnaire (it will take about 15 minutes to complete). If having done that you are willing to join the interview phase of the research, you can indicate this on the questionnaire. If you are willing, you may be selected to join a one hour follow up individual interview.

Your information will be used strictly for this research and the information gained during the study may be published. However, you will not be identified individually and your personal results will remain confidential. Only the researcher and my supervisor named below will have access to the data. At the appropriate time, the examiners of this research will have the right to access to the data.

Your participation in the research is completely voluntary. You are at liberty to withdraw at any time without prejudice or negative consequences. Non-participation will not affect your rights to your study. If there are any potential risks, harms and benefits, the researcher will identify and inform you at every stage.

You may contact the researcher or supervisor if you would like to obtain further information about the research. Should you wish to make a complaint relating to my involvement in the research on ethical grounds, you may contact the Research Ethics Coordinator of the School of Education, University of Nottingham, England. Contact details are show below:

Researcher:
Ms KWOK Ka Yin
Tel: +852 9136 7672; Email: kkwok_hkpu@yahoo.com.hk

Supervisor:
Dr. Chris ATKIN
Tel: +44 (0) 115 951 3041; Email: chris.atkin@nottingham.ac.uk

School of Education Research Ethics Coordinator:
Dr. Andrew HOBSON
Tel: +44 (0)115 951 4417; Email: andrew.hobson@nottingham.ac.uk

Career Information Needs in Educational Decision Making Questionnaire

Instruction:

Listed below are a number of information needs in educational decision making. For each of the items, please identify the response which best describes the level of need you want or the amount of information you can obtain.

For each item, please select the most appropriate response.

1 ….. I need none at all	and	1 ….. I can obtain none at all
2 ….. I need only a little		2 ….. I can obtain only a little
3 ….. I need a moderate amount		3 ….. I can obtain a moderate amount
4 ….. I need a lot		4 ….. I can obtain a lot

Before making educational decision, how much information do I need / can I obtain in order to:	**Need** 1 2 3 4 None ⟷ A Lot	**Obtain** 1 2 3 4 None ⟷ A Lot
1. Learn more about employment trends (i.e. employment growth) regarding my current job or next career move ……..……..……	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
2. Identify the expected salary scale in the field of my current job or next career move…….……..	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
3. Identify the work environment regarding my current job or next career move……	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
4. Identify the skills requirement regarding my current job or next career move…….	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
5. Identify the academic qualification information regarding my current job or next career move……...……...…….	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
6. Identify the potential salary range that a person with my experience, skills, and academic qualification (after completion of this program) can expect to earn…….	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
7. Identify the career advancement opportunities after completion of this program…	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
8. Predict the likelihood of achieving my career goals by completing the selected program…….…….……	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
9. Identify the specific factors I need to weigh regarding career-related decisions…	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
10. Identify the criteria I should use to make a decision regarding my next career move…….……	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
11. Gain an understanding of how my experience, skills, and academic qualification relate to my career goals…….…….……	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
12. Learn how to identify individuals who currently are employed in a career field that I am interested in pursuing…….….	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
13. Learn how to identify individuals with whom I can meet to learn about the career(s) I am interested in pursuing…….….	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
14. Identify work or volunteer opportunities in which I can participate in order to test the match between my interests, skills, values, etc, and the next career move I am considering…….……	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐

Demographic Information Sheet

(Please select the most appropriate response)

1. Your gender: ☐ Male ☐ Female

2. Your age: ☐ below 25 ☐ 25 – 34 ☐ 35 – 44 ☐ 45 or Above

3. How many years were you out of school before you began attending your current study? ……. Years

4. What is the highest level of education you had attained?
   ☐ Secondary level
   ☐ Certificate / High Certificate / Diploma / High Diploma / Professional Diploma / Associate Degree
   ☐ Bachelor Degree
   ☐ Master Degree or above

5. Which is the purpose of your study?
   ☐ Solely for leisure and fun
   ☐ Mainly for leisure and fun
   ☐ Mainly for career development and lifelong investment
   ☐ Solely for career development and lifelong investment

6. Did you enter your study program with definite career plans?
   ☐ Definite career plans
   ☐ Tentative career plans
   ☐ Undefined career plans

7. Do you plan to change job or career move upon the completion of your study program?
   ☐ Yes
   ☐ No
   ☐ Not sure

8. Do you expect improvement in your job security upon the completion of your study program?
   ☐ Yes
   ☐ No
   ☐ Not sure

9. Do you expect to have career advancement upon the completion of your study program?
   ☐ Yes
   ☐ No
   ☐ Not sure

10. How much salary increase would you expect in 12 months after completing your study program?
    Net increase in HKD …… (per month)

11. What is the total tuition fee of your entire study program?
    Fee per credit (HKD ……) x No. of Credit (……) = HKD ……

12. Have you obtained any subsidies from your company for studying this program?
    ☐ Yes, please specify the amount: HKD …… (in total)
    ☐ No

13. Would you like to join the next phase of the research (about one hour interview discussion)?

    ☐ Yes, please fill in the contact method:

    Name :_____

    Email :_____

    Mobile Phone :_____

    ☐ No

- THANK YOU -

APPENDIX B:

The question schedule for the semi-structured interviews

The question schedule for the semi-structured interviews:

1. Do you have a career plan? What is it? How does your career plan affect your educational decision making and the choice of study program?

2. How do job security, job change, and career advancement affect your educational decision-making and choice of program? Why?

3. In what ways does your employer support or not support your study? How do these supports and obstructive stances provided by your company affect your educational decision?

4. What type of information do you need before making your educational decision and why? Is there any other information you need but you cannot obtain? What is it?

5. How do human capital investment projections affect your educational decisions?

6. What prevents you from obtaining the information you need?

7. What type of information you need the most and which one you need the least? Why?

8. How do you obtain information for your educational decisions?

9. What are the similarities and difference between investing in education and in other financial instruments?

10. What do you know about the career guidance in Hong Kong? Have you used the services? What are your comments on it? Do you have any suggestions to these services?

11. What are the possible changes for your educational decision making if the current career guidance is changed as what you have suggested above?

12. At which stage do you feel comfortable to handle the career information and career planning by yourself completely without the help of career guidance? Why?

APPENDIX C: Participant Consent Form

PARTICIPANT CONSENT FORM

Project title: Professional Guidance in Educational Decision Making for Young Adults using Human Capital Theory. Is there a need in Hong Kong?

Researcher's name: KWOK Ka Yin

Supervisor's name: Dr. Chris ATKIN

- I have read the Participant Information Sheet and the nature and purpose of the research project has been explained to me. I understand and freely agree to take part.
- I understand the purpose of the research project and my involvement in it.
- I understand that I may withdraw from the research project at any stage and that this will not affect my status now or in the future.
- I understand that while the information gained during the study may be published in journals or thesis and may be assessed by others, I will not be identified and my personal results will remain confidential.
- I understand that I will be audio taped during the interview.
- I understand that data will be stored in both hard and electronic copies of the questionnaires and the transcripts as well as the audio tapes used. The data will be held securely and kept for two years upon the completion of the research thesis and then destroyed. Only the researcher and the supervisor named above will have access to the data.
- I understand that I may contact the researcher or supervisor if I require further information about the research, and that I may contact the Research Ethics Coordinator of the School of Education, University of Nottingham, if I wish to make a complaint relating to my involvement in the research.

Signed …… (research participant)

Print name …… Date ……

Contact details
Researcher: KWOK Ka Yin
(Tel: +852 9136 7672; email: kkwok_hkpu@yahoo.com.hk)

Supervisor: Dr. Chris ATKIN
(Tel: +44 (0) 115 951 3041; email: chris.atkin@ nottingham.ac.uk)

School of Education Research Ethics Coordinator: Dr. Andrew HOBSON
(email: andrew.hobson@nottingham.ac.uk)

APPENDIX D: Statistical Test Results

Table 11: Summary of the conclusions of the Spearman Rank Order Correlation for each type of information

Do the rank order positions for Information Need correlate with the rank order position for Information Obtainment with confidence level at 0.05 in one-sided test?			
	No.	Information on	
Regarding current job or next career move	1	Employment trends	Significantly Correlated
	2	Expected salary scale	Not Significantly Correlated
	3	Work environment	Significantly Correlated
	4	Skills requirement	Not Significantly Correlated
	5	Academic qualification information	Significantly Correlated
Upon completion of this programme	6	Potential salary range	Not Significantly Correlated
	7	Career advancement opportunities	Not Significantly Correlated
	8	Likelihood of achieving the career goals	Significantly Correlated
Career-related decisions	9	Specific factors needed to weigh	Significantly Correlated
	10	Criteria to be used	Not Significantly Correlated
	11	Understanding of competence requirement	Not Significantly Correlated
Social capital	12	Individuals who are currently employed in the targeted field	Not Significantly Correlated
	13	Individuals to learn about the career	Significantly Correlated
	14	Work or volunteer opportunities	Not Significantly Correlated

Table 12: Summary of the Spearman Rank Order Correlation for each type of information

Ho = Zero Correlation	Employment trends	Expected salary scale	Work environment	Skills requirement	Academic qualification information	Potential salary range	Career advancement opportunities	Likelihood of achieving the career goals	Specific factors needed to weigh	Criteria to be used	Understanding of competence requirement	Individuals who are currently employed in the targeted field	Individuals to learn about the career	work or volunteer opportunities
Correlation (not corrected)	0.363	0.046	0.432	0.180	0.464	-0.049	0.307	0.428	0.401	0.279	0.268	0.321	0.337	0.280
Correlation (corrected)	0.239	-0.103	0.282	0.032	0.359	-0.214	0.186	0.321	0.247	0.118	0.098	0.223	0.228	0.135
t-Test (n>10)	1.789	-0.752	2.141	0.228	2.797	-1.593	1.368	2.469	1.858	0.864	0.719	1.668	1.707	0.979
Degrees of Freedom	53	53	53	52	53	53	52	53	53	53	53	53	53	52
Critical 1-sided T-value (5%)	1.684	1.684	1.684	1.684	1.684	1.684	1.684	1.684	1.684	1.684	1.684	1.684	1.684	1.684
D-square value (calculated)	17670	26455	15751.5	21501	14852	29074.5	18176	15842	16604.5	19994	20289	18812	18366.5	18900
D-square value (expected)	27720	27720	27720	26235	27720	27720	26235	27720	27720	27720	27720	27720	27720	26235
Standard Deviation	3772.214	3772.214	3772.214	3603.654	3772.214	3772.214	3603.654	3772.214	3772.214	3772.214	3772.214	3772.214	3772.214	3603.654
z-Test	-2.664	-0.335	-3.173	-1.314	-3.411	0.359	-2.236	-3.149	-2.947	-2.048	-1.970	-2.361	-2.480	-2.035
Probability	0.0076	0.7338	0.0014	0.1868	0.0006	0.7188	0.025	0.0016	0.0032	0.0404	0.0488	0.0178	0.0132	0.0414

Table 13: Summary of the conclusions of Mann-Whitney U-Test between needs and obtainment for each type of information

A = Need B = Obtain			
Test with confidence level at p-value = 0.05			Do the medians of A and B differ significantly?
	No.	Information on	
Regarding current job or next career move	1	Employment trends	Significantly Different
	2	Expected salary scale	Significantly Different
	3	Work environment	Significantly Different
	4	Skills requirement	Significantly Different
	5	Academic qualification information	Significantly Different
Upon completion of this programme	6	Potential salary range	Significantly Different
	7	Career advancement opportunities	Significantly Different
	8	Likelihood of achieving the career goals	Significantly Different
Career-related decisions	9	Specific factors needed to weigh	Significantly Different
	10	Criteria to be used	Significantly Different
	11	Understanding of competence requirement	Significantly Different
Social capital	12	Individuals who are currently employed in the targeted field	Significantly Different
	13	Individuals to learn about the career	Significantly Different
	14	Work or volunteer opportunities	Significantly Different

Table 14: Summary of the Mann-Whitney U-Tests between needs and obtainment for each type of information

A=Need B=Obtain	Employment trends	Expected salary scale	Work environment	Skills requirement	Academic qualification information	Potential salary range	Career advancement opportunities	Likelihood of achieving the career goals	Specific factors needed to weigh	Criteria to be used	Understanding of competence requirement	Individuals who are currently employed in the targeted field	Individuals to learn about the career	work or volunteer opportunities
The two tailed P value =	<0.0001	<0.0001	<0.0001	<0.0001	0.0023	<0.0001	<0.0001	0.0004	0.0003	<0.0001	0.0005	0.0001	0.0014	<0.0001
considered	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.
Mann-Whitney U-Statistic =	836.0	641.5	855.5	777.0	1006.0	679.5	762.0	924.0	908.5	718.5	936.5	874.5	979.5	797.5
U' =	2189.0	2383.5	2169.5	2139.0	2019.0	2345.5	2154.0	2101.0	2116.5	2306.5	2088.5	2150.5	2045.5	2118.5
Sum of ranks in A =	3729.0	3923.5	3709.5	3624.0	3559.0	3885.5	3639.0	3641.0	3656.5	3846.5	3628.5	3690.5	3585.5	3603.5
Sum of ranks in B =	2376.0	2181.5	2395.5	2262.0	2546.0	2219.5	2247.0	2464.0	2448.5	2258.5	2476.5	2414.5	2519.5	2282.5
Mean A =	3.164	3.073	3.073	3.222	3.109	3.109	3.148	2.818	2.673	3.109	3.127	2.727	2.745	2.815
Mean B =	2.509	2.109	2.473	2.519	2.600	2.200	2.407	2.236	2.127	2.255	2.582	2.036	2.164	2.130
No. of points in A =	55	55	55	54	55	55	54	55	55	55	55	55	55	54
No. of points in B =	55	55	55	54	55	55	54	55	55	55	55	55	55	54

Table 15: Summary of the conclusions of Mann-Whitney U-Test between genders for the needs of each type of information

A = under the condition of "Male" B = under the condition of "Female"			
Test with confidence level at p-value = 0.05			Do the medians of A and B differ significantly?
	No.	Information on	Need
Regarding current job or next career move	1	Employment trends	Not Significantly Different
	2	Expected salary scale	Not Significantly Different
	3	Work environment	No Significantly Different
	4	Skills requirement	Not Significantly Different
	5	Academic qualification information	Not Significantly Different
Upon completion of this programme	6	Potential salary range	Not Significantly Different
	7	Career advancement opportunities	Not Significantly Different
	8	Likelihood of achieving the career goals	Not Significantly Different
Career-related decisions	9	Specific factors needed to weigh	Not Significantly Different
	10	Criteria to be used	Not Significantly Different
	11	Understanding of competence requirement	Not Significantly Different
Social capital	12	Individuals who are currently employed in the targeted field	Not Significantly Different
	13	Individuals to learn about the career	Not Significantly Different
	14	Work or volunteer opportunities	Not Significantly Different

Table 16: Summary of the Mann-Whitney U-Tests between genders for the needs of each type of information

A=Male B=Female	Employment trends	Expected salary scale	Work environment	Skills requirement	Academic qualification information	Potential salary range	Career advancement opportunities	Likelihood of achieving the career goals	Specific factors needed to weigh	Criteria to be used	Understanding of competence requirement	Individuals who are currently employed in the targeted field	Individuals to learn about the career	work or volunteer opportunities
The two tailed P value =	0.6499	0.2542	0.6568	0.3210	0.6960	0.1158	0.6048	0.7516	0.7035	0.8494	0.8991	0.0973	0.3977	0.6715
considered	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
Mann-Whitney U-Statistic =	220.0	187.5	220.5	190.0	223.0	167.0	212.0	226.5	223.5	232.5	235.5	163.0	201.5	200.5
U' =	254.0	296.5	263.5	283.0	261.0	317.0	261.0	257.5	260.5	251.5	248.5	321.0	282.5	239.5
Sum of ranks in A =	1210.0	1177.5	1253.5	1136.0	1213.0	1157.0	1158.0	1216.5	1250.5	1222.5	1225.5	1153.0	1191.5	1190.5
Sum of ranks in B =	330.0	362.5	286.5	349.0	327.0	383.0	327.0	323.5	289.5	317.5	314.5	387.0	348.5	294.5
Mean A =	3.136	3.000	3.091	3.163	3.091	3.023	3.116	2.795	2.705	3.091	3.114	2.636	2.705	2.795
Mean B =	3.273	3.364	3.000	3.455	3.192	3.455	3.273	2.909	2.545	3.182	3.182	3.091	2.909	2.900
No. of points in A =	44	44	44	43	44	44	43	44	44	44	44	44	44	44
No. of points in B =	11	11	11	11	11	11	11	11	11	11	11	11	11	10

Table 17: Summary of the conclusions of Mann-Whitney U-Test between degree holders and non-degree holders for the needs of each type of information

A = under the condition of "non-degree holder" B = under the condition of "degree holder"			
Test with confidence level at p-value = 0.05			Do the medians of A and B differ significantly?
	No.	Information on	Need
Regarding current job or next career move	1	Employment trends	No Significantly Different
	2	Expected salary scale	No Significantly Different
	3	Work environment	No Significantly Different
	4	Skills requirement	No Significantly Different
	5	Academic qualification information	No Significantly Different
Upon completion of this programme	6	Potential salary range	No Significantly Different
	7	Career advancement opportunities	No Significantly Different
	8	Likelihood of achieving the career goals	No Significantly Different
Career-related decisions	9	Specific factors needed to weigh	No Significantly Different
	10	Criteria to be used	No Significantly Different
	11	Understanding of competence requirement	No Significantly Different
Social capital	12	Individuals who are currently employed in the targeted field	No Significantly Different
	13	Individuals to learn about the career	No Significantly Different
	14	Work or volunteer opportunities	No Significantly Different

Table 18: Summary of the Mann-Whitney U-Tests between degree holders and non-degree holders for the needs of each type of information

A = non-degree holder B = degree holder	Employment trends	Expected salary scale	Work environment	Skills requirement	Academic qualification information	Potential salary range	Career advancement opportunities	Likelihood of achieving the career goals	Specific factors needed to weigh	Criteria to be used	Understanding of competence requirement	Individuals who are currently employed in the targeted field	Individuals to learn about the career	work or volunteer opportunities
The two tailed P value =	0.9267	0.5000	0.0746	0.6682	0.9429	0.7669	0.5484	0.8221	0.7279	0.7825	0.7512	0.7361	0.9022	0.2673
considered	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
Mann-Whitney U-Statistic =	253.0	224.5	170.5	231.0	254.0	243.0	216.0	246.5	240.5	244.0	242.0	241.0	251.5	198.5
U' =	263.0	291.5	345.5	273.0	262.0	273.0	288.0	269.5	275.5	272.0	274.0	275.0	264.5	305.5
Sum of ranks in A =	1209.0	1170.5	1116.5	1176.0	1208.0	1189.0	1191.0	1215.5	1221.5	1190.0	1220.0	1221.0	1197.5	1208.5
Sum of ranks in B =	331.0	369.5	423.5	309.0	332.0	351.0	294.0	324.5	318.5	350.0	320.0	319.0	342.5	276.5
Mean A =	3.163	3.047	2.977	3.238	3.116	3.093	3.190	2.837	2.698	3.093	3.163	2.767	2.767	2.881
Mean B =	3.167	3.167	3.417	3.167	3.083	3.167	3.000	2.750	2.583	3.000	3.000	2.583	2.667	2.583
No. of points in A =	43	43	43	42	43	43	42	43	43	43	43	43	43	42
No. of points in B =	12	12	12	12	12	12	12	12	12	12	12	12	12	12

Table 19: Summary of the conclusions of Kruskal-Wallis analysis of variance among different number of years out of school before the returnees study the current programme for the needs of each type of information

A = under the condition of "<5"; B = under the condition of "5-9"; C= under the condition of ">9"			
Test with confidence level at p-value = 0.05			Do the medians of A, B and C differ significantly?
	No.	Information on	Need
Regarding current job or next career move	1	Employment trends	Significantly Different
	2	Expected salary scale	Significantly Different
	3	Work environment	No Significantly Different
	4	Skills requirement	No Significantly Different
	5	Academic qualification information	No Significantly Different
Upon completion of this programme	6	Potential salary range	Significantly Different
	7	Career advancement opportunities	No Significantly Different
	8	Likelihood of achieving the career goals	No Significantly Different
Career-related decisions	9	Specific factors needed to weigh	No Significantly Different
	10	Criteria to be used	No Significantly Different
	11	Understanding of competence requirement	No Significantly Different
Social capital	12	Individuals who are currently employed in the targeted field	Significantly Different
	13	Individuals to learn about the career	Significantly Different
	14	Work or volunteer opportunities	No Significantly Different

Table 20: Summary of the Kruskal-Wallis analysis of variance among different number of years out of school before the returnees study the current programme for the needs of each type of information

A = <5 B = 5-9 C= >9	Employment trends	Expected salary scale	Work environment	Skills requirement	Academic qualification information	Potential salary range	Career advancement opportunities	Likelihood of achieving the career goals	Specific factors needed to weigh	Criteria to be used	Understanding of competence requirement	Individuals who are currently employed in the targeted field	Individuals to learn about the career	work or volunteer opportunities
The P value =	0.0140	0.0421	0.7595	0.2930	0.0852	0.0390	0.1360	0.5329	0.1680	0.2704	0.3554	0.0192	0.0388	0.3286
considered	s.	s.	n.s.	n.s.	n.s.	s.	n.s.	n.s.	n.s.	n.s.	n.s.	s.	s.	n.s.
No. of Points: A	27	27	27	27	27	27	27	27	27	27	27	27	27	26
B	9	9	9	8	9	9	8	9	9	9	9	9	9	9
C	9	9	9	9	9	9	9	9	9	9	9	9	9	9
Sum of ranks: A	737.0	721.5	612.5	666.5	706.5	723.5	683.5	665.5	691.5	686.5	645.0	728.5	719.0	635.0
B	159.0	150.0	194.0	147.5	155.0	147.5	153.0	180.0	186.0	169.5	228.0	133.5	162.0	194.0
C	139.0	163.5	228.5	176.0	173.5	164.0	153.5	189.5	157.5	179.0	162.0	173.0	154.0	161.0
Mean of ranks: A	27.296	26.722	22.685	24.685	26.167	26.796	25.315	24.648	25.611	25.426	23.889	26.981	26.630	24.423
B	17.667	16.667	21.556	18.438	17.222	16.389	19.125	20.000	20.667	18.833	25.333	14.833	18.000	21.556
C	15.444	18.167	25.389	19.556	19.278	18.222	17.056	21.056	17.500	19.889	18.000	19.222	17.111	17.889
Kruskal-Wallis statistic KW (Corrected for ties)=	8.542	6.335	0.550	2.455	4.926	6.489	3.000	1.259	3.568	2.616	2.069	7.909	6.499	2.226

Table 21: Dunn's Multiple Comparisons Test among different number of years out of school before the returnees study the current programme for the needs of employment trends information

A = <5 B = 5-9 C= >9			
Comparison	Mean Rank Difference	P value	S or NS
A against B	9.630	P>0.05	NS
A against C	11.852	P<0.05	S
B against C	2.222	P>0.05	NS
Summary of Data	No. of Points	Medium	Mean
A	27	4	3.333
B	9	3	2.778
C	9	3	2.556

Table 22: Dunn's Multiple Comparisons Test among different number of years out of school before the returnees study the current programme for the needs of expected salary scale information

A = <5 B = 5-9 C= >9			
Comparison	Mean Rank Difference	P value	S or NS
A against B	10.056	P>0.05	NS
A against C	8.556	P>0.05	NS
B against C	-1.500	P>0.05	NS
Summary of Data	No. of Points	Medium	Mean
A	27	3	3.370
B	9	3	2.667
C	9	3	2.667

Table 23: Dunn's Multiple Comparisons Test among different number of years out of school before the returnees study the current programme for the needs of potential salary range information

A = <5 B = 5-9 C= >9			
Comparison	Mean Rank Difference	P value	S or NS
A against B	10.407	P>0.05	NS
A against C	8.574	P>0.05	NS
B against C	-1.833	P>0.05	NS
Summary of Data	No. of Points	Medium	Mean
A	27	4	3.333
B	9	4	2.667
C	9	4	2.778

Table 24: Dunn's Multiple Comparisons Test among different number of years out of school before the returnees study the current programme for the needs of information about individuals who are currently employed in the targeted field

A = <5 B = 5-9 C= >9			
Comparison	Mean Rank Difference	P value	S or NS
A against B	12.148	P<0.05	S
A against C	7.759	P>0.05	NS
B against C	-4.389	P>0.05	NS
Summary of Data	No. of Points	Medium	Mean
A	27	3	3.000
B	9	2	2.222
C	9	2	2.444

Table 25: Dunn's Multiple Comparisons Test among different number of years out of school before the returnees study the current programme for the needs of information about individuals to learn about the career

A = <5 B = 5-9 C= >9			
Comparison	Mean Rank Difference	P value	S or NS
A against B	8.630	P>0.05	NS
A against C	9.519	P>0.05	NS
B against C	0.8889	P>0.05	NS
Summary of Data	No. of Points	Medium	Mean
A	27	3	3.000
B	9	3	2.444
C	9	2	2.333

Table 26: Summary of the conclusions of Kruskal-Wallis analysis of variance among the different age ranges for the needs of each type of information

A = under the condition of "<25" B = under the condition of "25-34" C= under the condition of "35-44"			
Test with confidence level at p-value = 0.05			Do the medians of A, B and C differ significantly?
	No.	Information on	Need
Regarding current job or next career move	1	Employment trends	Significantly Different
	2	Expected salary scale	Significantly Different
	3	Work environment	No Significantly Different
	4	Skills requirement	No Significantly Different
	5	Academic qualification information	No Significantly Different
Upon completion of this programme	6	Potential salary range	Significantly Different
	7	Career advancement opportunities	No Significantly Different
	8	Likelihood of achieving the career goals	No Significantly Different
Career-related decisions	9	Specific factors needed to weigh	No Significantly Different
	10	Criteria to be used	No Significantly Different
	11	Understanding of competence requirement	No Significantly Different
Social capital	12	Individuals who are currently employed in the targeted field	No Significantly Different
	13	Individuals to learn about the career	No Significantly Different
	14	Work or volunteer opportunities	No Significantly Different

Table 27: Summary of the Kruskal-Wallis analysis of variance among the different age ranges for the needs of each type of information

A = <25 B = 25-34 C= 35-44	Employment trends	Expected salary scale	Work environment	Skills requirement	Academic qualification information	Potential salary range	Career advancement opportunities	Likelihood of achieving the career goals	Specific factors needed to weigh	Criteria to be used	Understanding of competence requirement	Individuals who are currently employed in the targeted field	Individuals to learn about the career	work or volunteer opportunities
The P value =	0.0431	0.0115	0.5534	0.0619	0.5704	0.0392	0.0811	0.9591	0.1168	0.3070	0.3962	0.6604	0.2517	0.4205
considered	s	s	n.s.	n.s.	n.s.	s	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
No. of Points: A	10	10	10	10	10	10	10	10	10	10	10	10	10	10
B	33	33	33	32	33	33	32	33	33	33	33	33	33	32
C	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Sum of ranks: A	362.0	399.0	237.5	372.5	319.0	355.0	364.0	277.0	318.5	309.0	336.5	315.5	315.5	276.0
B	935.0	882.0	947.5	814.0	915.0	951.0	844.5	938.5	975.0	964.5	883.5	914.0	958.5	934.5
C	243.0	259.0	355.0	298.5	306.0	234.0	276.5	324.5	246.5	266.5	320.0	310.5	266.0	274.5
Mean of ranks: A	36.200	39.900	23.750	37.250	31.900	35.500	36.400	27.700	31.850	30.900	33.650	31.550	31.550	27.600
B	28.333	26.727	28.712	25.438	27.727	28.818	26.391	28.439	29.545	29.227	26.773	27.697	29.045	29.203
C	20.250	21.583	29.583	24.875	25.500	19.500	23.042	27.042	20.542	22.208	26.667	25.875	22.167	22.875
Kruskal-Wallis statistic KW (Corrected for ties) =	6.288	8.934	1.184	5.565	1.123	6.480	5.024	0.083	4.294	2.362	1.852	0.830	2.759	1.733

Table 28: Dunn's Multiple Comparisons Test among the different age ranges for the needs of employment trends information

A = <25 B = 25-34 C= 35-44			
Comparison	Mean Rank Difference	P value	S or NS
A against B	7.867	P>0.05	NS
A against C	15.950	P<0.05	S
B against C	8.083	P>0.05	NS
Summary of Data	No. of Points	Medium	Mean
A	10	4	3.600
B	33	3	3.182
C	12	3	2.740

Table 29: Dunn's Multiple Comparisons Test among the different age ranges for the needs of expected salary scale information

A = <25 B = 25-34 C= 35-44			
Comparison	Mean Rank Difference	P value	S or NS
A against B	13.173	P<0.05	S
A against C	18.317	P<0.05	S
B against C	5.144	P>0.05	NS
Summary of Data	No. of Points	Medium	Mean
A	10	4	3.700
B	33	3	3.030
C	12	3	2.667

Table 30: Dunn's Multiple Comparisons Test among the different age ranges for the needs of potential salary range information

A = <25 B = 25-34 C= 35-44			
Comparison	Mean Rank Difference	P value	S or NS
A against B	6.682	P>0.05	NS
A against C	16.000	P<0.05	S
B against C	9.318	P>0.05	NS
Summary of Data	No. of Points	Medium	Mean
A	10	3.5	3.500
B	33	3	3.152
C	12	2.5	2.667

Table 31: Summary of the conclusions of Mann-Whitney U-Test between genders for the obtainment of each type of information

A = under the condition of "Male" B = under the condition of "Female"			
Test with confidence level at p-value = 0.05			Do the medians of A and B differ significantly?
	No.	Information on	Obtain
Regarding current job or next career move	1	Employment trends	Not Significantly Different
	2	Expected salary scale	Not Significantly Different
	3	Work environment	Not Significantly Different
	4	Skills requirement	Not Significantly Different
	5	Academic qualification information	Not Significantly Different
Upon completion of this programme	6	Potential salary range	Significantly Different
	7	Career advancement opportunities	Not Significantly Different
	8	Likelihood of achieving the career goals	Not Significantly Different
Career-related decisions	9	Specific factors needed to weigh	Not Significantly Different
	10	Criteria to be used	Not Significantly Different
	11	Understanding of competence requirement	Not Significantly Different
Social capital	12	Individuals who are currently employed in the targeted field	Not Significantly Different
	13	Individuals to learn about the career	Significantly Different
	14	Work or volunteer opportunities	Not Significantly Different

Table 32: Summary of the Mann-Whitney U-Tests between genders for the obtainment of each type of information

A=Male B=Female	Employment trends	Expected salary scale	Work environment	Skills requirement	Academic qualification information	Potential salary range	Career advancement opportunities	Likelihood of achieving the career goals	Specific factors needed to weigh	Criteria to be used	Understanding of competence requirement	Individuals who are currently employed in the targeted field	Individuals to learn about the career	work or volunteer opportunities
The two tailed P value =	0.8907	0.3580	0.0519	0.0521	0.8246	0.0153	0.7300	0.7275	0.0984	0.2713	0.0728	0.1906	0.0474	0.1841
considered	n.s.	n.s.	n.s.	n.s.	n.s.	s	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	s	n.s.
Mann-Whitney U-Statistic =	235.0	198.0	149.5	146.0	231.0	126.5	220.0	225.0	163.5	189.5	156.5	179.5	147.5	160.0
U' =	249.0	286.0	334.5	327.0	253.0	357.5	253.0	259.0	320.5	294.5	327.5	304.5	336.5	280.0
Sum of ranks in A =	1225.0	1276.0	1324.5	1273.0	1221.0	1347.5	1166.0	1249.0	1310.5	1284.5	1317.5	1294.5	1326.5	1270.0
Sum of ranks in B =	315.0	264.0	215.5	212.0	319.0	192.5	319.0	291.0	229.5	255.5	222.5	245.5	213.5	215.0
Mean A =	2.500	2.159	2.568	2.268	2.591	2.341	2.395	2.250	2.205	2.318	2.682	2.114	2.295	2.205
Mean B =	2.545	1.909	2.091	2.091	2.636	1.636	2.455	2.182	1.818	2.000	2.182	1.727	1.636	1.800
No. of points in A =	44	44	44	44	44	44	43	44	44	44	44	44	44	44
No. of points in B =	11	11	11	11	11	11	11	11	11	11	11	11	11	10

Table 33: Summary of the conclusions of Kruskal-Wallis analysis of variance among different number of years out of school before the returnees study the current programme for the obtainment of each type of information

A = under the condition of "<5"; B = under the condition of "5-9"; C= under the condition of ">9"			
Test with confidence level at p-value = 0.05			Do the medians of A, B and C differ significantly?
	No.	Information on	Obtain
Regarding current job or next career move	1	Employment trends	No Significantly Different
	2	Expected salary scale	No Significantly Different
	3	Work environment	No Significantly Different
	4	Skills requirement	No Significantly Different
	5	Academic qualification information	No Significantly Different
Upon completion of this programme	6	Potential salary range	Significantly Different
	7	Career advancement opportunities	No Significantly Different
	8	Likelihood of achieving the career goals	No Significantly Different
Career-related decisions	9	Specific factors needed to weigh	No Significantly Different
	10	Criteria to be used	No Significantly Different
	11	Understanding of competence requirement	No Significantly Different
Social capital	12	Individuals who are currently employed in the targeted field	No Significantly Different
	13	Individuals to learn about the career	No Significantly Different
	14	Work or volunteer opportunities	No Significantly Different

Table 34: Summary of the Kruskal-Wallis analysis of variance among different number of years out of school before the returnees study the current programme for the obtainment of each type of information

A = <5 B = 5-9 C= >9	Employment trends	Expected salary scale	Work environment	Skills requirement	Academic qualification information	Potential salary range	Career advancement opportunities	Likelihood of achieving the career goals	Specific factors needed to weigh	Criteria to be used	Understanding of competence requirement	Individuals who are currently employed in the targeted field	Individuals to learn about the career	work or volunteer opportunities
The P value =	0.6418	0.2825	0.7287	0.1779	0.8156	0.0090	0.7640	0.5588	0.5395	0.3955	0.6217	0.7428	0.7233	0.5089
considered	n.s.	n.s.	n.s.	n.s.	n.s.	s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
No. of Points: A	27	27	27	27	27	27	27	27	27	27	27	27	27	26
B	9	9	9	8	9	9	8	9	9	9	9	9	9	9
C	9	9	9	9	9	9	9	9	9	9	9	9	9	9
Sum of ranks: A	605.0	610.5	591.0	554.5	628.5	501.0	598.5	583.5	581.5	671.0	594.5	601.5	618.5	547.0
B	194.0	171.5	216.0	174.5	186.0	280.0	201.0	238.5	217.5	182.0	203.5	232.5	229.5	237.5
C	236.0	253.0	228.0	261.0	210.5	253.5	190.5	213.0	236.0	182.0	237.0	201.0	187.0	205.5
Mean of ranks: A	22.407	22.611	21.889	20.537	23.278	18.556	22.167	21.611	21.537	24.852	22.019	22.278	22.907	21.038
B	21.556	19.056	24.000	21.813	20.667	31.111	25.125	26.500	24.167	20.222	22.611	25.833	25.500	26.389
C	26.222	28.111	25.333	29.000	23.389	28.167	21.167	23.667	26.222	20.222	26.333	22.333	20.778	22.833
Kruskal-Wallis statistic KW (Corrected for ties)=	0.887	2.528	0.633	3.453	0.408	9.427	0.539	1.164	1.234	1.855	0.951	0.595	0.648	1.351

Table 35: Dunn's Multiple Comparisons Test among different number of years out of school before the returnees study the current programme for the obtainment of potential salary range information

A = <5 B = 5-9 C= >9			
Comparison	Mean Rank Difference	P value	S or NS
A against B	-12.611	P<0.05	S
A against C	-9.611	P>0.05	NS
B against C	3.000	P>0.05	NS
Summary of Data	No. of Points	Medium	Mean
A	27	2	1.815
B	9	3	2.556
C	9	2	2.444

Table 36: Summary of the conclusions of Kruskal-Wallis analysis of variance among the different age ranges for the obtainment of each type of information

A = under the condition of "<25" B = under the condition of "25-34" C= under the condition of "35-44"			
Test with confidence level at p-value = 0.05			Do the medians of A, B and C differ significantly?
	No.	Information on	Obtain
Regarding current job or next career move	1	Employment trends	No Significantly Different
	2	Expected salary scale	No Significantly Different
	3	Work environment	No Significantly Different
	4	Skills requirement	No Significantly Different
	5	Academic qualification information	No Significantly Different
Upon completion of this programme	6	Potential salary range	No Significantly Different
	7	Career advancement opportunities	No Significantly Different
	8	Likelihood of achieving the career goals	No Significantly Different
Career-related decisions	9	Specific factors needed to weigh	No Significantly Different
	10	Criteria to be used	No Significantly Different
	11	Understanding of competence requirement	No Significantly Different
Social capital	12	Individuals who are currently employed in the targeted field	No Significantly Different
	13	Individuals to learn about the career	No Significantly Different
	14	Work or volunteer opportunities	No Significantly Different

Table 37: Summary of the Kruskal-Wallis analysis of variance among the different age ranges for the obtainment of each type of information

A = <25 B = 25-34 C= 35-44	Employment trends	Expected salary scale	Work environment	Skills requirement	Academic qualification information	Potential salary range	Career advancement opportunities	Likelihood of achieving the career goals	Specific factors needed to weigh	Criteria to be used	Understanding of competence requirement	Individuals who are currently employed in the targeted field	Individuals to learn about the career	work or volunteer opportunities
The P value =	0.5041	0.2667	0.4445	0.3535	0.2329	0.0811	0.9471	0.8466	0.9789	0.2055	0.5420	0.2649	0.7427	0.6119
considered	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
No. of Points: A	10	10	10	10	10	10	10	10	10	10	10	10	10	10
B	33	33	33	32	33	33	32	33	33	33	33	33	33	32
C	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Sum of ranks: A	325.0	298.0	236.5	298.0	353.0	187.0	284.0	264.5	275.5	350.5	303.0	218.0	250.0	234.0
B	873.0	841.0	924.0	806.5	874.5	972.0	884.0	945.5	920.0	868.5	866.5	935.0	930.0	908.5
C	342.0	401.0	379.5	380.5	312.5	381.0	317.0	321.0	344.5	321.0	370.5	387.0	360.0	342.5
Mean of ranks: A	32.500	29.800	23.650	29.800	35.300	18.700	28.400	26.450	27.550	35.050	30.300	21.800	25.000	23.400
B	26.455	25.485	28.000	25.203	26.500	29.455	27.625	28.652	27.879	26.318	26.258	28.333	28.182	28.391
C	28.500	33.417	31.625	31.708	26.042	31.750	26.417	26.750	28.708	26.750	30.875	32.250	30.000	28.542
Kruskal-Wallis statistic KW (Corrected for ties) =	1.370	2.643	1.622	2.080	2.914	5.025	0.109	0.333	0.043	3.165	1.225	2.656	0.595	0.982

Table 38: Summary of the conclusions of Mann-Whitney U-Test between the different educational attainments for the obtainment of each type of information

A = under the condition of "non-degree holder" B = under the condition of "degree holder"			
Test with confidence level at p-value = 0.05			Do the medians of A and B differ significantly?
	No.	Information on	Obtain
Regarding current job or next career move	1	Employment trends	No Significantly Different
	2	Expected salary scale	No Significantly Different
	3	Work environment	No Significantly Different
	4	Skills requirement	No Significantly Different
	5	Academic qualification information	No Significantly Different
Upon completion of this programme	6	Potential salary range	No Significantly Different
	7	Career advancement opportunities	No Significantly Different
	8	Likelihood of achieving the career goals	No Significantly Different
Career-related decisions	9	Specific factors needed to weigh	No Significantly Different
	10	Criteria to be used	No Significantly Different
	11	Understanding of competence requirement	No Significantly Different
Social capital	12	Individuals who are currently employed in the targeted field	No Significantly Different
	13	Individuals to learn about the career	No Significantly Different
	14	Work or volunteer opportunities	No Significantly Different

Table 39: Summary of the Mann-Whitney U-Tests between the different educational attainments for the obtainment of each type of information

A = non-degree holder B = degree holder	Employment trends	Expected salary scale	Work environment	Skills requirement	Academic qualification information	Potential salary range	Career advancement opportunities	Likelihood of achieving the career goals	Specific factors needed to weigh	Criteria to be used	Understanding of competence requirement	Individuals who are currently employed in the targeted field	Individuals to learn about the career	work or volunteer opportunities
The two tailed P value =	0.1517	0.6603	0.6973	0.9917	0.3069	0.1155	0.7779	0.9511	0.8217	0.3309	0.7512	0.6679	0.3635	0.6238
considered	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
Mann-Whitney U-Statistic =	187.5	236.0	238.5	251.0	207.5	180.5	238.0	254.5	246.5	210.0	242.0	236.5	213.0	228.0
U' =	328.5	280.0	277.5	253.0	308.5	355.5	266.0	261.5	269.5	306.0	274.0	279.5	303.0	276.0
Sum of ranks in A =	1133.5	1226.0	1184.5	1156.0	1153.5	1126.5	1141.0	1200.5	1215.5	1156.0	1188.0	1182.5	1159.0	1179.0
Sum of ranks in B =	406.5	314.0	355.5	329.0	386.5	413.5	344.0	339.5	324.5	384.0	352.0	357.5	381.0	306.0
Mean A =	2.422	2.140	2.442	2.524	2.535	2.093	2.381	2.233	2.140	2.186	2.558	2.000	2.093	2.167
Mean B =	2.750	2.000	2.583	2.500	2.833	2.583	2.500	2.250	2.083	2.500	2.667	2.167	2.417	2.000
No. of points in A =	43	43	43	42	43	43	42	43	43	43	43	43	43	42
No. of points in B =	12	12	12	12	12	12	12	12	12	12	12	12	12	12

Table 40: Summary of the conclusions of Kruskal-Wallis analysis of variance among the different degrees of career plan decisiveness for the needs of each type of information

A = under the condition of "Definite"; B = under the condition of "Tentative"; C= under the condition of "Undefined"			
Test with confidence level at p-value = 0.05			Do the medians of A, B and C differ significantly?
	No.	Information on	Need
Regarding current job or next career move	1	Employment trends	Significantly Different
	2	Expected salary scale	No Significantly Different
	3	Work environment	No Significantly Different
	4	Skills requirement	No Significantly Different
	5	Academic qualification information	No Significantly Different
Upon completion of this programme	6	Potential salary range	No Significantly Different
	7	Career advancement opportunities	No Significantly Different
	8	Likelihood of achieving the career goals	No Significantly Different
Career-related decisions	9	Specific factors needed to weigh	No Significantly Different
	10	Criteria to be used	No Significantly Different
	11	Understanding of competence requirement	No Significantly Different
Social capital	12	Individuals who are currently employed in the targeted field	No Significantly Different
	13	Individuals to learn about the career	No Significantly Different
	14	Work or volunteer opportunities	No Significantly Different

Table 41: Summary of the Kruskal-Wallis analysis of variance among the different degrees of career plan decisiveness for the needs of each type of information

A=Definite B=Tentative C=Undefined	Employment trends	Expected salary scale	Work environment	Skills requirement	Academic qualification information	Potential salary range	Career advancement opportunities	Likelihood of achieving the career goals	Specific factors needed to weigh	Criteria to be used	Understanding of competence requirement	Individuals who are currently employed in the targeted field	Individuals to learn about the career	work or volunteer opportunities
The P value =	0.0344	0.2317	0.9601	0.6836	0.9222	0.9239	0.1619	0.2726	0.9636	0.4134	0.7858	0.8862	0.8028	0.9798
considered	s	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
No. of Points: A	11	11	11	11	11	11	11	11	11	11	11	11	11	10
B	34	34	34	33	34	34	34	34	34	34	34	34	34	34
C	9	9	9	9	9	9	9	9	9	9	9	9	9	9
Sum of ranks: A	403.5	371.5	308.5	313.5	302.5	319.5	370.0	361.5	300.0	334.5	312.5	323.0	330.0	278.0
B	900.0	904.5	921.5	907.5	950.0	918.5	839.0	921.5	927.0	953.5	952.0	924.0	917.0	912.5
C	181.5	209.0	255.0	210.0	232.5	247.0	276.0	202.5	258.0	197.0	220.5	238.0	238.0	240.5
Mean of ranks: A	36.682	33.773	28.045	28.500	27.500	29.045	33.636	32.864	27.273	30.409	28.409	29.364	30.000	27.800
B	26.471	26.603	27.103	27.500	27.941	27.015	24.676	27.103	27.265	28.044	28.000	27.176	26.971	26.838
C	20.167	23.222	28.333	23.333	25.833	27.444	30.667	22.500	28.667	21.889	24.500	26.444	26.444	26.722
Kruskal-Wallis statistic KW (Corrected for ties)=	6.741	2.934	0.082	0.761	0.162	0.158	3.641	2.600	0.074	1.767	0.482	0.242	0.439	0.041

Table 42: Dunn's Multiple Comparisons Test among the different degrees of career plan decisiveness for the needs of employment trends information

A=Definite B=Tentative C=Undefined			
Comparison	Mean Rank Difference	P value	S or NS
A against B	10.211	P>0.05	NS
A against C	16.515	P<0.05	S
B against C	6.304	P>0.05	NS
Summary of Data	No. of Points	Medium	Mean
A	11	4	3.636
B	34	3	3.118
C	9	3	2.778

Table 43: Summary of the conclusions of Kruskal-Wallis analysis of variance among the different expectations of career advancement after the completion of the programme for the needs of each type of information

A = under the condition of "Yes"; B = under the condition of "No"; C= under the condition of "Not sure"			
Test with confidence level at p-value = 0.05			Do the medians of A, B and C differ significantly?
	No.	Information on	Need
Regarding current job or next career move	1	Employment trends	No Significantly Different
	2	Expected salary scale	No Significantly Different
	3	Work environment	No Significantly Different
	4	Skills requirement	No Significantly Different
	5	Academic qualification information	No Significantly Different
Upon completion of this programme	6	Potential salary range	No Significantly Different
	7	Career advancement opportunities	No Significantly Different
	8	Likelihood of achieving the career goals	No Significantly Different
Career-related decisions	9	Specific factors needed to weigh	No Significantly Different
	10	Criteria to be used	No Significantly Different
	11	Understanding of competence requirement	No Significantly Different
Social capital	12	Individuals who are currently employed in the targeted field	No Significantly Different
	13	Individuals to learn about the career	No Significantly Different
	14	Work or volunteer opportunities	No Significantly Different

Table 44: Summary of the Kruskal-Wallis analysis of variance among the different expectations of career advancement after the completion of the programme for the needs of each type of information

A=Yes B=No C=Not Sure	Employment trends	Expected salary scale	Work environment	Skills requirement	Academic qualification information	Potential salary range	Career advancement opportunities	Likelihood of achieving the career goals	Specific factors needed to weigh	Criteria to be used	Understanding of competence requirement	Individuals who are currently employed in the targeted field	Individuals to learn about the career	work or volunteer opportunities
The P value =	0.8814	0.2720	0.2603	0.2455	0.0812	0.3996	0.4533	0.6211	0.1941	0.3271	0.2777	0.7572	0.4794	0.4938
considered	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
No. of Points: A	44	44	44	43	44	44	43	44	44	44	44	44	44	43
B	4	4	4	4	4	4	4	4	4	4	4	4	4	4
C	7	7	7	7	7	7	7	7	7	7	7	7	7	7
Sum of ranks: A	1248.5	1283.0	1230.0	1253.0	1213.0	1238.0	1197.0	1256.5	1305.5	1294.5	1248.5	1232.5	1276.5	1212.0
B	114.0	120.0	149.0	92.0	169.0	142.0	76.5	122.0	72.0	102.0	142.0	129.5	110.0	121.0
C	177.5	137.0	161.0	140.0	158.0	160.0	211.5	161.5	162.5	143.5	149.5	178.0	153.5	152.0
Mean of ranks: A	28.375	29.159	27.955	29.140	27.568	28.136	27.837	28.557	29.670	29.420	28.375	28.011	29.011	28.186
B	28.500	30.000	37.250	23.000	42.250	35.500	19.125	30.500	18.000	25.500	35.500	32.375	27.500	30.250
C	25.357	19.571	23.000	20.000	22.571	22.857	30.214	23.071	23.214	20.500	21.357	25.429	21.929	21.714
Kruskal-Wallis statistic KW (Corrected for ties)=	0.253	2.604	2.692	2.809	5.022	1.835	1.582	0.953	3.279	2.235	2.563	0.556	1.471	1.411

Table 45: Summary of the conclusions of Kruskal-Wallis analysis of variance among the different intentions of changing jobs after the completion of the programme for the needs of each type of information

A = under the condition of "Yes"; B = under the condition of "No"; C= under the condition of "Not sure"			
Test with confidence level at p-value = 0.05			Do the medians of A, B and C differ significantly?
	No.	Information on	Need
Regarding current job or next career move	1	Employment trends	No Significantly Different
	2	Expected salary scale	No Significantly Different
	3	Work environment	No Significantly Different
	4	Skills requirement	No Significantly Different
	5	Academic qualification information	No Significantly Different
Upon completion of this programme	6	Potential salary range	No Significantly Different
	7	Career advancement opportunities	No Significantly Different
	8	Likelihood of achieving the career goals	No Significantly Different
Career-related decisions	9	Specific factors needed to weigh	No Significantly Different
	10	Criteria to be used	No Significantly Different
	11	Understanding of competence requirement	No Significantly Different
Social capital	12	Individuals who are currently employed in the targeted field	No Significantly Different
	13	Individuals to learn about the career	No Significantly Different
	14	Work or volunteer opportunities	No Significantly Different

Table 46: Summary of the Kruskal-Wallis analysis of variance among the different intentions of changing jobs after the completion of the programme for the needs of each type of information

A=Yes B=No C=Not Sure	Employment trends	Expected salary scale	Work environment	Skills requirement	Academic qualification information	Potential salary range	Career advancement opportunities	Likelihood of achieving the career goals	Specific factors needed to weigh	Criteria to be used	Understanding of competence requirement	Individuals who are currently employed in the targeted field	Individuals to learn about the career	work or volunteer opportunities
The P value =	0.6468	0.9122	0.7157	0.1219	0.3809	0.2828	0.2366	0.9394	0.2276	0.5761	0.9116	0.3416	0.9638	0.1290
considered	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
No. of Points: A	34	34	34	33	34	34	33	34	34	34	34	34	34	33
B	4	4	4	4	4	4	4	4	4	4	4	4	4	4
C	17	17	17	17	17	17	17	17	17	17	17	17	17	17
Sum of ranks: A	996.5	972.5	973.0	936.0	1023.0	997.0	924.5	947.5	1024.5	1009.0	935.5	969.0	966.0	836.5
B	92.0	103.0	125.5	53.0	103.0	67.0	63.0	122.0	72.0	102.0	100.5	70.5	110.0	161.0
C	451.5	464.5	441.5	496.0	414.0	476.0	497.5	470.5	443.5	429.0	486.0	500.5	464.0	487.5
Mean of ranks: A	29.309	28.603	28.618	28.364	30.088	29.324	28.015	27.868	30.132	29.676	27.515	28.500	28.412	25.348
B	23.000	25.750	31.375	13.250	25.750	16.750	15.750	30.500	18.000	25.500	25.125	17.625	27.500	40.250
C	26.559	27.324	25.971	29.176	24.353	28.000	29.265	27.676	26.088	25.235	28.588	29.441	27.294	28.676
Kruskal-Wallis statistic KW (Corrected for ties)=	0.871	0.184	0.669	4.210	1.930	2.526	2.883	0.125	2.960	1.103	0..1851	2.148	0.074	4.096

Table 47: Summary of the conclusions of Kruskal-Wallis analysis of variance among the different perceptions of improvement on jobs security after the completion of the programme for the needs of each type of information

A = under the condition of "Yes"; B = under the condition of "No"; C= under the condition of "Not sure"			
Test with confidence level at p-value = 0.05			Do the medians of A, B and C differ significantly?
	No.	Information on	Need
Regarding current job or next career move	1	Employment trends	No Significantly Different
	2	Expected salary scale	No Significantly Different
	3	Work environment	No Significantly Different
	4	Skills requirement	No Significantly Different
	5	Academic qualification information	No Significantly Different
Upon completion of this programme	6	Potential salary range	No Significantly Different
	7	Career advancement opportunities	No Significantly Different
	8	Likelihood of achieving the career goals	No Significantly Different
Career-related decisions	9	Specific factors needed to weigh	No Significantly Different
	10	Criteria to be used	No Significantly Different
	11	Understanding of competence requirement	No Significantly Different
Social capital	12	Individuals who are currently employed in the targeted field	No Significantly Different
	13	Individuals to learn about the career	No Significantly Different
	14	Work or volunteer opportunities	No Significantly Different

Table 48: Summary of the Kruskal-Wallis analysis of variance among the different perceptions of improvement on job security after the completion of the programme for the needs of each type of information

A=Yes B=No C=Not Sure	Employment trends	Expected salary scale	Work environment	Skills requirement	Academic qualification information	Potential salary range	Career advancement opportunities	Likelihood of achieving the career goals	Specific factors needed to weigh	Criteria to be used	Understanding of competence requirement	Individuals who are currently employed in the targeted field	Individuals to learn about the career	work or volunteer opportunities
The P value =	0.4724	0.7600	0.7553	0.3035	0.4169	0.7710	0.8426	0.6590	0.2787	0.5563	0.0909	0.3737	0.5199	0.2894
considered	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
No. of Points: A	32	32	32	32	32	32	31	32	32	32	32	32	32	32
B	7	7	7	6	7	7	7	7	7	7	7	7	7	7
C	15	15	15	15	15	15	15	15	15	15	15	15	15	14
Sum of ranks: A	927.5	916.5	917.0	928.0	914.5	866.5	863.0	832.0	949.5	937.5	941.0	954.0	937.5	930.5
B	204.0	172.5	181.0	170.0	216.5	218.5	190.0	206.5	144.0	178.5	230.0	166.0	167.5	141.5
C	353.5	396.0	387.0	333.0	354.0	400.0	378.0	446.5	391.5	369.5	314.0	365.0	380.0	359.0
Mean of ranks: A	28.984	28.641	28.656	29.000	28.578	27.078	27.839	26.000	29.672	29.297	29.406	29.813	29.297	29.078
B	29.143	24.643	25.857	28.333	30.929	31.214	27.143	29.500	20.571	25.500	32.857	23.714	23.929	20.214
C	23.567	26.400	25.800	22.200	23.600	26.667	25.200	29.767	26.100	24.633	20.933	24.333	25.333	25.643
Kruskal-Wallis statistic KW (Corrected for ties)=	1.500	0.549	0.561	2.385	1.750	0.520	0.343	0.834	2.555	1.173	4.797	1.969	1.308	2.480

Table 49: Summary of the conclusions of Kruskal-Wallis analysis of variance among the different degrees of career plan decisiveness for the obtainment of each type of information

A = under the condition of "Definite"; B = under the condition of "Tentative"; C= under the condition of "Undefined"			
Test with confidence level at p-value = 0.05			Do the medians of A, B and C differ significantly?
	No.	Information on	Obtain
Regarding current job or next career move	1	Employment trends	No Significantly Different
	2	Expected salary scale	No Significantly Different
	3	Work environment	No Significantly Different
	4	Skills requirement	No Significantly Different
	5	Academic qualification information	No Significantly Different
Upon completion of this programme	6	Potential salary range	No Significantly Different
	7	Career advancement opportunities	No Significantly Different
	8	Likelihood of achieving the career goals	Significantly Different
Career-related decisions	9	Specific factors needed to weigh	No Significantly Different
	10	Criteria to be used	Significantly Different
	11	Understanding of competence requirement	No Significantly Different
Social capital	12	Individuals who are currently employed in the targeted field	No Significantly Different
	13	Individuals to learn about the career	No Significantly Different
	14	Work or volunteer opportunities	No Significantly Different

Table 50: Summary of the Kruskal-Wallis analysis of variance among the different degrees of career plan decisiveness for the obtainment of each type of information

A=Definite B=Tentative C=Undefined	Employment trends	Expected salary scale	Work environment	Skills requirement	Academic qualification information	Potential salary range	Career advancement opportunities	Likelihood of achieving the career goals	Specific factors needed to weigh	Criteria to be used	Understanding of competence requirement	Individuals who are currently employed in the targeted field	Individuals to learn about the career	work or volunteer opportunities
The P value =	0.0813	0.0869	0.3908	0.7344	0.3824	0.2418	0.2751	0.0491	0.2443	0.0283	0.1327	0.2059	0.0747	0.0545
considered	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	s.	n.s.	s.	n.s.	n.s.	n.s.	n.s.
No. of Points: A	11	11	11	11	11	11	11	11	11	11	11	11	11	10
B	34	34	34	33	34	34	34	34	34	34	34	34	34	34
C	9	9	9	9	9	9	9	9	9	9	9	9	9	9
Sum of ranks: A	343.5	365.5	358.0	315.5	347.0	365.0	369.0	350.5	361.5	381.0	329.0	379.5	402.5	366.0
B	978.0	950.5	875.0	852.0	936.5	918.5	867.0	980.0	920.0	940.0	986.0	862.5	870.0	25.2
C	163.5	169.0	252.0	263.0	201.5	201.5	249.0	154.5	203.0	164.0	170.0	243.0	212.5	23.0
Mean of ranks: A	31.227	33.227	32.545	28.682	31.545	33.182	33.545	31.864	32.864	34.636	29.909	34.500	36.591	36.600
B	28.765	27.956	25.735	25.818	27.544	27.015	25.500	28.824	27.059	27.647	29.000	25.368	25.588	0.742
C	18.167	18.778	28.000	29.222	22.389	22.389	27.667	17.167	22.556	18.222	18.889	27.000	23.611	2.556
Kruskal-Wallis statistic KW (Corrected for ties)=	5.019	4.886	1.879	0.617	1.923	2.939	2.581	6.027	2.819	7.128	4.040	3.161	5.188	5.817

Table 51: Dunn's Multiple Comparisons Test among the different types of career plan for the obtainment of likelihood of achieving the career goals information

A=Definite B=Tentative C=Undefined			
Comparison	Mean Rank Difference	P value	S or NS
A against B	3.040	P>0.05	NS
A against C	14.697	P>0.05	NS
B against C	11.657	P>0.05	NS
Summary of Data	No. of Points	Medium	Mean
A	11	2	2.455
B	34	2	2.294
C	9	2	1.667

Table 52: Dunn's Multiple Comparisons Test among the different types of career plan for the obtainment of information about criteria to be used for career-related decision

A=Definite B=Tentative C=Undefined			
Comparison	Mean Rank Difference	P value	S or NS
A against B	6.989	P>0.05	NS
A against C	16.414	P<0.05	S
B against C	9.425	P>0.05	NS
Summary of Data	No. of Points	Medium	Mean
A	11	2	2.727
B	34	2	2.235
C	9	2	1.778

Table 53: Summary of the conclusions of Kruskal-Wallis analysis of variance among the different expectations of career advancement after the completion of the programme for the obtainment of each type of information

A = under the condition of "Yes"; B = under the condition of "No"; C= under the condition of "Not sure"			
Test with confidence level at p-value = 0.05			Do the medians of A, B and C differ significantly?
	No.	Information on	Obtain
Regarding current job or next career move	1	Employment trends	No Significantly Different
	2	Expected salary scale	No Significantly Different
	3	Work environment	No Significantly Different
	4	Skills requirement	No Significantly Different
	5	Academic qualification information	Significantly Different
Upon completion of this programme	6	Potential salary range	No Significantly Different
	7	Career advancement opportunities	No Significantly Different
	8	Likelihood of achieving the career goals	No Significantly Different
Career-related decisions	9	Specific factors needed to weigh	No Significantly Different
	10	Criteria to be used	No Significantly Different
	11	Understanding of competence requirement	Significantly Different
Social capital	12	Individuals who are currently employed in the targeted field	No Significantly Different
	13	Individuals to learn about the career	No Significantly Different
	14	Work or volunteer opportunities	No Significantly Different

Table 54: Summary of the Kruskal-Wallis analysis of variance among the different expectations of career advancement after the completion of the programme for the obtainment of each type of information

A=Yes B=No C=Not Sure	Employment trends	Expected salary scale	Work environment	Skills requirement	Academic qualification information	Potential salary range	Career advancement opportunities	Likelihood of achieving the career goals	Specific factors needed to weigh	Criteria to be used	Understanding of competence requirement	Individuals who are currently employed in the targeted field	Individuals to learn about the career	work or volunteer opportunities
The P value =	0.1548	0.5192	0.9868	0.4292	0.0320	0.1335	0.5593	0.6829	0.4408	0.6094	0.0362	0.4150	0.4609	0.7282
considered	n.s.	n.s.	n.s.	n.s.	s.	n.s.	n.s.	n.s.	n.s.	n.s.	s.	n.s.	n.s.	n.s.
No. of Points: A	44	44	44	43	44	44	43	44	44	44	44	44	44	43
B	4	4	4	4	4	4	4	4	4	4	4	4	4	4
C	7	7	7	7	7	7	7	7	7	7	7	7	7	7
Sum of ranks: A	1248.5	1205.5	1225.0	1156.0	1297.5	1199.0	1193.0	1261.5	1283.5	1222.0	1177.5	1218.5	1213.0	1148.5
B	149.5	145.0	114.0	146.0	140.0	168.0	82.0	114.0	101.5	137.0	183.0	148.0	147.5	120.5
C	142.0	189.5	201.0	183.0	102.5	173.0	210.0	164.5	155.0	181.0	179.5	173.5	179.5	216.0
Mean of ranks: A	28.375	27.398	27.841	26.884	29.489	27.250	27.744	28.670	29.170	27.773	26.761	27.693	27.568	26.709
B	37.375	36.250	28.500	36.500	35.000	42.000	20.500	28.500	25.375	34.250	45.750	37.000	36.875	30.125
C	20.286	27.071	28.714	26.143	14.643	24.714	30.000	23.500	22.143	25.857	25.643	24.786	25.643	30.857
Kruskal-Wallis statistic KW (Corrected for ties)=	3.731	1.311	0.027	1.692	6.882	4.027	1.162	0.763	1.638	0.991	6.636	1.759	1.549	0.634

Table 55: Dunn's Multiple Comparisons Test among the different expectations of career advancement after the completion of the programme for the obtainment of academic qualification information

A=Yes B=No C=Not Sure			
Comparison	Mean Rank Difference	P value	S or NS
A against B	-5.511	P>0.05	NS
A against C	14.846	P<0.05	S
B against C	20.357	P>0.05	NS
Summary of Data	No. of Points	Medium	Mean
A	44	3	3.682
B	4	3	3.000
C	7	2	1.857

Table 56: Dunn's Multiple Comparisons Test among the different expectations of career advancement after the completion of the programme for the obtainment of information to understand competence requirement for career-related decision

A=Yes B=No C=Not Sure			
Comparison	Mean Rank Difference	P value	S or NS
A against B	-18.989	P<0.05	S
A against C	1.119	P>0.05	NS
B against C	20.107	P>0.05	NS
Summary of Data	No. of Points	Medium	Mean
A	44	3	2.532
B	4	3.5	3.500
C	7	3	2.429

Table 57: Summary of the conclusions of Kruskal-Wallis analysis of variance among the different intentions of changing jobs after the completion of the programme for the obtainment of each type of information

A = under the condition of "Yes"; B = under the condition of "No"; C= under the condition of "Not sure"			
Test with confidence level at p-value = 0.05			Do the medians of A, B and C differ significantly?
	No.	Information on	Obtain
Regarding current job or next career move	1	Employment trends	No Significantly Different
	2	Expected salary scale	No Significantly Different
	3	Work environment	No Significantly Different
	4	Skills requirement	No Significantly Different
	5	Academic qualification information	No Significantly Different
Upon completion of this programme	6	Potential salary range	No Significantly Different
	7	Career advancement opportunities	Significantly Different
	8	Likelihood of achieving the career goals	No Significantly Different
Career-related decisions	9	Specific factors needed to weigh	No Significantly Different
	10	Criteria to be used	No Significantly Different
	11	Understanding of competence requirement	No Significantly Different
Social capital	12	Individuals who are currently employed in the targeted field	No Significantly Different
	13	Individuals to learn about the career	No Significantly Different
	14	Work or volunteer opportunities	No Significantly Different

Table 58: Summary of the Kruskal-Wallis analysis of variance among the different intentions of changing jobs after the completion of the programme for the obtainment of each type of information

A=Yes B=No C=Not Sure	Employment trends	Expected salary scale	Work environment	Skills requirement	Academic qualification information	Potential salary range	Career advancement opportunities	Likelihood of achieving the career goals	Specific factors needed to weigh	Criteria to be used	Understanding of competence requirement	Individuals who are currently employed in the targeted field	Individuals to learn about the career	work or volunteer opportunities
The P value =	0.9951	0.2027	0.7785	0.9301	0.8766	0.6476	0.0327	0.2290	0.8864	0.3159	0.8564	0.8414	0.9329	0.1973
considered	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
No. of Points: A	34	34	34	33	34	34	33	34	34	34	34	34	34	33
B	4	4	4	4	4	4	4	4	4	4	4	4	4	4
C	17	17	17	17	17	17	17	17	17	17	17	17	17	17
Sum of ranks: A	950.0	866.5	916.0	888.5	957.5	944.5	898.0	925.5	944.5	879.5	931.5	943.5	933.0	815.0
B	110.0	106.0	114.0	111.0	124.5	138.0	44.0	73.5	101.5	137.0	126.0	129.0	119.5	120.5
C	480.0	567.5	510.0	485.5	458.0	457.5	543.0	541.0	494.0	523.5	482.5	467.5	487.5	549.5
Mean of ranks: A	27.941	25.485	26.941	26.924	28.162	27.779	27.212	27.221	27.779	25.868	27.397	27.750	27.441	24.697
B	27.500	26.500	28.500	27.750	31.125	34.500	11.000	18.375	25.375	34.250	31.500	32.250	29.875	30.125
C	28.235	33.382	30.000	28.559	26.941	26.912	31.941	31.824	29.059	30.794	28.382	27.500	28.676	32.324
Kruskal-Wallis statistic KW (Corrected for ties)=	0.010	3.192	0.501	0.145	0.263	0.869	6.844	3.002	0.241	2.305	0.310	0.345	0.139	3.246

Table 59: Dunn's Multiple Comparisons Test among the different intentions of changing jobs after the completion of the programme for the obtainment of career advancement opportunities information

A=Yes B=No C=Not Sure			
Comparison	Mean Rank Difference	P value	S or NS
A against B	16.212	P>0.05	NS
A against C	-4.729	P>0.05	NS
B against C	-20.941	P<0.05	S
Summary of Data	No. of Points	Medium	Mean
A	33	2	2.394
B	4	1	1.500
C	17	3	2.647

Table 60: Summary of the conclusions of Kruskal-Wallis analysis of variance among the different perceptions of improvement on job security after the completion of the programme for the obtainment of each type of information

A = under the condition of "Yes"; B = under the condition of "No"; C= under the condition of "Not sure"			
Test with confidence level at p-value = 0.05			Do the medians of A, B and C differ significantly?
	No.	Information on	Obtain
Regarding current job or next career move	1	Employment trends	No Significantly Different
	2	Expected salary scale	No Significantly Different
	3	Work environment	No Significantly Different
	4	Skills requirement	No Significantly Different
	5	Academic qualification information	No Significantly Different
Upon completion of this programme	6	Potential salary range	No Significantly Different
	7	Career advancement opportunities	Significantly Different
	8	Likelihood of achieving the career goals	No Significantly Different
Career-related decisions	9	Specific factors needed to weigh	Significantly Different
	10	Criteria to be used	No Significantly Different
	11	Understanding of competence requirement	No Significantly Different
Social capital	12	Individuals who are currently employed in the targeted field	No Significantly Different
	13	Individuals to learn about the career	No Significantly Different
	14	Work or volunteer opportunities	No Significantly Different

Table 61: Summary of the Kruskal-Wallis analysis of variance among the different perceptions of improvement on job security after the completion of the programme for the obtainment of each type of information

A=Yes B=No C=Not Sure	Employment trends	Expected salary scale	Work environment	Skills requirement	Academic qualification information	Potential salary range	Career advancement opportunities	Likelihood of achieving the career goals	Specific factors needed to weigh	Criteria to be used	Understanding of competence requirement	Individuals who are currently employed in the targeted field	Individuals to learn about the career	work or volunteer opportunities
The P value =	0.2040	0.2205	0.0631	0.8980	0.1849	0.1149	0.0361	0.2581	0.0440	0.0836	0.6798	0.5421	0.1512	0.1158
considered	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	s.	n.s.	s.	n.s.	n.s.	n.s.	n.s.	n.s.
No. of Points: A	32	32	32	32	32	32	31	32	32	32	32	32	32	32
B	7	7	7	6	7	7	7	7	7	7	7	7	7	7
C	15	15	15	15	15	15	15	15	15	15	15	15	15	14
Sum of ranks: A	923.0	958.0	995.5	886.0	875.0	985.0	967.5	963.5	966.0	985.0	874.5	909.5	981.5	910.5
B	227.5	138.0	132.0	160.5	253.0	140.0	157.0	177.0	109.5	139.0	167.5	152.0	143.0	116.0
C	334.5	389.0	357.5	384.5	357.0	360.0	306.5	344.5	409.5	361.0	443.0	423.5	360.5	404.5
Mean of ranks: A	28.844	29.938	31.109	27.688	27.344	30.781	31.210	30.109	30.188	30.781	27.328	28.422	30.672	28.453
B	32.500	19.714	18.857	26.750	36.143	20.000	22.429	25.286	15.643	19.857	23.929	21.714	20.429	16.571
C	22.300	25.933	23.833	25.633	23.800	24.000	20.433	22.967	27.300	24.067	29.533	28.233	24.033	28.893
Kruskal-Wallis statistic KW (Corrected for ties)=	3.180	3.023	5.526	0.215	3.376	4.328	6.641	2.709	6.247	4.964	0.772	1.225	3.778	4.312

Table 62: Dunn's Multiple Comparisons Test among the different perceptions of improvement on job security after the completion of the programme for the obtainment of career advancement opportunities information

A=Yes B=No C=Not Sure			
Comparison	Mean Rank Difference	P value	S or NS
A against B	8.781	P>0.05	NS
A against C	10.776	P<0.05	S
B against C	1.995	P>0.05	NS
Summary of Data	No. of Points	Medium	Mean
A	31	3	2.645
B	7	2	2.143
C	15	2	2.067

Table 63: Dunn's Multiple Comparisons Test among the different perceptions of improvement on job security after the completion of the programme for the obtainment of specific factors information needed to weigh for career-related decision

A=Yes B=No C=Not Sure			
Comparison	Mean Rank Difference	P value	S or NS
A against B	14.545	P<0.05	S
A against C	2.888	P>0.05	NS
B against C	-11.657	P>0.05	NS
Summary of Data	No. of Points	Medium	Mean
A	32	2	2.250
B	7	2	1.571
C	15	2	2.133

Table 64: Summary of the conclusion of Kruskal-Wallis analysis of variance among the different types of information for career-related decisions

Test with confidence level at p-value = 0.05			Do the medians differ significantly?	
	No.	Information on	Need	Obtain
Career-related decisions	9	Specific factors needed to weigh	Significantly Different	Significantly Different
	10	Criteria to be used		
	11	Understanding of competence requirement		

Table 65: Summary of the Kruskal-Wallis analysis of variance among the different types of information for career-related decisions

A = Specific factors needed to weigh B = Criteria to be used C = Understanding of competence requirement		Need	Obtain
The P value =		0.0021	0.0012
considered		s	s
No. of Points:	A	55	55
	B	55	55
	C	55	55
Sum of ranks:	A	3619.0	3933.5
	B	5012.5	4252.5
	C	5063.5	5509.5
Mean of ranks:	A	65.800	71.518
	B	91.136	77.318
	C	92.064	100.173
Kruskal-Wallis statistic KW (Corrected for ties)=		12.331	13.434

Table 66: Dunn's Multiple Comparisons Test among the needs of different types of information for career-related decisions

A = Specific factors needed to weigh B = Criteria to be used C = Understanding of competence requirement			
Comparison	Mean Rank Difference	P value	S or NS
A against B	-25.336	P<0.01	S
A against C	-26.264	P<0.01	S
B against C	-0.9273	P>0.05	NS
Summary of Data	No. of Points	Medium	Mean
A	55	3	2.763
B	55	3	3.109
C	55	3	3.127

Table 67: Dunn's Multiple Comparisons Test among the obtainment of different types of information for career-related decisions

A = Specific factors needed to weigh B = Criteria to be used C = Understanding of competence requirement			
Comparison	Mean Rank Difference	P value	S or NS
A against B	-5.791	P>0.05	NS
A against C	-28.655	P<0.01	S
B against C	-22.864	P<0.05	S
Summary of Data	No. of Points	Medium	Mean
A	55	2	2.127
B	55	2	2.255
C	55	3	2.582

Table 68: Summary of the conclusions of Kruskal-Wallis analysis of variance among different types of information within the category of information regarding current job or next career move

Test with confidence level at p-value = 0.05			Do the medians differ significantly?	
	No.	Information on	Need	Obtain
Regarding current job or next career move	1	Employment trends	Not Significantly Different	Significantly Different
	2	Expected salary scale		
	3	Work environment		
	4	Skills requirement		
	5	Academic qualification information		

Table 69: Summary of the Kruskal-Wallis analysis of variance among the different types of information regarding current job or next career move

A = Employment trends B = Expected salary scale C = Work environment D = Skills requirement E = Academic qualification information		Need	Obtain
The P value =		0.7802	0.0167
considered		n.s	s.
No. of Points:	A	55	55
	B	55	55
	C	55	55
	D	54	54
	E	55	55
Sum of ranks:	A	7816.0	7963.0
	B	7429.0	5929.5
	C	7183.5	7729.0
	D	7903.5	7682.5
	E	7343.0	8371.0
Mean of ranks:	A	142.109	144.782
	B	135.073	107.809
	C	130.609	140.527
	D	146.361	142.269
	E	133.509	152.200
Kruskal-Wallis statistic KW (Corrected for ties)=		1.758	12.093

Table 70: Dunn's Multiple Comparisons Test among the obtainment of different types of information regarding current job or next career move

A = Employment trends B = Expected salary scale C = Work environment D = Skills requirement E = Academic qualification information			
Comparison	Mean Rank Difference	P value	S or NS
A against B	36.973	P>0.05	NS
A against C	4.255	P>0.05	NS
A against D	2.513	P>0.05	NS
A against E	-7.418	P>0.05	NS
B against C	-32.718	P>0.05	NS
B against D	-34.459	P>0.05	NS
B against E	-44.391	P<0.05	S
C against D	-1.741	P>0.05	NS
C against E	-11.673	P>0.05	NS
D against E	-9.931	P>0.05	NS
Summary of Data	No. of Points	Medium	Mean
A	55	3	2.509
B	55	2	2.109
C	55	2	2.473
D	54	2	2.519
E	55	3	2.600

Table 71: Summary of the conclusions of Kruskal-Wallis analysis of variance among different types of information within each category of information after the completion of the programme

Test with confidence level at p-value = 0.05			Do the medians differ significantly?	
	No.	Information on	Need	Obtain
Upon completion of this programme	6	Potential salary range	Not Significantly Different	Not Significantly Different
	7	Career advancement opportunities		
	8	Likelihood of achieving the career goals		

Table 72: Summary of the Kruskal-Wallis analysis of variance among the different types of information after the completion of the programme

A = Potential salary range B = Career advancement opportunities C = Likelihood of achieving the career goals		Need	Obtain
	The P value =	0.0524	0.3703
	considered	n.s	n.s
No. of Points:	A	55	55
	B	54	54
	C	55	55
Sum of ranks:	A	4802.0	4302.0
	B	4837.0	4802.0
	C	3891.0	4408.0
Mean of ranks:	A	87.309	78.218
	B	89.574	88.926
	C	70.745	80.145
Kruskal-Wallis statistic KW (Corrected for ties)=		5.900	1.987

Table 73: Summary of the conclusion of Kruskal-Wallis analysis of variance among different types of information within each category of information type related to social capitals

Test with confidence level at p-value = 0.05			Do the medians differ significantly?	
	No.	Information on	Need	Obtain
Social capitals	12	Individuals who are currently employed in the targeted field	Not Significantly Different	Not Significantly Different
	13	Individuals to learn about the career		
	14	Work or volunteer opportunities		

Table 74: Summary of the Kruskal-Wallis analysis of variance among the different types of information related to social capitals

A = Individuals who are currently employed in the targeted field B = Individuals to learn about the career C = Work or volunteer opportunities		Need	Obtain
	The P value =	0.8179	0.7832
	considered	n.s	n.s
No. of Points:	A	55	55
	B	55	55
	C	54	54
Sum of ranks:	A	4436.5	4351.0
	B	4475.0	4660.0
	C	4618.5	4519.0
Mean of ranks:	A	80.664	79.109
	B	81.364	84.727
	C	85.528	83.685
Kruskal-Wallis statistic KW (Corrected for ties)=		0.402	0.489