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# The importance of agency training in Hong Kong life insurance industry

Kwong Fai CHAN

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**Lingnan University**

**Bachelor of Business Administration (Hons)**

**Department of Management**

**Final Year Research Project**

***The Importance of Agency Training in Hong***

***Kong Life Insurance Industry***

**Presented to**

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**Submitted by**

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**22<sup>nd</sup> May 2001**

## **Abstract**

The core objective of this project is to provide a review of the current agency training practice Hong Kong's Life Insurance Industry. This is a very interesting topic. After the study, we learn why training is so important in this industry.

In fact, training in life insurance industry is an important issue. Many large insurance companies spend lots of resource and capital on training. They set up a Training Department to organize different types of training programs for its agent. This is especially true as the competitive environment is becoming more and more complicated and fiercely.

To carry out this research, our focus is divided into three aspects. Firstly, we will contact several local insurance companies' training departments to have an interview with us. Secondly, we will also invite some outstanding life insurance agents to have interview with us. Thirdly, we will distribute questionnaire to the public to grasp their point of view.

Besides collecting these primary data, we will also obtain information from secondary source, namely reference books, articles, the press as well as Internet search.

According to the survey results, and statistic analysis, we have learnt a lot about the agency training practice in Hong Kong life insurance industry. These include the designs, implementations, and evaluations of different training programs. Also, we have generated some common difficulties, limitations as well as corresponding solutions thereafter. Finally, we found that every party (life insurers, life agents and customers) is all pursue professionalism of life insurance agents. It indicates the professionalism is the overwhelming trend and undoubtedly only the professional one can survive in the market for long run.

## **Acknowledgments**

We have great pleasure in expressing our gratitude to our project supervisor Dr. YU Zi-You, University Professor of Management Department of Lingnan University, for her generous help and advice throughout the course of the Final Year Project. We would highly appreciate to her to bring this project to completion.

Thanks also to Miss Marina LUI Lai-Wah who have helped us to conduct interviews with two insurance companies as well as one insurance agent.

Special words of thanks are given to those people who have supplied us with valuable information and ideas in holding this survey.

Last but not least, we would also like to say ‘thank you’ to all interviewees who helped us in completing this project. The valuable information and ideas given by them enable us to have a broaden picture on the research.

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## **Chapter 1 Introduction**

### **1.1 Life insurance industry in Hong Kong**

The insurance industry is the essential part of Hong Kong financial sector. In 1998, the long term insurance business represents 2.8% of the Hong Kong Gross Domestic Product, about \$36,250 million. In recent years, the industry is growing rapidly, especially in life insurance industry. There is continuous growth from 1995 to 1998 (see Figure 1), the office premiums increase about 52.7% from 1995 to 1998. The rapid growth of insurance premiums shows the public is more and more conscious of the insurance concept.

With the outstanding growth of life insurance business, a supportive Hong Kong SAR Government, stable financial system and open economy, captive insurance is promoted to provide incentive for multinational and overseas conglomerates to establish their captive insurers in Hong Kong. The most astonishing fact is, as at 31 September 2000, there were already 204 authorized insurers in Hong Kong (A city of only seven million residents), of which 142 were pure general insurers, 43 were pure long-term insurers and the remaining 19 were composite insurers. In contrast, Japan, the country with the world's second largest insurance industry and with a population of 120 million, has only around 50 insurance companies.

Over the past few years, the number of life insurance agents increased rapidly while their turnover rates were also high. It is expected that further increase in the number of intermediaries and the high turnover rates will continue, particularly upon the introduction of the Mandatory Provident Fund ("MPF") Scheme. Taking into consideration the increasing sophistication and differentiation of insurance products, competitive environment and the strengthening of regulatory requirements, there is an increasing demand of agency training to further enhance the professional standard of insurance intermediaries so as to protect the interests of the insuring public.

In this regard, this project is designed to show the importance of life insurance agent training in the industry.

**Figure 1 Overall Performance of the Long Term Insurance Business**

**Overall Performance of the Long Term Insurance Business**

Type of Insurance	Number of Policies				Office Premiums				Net Liabilities			
	1995	1996	1997	1998	1995	1996	1997	1998	1995	1996	1997	1998
					\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Individual												
Life	2,837,620	3,126,327	3,444,687	3,781,201	16,577.6	19,615.8	23,011.8	26,382.6	32,572.4	40,971.5	49,515.1	60,000.0
	12.4%	10.2%	10.2%	9.8%	18.8%	18.3%	17.3%	14.6%	25.4%	25.8%	20.9%	21.3%
Group												
Life	9,210	10,487	11,864	12,147	673.1	794.5	954.5	966.9	367.1	420.9	508.3	524.0
	10.6%	13.9%	13.1%	2.4%	17.3%	18.0%	20.1%	1.3%	16.1%	14.7%	20.8%	3.2%
Annuity												
	258	269	266	247	27.3	2.0	2.5	0.3	142.8	138.9	132.7	132.0
	20.0%	4.3%	-1.1%	-7.1%	1,416.7%	-92.7%	25.0%	-88.0%	24.1%	-2.7%	-4.5%	0.1%
Permanent												
Health	9,017#	9,330#	10,689#	12,173	89.8	104.7	102.6	152.6	105.6	130.8	155.8	182.0
	-24.4%	3.5%	14.6%	13.9%	13.2%	16.6%	-2.0%	48.7%	26.5%	23.9%	19.1%	16.8%
Retirement												
Scheme	12,262	13,549	12,940*	13,825*	6,370.3	7,248.3	8,453.9	8,747.9	27,886.0	33,278.3	36,863.9	43,600.0
	10.9%	10.5%	9.1%*	6.8%*	30.9%	13.8%	16.6%	3.5%	25.1%	19.3%	10.8%	18.4%
<b>Total</b>												
	<b>2,868,367</b>	<b>3,159,962</b>	<b>3,480,446</b>	<b>3,819,593</b>	<b>23,738.1</b>	<b>27,765.3</b>	<b>32,525.3</b>	<b>36,250.3</b>	<b>61,073.9</b>	<b>74,940.4</b>	<b>87,175.8</b>	<b>104,000.0</b>
	<b>12.2%</b>	<b>10.2%</b>	<b>10.1%</b>	<b>9.7%</b>	<b>21.9%</b>	<b>17.0%</b>	<b>17.1%</b>	<b>11.5%</b>	<b>25.2%</b>	<b>22.7%</b>	<b>16.3%</b>	<b>19.9%</b>

Figures in percentage denote percentage changes over the prior year.

# Revised figure due to prior year adjustment made by one insurer.

\* The figure for number of policies is derived from a new basis of classification, the corresponding figure for 1996 under the new basis was 11,865. The percentage figure reflects the percentage change under the new basis.



## **1.2 Objectives**

General Objective:

The major aim of this project is to find out the importance of the performance of agency training in Hong Kong life insurance industry.

Specific Objectives:

1. To investigate the training needs of agents, the training objectives, the design of training programs, the training methods, and the evaluation of the training
2. To identify various constraints of the current training programs
3. To suggest recommendations for improving the training system.

## **1.3 Structure of the Report**

### **Chapter 1**

In Chapter 1, it includes the Introduction of our project to show the readers some background information of Hong Kong life insurance industry such as premium growth rate, numbers of insurance companies. Also, it includes our specific objectives of this project and the structure of this report.

### **Chapter 2**

In Chapter 2, we introduce the characteristics of life insurance and its agent. There are some specific areas that we will discuss in this chapter. These includes: the difference between an insurance agent and a general salesperson, number of life insurance, complaints to agents, public perception and trust, comparison of general and life insurance, market trend of life insurance industry, training system as well as regulatory system of life insurance agents.

### **Chapter 3**

In Chapter 3, it is the methodology of our research. It includes both primary data

and secondary data we have collected. Besides, it contains the purpose, design and distribution method of each survey accordingly. Lastly, it also includes the statistic analysis of our survey.

#### **Chapter 4**

In Chapter 4, it is the findings of our research. It includes all the data we received from questionnaire data from the general public, interviews reports from both outstanding life insurance agents and insurance companies.

#### **Chapter 5**

In Chapter 5, it is our conclusion after we finished this project.

#### **Chapter 6**

In Chapter 6, it is the recommendation part of our research. It includes points we recommend especially for those problems we observed from the survey.

#### **Chapter 7**

In Chapter 7, it includes the limitations we encountered during doing this research and we provide some suggestion for future research thereafter.

## **Chapter 2      The Characteristics of Life Insurance (Literature Review)**

### **2.1 Life Insurance Agent**

#### **The differences between an insurance agent and a general agent**

An insurance agent is different from a general agent in various aspects.

Firstly, the nature of product. A general agent sells the products which are solid real goods, for example, a computer, a doll or a television set; while an insurance agent sell the product of contract. No matter what kind of insurance policies the clients want to buy, for example, a life insurance, a personal accident insurance or a medical insurance, the client will only receive the contract. It can be said that the client is buying the wording of the insurance policy.

Secondly, the timing of benefit. When a general agent sells his product to a customer, the customer pays for the goods and then he receives the goods immediately. This is an instant consumption. The buyer can enjoy the product after he bought it. However, for the insurance buyer, after paying the premium, it seems that he or she only received the promise for a future event. The benefit of the insured is the future compensation if an accident happens.

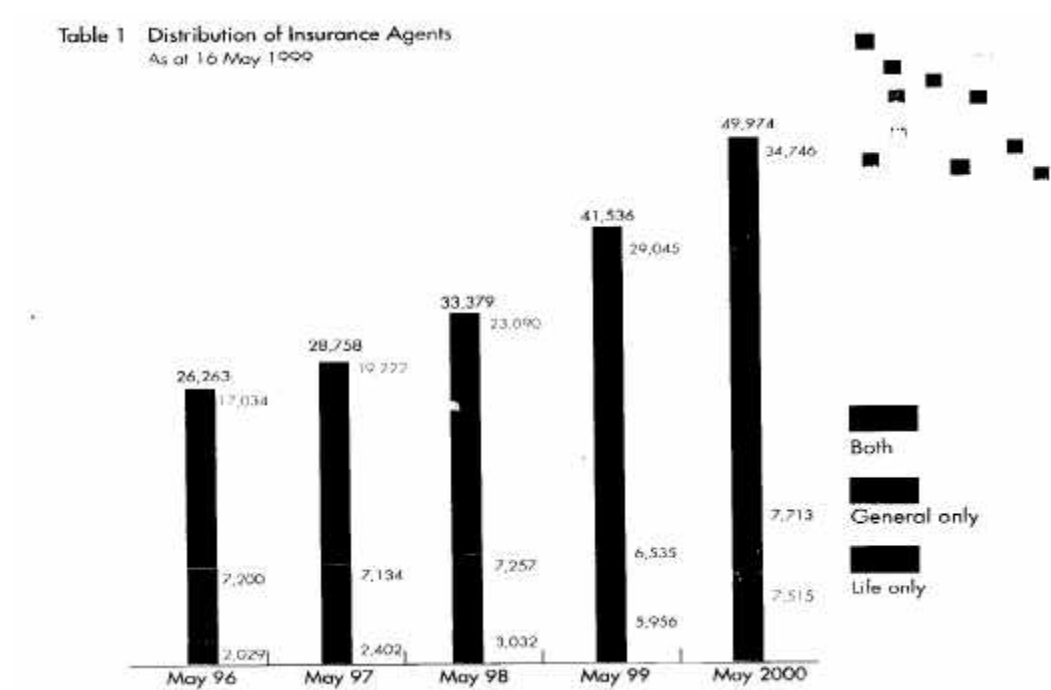
Since the selling point of the insurance policies is the wording of the contract and it does not provide the instant benefit, in this professional industry, the insurance agents have to be more knowledgeable than the general agents. The insurance agents have to know the technical terms and concept clearly. He or she has to explain the insurance policy to the insureds. Therefore, the insurance agents are required to pass the Insurance Intermediaries Qualifying Examination proposed by the Insurance Authority. Take into consideration the increasing sophistication and differentiation of insurance products it is a must for the insurance agents to further enhance the professional standard so as to protect the interests of the insuring public.

#### **Number of life insurance agent**

Until May 2000, there are 42,261 insurance agents registered in the Insurance Agents Registration Board, of whom 7,515 insurance agents in life insurance industry, 7,713 insurance agents in general insurance industry and 34,746 insurance agents in both

life and general insurance industry (see Figure 2).

**Figure 2** Distribution of Insurance Agents



In Hong Kong, over 95 per cent of insurance was sold by agents to customers on a face-to-face basis. Since the policies are mainly sold through agents, it is the major way of people to recognize the principle insurer the agent represent. And it is also the major source of premium revenue to insurers. Inevitably, the performance of agents can significantly affect the revenue of the insurers and the public's perception of insurance.

Typically, a life insurance agent is over eighteen years old, and the education qualification is only up to Secondary Five standard. In the survey of Insurance Training Board in 1997, there is nearly 90% of life insurance agents who have a Secondary Five standard. For the agents with a degree is only about 5%, and with diploma, certificates or "A-Level" standard is about 4% (see Figure 3).

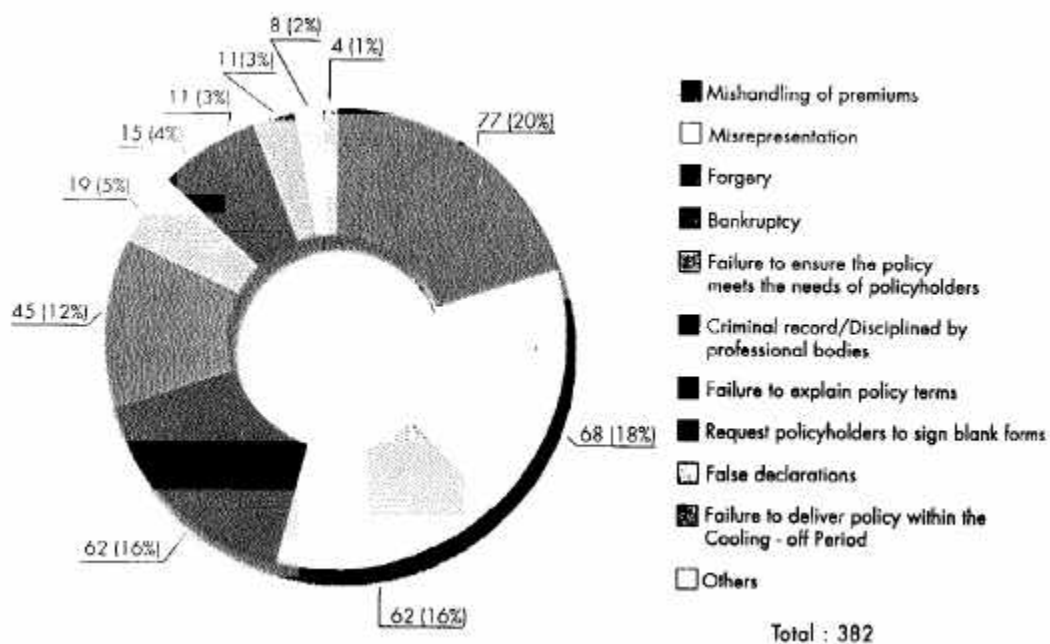
**Figure 3** Education level and Qualification of insurance agents 1997

Education level	No.	Percentage
Form 5	17,631	89.2
Degree holder	977	4.9
Post secondary/Diploma/Cert.	812	4.1

## Complaints to Agents

The number of complaint cases against insurance agents received by the Insurance Agents Registration Board increases from 104 cases in 96-97 to 382 cases in 99-00 (see Figure 4). The complaints involved mishandling of premiums, misrepresentation, forgery, poor service, etc. The growth rate of the complaints is frightening. The reasons of this rapid growth rate have two: Higher transparency of the complaint system and the low quality of the insurance agents. Obviously, the quality of the insurance agents is playing an important role to life insurance companies and the insureds. His or her performance can significantly affect the revenue of the insurers and the public's perception of insurance.

**Figure 4** Number of Complaints Against Insurance Agents



For the life insurance companies, the quality of the insurance agents can affect its productivity. Since the policies are mainly sold by agents, if the quality of the agents is low, they may difficult to explain the policies term to the clients, irresponsible for the insureds, or even they may cheat the clients in order to sell the policies and earn the commission. The performance of the insurance agents is directly affecting the insurer because he or she is representing the principle company.

## **2.2 Public Perception and Trust**

### **Relationship between public perception and life insurance**

Life insurance business has lots of differences to general business. First, insurance policy is a contract with many legal wording, provisions. It is neither a product nor service that provide instant tangible feeling to customers. Insurance policy is a product of contract that offer protection and even value to the policyowner in the future.

Life insurance is primarily a people's business, the subject matter to be insured is a person. There is an important component of trust between the insurer and the insured, because of the principle of utmost good faith applied to insurance policies. In addition, there are lots of legal wordings, definitions, principles and underlying principles within the insurance contract. It is difficult to customers to know and understand such technical and complicated content in the insurance contract without a help of well-trained and knowledgeable agents.

There are reasons to believe that life insurance has a special place in regard to the public perception. First, it is often argued that life insurance is a form of savings. Second, life insurance products are different from non-life products in that the beneficiary is not the policyholder himself of herself. In other words, purchasing life insurance can sometimes be rationalized only if there is a bequest motive, that is, the insured must value something beyond his life in order for such a purchase to make sense. In this sense, the public's willingness to pay for life insurance can be more than just a present value calculation. Third, there is something to the dictum that "life insurance can only be sold but not bought." Clearly, the social status, the appearance, and the business ethics of a sales force reflect the image an insurance company wants to portray to its clients. Thus, public perception is more important for life insurance than it is for non-life insurance.

### **Comparison of general and life insurance**

Theoretically, sales efforts for life and non-life products are also different. Agents for life insurance products are sometimes viewed as performing the unique role of persuader. Persuasion is arguably less necessary when it comes to selling general insurance than it is for selling life insurance. This is because the management of

business risk has few emotional elements. Corporate demand for insurance services is guided by profit motives. On the other hand, consumer demand for life insurance has a larger persuasion component. Individuals who do not worry about themselves or others will have little need for the risk transfer function provided by insurance. Also, individuals will behave in a risk-averse manner only when they are fully aware of the risks they face. Therefore, persuasion on the part of life insurance agents may indeed have a specific purpose that is not replaceable by direct sales methods, and for this reason, the issue of public perception is particularly important.

### **2.3 Market Trend of Life Insurance Industry**

#### **Customers become more knowledgeable**

Nowadays, the public is more well-educated. The consumers are more aware of their insurance needs. They are more sensitive to the choice of products, the performance of the insurance companies (or the insurance agents) and the premium price. The consumers become increasingly sophisticated. They will seek different channels to optimize their benefits and concern the price of the policies.

#### **Competition**

There is high competition among insurance companies. The insurers work hard to penetrate into various identified market, more and more products are designed and launched. The agents face-to-face selling system will be under pressure as there is more competition from bankers, independent financial advisors and all forms of direct selling. Face-to-face contact becomes less attractive as consumers become more familiar with the products and other selling channels like internet, telesales and direct mailing.

#### **Recruitment of University Graduates**

With the increased emphasis on the upgrading of agents professional standards, the effective way to pursue higher level of professionalism is by raising its education requirement via the recruitment process. It is easily to find that some insurers have launched different kinds of recruitment packages in which are particularly aimed to recruit university graduates. For examples, the University Graduate Development Scheme launched by the New York Life Insurance Worldwide Ltd, the Sun Life of Canada (International) Limited.

To sustain the growth of the insurance industry and build up its image and professionalism, high quality training to insurance agents is essential.

## **2.4 Training System**

### **The Definition and Nature of Training**

Training is a process of changing the employee's behavior at work through the application of learning principles. The behavioral change usually has a focus on knowledge or information, skills or activities, and attitudes or beliefs and value systems.

Learning, the oil of the machinery of training, is a relatively permanent change in behavior which is not usually attributable to maturation or growth. Learning requires an "intervention" by the Manager and the learner in order to modify the learner's behavior with a view to enhance performance at work. This "intervention" can mean the addition of new, the subtraction of old, or the fine-tuning of existing behavioral patterns.

### **Current practice of training**

Training is provided from both internal and outside facilities. Many employers run in-house training programs for trainees, and also send them to insurance courses run by technical institutes and the Insurance Training Centre of the Vocational Training Council.

Just as important are the professional qualifications in insurance which can be obtained by examination. Most employers give their staff every encouragement to study and sit the examinations, so that they can become professionally qualified while they work.

Training opportunities are now available largely through the vocational Training Council (VTC) of the Hong Kong government. The VTC has an Insurance Training Board, which periodically assess the manpower and training needs of the insurance industry and to recommend to the VTC for the development of training facilities to meet the demand for trained insurance personnel.



Over the last few years, insurance courses have been conducted at the Hong Kong Institute of Vocational Education (IVE). The training institutions offer diploma courses and higher diploma courses on insurance in addition to short courses and professional seminars to help enhance the professional skills of practitioners. From 1999 and 2000, the Lingnan University and the Chinese University of Hong Kong start offering the degree courses, Risk and Insurance Management.

Generally Speaking, insurance practitioners are more interested in recognizable degrees and certificates rather than in general knowledge. Passing the examinations provided by Life Office Management Associations (LOMA), will earn one a title of Fellow of Life Management Institute (FLMI). The education and training of insurance practitioners in Hong Kong has also been enhanced through the US Life Insurance Agency Management Association (LIMRA), often with the local cooperation of agent associations such as the Hong Kong Life Underwriter Association (LUA). More channels and training possibilities are provided to agents in Hong Kong via the Life Underwriter Training Council (LUTC) and the Chartered Life Underwriter (CLU).

## **2.5 Regulatory System of Life Insurance Agents**

The regulatory measures developed in Hong Kong are supported by a system of self-regulation by the insurance industry. Self-regulatory measures in the insurance market are formulated by the insurance industry in consultation with the government. In respect of insurance agents, a Code of Practice for the Administration of Insurance Agents ("Code of Practice") has been issued for the administration and regulation of appointed insurance agents since January 1993. In the same month, an Insurance Agents Registration Board ("IARB") was set up under the Hong Kong Federation of Insurers ("HKFI") for the registration of agents and for dealing with complaints about agents' malpractices.

Since the implementation of self regulatory system, the IARB issues Guidelines from time to time as to how it intends to exercise its powers and fulfils its responsibilities under the Code of Practice. These guidelines include on Misconduct, Handling of Premiums, and the Effective Date of Registration of Insurance Agents, Responsible Officers and Technical Representatives.

To further enhance the effectiveness of the self-regulatory system, the insurance industry, has introduced other initiatives including cooling-off period, illustration

standards in respect of sales of long term insurance policies and the revised Customer Protection Declaration Form. The ICO (Insurance Companies Ordinance) empowers the Insurance Authority to direct the insurer to de-register an appointed insurance agent if that agent has breached the Code of Practice.

The Insurance Intermediaries Quality Assurance Scheme ("the IIQAS") has come into effect since 1 January 2000. Under the IIQAS, life insurance agents are required to pass a qualifying examination as one of the requirements for entry to the profession, and they have to attend continuing professional development programs thereafter.

## **Chapter 3      Methodology**

### **3.1 Data Collection**

The purpose of this research is to look at the importance of life insurance agent training in Hong Kong. For this purpose, we should obtain the information from three parts, they are: the *Life Insurance Companies*, the *Life Insurance Agents* and the *Public*. Therefore, we have conducted three surveys for each of them.

#### ***3.1.1 Survey Question 1 (Life Insurance Companies)***

##### **Purpose**

To receive the following information:

1. The background information related to the Agency, e.g. number of agents.
2. The evaluation of the training
3. The effects of the training
4. The future development of the training program
5. The constraints of the training

##### **Questionnaire Design**

We decided a set of open-ended questions for the interview with the life insurance companies. There are total 14 questions asking for the background information of the company and the information about the training program.

##### **Method**

We had founded three insurance companies' managers of training department and conducted an interview with them. Then we had translated the conversations and summarized the result.

#### ***3.1.2 Survey Question 2 (Life Insurance Agents)***

##### **Purpose**

The purpose of conducting this survey is to identify the needs of training from the

agent's point of view, and to find out the factors of becoming a successful agent.

### **Questionnaire Design**

This is also a set of open-ended questions for the interview with the outstanding life insurance agents. There are total nine questions asking for the background information of the insurance agents and the reasons behind them of becoming a successful agent.

### **Method**

We had contacted four insurance agents and conducted an interview with them. Then we had translated the conversations and summarized the result.

#### ***3.1.3 Survey Question 3 (Public)***

### **Purpose**

To get the idea from the public's expectation on life insurance agents and life insurance companies, and to what extent the public satisfies the performance of his or her life insurance agent.

### **Questionnaire Design**

We used fixed-alternative questions and attitude rating scale questions in the questionnaire. There are total nine questions in the questionnaire. The first part is asking for the background information of the public. Then, the questions are asking about their expectation on the life insurance agents and life insurance companies.

### **Method**

We had distributed 200 questionnaires to the university students and their families. After one month, we received 171 questionnaires, of which 162 questionnaires are valid. We use Microsoft Excel to analysis the data.

## **3.2 Secondary Data**

Several sources were needed to be relied upon so as to facilitate the content of our

project. The sources of secondary data include:

1. Government publications: e.g. Office of the Commissioner of Insurance
2. Periodicals: e.g. I Lens (保監透視)
3. Annual Reports: e.g. Hong Kong Federation of Insurers
4. Newspapers searched on Internet
5. Reference Books in Library

### **3.3 Statistic Analysis**

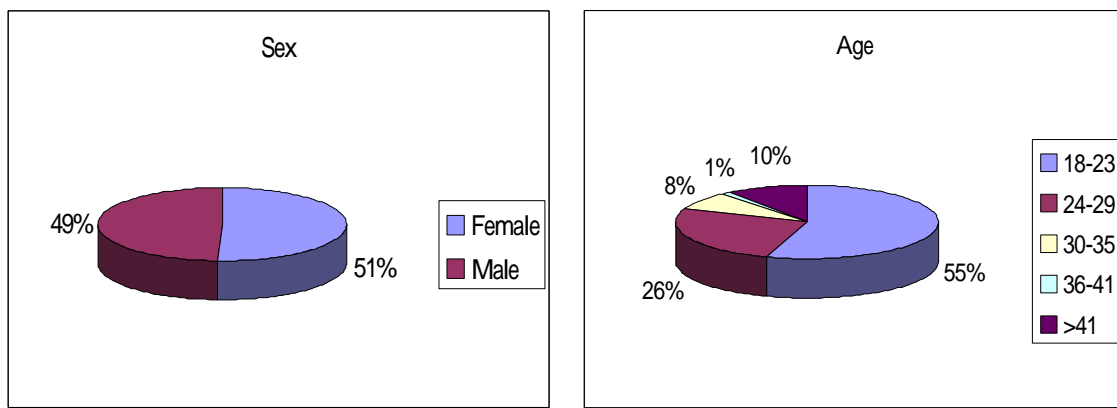
We had put the data into Microsoft Excel and had used the Descriptive Statistic and Hypothesis Testing to analysis the result from the questionnaires.

## Chapter 4 Findings

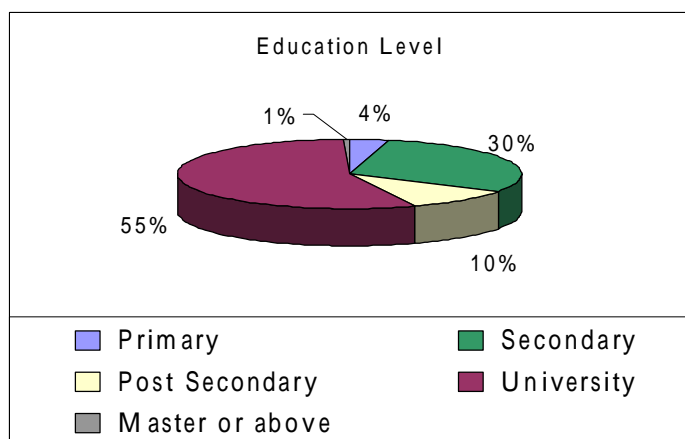
### 4.1 Survey Results from Public

#### 4.1.1 *Sample Characteristic*

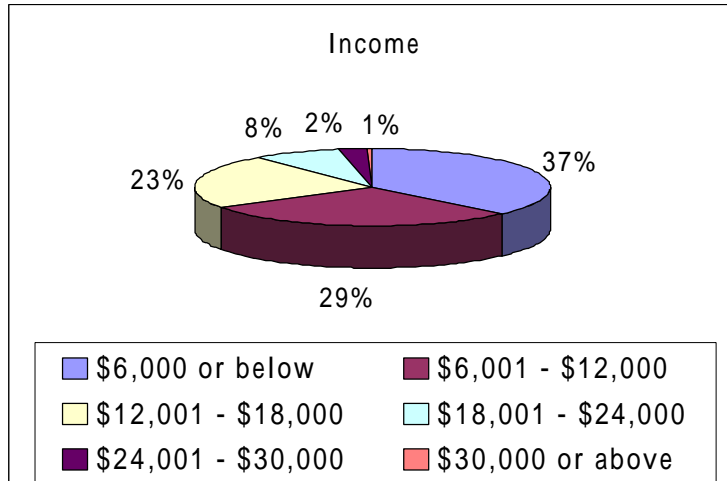
From the 162 questionnaires, there are 80 male and 82 female; there are 89 people ages from 18-23, 42 people ages from 24-29, 13 people ages from 30-35, 2 people ages from 36-41, 16 people older than 42.



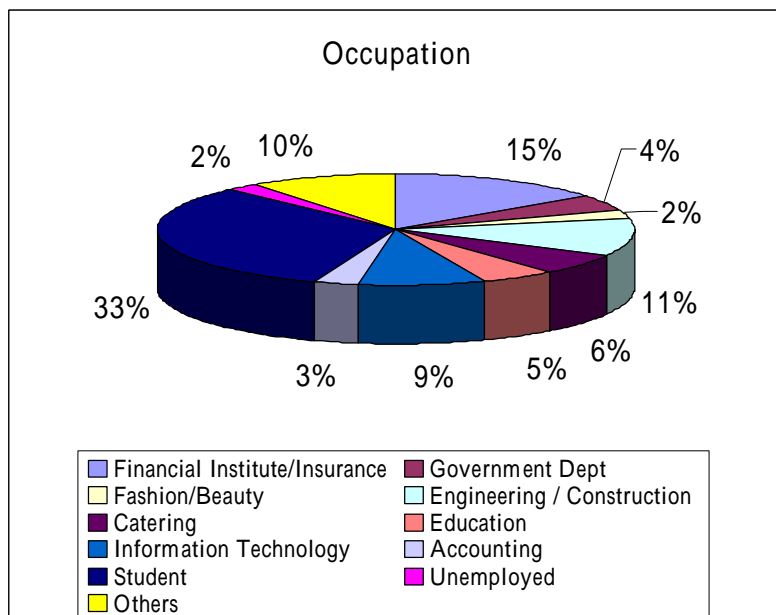
From the surveyed people, the education level reach university or above has 91 people, post secondary has 17 people, secondary has 48 people, primary has 6 people.



From the surveyed people, the income level below \$6,000 has 60 people, between \$6,001 - \$12,000 has 47 people, between &12,001 - \$18,000 has 37 people, between \$18,001 - \$24,000 has 13 people, between \$24,001 - \$30,000 has 4 people, above \$30,001 has 1 person.



From the surveyed people, 52 people are students, 24 people working in financial institute or insurance companies, 18 people working in engineering or construction industry, 14 people working in information technology industry, 10 people working in catering industry, 8 people working in education industry, 7 people working in government departments, 5 people working in accounting, 4 people are unemployed, 16 people are grouped as 'others' .

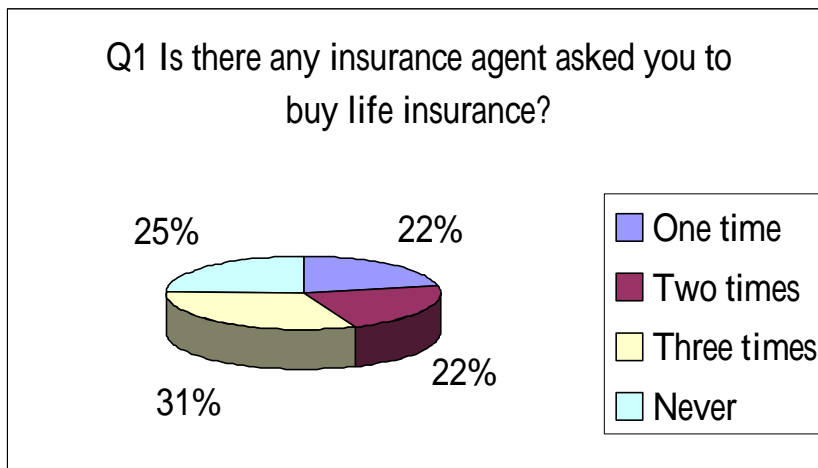


#### 4.1.2 Results

There are totally 9 questions in the questionnaire, the results are as follows:

##### Q1 Is there any insurance agent asked you to buy life insurance?

		Frequency	Percent	Cumulative Percent
Valid	1:One time	35	22	22
	2:Two times	36	22	44
	3:Three times	51	31	75
	4:Never	40	25	100
	Total	162	100	



There were 75% of the surveyed people had asked by the agents, 25% of them have not been approached by the agents.



**Q2 What factors are the most important when you choose insurance agent?  
(1 = most important, 5 = not important)**

From the analysis (Hypothesis testing see Appendix 2.1), the ranking of the importance of the ten factors is:

Item	Ranking	T-test Results
Professional	1	
Service	2	t*-value=1.85; p-value=0.10; reject Ho
Representing Company	3	t*-value=2.21; p-value=0.10; reject Ho
Experience & Stability	4	t*-value=0.21; p-value=0.10; accept Ho
Friends/Relatives	5	t*-value=4.76; p-value=0.10; reject Ho
Prizes record	6	t*-value=9.33; p-value=0.10; reject Ho
Younger	7	t*-value=0.35; p-value=0.10; accept Ho
Older	8	t*-value=1.75; p-value=0.10; reject Ho
Female	9	t*-value=2.13; p-value=0.10; reject Ho
Male	10	t*-value=0.5; p-value=0.10; accept Ho

1. Professional
2. has good service
3. representing company and has experience & stability
4. is friend/relative
5. has prizes record and younger
6. older
7. is female and is male

From this result, we can see that people tend to find an insurance agent who is professional. The next important is that they want the insurance agent can provide good service to them. Also, the representing company and the experience & stability of the insurance agents are the next important. People are not very care about the prizes record, sex and age of the insurance agent.

We also divided the whole sample size into different groups to analyze the result, they are:

- Younger age group (18 – 29)
- Older age group (>30)
- Relatively low education group (secondary or below)
- Relatively high education group (post secondary or above)
- Relatively low income group (< \$12,000)
- Relatively high income group (> \$12,000)

The rankings of the result of the above groups are as follows: (Hypothesis testing see Appendix 2.2)

### Younger age group (18 – 29)

Item	Ranking	T-test Results
Professional	1	
Service	2	t*-value=1.67; p-value=0.10; reject Ho
Representing Company	3	t*-value=1.27; p-value=0.10; accept Ho
Experience & Stability	4	t*-value=0.16; p-value=0.10; accept Ho
Friends/Relatives	5	t*-value=2.98; p-value=0.10; reject Ho
Prizes record	6	t*-value=7.8; p-value=0.10; reject Ho
Younger	7	t*-value=0.94; p-value=0.10; accept Ho
Older	8	t*-value=0.45; p-value=0.10; accept Ho
Female	9	t*-value=1.56; p-value=0.10; reject Ho
Male	10	t*-value=0.55; p-value=0.10; accept Ho

1. Professional
2. has good service
3. representing company
4. has experience & stability
5. is friend/relative
6. has prizes record
7. younger
8. older
9. female and male

## Older age group (>30)

Item	Ranking	T-test Results
Professional	1	
Service	1	
Experience & Stability	2	t*-value=0.69; p-value=0.10; accept Ho
Representing Company	3	t*-value=1.1; p-value=0.10; accept Ho
Friends/Relatives	4	t*-value=2.75; p-value=0.10; reject Ho
Younger	5	t*-value=2.27; p-value=0.10; reject Ho
Prizes record	6	t*-value=1.19; p-value=0.10; accept Ho
Older	7	t*-value=1.42; p-value=0.10; reject Ho
Male	8	t*-value=1.22; p-value=0.10; accept Ho
Female	9	t*-value=0.11; p-value=0.10; accept Ho

1. Professional and has good service
2. has experience & stability
3. representing company
4. is friend/relative
5. has prizes record and younger
6. older
7. male
8. female

**Relatively low education group (secondary or below)**

Item	Ranking	T-test Results
Professional	1	
Service	2	t*-value=0.24; p-value=0.10; accept Ho
Experience & Stability	3	t*-value=2.33; p-value=0.10; reject Ho
Representing Company	4	t*-value=1.64; p-value=0.10; reject Ho
Friends/Relatives	5	t*-value=1.17; p-value=0.10; accept Ho
Prizes record	6	
Younger	6	t*-value=5.96; p-value=0.10; reject Ho
Older	7	t*-value=1.03; p-value=0.10; accept Ho
Female	8	t*-value=1.4; p-value=0.10; reject Ho
Male	9	t*-value=0.23; p-value=0.10; accept Ho

1. Professional and has good service
2. has experience & stability
3. representing company and is friend/relative
4. has prizes record, younger and older
5. female and male

**Relatively high education group (post secondary or above)**

Item	Ranking	T-test Results
Professional	1	
Service	2	t*-value=1.6; p-value=0.10; reject Ho
Representing Company	3	t*-value=0.07; p-value=0.10; accept Ho
Experience & Stability	4	t*-value=0.82; p-value=0.10; accept Ho
Friends/Relatives	5	t*-value=3.24; p-value=0.10; reject Ho
Prizes record	6	t*-value=6.47; p-value=0.10; reject Ho
Younger	7	t*-value=0.35; p-value=0.10; accept Ho
Older	8	t*-value=1.08; p-value=0.10; accept Ho
Female	9	t*-value=1.43; p-value=0.10; reject Ho
Male	10	t*-value=0.44; p-value=0.10; accept Ho

1. Professional
2. has good service, has experience & stability and representing company
3. is friend/relative
4. has prizes record
5. younger
6. older
7. female and male

**Relatively low income group (< \$12,000)**

Item	Ranking	T-test Results
Professional	1	
Service	2	t*-value=0.95; p-value=0.10; accept Ho
Representing Company	3	t*-value=0.69; p-value=0.10; accept Ho
Experience & Stability	4	t*-value=0.7; p-value=0.10; accept Ho
Friends/Relatives	5	t*-value=2.57; p-value=0.10; reject Ho
Prizes record	6	t*-value=6.05; p-value=0.10; reject Ho
Younger	7	t*-value=0.91; p-value=0.10; accept Ho
Older	8	t*-value=0.47; p-value=0.10; accept Ho
Female	9	t*-value=2.1; p-value=0.10; reject Ho
Male	10	t*-value=0.37; p-value=0.10; accept Ho

1. Professional
2. has good service
3. has experience & stability and representing company
4. is friend/relative
5. has prizes record
6. younger
7. older
8. female and male

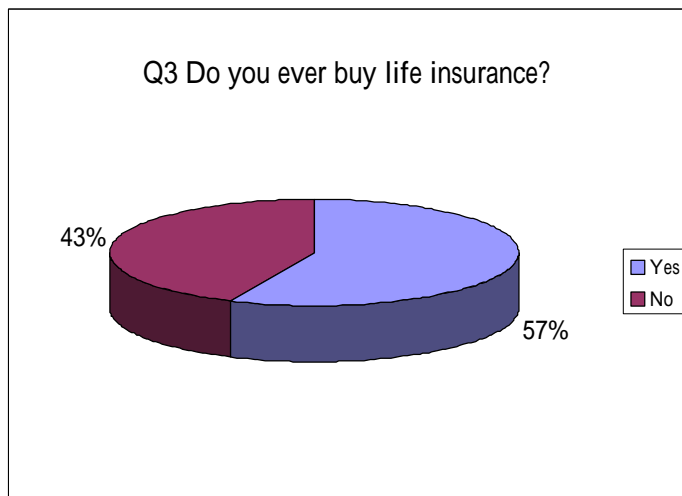
**Relatively high income group (> \$12,000)**

Item	Ranking	T-test Results
Professional	1	
Service	2	t*-value=1.96; p-value=0.10; reject Ho
Experience & Stability	3	t*-value=0.76; p-value=0.10; accept Ho
Representing Company	4	t*-value=2.17; p-value=0.10; reject Ho
Friends/Relatives	5	t*-value=2.43; p-value=0.10; reject Ho
Younger	6	t*-value=5.29; p-value=0.10; reject Ho
Prizes record	7	t*-value=0.74; p-value=0.10; accept Ho
Older	8	t*-value=1.24; p-value=0.10; accept Ho
Female	9	t*-value=0.47; p-value=0.10; accept Ho
Male	10	t*-value=0.3; p-value=0.10; accept Ho

1. Professional
2. has good service and experience & stability
3. representing company
4. is friend/relative
5. younger
6. has prizes record
7. older, female and male

**Q3 Do you ever buy life insurance?**

		Frequency	Percent	Cumulative Percent
Valid	Yes	92	57	57
	No	70	43	100
	Total	162	100	

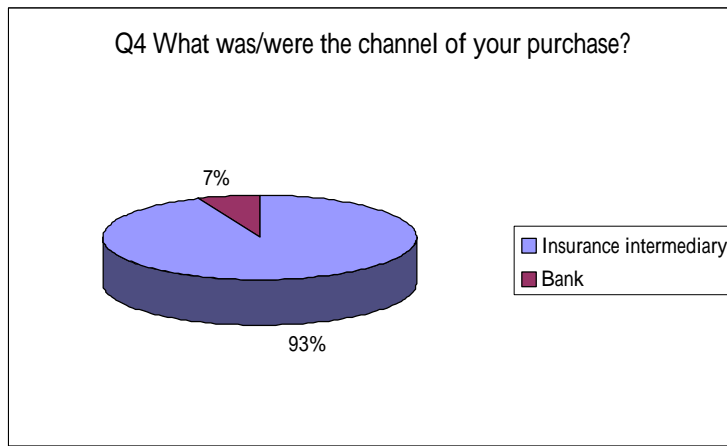


There is 57% of the people bought life insurance while 43% of them haven't bought it.



#### Q4 What was/were the channel(s) of your purchase?

		Frequency	Percent	Cumulative Percent
Valid	Insurance intermediary	86	93	93
	Internet	0	0	93
	Bank	6	7	100
	Total	92	100	

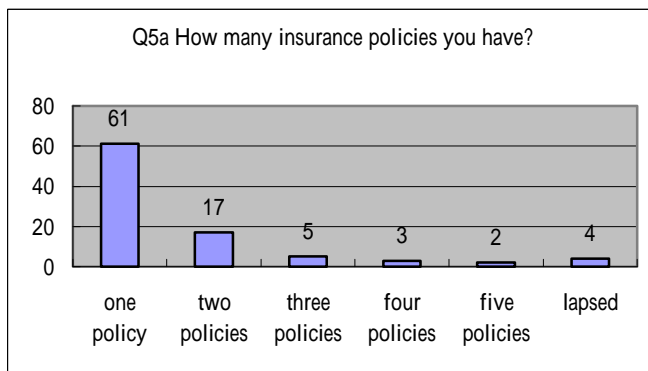


There is 93% of the people who bought life insurance through insurance intermediaries, while 7% of them bought life insurance through banks.

It seems that the main channel of people buying life insurance is through insurance agents.

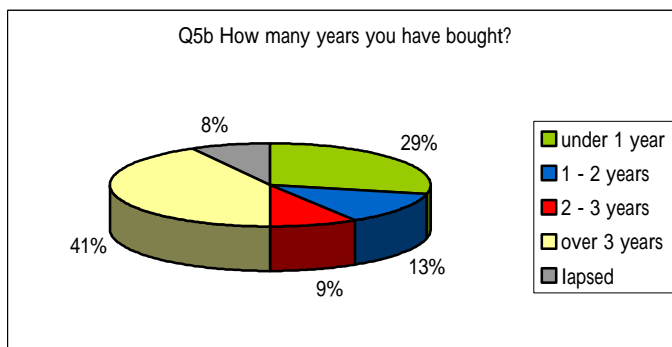
**Q5a How many insurance policies you have?**

		Frequency	Percent	Cumulative Percent
Valid	One policy	61	66	66
	Two policies	17	18	84
	Three policies	5	5	90
	Four policies	3	3	93
	Five policies	2	2	95
	Lapsed	4	4	100
Total		92	100	



**Q5b How many years you have bought?**

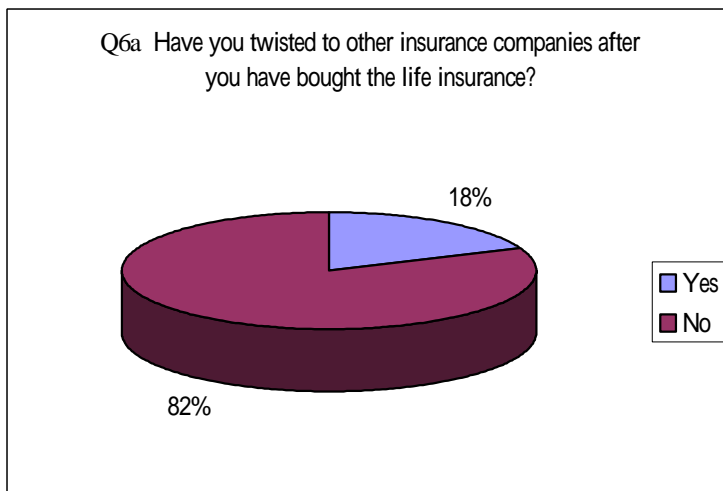
		Frequency	Percent	Cumulative Percent
Valid	Under 1 year	32	29	29
	1 - 2 years	14	13	42
	2 - 3 years	10	9	50
	Over 3 years	47	42	92
	Lapsed	9	8	100
Total		112	100	



According to the data received, there are 92 people who have bought life insurance resulting totally 112 policies. However, there are only 103 policies that are still in force (9 policies was lapsed) and 88 people out of 92 people who have protection by life insurance (4 people do not have protection as lapsed policy).

**Q6a Have you twisted to other insurance companies after you have bought the life insurance?**

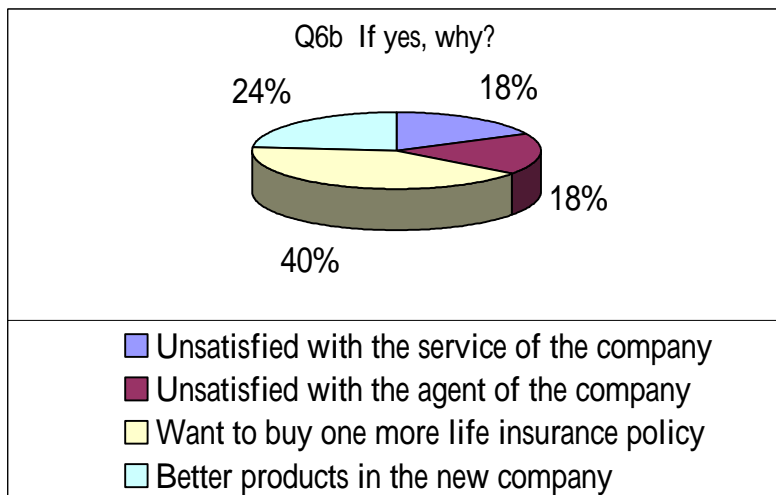
		Frequency	Percent	Cumulative Percent
Valid	Yes	17	18	18
	No	75	82	100
	Total	92	100	



There are about 18% of people who have twisted to other insurance companies after they bought the life insurance, whereas 82% of people who have not.

**Q6b If yes, why?**

	Frequency	Percent	Cumulative Percent
Valid Unsatisfied with the service of the company	3	18	18
Unsatisfied with the products of the company	0	0	18
Unsatisfied with the agent of the company	3	18	36
Want to buy one more life insurance policy	7	40	76
Better products in the new company	4	24	100
Total	17	100	



There are 40% of the people who twisted to other insurance companies because they want to buy one more life insurance policy; 24% of them because of the better products in the new company; 18% of them unsatisfied with the agent of the company and 18% of them unsatisfied with the service of the company.

**Q7 What is the level of satisfaction of your agent?  
(1 = high satisfaction, 5 = low satisfaction)**

From the analysis (Hypothesis testing see Appendix 2.3), the ranking of the satisfaction of the four factors is:

Item	Ranking	T-test Results
Professional	1	$t^*$ -value=0.29; p-value=0.10; accept Ho $t^*$ -value=1.88; p-value=0.10; reject Ho
Ethics	1	
Service	2	
After-sale service	3	

1. Professional, Ethics and service
2. After-sale service

Overall, the people are satisfied with their agents.

**Q8 What kinds of insurance company are you prefer when you need to buy insurance? (1 = most important, 5 = not important)**

From the analysis (Hypothesis testing see Appendix 2.4), the ranking of the importance of the eight factors is:

Item	Ranking	T-test Results
Reputation	1	
Suitable products	2	t*-value=1.06; p-value=0.10; accept Ho
Good after-sale service	3	t*-value=0.25; p-value=0.10; accept Ho
Good agents	4	t*-value=2.52; p-value=0.10; reject Ho
Additional benefits of policy	5	t*-value=4.27; p-value=0.10; reject Ho
Foreign based company	6	t*-value=1.45; p-value=0.10; reject Ho
Cheaper products	7	t*-value=1.51; p-value=0.10; reject Ho
Hong Kong based company	8	t*-value=5.43; p-value=0.10; reject Ho

1. has reputation
2. has suitable products
3. has good after-sale service
4. has good agents
5. has additional benefits of policy
6. is a foreign based company
7. has cheaper products
8. is a Hong Kong based company

From the result, we can see that most people tend to choose an insurance company which has reputation, suitable products and good after-sale service, respectively. The insurance company has good agents and the policies have additional benefits are in advantage. Whether the insurance company is foreign based or has cheaper products is relatively less important. Whether the insurer is Hong Kong based is the least important factor in people's mind.

We also divided the whole sample size into different groups to analyze the result, they are:

- Younger age group (18 – 29)
- Older age group (>30)
- Relatively low education group (secondary or below)
- Relatively high education group (post secondary or above)
- Relatively low income group (< \$12,000)
- Relatively high income group (> \$12,000)

The rankings of the result of the above groups are as follows: (Hypothesis testing see Appendix 2.5)

### Younger age group (18 – 29)

Item	Ranking	T-test Results
Reputation	1	
Suitable products	2	t*-value=0.82; p-value=0.10; accept Ho
Good after-sale service	3	t*-value=0.44; p-value=0.10; accept Ho
Good agents	4	t*-value=1.33; p-value=0.10; reject Ho
Additional benefits of policy	5	t*-value=3.35; p-value=0.10; reject Ho
Foreign based company	6	t*-value=1.49; p-value=0.10; reject Ho
Cheaper products	7	t*-value=0.75; p-value=0.10; accept Ho
Hong Kong based company	8	t*-value=4.81; p-value=0.10; reject Ho

1. has reputation, suitable products and has good after-sale service
2. has good agents
3. has additional benefits of policy
4. has cheaper products and is a foreign based company
5. is a Hong Kong based company

### Older age group (>30)

Item	Ranking	T-test Results
Reputation	1	
Good after-sale service	2	t*-value=0.2; p-value=0.10; accept Ho
Suitable products	3	t*-value=0.16; p-value=0.10; accept Ho
Good agents	4	t*-value=0.65; p-value=0.10; accept Ho
Foreign based company	5	t*-value=1.89; p-value=0.10; reject Ho
Additional benefits of policy	6	t*-value=0.16; p-value=0.10; accept Ho
Cheaper products	7	t*-value=1.66; p-value=0.10; reject Ho
Hong Kong based company	8	t*-value=1.22; p-value=0.10; accept Ho

1. has reputation, suitable products, good after-sale service and good agents
2. is a foreign based company and has additional benefits of policy
3. has cheaper products and is a Hong Kong based company



**Relatively low education group (secondary or below)**

Item	Ranking	T-test Results
Reputation	1	
Good after-sale service	2	t*-value=0.8; p-value=0.10; accept Ho
Suitable products	3	t*-value=0.42; p-value=0.10; accept Ho
Good agents	4	t*-value=0.34; p-value=0.10; accept Ho
Additional benefits of policy	5	t*-value=2.96; p-value=0.10; reject Ho
Foreign based company	6	t*-value=0.29; p-value=0.10; accept Ho
Cheaper products	7	t*-value=1.75; p-value=0.10; reject Ho
Hong Kong based company	8	t*-value=1.72; p-value=0.10; reject Ho

1. has reputation
2. has suitable products and good after-sale service
3. has good agents
4. is a foreign based company and has additional benefits of policy
5. has cheaper products
6. is a Hong Kong based company

**Relatively high education group (post secondary or above)**

Item	Ranking	T-test Results
Reputation	1	
Suitable products	2	t*-value=0.4; p-value=0.10; accept Ho
Good after-sale service	3	t*-value=0.6; p-value=0.10; accept Ho
Good agents	4	t*-value=1.38; p-value=0.10; reject Ho
Additional benefits of policy	5	t*-value=2.75; p-value=0.10; reject Ho
Foreign based company	6	t*-value=1.54; p-value=0.10; reject Ho
Cheaper products	7	t*-value=0.48; p-value=0.10; accept Ho
Hong Kong based company	8	t*-value=4.7; p-value=0.10; reject Ho

1. has reputation, suitable products and good after-sale service
2. has good agents
3. has additional benefits of policy
4. is a foreign based company and has cheaper products
5. is a Hong Kong based company

### Relatively low income group (< \$12,000)

Item	Ranking	T-test Results
Reputation	1	
Suitable products	2	t*-value=1.08; p-value=0.10; accept Ho
Good after-sale service	3	t*-value=0.29; p-value=0.10; accept Ho
Good agents	4	t*-value=1.06; p-value=0.10; accept Ho
Additional benefits of policy	5	t*-value=2.36; p-value=0.10; reject Ho
Foreign based company	6	t*-value=1.39; p-value=0.10; reject Ho
Cheaper products	7	t*-value=0.96; p-value=0.10; accept Ho
Hong Kong based company	8	t*-value=3.83; p-value=0.10; reject Ho

1. has reputation
2. has suitable products
3. has good agents and good after-sale service
4. has additional benefits of policy
5. is a foreign based company and has cheaper products
6. is a Hong Kong based company

**Relatively high income group (> \$12,000)**

Item	Ranking	T-test Results
Suitable products	1	
Reputation	2	
Good after-sale service	2	t*-value=0.17; p-value=0.10; accept Ho
Good agents	3	t*-value=1.38; p-value=0.10; reject Ho
Additional benefits of policy	4	t*-value=3.58; p-value=0.10; reject Ho
Foreign based company	5	t*-value=0.37; p-value=0.10; accept Ho
Cheaper products	6	t*-value=1.15; p-value=0.10; accept Ho
Hong Kong based company	7	t*-value=2.76; p-value=0.10; reject Ho

1. has reputation, suitable products and good after-sale service
2. has good agents
3. has additional benefits of policy
4. is a foreign based company
5. has cheaper products
6. is a Hong Kong based company

**Q9 How to improve the quality of the insurance agents? (More than one option is accepted)**

		Frequency	Percent
Valid	Increase entry requirement	73	45
	Increase training	144	89
	More regulations	130	80
	Heavier penalty	35	22
	Others	2	1

There is 45% of surveyed people agreed that increasing entry requirement can improve the service quality of insurance agents; 89% of them said that increasing training can improve the service quality of insurance agents; 80% of them think that more regulations can increase the quality standard of the agents; and 22% of them agreed that heavier penalty can improve the service quality of insurance agents. Two of the surveyed people said that more mandatory examination for the agents would increase the professional standard of them.

## **4.2 Interview from Insurance Companies**

### ***4.2.1 Characteristic***

We have chosen three companies with different scale of agency force, i.e. 180, 700 and 2000 numbers of insurance agents respectively. Obviously, they are facing different kinds of limitations due to the different scale. The main problem of small-scale agency force is the limitation of resource.

### ***4.2.2 Results***

There are total 14 questions we have asked the interviewees, after the analysis, we generate the main points as follows: (see Appendix 3)

#### **Functions of training department:**

Training department's function likes a transfer mechanism and act as a communication channel between the company and its agents. Training lets the agents know the basic insurance principles, products knowledge, selling techniques, ethics of the industry and etc. It adds value to agents as the they should be more knowledgeable and professional after training. The primary objective of training is to help agents develop their life long career, i.e. insurance.

#### **Types of training programs:**

Generally speaking, insurance companies will offer different types of training programs to its agents according to their level. However, from the interviews, we find that the scale of agency force also affects the types of training programs. Larger the scale of agency force, more comprehensive and sophisticated of the training programs the company offers.

For B insurer with about 180 agency force, the company just offers basic training programs and it would sponsor the agents to take some courses outside the company. As it is much cost effective than holding a training program by itself.

For N insurer with about 700 agency force, the company basically offers three types of programs that suit for new agents, experience agents and managers respectively. Besides, training department will arrange some special workshops, courses and

seminars to its agents.

For P insurer with about 2000 agency force, the company's programs are classified in more detailed including preparation course, introduction course, managers course, selling skills course, attitude, EQ training and etc. Also, the company will arrange some related seminars to its agents.

This phenomenon reflects the impact on economic of scale and specialization.

### **Identification of training needs and evaluation:**

Commonly, there is a regularly meeting between trainers and agency managers to identify the training needs of the agents. One said that the trainers have to sensitive to the environment to analyze what training the agents should need e.g. from newspapers or other insurance practitioners. Another one said there are needs analysis questionnaires sent to the agency offices every year.

For the evaluation, there is always an evaluation by the report of trainers as well as evaluation forms from the trainees. Also, there is a regular meeting between trainers and managers to review different training programs.

Besides, trainers always talk with those trainees informally to ask for their opinions toward the training they received.

### **Relationship between turnover rate, quality of services and training:**

Training can definitely improve the quality of services as some agents may unable to deal with certain kinds of problem because of their limited skills.

However, the training and turnover rate is indirectly related. Although, well-trained agent is expected to have higher ability to stay in the competitive market, one said an agent with adequate training would also leave their job because of any other reasons.

### **Future development of training:**

Training will be more comprehensive and complicated in the future because of greater diversification of the products. Demand of training will be more as increasing competitive environment, especially the competition against bankers. Agents are

expected to be more well trained in order to survive in the future competitive market.

Besides, training will make more use of information technology instead of staying in traditional training practice, i.e. learning in classrooms. There will be more training through Internet, Intranet, some kinds of software and etc.

In addition, training will have a greater specialization that more and more tailor-made and self-study packages offered by outside professional organizations as a result of larger training demand in the future market.

### **Recruitment requirements and characteristics:**

Recruitment criteria vary with different insurers due to different strategies applied. Generally, all insurers are looking for candidates that at least meet the legislative requirement. The common phenomenon is that the control of recruitment is basically delegated to agency itself. The requirements are very different due to the particular agency's culture, style and expectation.

However, some insurers pay much attention on the selection process of the candidates in order to recruit the "right type" person that match with the company's strategy. The company may evaluate the attitude, personality, education level or even family background to judge whether the candidate is suitable or not.

It is noted that, some insurers have special recruitment package for university graduates in order to enhance the professional standard of its insurance agents.

### **Differences of training programs from training department, agency and other professional organizations:**

According to the interviews, the training department provides training, which is informative, and knowledgeable based. While the agency's one is selling techniques and skills based training. More specifically, an agent's up-line manager is acting his/her coach that helps the agent to plan his/her business target, provides one to one basis training, guides and supervises the agent, motivates and cheers up the agent and etc.

Regarding the outside professional organizations like VTC, LUTC, LUA and etc, they both provide knowledgeable and selling skills based training. More importantly, it



provides agent an opportunity to achieve a qualified title after they pass those examinations.

**Difficulties of executing the training programs:**

Difficulties of executing the training programs are directly related to the scale of agency force as we have observed from the interviews.

For small-scale insurers, the main difficulty is the limitation of resources when taking into consideration of cost effectiveness to design, arrange and execute different training programs by its own.

Apart from this, there are still limitations of resources in other aspects. One said there are insufficient experienced trainers. Another one said there is limitation of timing for the preparation of training programs. This is because a two hours training may need one day to collect the information, especially for newly launched training program that everything is new.

One said the different education background of insurance agents is also a problem as it is difficult to make the training course effectively and efficiently to all trainees in which come from different education levels.

And one said another difficulty is insufficient briefing by agency managers. Trainees always attend the training class without enough preparation due the insufficient briefing by his/her up-line manager before attending the class.

### **4.3 Interview from Outstanding Insurance Agents**

#### ***4.3.1 Characteristic***

We have chosen four outstanding insurance agents to conduct an interview with us. All of them have got the MDRT achievement which representing the top 6% of insurance agents in the industry. One of them even is the life member of MDRT that required the qualification of the MDRT requirement over ten year to become a life member. One has been being the top cases in the company for many years. Another one of them has achieved the CIAM (Chartered Insurance Agency Managers) status. These demonstrate that they are professional and successful in the life insurance industry that definitely gives us valuable information for this project.

#### ***4.3.2 Results***

There are total 9 questions we have asked the interviewees, after the analysis, we generate the main points as follows: (see Appendix 4)

#### ***Factors of being a successful agent:***

Generally speaking, being a successful agent is attributed to four main elements, i.e. Attitude, knowledge, skill and habit. All of them stated that attitude and habit are the two most important factors for being a successful agent. Three of them think that attitude is the most important while the another think that having a good working habit is the most important.

Having a positive attitude is very important for the development of the agents' career. First of all, agents should believe or trust the insurance that they sold to their customers. Then, agents should have a commitment to their career, i.e. insurance. They all said that an agent should have the commitment of being success in their career. The more powerful the commitment they have, the more power for them to deal with the difficulties they face; the more the intention they learn, the more the probability for them to success.

Secondly, having a good working habit is more and less importance with having a good attitude. This is because selling insurance is a career that required by high level of discipline. Having a good working habit can help the insurance agent to work more efficiently that in turns to increase the volume of their business activities.

### **Frequency of training:**

Most of them will actively attend the training from the company as well as some professional organizations like LUTC, LUA, etc. Even, some of them are the qualified moderators and active speakers/trainers of those professional organizations.

### **Benefits from training and relationship with success:**

Obviously, they all agree that training improves their knowledge and skills to deal with customers. One even said that keeping on training is the formula to success.

Besides, training can provide an environment that let the trainees /think more positive and more optimistic to deal with their daily works.

Apart from getting benefits as a trainee, sometimes they all are the trainers for their new agents. As a trainer, they also may learn some new ideas and knowledge from the trainees.

However, someone said training just partially help her to success. She believes that practice is the most important that she believes 'practice makes perfect'. Another one said, training is good but the most important is still be having a good attitude to develop his/her career.

### **Suggestions for improving the current training practice in the industry:**

One suggested that it is preferable for a trainer to have an experience of being an insurance agent before. This is because he/she will more understand the needs of trainees so that it can increase the efficiency of training program.

Besides, the training program should be more comprehensive as more and more complicated products will be launched in the market, especially for those investment-linked policies. Trainers have to be more knowledgeable so as to let the agents fully understand different kinds of policies.

In addition, training program should concern more about the use on high technology. This can help to increase an agent's competitive power in the fast changing environment and make the work more efficiently.

**Suggestions for improving the professional standards of insurance agent:**

Generally speaking, they all agreed that the introduction of IIQAS and MPF examinations have a positive impact on improving the professional standards. It will also eliminate those low quality insurance agents by these examinations.

Besides, on-going training is an only way to improve the standards. In addition, one has said that insurers should set up a higher recruitment requirement, e.g. higher education level. Another one said that the agency manager should set as a good example to his team members and build up a good culture.

## **Chapter 5 Conclusion**

In conclusion, training is done in countless situations in the life insurance industry. It can be seen that the company's training department, agency managers as well as other professional organizations provide different kinds of training for all insurance agents at all level. It is necessary for life underwriters to keep abreast of current products, marketing techniques and legal trends that affect their business. Anyone who fails to pursue an ongoing training and education program cannot hope to remain either competitive or competent for the long term.

In recent years, however, training in this field has taken on a new dimension for many life underwriters. The Insurance Authority has adopted the IIQAS (The Insurance Intermediaries Quality Assurance Scheme) as one of the requirements for entry to the profession, and to attend continuing professional development ("CPD") programs thereafter.

The message is clear: the government wants to assure a high level of competency and integrity among insurance producers or anyone holding insurance licenses. The government is looking at insurance licenses not as a license to sell, but as a license to practice in a profession that is of material importance to the financial security of insurance buyers. The results are the life underwriters need to keep current on a number of topics. The government is demanding that agents prove their efforts to renew licenses by taking approved course work.

To some extent, there are both differences and commons in the whole process of designing, organizing, implementing and evaluating the training programs among the insurers interviewed. However, training is not a uniform process to which a single formula applies. Its function and form varies enormously from situation to situation such as the size, the manpower, the company strategy, the company philosophy and other resources available in different insurers.

Moreover, there are a wide variety of constraints to face when the training programs are implemented. Different insurers face problems in the training process because of various external and internal factors such as regulatory requirement, market environment, financial resources, cooperation from agency managers, training materials and etc.

In order to improve life insurance agents' professional standards and implementing

effective on-going training programs for them, it is suggested that insurers should recruit more high quality candidates and provide comprehensive on-going training to its agents. For the training department, it should find out the problems of training they face and try their best to solve the problems and reduce the various training constraints so as to improve the quality of training. For agency managers, they should set themselves as a good example, support their agents as more as possible and build up a good agency culture. For agents themselves, they should actively attend the training programs and grasp every opportunity to learn from training and then apply what they have learnt to their daily works.

## Chapter 6 Recommendations

Although insurance companies, agency managers, the industry as well as the government have put much effort to improve the professional standards of insurance agents by training and education, licensing, regulation and etc respectively, there are still several distinct tasks and constraints that we should concern. We provide here some suggestions to deal with the constraints for what we have observed from doing this research.

From the regulatory point of views, we are pleasure to see that Hong Kong Insurance Authority and the industry have imposed the IIQAS and continuing professional development programs thereafter. There is no doubt that the programs will have significant impact on the quality improvement of insurance intermediaries in Hong Kong. However, the requirement of IIQAS examination is only about the basic and primary knowledge of insurance. Besides, the passing rate of this examination is only generally around 50 per cent.

For this regards, we here have two suggestions for the IIQAS examination as follow:

First, the IIQAS examination should be more strictly. For example, either increasing the number of questions or increasing the passing requirement from originally 70% to 80% of the right multiple-choice answers or both.

Second, it should set a limit of times, say 3 times, for candidates to pass a particular examination paper within a certain period of time, therefore it can solve the problem that there is lack of dedication of candidates caused by unlimited times to sit the examination is allowed currently.

This message is clear: it increases the public recognition of insurance intermediaries receiving the license from passing the IIQAS.

Besides, we suggest that it should be more strictly supervision for insurance intermediaries by either enact more regulation or heavier penalty for any unethical selling behavior of them.

The suggestions mentioned above are match with the desires expressed by customers shown from our questionnaire result. There are 80%, 89% and 22% of surveyed people respectively to suggest increasing training, more regulations and heavier

penalty are the ways to improve service quality of insurance agents.

Regarding insurance companies, we suggest insurance companies to set up an internal licensing system for its insurance agents as an additional requirement for them of quality improvement apart from the regulatory-based IIQAS examination. By imposing the internal licensing system, the company should simultaneously provide comprehensive on-going training to its agents and they are required to attend the training and pass examination thereafter. As a result, the insurer can ensure its agents are knowledgeable and professional so as to increase the satisfaction level of the company's clients.

Moreover, it is suggested that insurers should increase the recruitment requirements for prospective insurance agents. It is match with our questionnaire result that there is 45% of surveyed people agreed that increasing entry requirement can improve the service quality of insurance agents. As we have observed, there are some insurers that have already had special recruitment packages designed for recruiting university graduates.

Obviously, we can easily find that people nowadays are more and more knowledgeable of insurance as well as other financial investments. Inevitably, life insurance agents are expected to be more knowledgeable and professional to provide comprehensive financial planning services and products to their clients. It is noted that insurance agents are changing their traditional role to be financial planner who provide combined complicated protection, saving and investing services and products in the marketplace instead of providing simple protection products in the past. Increasing the entry requirement for recruiting high quality people can make the training program more effective as they have higher ability to learn. Definitely, it suits for insurance companies' agency force strategy to maintain competitive power in the future market.

Some insurers have not enough training staff in the Training Department. In order to solve this problem, insurers can hire more experienced professionals to join the Training Department. However, it may not cost effective for some insurers to recruit new trainers caused by small scale of agency force. Therefore, it is necessary for the departmental trainers and the personnel staff assisting the trainers to implement the training programs effectively.

Besides, it is suggested that insurers should actively look for some training and



education courses available outside so as to arrange it to their agents. Evenly, insurers should actively create cooperation possibility with some universities or some professional institutions to launch advanced on-going training course to their agents.

In order motivate insurance agents to learn and attend training, one of the things to do is create and maintain a learning environment. Besides, reward is another important factor to increase the motivation of insurance agents. Training can be included as one of the components of compensation package. For example, insurance agents could be given an opportunity to join well-known professional training course outside free of charge or given promotion after some specific training courses in addition to reach certain business volume. Furthermore, it is the responsibility of the agency managers and trainer of training department to communicate with their agents formally and informally so as to encourage them to attend training voluntarily. All of them must create an environment in which learning flourishes.

Regarding agency managers, they are playing a significant role for the career development of their agents. It is noted that managers need not only to develop themselves, but also to take a much more active role in communicating with, developing and training their own team.

As we have observed, an agent's up-line manager seems to be a personal coach who will analyze the circumstances of the agent including his/her personality, strength, weakness, prospective market and other factors. Then, the manager will help the agent to make a target planning, arrange suitable training and personal supervision thereafter. It is suggested that agency managers should set as a good sample of being a professional agent so as to let their agents follow. Besides, agency managers should also build up a good agency culture and environment.

Moreover, we have found a problem related agency managers from the interview with training department. i.e. Some agency managers do not provide enough briefing for their agents before they sent their agents to attending company's trainings and education courses or seminars. Therefore, agents always don't know what kind of training they are going to attend and they can't prepare for it. It definitely affect the effectiveness of training courses provided by company.

In order to solve this problem, it is suggested that agency managers should bear in mind that they have the responsibility for clearly providing information to their agents about the content, the requirements of the training program and the various sources

available for fulfilling them.

According to the interviews with outstanding insurance agents, we suggest agency managers should pay more attention on their agents' attitude and working habit towards their career. i.e. life insurance. Then they should provide corresponding training (supervision and guiding) to their agents.

In conclusion, life insurance industry is a "people" industry that manpower is a valuable asset, which contributes greatly to the whole industry. It should be noted that each dollar spends on on-going training for insurance agents is worth. In order to improve the effectiveness of the training program, trainers or organizer should find out the problems of training they face and try their best to solve the problems and reduce the various training constraints so as to improve the quality of training.

## **Chapter 7 Limitations and Suggestions for Future Research**

### **7.1 Limitations**

#### **1. Methodology for data collections and analyzing**

Owing to the manpower constraint, time constrains and no suitable sampling list, a convenient sampling was being used in collecting the data. Actually, using convenient sampling is not a scientific method because it is not a probability sampling. Strictly speaking, it cannot fulfill the basic requirement of the scientific principle to use statistical test that based heavily on normal distribution (random distribution).

#### **2. Limited sample size**

The sample size of our study was only about one hundred and sixty. It may not be sufficiently large enough to generate the accurate and valid results. Consequently, the representative of the findings is not so strong may not able to represent all Hong Kong people. Therefore, if more resources are available, more information and ideas could be generated for this research.

#### **3. Insufficient research coverage**

Owing to our scope of this research is mainly focus on life insurance agency training, other aspects of life insurance training like insurance brokers or banker's staff training are beyond our scope. Therefore, the coverage is not comprehensive to reflect the whole industry picture relating to training.

#### **4. Honesty of the respondents**

Some questions in our questionnaire were too sensitive to our respondents like income or education level. They might be reluctant to tell what exactly income level or dishonesty to disclose their habit or behavior.

## **7.2 Suggestions for future research**

1. Sampling method is very important. Probability sampling should be used like cluster or systematic sampling as it can increase the reliability and accuracy for further analyzing.
2. If sufficient time and manpower are available, the sample size should be increased so that it can large enough to represent the Hong Kong people.
3. The research coverage should be enlarged to different aspects so as to generate more ideas and reflect the whole picture of the Hong Kong people..

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## Appendixes

### Appendix 1 Questionnaires

#### Questionnaire of Public:

#### 香港市民對人壽保險代理人的看法 問卷調查

您好！我們是嶺南大學風險及保險管理學系的三年級學生，現就公眾對人壽保險代理人的看法作一問卷調查，以作課題研究之用。希望閣下能抽出少少時間填寫問卷，所有資料，絕對保密。

您的資料

年齡：18-23    24-29    30-35    36-41    42 或以上

性別：男    女

教育程度：小學    中學    預科    大學    碩士或以上

職業性質：銀行/金融/保險    政府機構    時裝/美容    建築/工程  
飲食    教育    資訊科技    會計    學生    失業  
其他：\_\_\_\_\_

平均每月收入：\$6,000 以下    \$6,001-\$12,000    \$12,001-\$18,000  
\$18,001-\$24,000    \$24,001-\$30,000    \$30,000 以上

1. 是否有保險代理人向您推銷人壽保險？

有, 次數：一次    二次    三次或以上    沒有

2. 當您選擇保險代理人時，考慮什麼因素最為重要？

(1 為最重要，5 為最不重要)

他或她	1	2	3	4	5
有服務熱誠	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
有年資及穩定性	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
有專業知識	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
有得獎記錄	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
是自己熟悉的人	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
是男性	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
是女性	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
是比較年輕	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
是比較年長	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
所代表的保險公司	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

其他：\_\_\_\_\_

3. 您是否有購買人壽保險？

是  否(請轉往第 8 題)

4. 您透過什麼途徑購買人壽保險？

保險代理人  互聯網  銀行  保險經紀  其他：\_\_\_\_\_

5. 您有多少份人壽保單？您持有這些保單多少年？

\_\_\_份持有 1 年或以下      \_\_\_份持有 1-2 年      \_\_\_份持有 2-3 年  
\_\_\_份持有 3 年或以上      \_\_\_份曾經購買，現在沒持有

6. 您有否在一家保險公司購買保險單後又轉換去其他保險公司購買保險？

有  沒有

如果有，為什麼？(可選多於一項)

不滿意那保險公司的服務  不滿意那保險公司的產品  
 不滿意那保險公司的代理人  想多買一份  
 新公司的計劃比原有的更優勝  其他：\_\_\_\_\_

7. 您對您的保險代理人之滿意程度：(1 為最滿意，5 為最不滿意)

您對他或她的	1	2	3	4	5
服務熱誠	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
專業知識	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
職業操守	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
售後服務	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
整體印象	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
其他：_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8. 當您需要購買保險時，怎樣的保險公司是您選擇的對象？

(1 為最重要，5 為最不重要)      1    2    3    4    5

保險公司有好的信譽	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
保險公司有合適的保險產品	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
保險公司有比較便宜的產品	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
保險公司有好的代理人	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
保險公司有完善的售後服務	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
保險公司的保單有附加利益	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 是香港保險公司
- 是實力雄厚的外資保險公司
- 其他：\_\_\_\_\_

9. 您認為怎樣可以改善保險代理人的服務質素？(可選多於一項)
- 提高入職學歷要求       加強培訓       制定嚴格的管理條例
- 加強刑罰       其他：\_\_\_\_\_

問卷完 謝謝!



## **Questionnaire of Insurance Company**

### **Survey Questions – Insurance Company**

1. How many agents in your company?
2. What are the vision and values of the training department?
3. What kind of training program the company offers to the agents?
4. What are the objectives of the training program?
5. Is the current training program effective?
6. Are there any difficulty to execute the training program? How can you overcome these problems?
7. How to analyze the training needs of the agents?
8. Is there any evaluation of the trained agents and of the program?  
If yes, how to evaluate?
9. Do you think training can help to reduce turnover rate and improve quality of services? To what extent?
10. In your view, what will be the future development of the training program?
11. What are the requirements / criteria of your company in the process of agent recruitment?
12. Does your company have special training program for recruiting University graduates. If yes, why?
13. Both training department and agency offer training course to agents. What is the difference between them?
14. Agents have different levels of education. Is there any problem of designing the training program because of this? How does your company deal with this problem?

## *Questionnaire of Outstanding Agents*

### **Survey Questions – Agents**

1. What do you think are the factors of being a successful agent?  
Attitude, Knowledge, Skill, Habit!
2. Do you have training from the company or outside?
3. Is training a vital element to help you success?
4. What benefits you received from the training?
5. Do you think the current training program should be improved? Why?
6. The high turnover rate in the field is an important factor to affect the overall professional standards of insurance agents.  
In your view, what are the common problems of the rookies in this field and in what way the company' s training as well as outside organizations can help them?
7. In your view, what are the ways that can improve the professional standards of insurance agent in the industry?
8. What will be the coming future market you expect?
9. In your opinions, in what aspects the company should enhance the training to let the agents to fulfill the future market needs?

## Appendix 2 Hypothesis Testing

### Appendix 2.1

**Question 2** What factors are the most important when you choose insurance agent?

(1 = most important, 5 = not important)

He or she...	N	Min.	Max.	Mean	Std. Deviation	Variance
1 Service	162	1	5	1.59	0.83	0.69
2 Experience & Stability	162	1	5	1.81	0.91	0.82
3 Professional	162	1	5	1.43	0.74	0.54
4 Prizes record	162	1	5	3.46	1.02	1.03
5 Friends / Relatives	162	1	5	2.35	1.14	1.31
6 Male	162	1	5	4.01	1.06	1.13
7 Female	162	1	5	3.95	1.10	1.20
8 Older	162	1	5	3.70	1.03	1.07
9 Younger	162	1	5	3.50	1.04	1.08
10 Representing company	162	1	5	1.79	0.81	0.66

$$t^* = \frac{(x_1 - x_2) - (\mu_1 - \mu_2)}{\sqrt{\frac{S_1(n_1 - 1) + S_2(n_2 - 1)}{n_1 + n_2 - 2}} \cdot \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

1.  $H_0: \mu_3 - \mu_1 = 0$  (reject)

$H_a: \mu_3 - \mu_1 \neq 0$

$$t^* = \frac{1.43 - 1.59}{\sqrt{\frac{0.54(161) + 0.69(161)}{322}} \cdot \sqrt{\frac{1}{162} + \frac{1}{162}}}$$

$$= \frac{-0.16}{0.086}$$

$$= \underline{-1.85}$$

According to the one-tail t-table,  $\alpha=0.05$ ,  $t=1.654$ ;  $\alpha=0.10$ ,  $t=1.287$

When  $t^*$ -value = 1.85 which is higher than 1.287, then the conclusion is we reject  $H_0$ , i.e.  $\mu_3$  and  $\mu_1$  are significant different at the statistic level of  $\alpha=0.10$

In other words, professional is more important than service of the agents in people's mind.

2.  $H_0: \mu_1 - \mu_{10} = 0$  (reject)

$H_a: \mu_1 - \mu_{10} \neq 0$

$$\begin{aligned}
 t^* &= \frac{1.59 - 1.79}{\sqrt{\frac{0.69(161) + 0.66(161)}{322}} \cdot \sqrt{\frac{1}{162} + \frac{1}{162}}} \\
 &= \frac{-0.2}{0.09} \\
 &= \underline{\underline{-2.21}}
 \end{aligned}$$

According to the one-tail t-table,  $\alpha=0.05$ ,  $t=1.654$  ;  $\alpha=0.10$ ,  $t=1.287$

When  $t^*$ -value = 2.21 which is higher than 1.287, then the conclusion is we reject  $H_0$ , i.e.  $\mu_1$  and  $\mu_{10}$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the service is more important than the representing company of the agents in people's mind.

3.  $H_0: \mu_{10} - \mu_2 = 0$  (reject)

$H_a: \mu_{10} - \mu_2 \neq 0$

$$\begin{aligned}
 t^* &= \frac{1.79 - 1.81}{\sqrt{\frac{0.66(161) + 0.82(161)}{322}} \cdot \sqrt{\frac{1}{162} + \frac{1}{162}}} \\
 &= \frac{-0.02}{0.095} \\
 &= \underline{\underline{-0.211}}
 \end{aligned}$$

According to the one-tail t-table,  $\alpha=0.05$ ,  $t=1.654$  ;  $\alpha=0.10$ ,  $t=1.287$

When  $t^*$ -value = 0.211 which is lower than 1.287, then the conclusion is we accept  $H_0$ , i.e.  $\mu_{10}$  and  $\mu_2$  have no difference at the statistic level of  $\alpha=0.10$

In other words, the representing company and the experience & stability of the agents are the same important in people's mind.

4.  $H_0: \mu_2 - \mu_5 = 0$  (reject)

$H_a: \mu_2 - \mu_5 \neq 0$

$$\begin{aligned}
 t^* &= \frac{1.81 - 2.35}{\sqrt{\frac{0.82(161) + 1.31(161)}{322}} \cdot \sqrt{\frac{1}{162} + \frac{1}{162}}} \\
 &= \frac{-0.54}{0.11} \\
 &= \underline{\underline{-4.76}}
 \end{aligned}$$

According to the one-tail t-table,  $\alpha=0.05$ ,  $t=1.654$  ;  $\alpha=0.10$ ,  $t=1.287$

When  $t^*$ -value = 4.76 which is higher than 1.287, then the conclusion is we reject  $H_0$ , i.e.  $\mu_2$  and  $\mu_5$  are

significant different at the statistic level of  $\alpha=0.10$

In other words, the representing company and the experience & stability of the agents are more important than the agents that are friends or relatives of the people.

5.  $H_0: \mu_5 - \mu_4 = 0$  (reject)

$H_a: \mu_5 - \mu_4 \neq 0$

$$t^* = \frac{2.35 - 3.46}{\sqrt{\frac{1.31(161) + 1.03(161)}{322}} \cdot \sqrt{\frac{1}{162} + \frac{1}{162}}}$$
$$= \frac{-1.11}{0.12}$$
$$= \underline{\underline{-9.33}}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.654$ ;  $\alpha=0.10, t=1.287$

When  $t^*$ -value = 9.33 which is higher than 1.287, then the conclusion is we reject  $H_0$ , i.e.  $\mu_5$  and  $\mu_4$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the prizes record of the agents is less important than the agents are friends or relatives of the people.

6.  $H_0: \mu_4 - \mu_9 = 0$  (reject)

$H_a: \mu_4 - \mu_9 \neq 0$

$$t^* = \frac{3.46 - 3.5}{\sqrt{\frac{1.03(161) + 1.08(161)}{322}} \cdot \sqrt{\frac{1}{162} + \frac{1}{162}}}$$
$$= \frac{-0.04}{0.11}$$
$$= \underline{\underline{-0.35}}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.654$ ;  $\alpha=0.10, t=1.287$

When  $t^*$ -value = 0.35 which is lower than 1.287, then the conclusion is we accept  $H_0$ , i.e.  $\mu_4$  and  $\mu_9$  have no difference at the statistic level of  $\alpha=0.10$

In other words, prizes record and younger are in the same level of importance in people's mind.

7.  $H_0: \mu_9 - \mu_8 = 0$  (reject)

$H_a: \mu_9 - \mu_8 \neq 0$

$$t^* = \frac{3.5 - 3.7}{\sqrt{\frac{1.08(161) + 1.07(161)}{322}} \cdot \sqrt{\frac{1}{162} + \frac{1}{162}}}$$

$$= \frac{-0.2}{0.11}$$

$$= \underline{-1.75}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.654$  ;  $\alpha=0.10, t=1.287$

When  $t^*$ -value = 1.75 which is higher than 1.287, then the conclusion is we reject  $H_0$ , i.e.  $\mu_9$  and  $\mu_8$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the factor of 'younger' is more important than the factor 'older' in people's mind.

8.  $H_0: \mu_8 - \mu_7 = 0$  (reject)

$H_a: \mu_8 - \mu_7 \neq 0$

$$t^* = \frac{3.7 - 3.95}{\sqrt{\frac{1.07(161) + 1.2(161)}{322}} \cdot \sqrt{\frac{1}{162} + \frac{1}{162}}}$$

$$= \frac{-0.25}{0.12}$$

$$= \underline{-2.13}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.654$  ;  $\alpha=0.10, t=1.287$

When  $t^*$ -value = 2.13 which is higher than 1.287, then the conclusion is we reject  $H_0$ , i.e.  $\mu_8$  and  $\mu_7$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the factor of 'the agents are female' is less important than the factor of 'the agents are older' .

9.  $H_0: \mu_7 - \mu_6 = 0$  (reject)

$H_a: \mu_7 - \mu_6 \neq 0$

$$t^* = \frac{3.95 - 4.01}{\sqrt{\frac{1.2(161) + 1.13(161)}{322}} \cdot \sqrt{\frac{1}{162} + \frac{1}{162}}}$$

$$= \frac{-0.06}{0.12}$$

$$= \underline{-0.5}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.654$  ;  $\alpha=0.10, t=1.287$

When  $t^*$ -value = 0.5 which is lower than 1.287, then the conclusion is we accept  $H_0$ , i.e.  $\mu_7$  and  $\mu_6$  have no difference at the statistic level of  $\alpha=0.10$

In other words, the factors of female and male are the same less important in people's mind.

## Appendix 2.2

### Question 2 Younger Age Group

He or she...	N	Min	Max	Mean	Std. Deviation	Variance
2.1 Service	131	1	5	1.79	1.06	1.13
2.2 Experience & Stability	131	1	5	1.97	1.02	1.05
2.3 Professional	131	1	5	1.58	0.97	0.94
2.4 Prizes record	131	1	5	3.42	1.03	1.06
2.5 Friends / Relatives	131	1	5	2.37	1.14	1.31
2.6 Male	131	1	5	3.9	1.14	1.29
2.7 Female	131	1	5	3.82	1.18	1.4
2.8 Older	131	1	5	3.6	1.09	1.2
2.9 Younger	131	1	5	3.54	1.04	1.08
2.10 Representing company	131	1	5	1.95	0.98	0.96

$$t^* = \frac{(x_1 - x_2) - (\mu_1 - \mu_2)}{\sqrt{\frac{S_1(n_1 - 1) + S_2(n_2 - 1)}{n_1 + n_2 - 2}} \cdot \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

1.  $H_0: \mu_3 - \mu_1 = 0$  (reject)

$H_a: \mu_3 - \mu_1 \neq 0$

$$t^* = \frac{1.58 - 1.79}{\sqrt{\frac{0.94(130) + 1.13(130)}{260}} \cdot \sqrt{\frac{1}{131} + \frac{1}{131}}}$$

$$= \frac{-0.21}{0.13}$$

$$= \underline{\underline{-1.67}}$$

According to the one-tail t-table,  $\alpha = 0.05$ ,  $t = 1.656$ ;  $\alpha = 0.10$ ,  $t = 1.288$

When  $t^*$ -value = 1.67 which is higher than 1.288, then the conclusion is we reject  $H_0$ , i.e.  $\mu_3$  and  $\mu_1$  are significant different at the statistic level of  $\alpha = 0.10$

In other words, 'professional' is more important than the factor 'service' in the young age group's mind.

2.  $H_0: \mu_1 - \mu_{10} = 0$  (reject)

$H_a: \mu_1 - \mu_{10} \neq 0$

$$\begin{aligned}
t^* &= \frac{1.79 - 1.95}{\sqrt{\frac{1.13(130) + 0.96(130)}{260}} \cdot \sqrt{\frac{1}{131} + \frac{1}{131}}} \\
&= \frac{-0.16}{0.13} \\
&= \underline{\underline{-1.27}}
\end{aligned}$$

According to the one-tail t-table,  $\alpha=0.05$ ,  $t=1.656$  ;  $\alpha=0.10$ ,  $t=1.288$

When  $t^*$ -value = 1.27 which is lower than 1.288, then the conclusion is we accept  $H_0$ , i.e.  $\mu_1$  and  $\mu_{10}$  have no difference at the statistic level of  $\alpha=0.10$

In other words, service and the representing company of the agents are the same important in the young age group's mind.

3.  $H_0: \mu_{10} - \mu_2 = 0$  (reject)

$H_a: \mu_{10} - \mu_2 \neq 0$

$$\begin{aligned}
t^* &= \frac{1.95 - 1.97}{\sqrt{\frac{0.96(130) + 1.05(130)}{260}} \cdot \sqrt{\frac{1}{131} + \frac{1}{131}}} \\
&= \frac{-0.02}{0.12} \\
&= \underline{\underline{-0.16}}
\end{aligned}$$

According to the one-tail t-table,  $\alpha=0.05$ ,  $t=1.656$  ;  $\alpha=0.10$ ,  $t=1.288$

When  $t^*$ -value = 0.16 which is lower than 1.288, then the conclusion is we accept  $H_0$ , i.e.  $\mu_{10}$  and  $\mu_2$  have no difference at the statistic level of  $\alpha=0.10$

In other words, the representing company and the experience & stability of the agents are the same important in the young age group's mind.

4.  $H_0: \mu_2 - \mu_5 = 0$  (reject)

$H_a: \mu_2 - \mu_5 \neq 0$

$$\begin{aligned}
t^* &= \frac{1.97 - 2.37}{\sqrt{\frac{1.05(130) + 1.31(130)}{260}} \cdot \sqrt{\frac{1}{131} + \frac{1}{131}}} \\
&= \frac{-0.4}{0.13} \\
&= \underline{\underline{-2.98}}
\end{aligned}$$

According to the one-tail t-table,  $\alpha=0.05$ ,  $t=1.656$  ;  $\alpha=0.10$ ,  $t=1.288$



When  $t^*$ -value = 2.98 which is higher than 1.288, then the conclusion is we reject  $H_0$ , i.e.  $\mu_2$  and  $\mu_5$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the factor experience & stability of the agent is more important than the agent is friend or relative of the people.

5.  $H_0: \mu_1 - \mu_2 = 0$  (reject)

$H_a: \mu_1 - \mu_2 \neq 0$

$$t^* = \frac{1.79 - 1.97}{\sqrt{\frac{1.13(130) + 1.05(130)}{260}} \cdot \sqrt{\frac{1}{131} + \frac{1}{131}}}$$

$$= \frac{-0.18}{0.13}$$

$$= \underline{-1.4}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.656$  ;  $\alpha=0.10, t=1.288$

When  $t^*$ -value = 1.4 which is higher than 1.288, then the conclusion is we reject  $H_0$ , i.e.  $\mu_1$  and  $\mu_2$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the factor 'service' is more important than the factor 'experience & stability' .

6.  $H_0: \mu_5 - \mu_4 = 0$  (reject)

$H_a: \mu_5 - \mu_4 \neq 0$

$$t^* = \frac{2.37 - 3.42}{\sqrt{\frac{1.13(130) + 1.06(130)}{260}} \cdot \sqrt{\frac{1}{131} + \frac{1}{131}}}$$

$$= \frac{-1.05}{0.13}$$

$$= \underline{-7.8}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.656$  ;  $\alpha=0.10, t=1.288$

When  $t^*$ -value = 7.8 which is higher than 1.288, then the conclusion is we reject  $H_0$ , i.e.  $\mu_5$  and  $\mu_4$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the factor of the agent is friend or relative of the people is more important than the agent has prizes record.

7.  $H_0: \mu_4 - \mu_9 = 0$  (reject)

$H_a: \mu_4 - \mu_9 \neq 0$

$$\begin{aligned}
 t^* &= \frac{3.42 - 3.54}{\sqrt{\frac{1.06(130) + 1.08(130)}{260}} \cdot \sqrt{\frac{1}{131} + \frac{1}{131}}} \\
 &= \frac{-0.12}{0.13} \\
 &= \underline{\underline{-0.94}}
 \end{aligned}$$

According to the one-tail t-table,  $\alpha=0.05$ ,  $t=1.656$ ;  $\alpha=0.10$ ,  $t=1.288$

When  $t^*$ -value = 0.94 which is lower than 1.288, then the conclusion is we accept  $H_0$ , i.e.  $\mu_4$  and  $\mu_9$  have no difference at the statistic level of  $\alpha=0.10$

In other words, the factors of 'prizes record' and 'younger' are the same importance level in the young age group's mind.

8.  $H_0: \mu_9 - \mu_8 = 0$  (reject)

$H_a: \mu_9 - \mu_8 \neq 0$

$$\begin{aligned}
 t^* &= \frac{3.54 - 3.6}{\sqrt{\frac{1.08(130) + 1.2(130)}{260}} \cdot \sqrt{\frac{1}{131} + \frac{1}{131}}} \\
 &= \frac{-0.06}{0.13} \\
 &= \underline{\underline{-0.45}}
 \end{aligned}$$

According to the one-tail t-table,  $\alpha=0.05$ ,  $t=1.656$ ;  $\alpha=0.10$ ,  $t=1.288$

When  $t^*$ -value = 0.45 which is lower than 1.288, then the conclusion is we accept  $H_0$ , i.e.  $\mu_9$  and  $\mu_8$  have no difference at the statistic level of  $\alpha=0.10$

In other words, the factors of 'younger' and 'older' are in the same importance level in the young age group's mind.

9.  $H_0: \mu_4 - \mu_8 = 0$  (reject)

$H_a: \mu_4 - \mu_8 \neq 0$

$$\begin{aligned}
 t^* &= \frac{3.42 - 3.6}{\sqrt{\frac{1.06(130) + 1.2(130)}{260}} \cdot \sqrt{\frac{1}{131} + \frac{1}{131}}} \\
 &= \frac{-0.18}{0.13} \\
 &= \underline{\underline{-1.37}}
 \end{aligned}$$

According to the one-tail t-table,  $\alpha=0.05$ ,  $t=1.656$ ;  $\alpha=0.10$ ,  $t=1.288$

When  $t^*$ -value = 1.37 which is higher than 1.288, then the conclusion is we reject  $H_0$ , i.e.  $\mu_4$  and  $\mu_8$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the factor of 'prizes record' is more important than the factor of 'older' in the young age group's mind.

10.  $H_0: \mu_8 - \mu_7 = 0$  (reject)

$H_a: \mu_8 - \mu_7 \neq 0$

$$t^* = \frac{3.6 - 3.82}{\sqrt{\frac{1.2(130) + 1.4(130)}{260}} \cdot \sqrt{\frac{1}{131} + \frac{1}{131}}}$$

$$= \frac{-0.22}{0.14}$$

$$= \underline{-1.56}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.656$ ;  $\alpha=0.10, t=1.288$

When  $t^*$ -value = 1.56 which is higher than 1.288, then the conclusion is we reject  $H_0$ , i.e.  $\mu_8$  and  $\mu_7$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the factor 'older' is more important than the factor 'female' in the young age group's mind.

11.  $H_0: \mu_7 - \mu_6 = 0$  (reject)

$H_a: \mu_7 - \mu_6 \neq 0$

$$t^* = \frac{3.82 - 3.9}{\sqrt{\frac{1.4(130) + 1.29(130)}{260}} \cdot \sqrt{\frac{1}{131} + \frac{1}{131}}}$$

$$= \frac{-0.08}{0.14}$$

$$= \underline{-0.55}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.656$ ;  $\alpha=0.10, t=1.288$

When  $t^*$ -value = 0.55 which is lower than 1.288, then the conclusion is we accept  $H_0$ , i.e.  $\mu_7$  and  $\mu_6$  have no difference at the statistic level of  $\alpha=0.10$

In other words, the factors of 'female' and 'male' are the in same importance level in the young age group's mind.

### Question 2 Older Age Group

He or she...	N	Min	Max	Mean	Std. Deviation	Variance
2.1 Service	31	1	5	1.35	0.66	0.44
2.2 Experience & Stability	31	1	5	1.48	0.68	0.46
2.3 Professional	31	1	5	1.35	0.8	0.64
2.4 Prizes record	31	1	5	3.39	1.09	1.18
2.5 Friends / Relatives	31	1	5	2.39	1.23	1.51
2.6 Male	31	1	5	4.1	1.11	1.22
2.7 Female	31	1	5	4.13	1.02	1.05
2.8 Older	31	1	5	3.77	1.02	1.05
2.9 Younger	31	1	5	3.06	1.09	1.2
2.10 Representing company	31	1	5	1.68	0.75	0.56

$$t^* = \frac{(x_1 - x_2) - (\mu_1 - \mu_2)}{\sqrt{\frac{S_1(n_1 - 1) + S_2(n_2 - 1)}{n_1 + n_2 - 2}} \cdot \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

1. Ho:  $\mu_3 - \mu_2 = 0$  (reject)

Ha:  $\mu_3 - \mu_2 \neq 0$

$$\begin{aligned} t^* &= \frac{1.35 - 1.48}{\sqrt{\frac{0.64(30) + 0.46(30)}{60}} \cdot \sqrt{\frac{1}{31} + \frac{1}{31}}} \\ &= \frac{-0.13}{0.19} \\ &= \underline{\underline{-0.69}} \end{aligned}$$

According to the one-tail t-table,  $\alpha = 0.05$ ,  $t = 1.697$ ;  $\alpha = 0.10$ ,  $t = 1.31$

When  $t^*$ -value = 0.69 which is lower than 1.31, then the conclusion is we accept Ho, i.e.  $\mu_3$  and  $\mu_2$  have no difference at the statistic level of  $\alpha = 0.10$

In other words, professional and the experience & stability of the agents are the same important in the older age group's mind.

2. Ho:  $\mu_2 - \mu_{10} = 0$  (reject)

Ha:  $\mu_2 - \mu_{10} \neq 0$

$$\begin{aligned} t^* &= \frac{1.48 - 1.68}{\sqrt{\frac{0.46(30) + 0.56(30)}{60}} \cdot \sqrt{\frac{1}{31} + \frac{1}{31}}} \end{aligned}$$

$$= \frac{-0.2}{0.18}$$

$$= \underline{-1.1}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.697$  ;  $\alpha=0.10, t=1.31$

When  $t^*$ -value = 1.1 which is lower than 1.31, then the conclusion is we accept  $H_0$ , i.e.  $\mu_2$  and  $\mu_{10}$  have no difference at the statistic level of  $\alpha=0.10$

In other words, the experience & stability and representing company of the agents are the same important in the older age group's mind.

3.  $H_0: \mu_3 - \mu_{10} = 0$  (reject)

$H_a: \mu_3 - \mu_{10} \neq 0$

$$t^* = \frac{1.35 - 1.68}{\sqrt{\frac{0.64(30) + 0.56(30)}{60}} \cdot \sqrt{\frac{1}{31} + \frac{1}{31}}}$$

$$= \frac{-0.33}{0.18}$$

$$= \underline{-1.67}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.697$  ;  $\alpha=0.10, t=1.31$

When  $t^*$ -value = 1.67 which is higher than 1.31, then the conclusion is we reject  $H_0$ , i.e.  $\mu_3$  and  $\mu_{10}$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the factor 'professional' is more important than the factor 'representing company' in the older age group's mind.

4.  $H_0: \mu_{10} - \mu_5 = 0$  (reject)

$H_a: \mu_{10} - \mu_5 \neq 0$

$$t^* = \frac{1.68 - 2.39}{\sqrt{\frac{0.56(30) + 1.51(30)}{60}} \cdot \sqrt{\frac{1}{31} + \frac{1}{31}}}$$

$$= \frac{-0.71}{0.26}$$

$$= \underline{-2.75}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.697$  ;  $\alpha=0.10, t=1.31$

When  $t^*$ -value = 2.75 which is higher than 1.31, then the conclusion is we reject  $H_0$ , i.e.  $\mu_{10}$  and  $\mu_5$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the representing company of the agents is more important than the agent is friend or relative

of the people in the older age group' s mind.

5.  $H_0: \mu_5 - \mu_9 = 0$  (reject)

$H_a: \mu_5 - \mu_9 \neq 0$

$$t^* = \frac{2.39 - 3.06}{\sqrt{\frac{1.51(30) + 1.2(30)}{60}} \cdot \sqrt{\frac{1}{31} + \frac{1}{31}}}$$

$$= \frac{-0.67}{0.296}$$

$$= \underline{\underline{-2.27}}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.697$  ;  $\alpha=0.10, t=1.31$

When  $t^*$ -value = 2.27 which is higher than 1.31, then the conclusion is we reject  $H_0$ , i.e.  $\mu_5$  and  $\mu_9$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the factor of 'friends/relatives' is more important than the factor of 'younger' in the older age group' s mind.

6.  $H_0: \mu_9 - \mu_4 = 0$  (reject)

$H_a: \mu_9 - \mu_4 \neq 0$

$$t^* = \frac{3.06 - 3.39}{\sqrt{\frac{1.2(30) + 1.18(30)}{60}} \cdot \sqrt{\frac{1}{31} + \frac{1}{31}}}$$

$$= \frac{-0.33}{0.28}$$

$$= \underline{\underline{-1.19}}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.697$  ;  $\alpha=0.10, t=1.31$

When  $t^*$ -value = 1.19 which is lower than 1.31, then the conclusion is we accept  $H_0$ , i.e.  $\mu_9$  and  $\mu_4$  have no difference at the statistic level of  $\alpha=0.10$

In other words, the factors of 'younger' and 'prizes record' are in the same importance level in the older age group' s mind.

7.  $H_0: \mu_4 - \mu_8 = 0$  (reject)

$H_a: \mu_4 - \mu_8 \neq 0$

$$t^* = \frac{3.39 - 3.77}{\sqrt{\frac{1.18(30) + 1.05(30)}{60}} \cdot \sqrt{\frac{1}{31} + \frac{1}{31}}}$$

$$= \frac{-0.38}{0.27}$$

$$= \underline{-1.42}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.697$  ;  $\alpha=0.10, t=1.31$

When  $t^*$ -value = 1.42 which is higher than 1.31, then the conclusion is we reject  $H_0$ , i.e.  $\mu_4$  and  $\mu_8$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the factor 'prizes record' is more important than the factor 'older' in the older age group's mind.

8.  $H_0: \mu_8 - \mu_6 = 0$  (reject)

$H_a: \mu_8 - \mu_6 \neq 0$

$$t^* = \frac{3.77 - 4.1}{\sqrt{\frac{1.05(30) + 1.22(30)}{60}} \cdot \sqrt{\frac{1}{31} + \frac{1}{31}}}$$

$$= \frac{-0.33}{0.27}$$

$$= \underline{-1.22}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.697$  ;  $\alpha=0.10, t=1.31$

When  $t^*$ -value = 1.22 which is lower than 1.31, then the conclusion is we accept  $H_0$ , i.e.  $\mu_8$  and  $\mu_6$  have no difference at the statistic level of  $\alpha=0.10$

In other words, the factors of 'older' and 'male' are in the same importance level in the older age group's mind.

9.  $H_0: \mu_6 - \mu_7 = 0$  (reject)

$H_a: \mu_6 - \mu_7 \neq 0$

$$t^* = \frac{4.1 - 4.13}{\sqrt{\frac{1.22(30) + 1.05(30)}{60}} \cdot \sqrt{\frac{1}{31} + \frac{1}{31}}}$$

$$= \frac{-0.03}{0.27}$$

$$= \underline{-0.11}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.697$  ;  $\alpha=0.10, t=1.31$

When  $t^*$ -value = 0.11 which is lower than 1.31, then the conclusion is we accept  $H_0$ , i.e.  $\mu_6$  and  $\mu_7$  have no difference at the statistic level of  $\alpha=0.10$

In other words, the factors of 'male' and 'female' are in the same importance level in the older age

group' s mind.

10.  $H_0: \mu_8 - \mu_7 = 0$  (reject)

$H_a: \mu_8 - \mu_7 \neq 0$

$$\begin{aligned} t &= \frac{3.77 - 4.13}{\sqrt{\frac{1.05(30) + 1.05(30)}{60}} \cdot \sqrt{\frac{1}{31} + \frac{1}{31}}} \\ &= \frac{-0.36}{0.26} \\ &= \underline{\underline{-1.38}} \end{aligned}$$

According to the one-tail t-table,  $\alpha=0.05$ ,  $t=1.697$  ;  $\alpha=0.10$ ,  $t=1.31$

When  $t^*$ -value = 1.38 which is higher than 1.31, then the conclusion is we reject  $H_0$ , i.e.  $\mu_8$  and  $\mu_7$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the factor ' older' is more important than the factor ' female' in the older age group' s mind.



### Question 2 Relatively Low Education Group

He or she...	N	Min	Max	Mean	Std. Deviation	Variance
2.1 Service	54	1	5	1.33	0.64	0.42
2.2 Experience & Stability	54	1	5	1.59	0.86	0.74
2.3 Professional	54	1	5	1.3	0.66	0.44
2.4 Prizes record	54	1	5	3.41	1.12	1.26
2.5 Friends / Relatives	54	1	5	2.13	1.21	1.47
2.6 Male	54	1	5	3.98	1.11	1.23
2.7 Female	54	1	5	3.93	1.13	1.28
2.8 Older	54	1	5	3.63	1.09	1.18
2.9 Younger	54	1	5	3.41	1	1
2.10 Representing company	54	1	5	1.87	0.91	0.83

$$t = \frac{(x_1 - x_2) - (\mu_1 - \mu_2)}{\sqrt{\frac{S_1(n_1 - 1) + S_2(n_2 - 1)}{n_1 + n_2 - 2}} \cdot \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

1.  $H_0: \mu_3 - \mu_1 = 0$  (reject)

$H_a: \mu_3 - \mu_1 \neq 0$

$$t^* = \frac{1.3 - 1.33}{\sqrt{\frac{0.44(53) + 0.42(53)}{106}} \cdot \sqrt{\frac{1}{54} + \frac{1}{54}}}$$

$$= \frac{-0.03}{0.126}$$

$$= \underline{\underline{-0.24}}$$

According to the one-tail t-table,  $\alpha=0.05$ ,  $t=1.676$ ;  $\alpha=0.10$ ,  $t=1.299$

When  $t^*$ -value = 0.24 which is lower than 1.299, then the conclusion is we accept  $H_0$ , i.e.  $\mu_3$  and  $\mu_1$  have no difference at the statistic level of  $\alpha=0.10$

In other words, professional and service of the agents are the same important in the relatively low education group's mind.

2.  $H_0: \mu_1 - \mu_2 = 0$  (reject)

$H_a: \mu_1 - \mu_2 \neq 0$

$$t^* = \frac{1.33 - 1.59}{\sqrt{\frac{0.42(53) + 0.74(53)}{106}} \cdot \sqrt{\frac{1}{54} + \frac{1}{54}}}$$

$$= \frac{-0.26}{0.11}$$

$$= \underline{\underline{-2.33}}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.676$  ;  $\alpha=0.10, t=1.299$

When  $t^*$ -value = 2.33 which is higher than 1.299, then the conclusion is we reject  $H_0$ , i.e.  $\mu_1$  and  $\mu_2$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the factor 'service' is more important than 'experience & stability' in the relatively low education group's mind.

3.  $H_0: \mu_2 - \mu_{10} = 0$  (reject)

$H_a: \mu_2 - \mu_{10} \neq 0$

$$t^* = \frac{1.59 - 1.87}{\sqrt{\frac{0.74(53) + 0.83(53)}{106}} \cdot \sqrt{\frac{1}{54} + \frac{1}{54}}}$$

$$= \frac{-0.28}{0.17}$$

$$= \underline{\underline{-1.64}}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.676$  ;  $\alpha=0.10, t=1.299$

When  $t^*$ -value = 1.64 which is higher than 1.299, then the conclusion is we reject  $H_0$ , i.e.  $\mu_2$  and  $\mu_{10}$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the factor 'experience & stability' is more important than the factor 'representing company' in the relatively low education group's mind.

4.  $H_0: \mu_{10} - \mu_5 = 0$  (reject)

$H_a: \mu_{10} - \mu_5 \neq 0$

$$t^* = \frac{1.87 - 2.13}{\sqrt{\frac{0.83(53) + 1.47(53)}{106}} \cdot \sqrt{\frac{1}{54} + \frac{1}{54}}}$$

$$= \frac{-0.26}{0.22}$$

$$= \underline{\underline{-1.17}}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.676$  ;  $\alpha=0.10, t=1.299$

When  $t^*$ -value = 1.17 which is lower than 1.299, then the conclusion is we accept  $H_0$ , i.e.  $\mu_{10}$  and  $\mu_5$  have no difference at the statistic level of  $\alpha=0.10$

In other words, the factors 'representing company' and 'friends/relative' of the agents are the same

important in the relatively low education group's mind.

5.  $H_0: \mu_2 - \mu_5 = 0$  (reject)

$H_a: \mu_2 - \mu_5 \neq 0$

$$t^* = \frac{1.59 - 2.13}{\sqrt{\frac{0.74(53) + 1.47(53)}{106}} \cdot \sqrt{\frac{1}{54} + \frac{1}{54}}}$$

$$= \frac{-0.54}{0.2}$$

$$= \underline{-2.67}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.676$ ;  $\alpha=0.10, t=1.299$

When  $t^*$ -value = 2.67 which is higher than 1.299, then the conclusion is we reject  $H_0$ , i.e.  $\mu_2$  and  $\mu_5$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the factor 'experience & stability' is more important than the factor 'friends/relatives' in the relatively low education group's mind.

6.  $H_0: \mu_5 - \mu_4 = 0$  (reject)

$H_a: \mu_5 - \mu_4 \neq 0$

$$t^* = \frac{2.13 - 3.41}{\sqrt{\frac{1.47(53) + 1.26(53)}{106}} \cdot \sqrt{\frac{1}{54} + \frac{1}{54}}}$$

$$= \frac{-1.28}{0.22}$$

$$= \underline{-5.96}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.676$ ;  $\alpha=0.10, t=1.299$

When  $t^*$ -value = 5.96 which is higher than 1.299, then the conclusion is we reject  $H_0$ , i.e.  $\mu_5$  and  $\mu_4$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the factor 'friends/relatives' is more important than the factor 'prizes record' in the relatively low education group's mind.

7.  $H_0: \mu_4 - \mu_8 = 0$  (reject)

$H_a: \mu_4 - \mu_8 \neq 0$

$$t^* = \frac{3.41 - 3.63}{\sqrt{\frac{1.26(53) + 1.18(53)}{106}} \cdot \sqrt{\frac{1}{54} + \frac{1}{54}}}$$

$$= \frac{-0.22}{0.21}$$

$$= \underline{-1.03}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.676$  ;  $\alpha=0.10, t=1.299$

When  $t^*$ -value = 1.03 which is lower than 1.299, then the conclusion is we accept  $H_0$ , i.e.  $\mu_4$  and  $\mu_8$  have no difference at the statistic level of  $\alpha=0.10$

In other words, the factors 'prizes record' and 'older' are in the same importance level in the relatively low education group's mind.

8.  $H_0: \mu_8 - \mu_7 = 0$  (reject)

$H_a: \mu_8 - \mu_7 \neq 0$

$$t^* = \frac{3.63 - 3.93}{\sqrt{\frac{1.18(53) + 1.28(53)}{106}} \cdot \sqrt{\frac{1}{54} + \frac{1}{54}}}$$

$$= \frac{-0.3}{0.21}$$

$$= \underline{-1.4}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.676$  ;  $\alpha=0.10, t=1.299$

When  $t^*$ -value = 1.4 which is higher than 1.299, then the conclusion is we reject  $H_0$ , i.e.  $\mu_8$  and  $\mu_7$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the factor 'older' is more important than the factor 'female' in the relatively low education group's mind.

9.  $H_0: \mu_7 - \mu_6 = 0$  (reject)

$H_a: \mu_7 - \mu_6 \neq 0$

$$t^* = \frac{3.93 - 3.98}{\sqrt{\frac{1.28(53) + 1.23(53)}{106}} \cdot \sqrt{\frac{1}{54} + \frac{1}{54}}}$$

$$= \frac{-0.05}{0.22}$$

$$= \underline{-0.23}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.676$  ;  $\alpha=0.10, t=1.299$

When  $t^*$ -value = 0.23 which is lower than 1.299, then the conclusion is we accept  $H_0$ , i.e.  $\mu_7$  and  $\mu_6$  have no difference at the statistic level of  $\alpha=0.10$

In other words, the factors 'female' and 'male' are in the same importance level in the relatively low education group's mind.

### Question 2 Relatively High Education Group

He or she...	N	Min	Max	Mean	Std. Deviation	Variance
2.1 Service	108	1	5	1.90	1.11	1.23
2.2 Experience & Stability	108	1	5	2.02	1.01	1.03
2.3 Professional	108	1	5	1.66	1.03	1.07
2.4 Prizes record	108	1	5	3.42	1.00	0.99
2.5 Friends / Relatives	108	1	5	2.49	1.11	1.24
2.6 Male	108	1	5	3.92	1.14	1.31
2.7 Female	108	1	5	3.85	1.17	1.38
2.8 Older	108	1	5	3.63	1.08	1.17
2.9 Younger	108	1	5	3.47	1.10	1.20
2.10 Representing company	108	1	5	1.91	0.96	0.93

$$t^* = \frac{(x_1 - x_2) - (\mu_1 - \mu_2)}{\sqrt{\frac{S_1(n_1 - 1) + S_2(n_2 - 1)}{n_1 + n_2 - 2}} \cdot \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

1.  $H_0: \mu_3 - \mu_1 = 0$  (reject)

$H_a: \mu_3 - \mu_1 \neq 0$

$$t^* = \frac{1.66 - 1.9}{\sqrt{\frac{1.07(107) + 1.23(107)}{214}} \cdot \sqrt{\frac{1}{108} + \frac{1}{108}}}$$

$$= \frac{-0.24}{0.15}$$

$$= \underline{-1.6}$$

According to the one-tail t-table,  $\alpha = 0.05$ ,  $t = 1.66$ ;  $\alpha = 0.10$ ,  $t = 1.29$

When  $t^*$ -value = 1.6 which is higher than 1.29, then the conclusion is we reject  $H_0$ , i.e.  $\mu_3$  and  $\mu_1$  are significant different at the statistic level of  $\alpha = 0.10$

In other words, professional is more important than the service of the agents in the relatively high education group's mind.

2.  $H_0: \mu_1 - \mu_{10} = 0$  (reject)

$H_a: \mu_1 - \mu_{10} \neq 0$

$$t^* = \frac{1.9 - 1.91}{\sqrt{\frac{1.23(107) + 0.93(107)}{214}} \cdot \sqrt{\frac{1}{108} + \frac{1}{108}}}$$

$$= \frac{-0.01}{0.14}$$

$$= \underline{-0.07}$$

According to the one-tail t-table,  $\alpha=0.05$ ,  $t=1.66$  ;  $\alpha=0.10$ ,  $t=1.29$

When  $t^*$ -value = 0.07 which is lower than 1.29, then the conclusion is we accept  $H_0$ , i.e.  $\mu_1$  and  $\mu_{10}$  have no difference at the statistic level of  $\alpha=0.10$

In other words, the service and representing company of the agents are the same important in the relatively high education group' s mind.

3.  $H_0: \mu_{10} - \mu_2 = 0$  (reject)

$H_a: \mu_{10} - \mu_2 \neq 0$

$$t^* = \frac{1.9 - 2.02}{\sqrt{\frac{0.93(107) + 1.03(107)}{214}} \cdot \sqrt{\frac{1}{108} + \frac{1}{108}}}$$

$$= \frac{-0.11}{0.13}$$

$$= \underline{-0.82}$$

According to the one-tail t-table,  $\alpha=0.05$ ,  $t=1.66$  ;  $\alpha=0.10$ ,  $t=1.29$

When  $t^*$ -value = 0.82 which is lower than 1.29, then the conclusion is we accept  $H_0$ , i.e.  $\mu_{10}$  and  $\mu_2$  have no difference at the statistic level of  $\alpha=0.10$

In other words, the representing company and the experience & stability of the agents are the same important in the relatively high education group' s mind.

4.  $H_0: \mu_1 - \mu_2 = 0$  (reject)

$H_a: \mu_1 - \mu_2 \neq 0$

$$t^* = \frac{1.9 - 2.02}{\sqrt{\frac{1.23(107) + 1.03(107)}{214}} \cdot \sqrt{\frac{1}{108} + \frac{1}{108}}}$$

$$= \frac{-0.12}{0.14}$$

$$= \underline{-0.83}$$

According to the one-tail t-table,  $\alpha=0.05$ ,  $t=1.66$  ;  $\alpha=0.10$ ,  $t=1.29$

When  $t^*$ -value = 0.83 which is lower than 1.29, then the conclusion is we accept  $H_0$ , i.e.  $\mu_1$  and  $\mu_2$  have no difference at the statistic level of  $\alpha=0.10$

In other words, the factor 'service' and 'experience & stability' are the same important in the relatively high education group' s mind.

5.  $H_0: \mu_2 - \mu_5 = 0$  (reject)

$H_a: \mu_2 - \mu_5 \neq 0$

$$\begin{aligned}
t^* &= \frac{2.02 - 2.49}{\sqrt{\frac{1.03(107) + 1.24(107)}{214}} \cdot \sqrt{\frac{1}{108} + \frac{1}{108}}} \\
&= \frac{-0.47}{0.14} \\
&= \underline{-3.24}
\end{aligned}$$

According to the one-tail t-table,  $\alpha=0.05$ ,  $t=1.66$  ;  $\alpha=0.10$ ,  $t=1.29$

When  $t^*$ -value = 3.24 which is higher than 1.29, then the conclusion is we reject  $H_0$ , i.e.  $\mu_2$  and  $\mu_5$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the factor 'experience & stability' is more important than the factor 'friends/relatives' in the relatively high education group's mind.

6.  $H_0: \mu_5 - \mu_4 = 0$  (reject)

$H_a: \mu_5 - \mu_4 \neq 0$

$$\begin{aligned}
t^* &= \frac{2.49 - 3.42}{\sqrt{\frac{1.24(107) + 0.99(107)}{214}} \cdot \sqrt{\frac{1}{108} + \frac{1}{108}}} \\
&= \frac{-0.93}{0.14} \\
&= \underline{-6.47}
\end{aligned}$$

According to the one-tail t-table,  $\alpha=0.05$ ,  $t=1.66$  ;  $\alpha=0.10$ ,  $t=1.29$

When  $t^*$ -value = 6.47 which is higher than 1.29, then the conclusion is we reject  $H_0$ , i.e.  $\mu_5$  and  $\mu_4$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the factor 'friends/relatives' is more important than the factor 'prizes record' in the relatively high education group's mind.

7.  $H_0: \mu_4 - \mu_9 = 0$  (reject)

$H_a: \mu_4 - \mu_9 \neq 0$

$$\begin{aligned}
t^* &= \frac{3.42 - 3.47}{\sqrt{\frac{0.99(107) + 1.2(107)}{214}} \cdot \sqrt{\frac{1}{108} + \frac{1}{108}}} \\
&= \frac{-0.05}{0.14} \\
&= \underline{-0.35}
\end{aligned}$$

According to the one-tail t-table,  $\alpha=0.05$ ,  $t=1.66$  ;  $\alpha=0.10$ ,  $t=1.29$

When  $t^*$ -value = 0.35 which is lower than 1.29, then the conclusion is we accept  $H_0$ , i.e.  $\mu_4$  and  $\mu_9$  have no difference at the statistic level of  $\alpha=0.10$

In other words, the factors 'prizes record' and 'younger' are in the same importance level in the relatively

high education group's mind.

8.  $H_0: \mu_9 - \mu_8 = 0$  (reject)

$H_a: \mu_9 - \mu_8 \neq 0$

$$t^* = \frac{3.47 - 3.63}{\sqrt{\frac{1.2(107) + 1.17(107)}{214}} \cdot \sqrt{\frac{1}{108} + \frac{1}{108}}}$$

$$= \frac{-0.16}{0.15}$$

$$= \underline{-1.08}$$

According to the one-tail t-table,  $\alpha = 0.05, t = 1.66$ ;  $\alpha = 0.10, t = 1.29$

When  $t^*$ -value = 1.08 which is lower than 1.29, then the conclusion is we accept  $H_0$ , i.e.  $\mu_9$  and  $\mu_8$  have no difference at the statistic level of  $\alpha = 0.10$

In other words, the factors 'younger' and 'older' are in the same importance level in the relatively high education group's mind.

9.  $H_0: \mu_4 - \mu_8 = 0$  (reject)

$H_a: \mu_4 - \mu_8 \neq 0$

$$t^* = \frac{3.42 - 3.63}{\sqrt{\frac{0.99(107) + 1.17(107)}{214}} \cdot \sqrt{\frac{1}{108} + \frac{1}{108}}}$$

$$= \frac{-0.21}{0.14}$$

$$= \underline{-1.48}$$

According to the one-tail t-table,  $\alpha = 0.05, t = 1.66$ ;  $\alpha = 0.10, t = 1.29$

When  $t^*$ -value = 1.48 which is higher than 1.29, then the conclusion is we reject  $H_0$ , i.e.  $\mu_4$  and  $\mu_8$  are significant different at the statistic level of  $\alpha = 0.10$

In other words, the factor 'prizes record' is more important than the factor 'older' in the relatively high education group's mind.

10.  $H_0: \mu_8 - \mu_7 = 0$  (reject)

$H_a: \mu_8 - \mu_7 \neq 0$

$$t^* = \frac{3.63 - 3.85}{\sqrt{\frac{1.17(107) + 1.38(107)}{214}} \cdot \sqrt{\frac{1}{108} + \frac{1}{108}}}$$

$$= \frac{-0.22}{0.15}$$

$$= \underline{-1.43}$$



According to the one-tail t-table,  $\alpha=0.05, t=1.66$  ;  $\alpha=0.10, t=1.29$

When  $t^*$ -value = 1.43 which is higher than 1.29, then the conclusion is we reject  $H_0$ , i.e.  $\mu_8$  and  $\mu_7$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the factor 'older' is more important than the factor 'female' in the relatively high education group's mind.

11.  $H_0: \mu_9 - \mu_7 = 0$  (reject)

$H_a: \mu_9 - \mu_7 \neq 0$

$$\begin{aligned} t^* &= \frac{3.47 - 3.85}{\sqrt{\frac{1.2(107) + 1.38(107)}{214}} \cdot \sqrt{\frac{1}{108} + \frac{1}{108}}} \\ &= \frac{-0.38}{0.15} \\ &= \underline{-2.46} \end{aligned}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.66$  ;  $\alpha=0.10, t=1.29$

When  $t^*$ -value = 2.46 which is higher than 1.29, then the conclusion is we reject  $H_0$ , i.e.  $\mu_9$  and  $\mu_7$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the factor 'younger' is more important than the factor 'female' in the relatively high education group's mind.

12.  $H_0: \mu_7 - \mu_6 = 0$  (reject)

$H_a: \mu_7 - \mu_6 \neq 0$

$$\begin{aligned} t^* &= \frac{3.85 - 3.92}{\sqrt{\frac{1.38(107) + 1.31(107)}{214}} \cdot \sqrt{\frac{1}{108} + \frac{1}{108}}} \\ &= \frac{-0.07}{0.16} \\ &= \underline{-0.44} \end{aligned}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.66$  ;  $\alpha=0.10, t=1.29$

When  $t^*$ -value = 0.44 which is lower than 1.29, then the conclusion is we accept  $H_0$ , i.e.  $\mu_7$  and  $\mu_6$  have no difference at the statistic level of  $\alpha=0.10$

In other words, the factors 'female' and 'male' are in the same importance level in the relatively high education group's mind.

### Question 2 Relatively Low Income Group

He or she...	N	Min	Max	Mean	Std. Deviation	Variance
2.1 Service	107	1	5	1.81	1.1	1.21
2.2 Experience & Stability	107	1	5	2.01	1.07	1.14
2.3 Professional	107	1	5	1.67	1.09	1.18
2.4 Prizes record	107	1	5	3.35	1.06	1.13
2.5 Friends / Relatives	107	1	5	2.41	1.2	1.45
2.6 Male	107	1	5	3.94	1.18	1.39
2.7 Female	107	1	5	3.88	1.2	1.45
2.8 Older	107	1	5	3.55	1.13	1.29
2.9 Younger	107	1	5	3.48	1.03	1.06
2.10 Representing company	107	1	5	1.91	1.01	1.01

$$t^* = \frac{(x_1 - x_2) - (\mu_1 - \mu_2)}{\sqrt{\frac{S_1(n_1 - 1) + S_2(n_2 - 1)}{n_1 + n_2 - 2}} \cdot \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

1. Ho:  $\mu_3 - \mu_1 = 0$  (reject)

Ha:  $\mu_3 - \mu_1 \neq 0$

$$t^* = \frac{1.67 - 1.81}{\sqrt{\frac{1.18(106) + 1.21(106)}{212}} \cdot \sqrt{\frac{1}{107} + \frac{1}{107}}}$$

$$= \frac{-0.14}{0.15}$$

$$= \underline{-0.95}$$

According to the one-tail t-table,  $\alpha = 0.05$ ,  $t = 1.66$ ;  $\alpha = 0.10$ ,  $t = 1.29$

When  $t^*$ -value = 0.95 which is lower than 1.29, then the conclusion is we accept Ho, i.e.  $\mu_3$  and  $\mu_1$  have no difference at the statistic level of  $\alpha = 0.10$

In other words, professional and service of the agents are the same important in the relatively low income group's mind.

2. Ho:  $\mu_1 - \mu_{10} = 0$  (reject)

Ha:  $\mu_1 - \mu_{10} \neq 0$

$$t^* = \frac{1.81 - 1.91}{\sqrt{\frac{1.21(106) + 1.01(106)}{212}} \cdot \sqrt{\frac{1}{107} + \frac{1}{107}}}$$

$$= \frac{-0.1}{0.14}$$

$$= \underline{-0.69}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.66$  ;  $\alpha=0.10, t=1.29$

When  $t^*$ -value = 0.69 which is lower than 1.29, then the conclusion is we accept  $H_0$ , i.e.  $\mu_1$  and  $\mu_{10}$  have no difference at the statistic level of  $\alpha=0.10$

In other words, service and representing company of the agents are the same important in the relatively low income group' s mind.

3.  $H_0: \mu_3 - \mu_{10} = 0$  (reject)

$H_a: \mu_3 - \mu_{10} \neq 0$

$$t^* = \frac{1.67 - 1.91}{\sqrt{\frac{1.18(106) + 1.01(106)}{212}} \cdot \sqrt{\frac{1}{107} + \frac{1}{107}}}$$

$$= \frac{-0.24}{0.14}$$

$$= \underline{-1.68}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.66$  ;  $\alpha=0.10, t=1.29$

When  $t^*$ -value = 1.68 which is higher than 1.29, then the conclusion is we reject  $H_0$ , i.e.  $\mu_3$  and  $\mu_{10}$  are significant different at the statistic level of  $\alpha=0.10$

In other words, professional is more important than the representing company of the agents in the relatively low income group' s mind.

4.  $H_0: \mu_{10} - \mu_2 = 0$  (reject)

$H_a: \mu_{10} - \mu_2 \neq 0$

$$t^* = \frac{1.91 - 2.01}{\sqrt{\frac{1.01(106) + 1.14(106)}{212}} \cdot \sqrt{\frac{1}{107} + \frac{1}{107}}}$$

$$= \frac{-0.1}{0.14}$$

$$= \underline{-0.7}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.66$  ;  $\alpha=0.10, t=1.29$

When  $t^*$ -value = 0.7 which is lower than 1.29, then the conclusion is we accept  $H_0$ , i.e.  $\mu_{10}$  and  $\mu_2$  have no difference at the statistic level of  $\alpha=0.10$

In other words, representing company and experience & stability of the agents are the same important

in the relatively low income group's mind.

5.  $H_0: \mu_2 - \mu_5 = 0$  (reject)

$H_a: \mu_2 - \mu_5 \neq 0$

$$t^* = \frac{2.01 - 2.41}{\sqrt{\frac{1.14(106) + 1.45(106)}{212}} \cdot \sqrt{\frac{1}{107} + \frac{1}{107}}}$$

$$= \frac{-0.4}{0.16}$$

$$= \underline{\underline{-2.57}}$$

According to the one-tail t-table,  $\alpha = 0.05, t = 1.66$ ;  $\alpha = 0.10, t = 1.29$

When  $t^*$ -value = 2.57 which is higher than 1.29, then the conclusion is we reject  $H_0$ , i.e.  $\mu_2$  and  $\mu_5$  are significant different at the statistic level of  $\alpha = 0.10$

In other words, the factor 'experience & stability' is more important than the factor 'friends/relatives' in the relatively low income group's mind.

6.  $H_0: \mu_5 - \mu_4 = 0$  (reject)

$H_a: \mu_5 - \mu_4 \neq 0$

$$t^* = \frac{2.41 - 3.35}{\sqrt{\frac{1.45(106) + 1.13(106)}{212}} \cdot \sqrt{\frac{1}{107} + \frac{1}{107}}}$$

$$= \frac{-0.94}{0.16}$$

$$= \underline{\underline{-6.05}}$$

According to the one-tail t-table,  $\alpha = 0.05, t = 1.66$ ;  $\alpha = 0.10, t = 1.29$

When  $t^*$ -value = 6.05 which is higher than 1.29, then the conclusion is we reject  $H_0$ , i.e.  $\mu_5$  and  $\mu_4$  are significant different at the statistic level of  $\alpha = 0.10$

In other words, the factor 'friends/relatives' is more important than the factor 'prizes record' in the relatively low income group's mind.

7.  $H_0: \mu_4 - \mu_9 = 0$  (reject)

$H_a: \mu_4 - \mu_9 \neq 0$

$$t^* = \frac{3.35 - 3.48}{\sqrt{\frac{1.13(106) + 1.06(106)}{212}} \cdot \sqrt{\frac{1}{107} + \frac{1}{107}}}$$

$$= \frac{-0.13}{0.14}$$

$$= \underline{-0.91}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.66$  ;  $\alpha=0.10, t=1.29$

When  $t^*$ -value = 0.91 which is lower than 1.29, then the conclusion is we accept  $H_0$ , i.e.  $\mu_4$  and  $\mu_9$  have no difference at the statistic level of  $\alpha=0.10$

In other words, the factors 'prizes record' and 'younger' are in the same importance level in the relatively low income group's mind.

8.  $H_0: \mu_9 - \mu_8 = 0$  (reject)

$H_a: \mu_9 - \mu_8 \neq 0$

$$t^* = \frac{3.48 - 3.55}{\sqrt{\frac{1.06(106) + 1.29(106)}{212}} \cdot \sqrt{\frac{1}{107} + \frac{1}{107}}}$$

$$= \frac{-0.07}{0.15}$$

$$= \underline{-0.47}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.66$  ;  $\alpha=0.10, t=1.29$

When  $t^*$ -value = 0.47 which is lower than 1.29, then the conclusion is we accept  $H_0$ , i.e.  $\mu_9$  and  $\mu_8$  have no difference at the statistic level of  $\alpha=0.10$

In other words, the factors 'younger' and 'older' are in the same importance level in the relatively low income group's mind.

9.  $H_0: \mu_4 - \mu_8 = 0$  (reject)

$H_a: \mu_4 - \mu_8 \neq 0$

$$t^* = \frac{3.35 - 3.55}{\sqrt{\frac{1.13(106) + 1.29(106)}{212}} \cdot \sqrt{\frac{1}{107} + \frac{1}{107}}}$$

$$= \frac{-0.2}{0.15}$$

$$= \underline{-1.33}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.66$  ;  $\alpha=0.10, t=1.29$

When  $t^*$ -value = 1.33 which is higher than 1.29, then the conclusion is we reject  $H_0$ , i.e.  $\mu_4$  and  $\mu_8$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the factor 'prizes record' is more important than the factor 'older' in the relatively low

income group' s mind.

10.  $H_0: \mu_8 - \mu_7 = 0$  (reject)

$H_a: \mu_8 - \mu_7 \neq 0$

$$t^* = \frac{3.55 - 3.88}{\sqrt{\frac{1.29(106) + 1.45(106)}{212}} \cdot \sqrt{\frac{1}{107} + \frac{1}{107}}}$$
$$= \frac{-0.33}{0.16}$$
$$= \underline{\underline{-2.1}}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.66$  ;  $\alpha=0.10, t=1.29$

When  $t^*$ -value = 2.1 which is higher than 1.29, then the conclusion is we reject  $H_0$ , i.e.  $\mu_8$  and  $\mu_7$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the factor 'older' is more important than the factor 'female' in the relatively low income group' s mind.

11.  $H_0: \mu_7 - \mu_6 = 0$  (reject)

$H_a: \mu_7 - \mu_6 \neq 0$

$$t^* = \frac{3.88 - 3.94}{\sqrt{\frac{1.45(106) + 1.39(106)}{212}} \cdot \sqrt{\frac{1}{107} + \frac{1}{107}}}$$
$$= \frac{-0.06}{0.16}$$
$$= \underline{\underline{-0.37}}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.66$  ;  $\alpha=0.10, t=1.29$

When  $t^*$ -value = 0.37 which is lower than 1.29, then the conclusion is we accept  $H_0$ , i.e.  $\mu_7$  and  $\mu_6$  have no difference at the statistic level of  $\alpha=0.10$

In other words, the factors 'female' and 'male' are in the same importance level in the relatively low income group' s mind.

### Question 2 Relatively High Income Group

He or she...	N	Min	Max	Mean	Std. Deviation	Variance
2.1 Service	55	1	5	1.51	0.79	0.62
2.2 Experience & Stability	55	1	5	1.62	0.73	0.54
2.3 Professional	55	1	5	1.27	0.45	0.2
2.4 Prizes record	55	1	5	3.55	0.98	0.96
2.5 Friends / Relatives	55	1	5	2.29	1.07	1.14
2.6 Male	55	1	5	3.93	1.03	1.07
2.7 Female	55	1	5	3.87	1.07	1.15
2.8 Older	55	1	5	3.78	0.96	0.91
2.9 Younger	55	1	5	3.4	1.13	1.28
2.10 Representing company	55	1	5	1.87	0.82	0.67

$$t^* = \frac{(x_1 - x_2) - (\mu_1 - \mu_2)}{\sqrt{\frac{S_1(n_1 - 1) + S_2(n_2 - 1)}{n_1 + n_2 - 2}} \cdot \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

1. Ho:  $\mu_3 - \mu_1 = 0$  (reject)

Ha:  $\mu_3 - \mu_1 \neq 0$

$$t^* = \frac{1.27 - 1.15}{\sqrt{\frac{0.2(54) + 0.62(54)}{108}} \cdot \sqrt{\frac{1}{55} + \frac{1}{55}}}$$

$$= \frac{-0.24}{0.12}$$

$$= \underline{\underline{-1.96}}$$

According to the one-tail t-table,  $\alpha = 0.05$ ,  $t = 1.671$ ;  $\alpha = 0.10$ ,  $t = 1.296$

When  $t^*$ -value = 1.96 which is higher than 1.296, then the conclusion is we reject Ho, i.e.  $\mu_3$  and  $\mu_1$  are significant different at the statistic level of  $\alpha = 0.10$

In other words, the professional is more important than the service of the agents in the relatively high income group's mind.

2. Ho:  $\mu_1 - \mu_2 = 0$  (reject)

Ha:  $\mu_1 - \mu_2 \neq 0$

$$t^* = \frac{1.51 - 1.62}{\sqrt{\frac{0.62(54) + 0.54(54)}{108}} \cdot \sqrt{\frac{1}{55} + \frac{1}{55}}}$$

$$= \frac{-0.11}{0.15}$$

$$= \underline{-0.76}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.671$  ;  $\alpha=0.10, t=1.296$

When  $t^*$ -value = 0.76 which is lower than 1.296, then the conclusion is we accept  $H_0$ , i.e.  $\mu_1$  and  $\mu_2$  have no difference at the statistic level of  $\alpha=0.10$

In other words, service and experience & stability of the agents are the same important in the relatively high income group's mind.

3.  $H_0: \mu_2 - \mu_{10} = 0$  (reject)

$H_a: \mu_2 - \mu_{10} \neq 0$

$$t^* = \frac{1.62 - 1.87}{\sqrt{\frac{0.54(54) + 0.67(54)}{108}} \cdot \sqrt{\frac{1}{55} + \frac{1}{55}}}$$

$$= \frac{-0.25}{0.12}$$

$$= \underline{-2.17}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.671$  ;  $\alpha=0.10, t=1.296$

When  $t^*$ -value = 2.17 which is higher than 1.296, then the conclusion is we reject  $H_0$ , i.e.  $\mu_2$  and  $\mu_{10}$  are significant different at the statistic level of  $\alpha=0.10$

In other words, factor 'experience & stability' is more important than the factor 'representing company' in the relatively high income group's mind.

4.  $H_0: \mu_{10} - \mu_5 = 0$  (reject)

$H_a: \mu_{10} - \mu_5 \neq 0$

$$t^* = \frac{1.87 - 2.29}{\sqrt{\frac{0.67(54) + 1.14(54)}{108}} \cdot \sqrt{\frac{1}{55} + \frac{1}{55}}}$$

$$= \frac{-0.42}{0.17}$$

$$= \underline{-2.43}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.671$  ;  $\alpha=0.10, t=1.296$

When  $t^*$ -value = 2.43 which is higher than 1.296, then the conclusion is we reject  $H_0$ , i.e.  $\mu_{10}$  and  $\mu_5$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the factor 'representing company' is more important than the factor 'friends/relatives' in the



relatively high income group's mind.

5.  $H_0: \mu_5 - \mu_9 = 0$  (reject)

$H_a: \mu_5 - \mu_9 \neq 0$

$$t^* = \frac{2.29 - 3.4}{\sqrt{\frac{1.14(54) + 1.28(54)}{108}} \cdot \sqrt{\frac{1}{55} + \frac{1}{55}}}$$

$$= \frac{-1.11}{0.21}$$

$$= \underline{\underline{-5.29}}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.671$ ;  $\alpha=0.10, t=1.296$

When  $t^*$ -value = 5.29 which is higher than 1.296, then the conclusion is we reject  $H_0$ , i.e.  $\mu_5$  and  $\mu_9$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the factor 'friends/relatives' is more important than the factor 'younger' in the relatively high income group's mind.

6.  $H_0: \mu_9 - \mu_4 = 0$  (reject)

$H_a: \mu_9 - \mu_4 \neq 0$

$$t^* = \frac{3.4 - 3.55}{\sqrt{\frac{1.28(54) + 0.96(54)}{108}} \cdot \sqrt{\frac{1}{55} + \frac{1}{55}}}$$

$$= \frac{-0.15}{0.2}$$

$$= \underline{\underline{-0.74}}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.671$ ;  $\alpha=0.10, t=1.296$

When  $t^*$ -value = 0.74 which is lower than 1.296, then the conclusion is we accept  $H_0$ , i.e.  $\mu_9$  and  $\mu_4$  have no difference at the statistic level of  $\alpha=0.10$

In other words, the factors 'younger' and 'prizes record' are in the same importance level in the relatively high income group's mind.

7.  $H_0: \mu_4 - \mu_8 = 0$  (reject)

$H_a: \mu_4 - \mu_8 \neq 0$

$$t^* = \frac{3.55 - 3.78}{\sqrt{\frac{0.96(54) + 0.91(54)}{108}} \cdot \sqrt{\frac{1}{55} + \frac{1}{55}}}$$

$$= \frac{-0.23}{0.18}$$

$$= \underline{\underline{-1.24}}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.671$  ;  $\alpha=0.10, t=1.296$

When  $t^*$ -value = 1.24 which is lower than 1.296, then the conclusion is we accept  $H_0$ , i.e.  $\mu_4$  and  $\mu_8$  have no difference at the statistic level of  $\alpha=0.10$

In other words, the factors 'prizes record' and 'older' are in the same importance level in the relatively high income group's mind.

8.  $H_0: \mu_9 - \mu_8 = 0$  (reject)

$H_a: \mu_9 - \mu_8 \neq 0$

$$t^* = \frac{3.4 - 3.78}{\sqrt{\frac{1.28(54) + 0.91(54)}{108}} \cdot \sqrt{\frac{1}{55} + \frac{1}{55}}}$$

$$= \frac{-0.38}{0.2}$$

$$= \underline{\underline{-2}}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.671$  ;  $\alpha=0.10, t=1.296$

When  $t^*$ -value = 2 which is higher than 1.296, then the conclusion is we reject  $H_0$ , i.e.  $\mu_9$  and  $\mu_8$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the factor 'younger' is more important than the factor 'older' in the relatively high income group's mind.

9.  $H_0: \mu_8 - \mu_7 = 0$  (reject)

$H_a: \mu_8 - \mu_7 \neq 0$

$$t^* = \frac{3.78 - 3.87}{\sqrt{\frac{0.91(54) + 1.15(54)}{108}} \cdot \sqrt{\frac{1}{55} + \frac{1}{55}}}$$

$$= \frac{-0.09}{0.19}$$

$$= \underline{\underline{-0.47}}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.671$  ;  $\alpha=0.10, t=1.296$

When  $t^*$ -value = 0.47 which is lower than 1.296, then the conclusion is we accept  $H_0$ , i.e.  $\mu_8$  and  $\mu_7$  have no difference at the statistic level of  $\alpha=0.10$

In other words, the factors 'older' and 'female' are in the same importance level in the relatively high

income group's mind.

10.  $H_0: \mu_7 - \mu_6 = 0$  (reject)

$H_a: \mu_7 - \mu_6 \neq 0$

$$\begin{aligned} t^* &= \frac{3.87 - 3.93}{\sqrt{\frac{1.15(54) + 1.07(54)}{108}} \cdot \sqrt{\frac{1}{55} + \frac{1}{55}}} \\ &= \frac{-0.06}{0.2} \\ &= \underline{-0.3} \end{aligned}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.671$ ;  $\alpha=0.10, t=1.296$

When  $t^*$ -value = 0.3 which is lower than 1.296, then the conclusion is we accept  $H_0$ , i.e.  $\mu_7$  and  $\mu_6$  have no difference at the statistic level of  $\alpha=0.10$

In other words, the factors 'female' and 'male' are in the same importance level in the relatively high income group's mind.

11.  $H_0: \mu_8 - \mu_6 = 0$  (reject)

$H_a: \mu_8 - \mu_6 \neq 0$

$$\begin{aligned} t^* &= \frac{3.78 - 3.93}{\sqrt{\frac{0.91(54) + 1.07(54)}{108}} \cdot \sqrt{\frac{1}{55} + \frac{1}{55}}} \\ &= \frac{-0.15}{0.19} \\ &= \underline{-0.79} \end{aligned}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.671$ ;  $\alpha=0.10, t=1.296$

When  $t^*$ -value = 0.79 which is lower than 1.296, then the conclusion is we accept  $H_0$ , i.e.  $\mu_8$  and  $\mu_6$  have no difference at the statistic level of  $\alpha=0.10$

In other words, the factors 'older' and 'male' are in the same importance level in the relatively high income group's mind.

### Appendix 2.3

**Question7** What is the level of satisfaction of your agent? (1 = high satisfaction, 5 = low satisfaction)

	N	Min.	Max.	Mean	Std. Deviation	Variance
1 Service	91	1	5	2.26	0.95	0.91
2 Professional	91	1	5	2.22	0.88	0.77
3 Ethics	91	1	5	2.22	0.98	0.95
4 After-sale service	91	1	5	2.55	1.09	1.21
5 Overall	91	1	5	2.35	0.94	0.87

$$t^* = \frac{(x_1 - x_2) - (\mu_1 - \mu_2)}{\sqrt{\frac{S_1(n_1 - 1) + S_2(n_2 - 1)}{n_1 + n_2 - 2}} \cdot \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

1. Ho:  $\mu_2 - \mu_1 = 0$  (reject)

Ha:  $\mu_2 - \mu_1 \neq 0$

$$\begin{aligned} t^* &= \frac{2.22 - 2.26}{\sqrt{\frac{0.77(90) + 0.91(90)}{180}} \cdot \sqrt{\frac{1}{91} + \frac{1}{91}}} \\ &= \frac{-0.04}{0.14} \\ &= \underline{-0.29} \end{aligned}$$

According to the one-tail t-table,  $\alpha = 0.05$ ,  $t = 1.662$ ;  $\alpha = 0.10$ ,  $t = 1.291$

When  $t^*$ -value = 0.29 which is lower than 1.296, then the conclusion is we accept Ho, i.e.  $\mu_2$  and  $\mu_1$  have no difference at the statistic level of  $\alpha = 0.10$

In other words, the people place the same satisfaction level on their agents about the ethics, professional and service standard.

2. Ho:  $\mu_1 - \mu_4 = 0$  (reject)

Ha:  $\mu_1 - \mu_4 \neq 0$

$$\begin{aligned} t^* &= \frac{2.26 - 2.55}{\sqrt{\frac{0.91(90) + 1.21(90)}{180}} \cdot \sqrt{\frac{1}{91} + \frac{1}{91}}} \\ &= \frac{-0.29}{0.15} \\ &= \underline{-1.88} \end{aligned}$$

According to the one-tail t-table,  $\alpha=0.05$ ,  $t=1.662$  ;  $\alpha=0.10$ ,  $t=1.291$

When  $t^*$ -value = 1.88 which is higher than 1.291, then the conclusion is we reject  $H_0$ , i.e.  $\mu_1$  and  $\mu_4$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the people have higher satisfaction level on their agents about the service rather than the after-sale service.

**Appendix 2.4**

**Question 8** What kinds of insurance company are you prefer when you need to buy insurance? (1 = most important, 5 = not important)

The insurance company ...	N	Min.	Max.	Mean	Std. Deviation	Variance
1 has reputation	162	1	5	1.38	0.64	0.41
2 has suitable products	162	1	5	1.46	0.73	0.53
3 has cheaper products	162	1	5	2.43	1.09	1.20
4 has good agents	162	1	5	1.69	0.78	0.60
5 has good after-sale service	162	1	5	1.48	0.74	0.55
6 has additional benefits of policy	162	1	5	2.09	0.92	0.85
7 is a Hong Kong based company	162	1	5	3.10	1.14	1.32
8 is a foreign based company	162	1	5	2.25	1.08	1.16

$$t^* = \frac{(x_1 - x_2) - (\mu_1 - \mu_2)}{\sqrt{\frac{S_1(n_1 - 1) + S_2(n_2 - 1)}{n_1 + n_2 - 2}} \cdot \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

1. Ho:  $\mu_1 - \mu_2 = 0$  (reject)

Ha:  $\mu_1 - \mu_2 \neq 0$

$$t^* = \frac{1.38 - 1.46}{\sqrt{\frac{0.41(161) + 0.54(161)}{322}} \cdot \sqrt{\frac{1}{162} + \frac{1}{162}}}$$

$$= \frac{-0.08}{0.076}$$

$$= \underline{\underline{-1.06}}$$

According to the one-tail t-table,  $\alpha = 0.05, t = 1.654$ ;  $\alpha = 0.10, t = 1.287$

When  $t^*$ -value = 1.06 which is lower than 1.287, then the conclusion is we accept Ho, i.e.  $\mu_1$  and  $\mu_2$  have no difference at the statistic level of  $\alpha = 0.10$

In other words, the reputation of the insurance company and the insurance company having suitable products are the same important in customers' mind.

2. Ho:  $\mu_2 - \mu_5 = 0$  (reject)

Ha:  $\mu_2 - \mu_5 \neq 0$

$$t^* = \frac{1.46 - 1.48}{\sqrt{\frac{0.54(161) + 0.55(161)}{322}} \cdot \sqrt{\frac{1}{162} + \frac{1}{162}}}$$

$$= \frac{-0.02}{0.081}$$

$$= \underline{-0.25}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.654$  ;  $\alpha=0.10, t=1.287$

When  $t^*$ -value = 0.25 which is lower than 1.287, then the conclusion is we accept  $H_0$ , i.e.  $\mu_2$  and  $\mu_5$  have no difference at the statistic level of  $\alpha=0.10$

In other words, the insurance company having suitable products and good after-sale service is the same important in customers' mind.

3.  $H_0: \mu_1 - \mu_5 = 0$  (reject)

$H_a: \mu_1 - \mu_5 \neq 0$

$$t^* = \frac{1.38 - 1.48}{\sqrt{\frac{0.41(161) + 0.55(161)}{322}} \cdot \sqrt{\frac{1}{162} + \frac{1}{162}}}$$

$$= \frac{-0.1}{0.076}$$

$$= \underline{-1.31}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.654$  ;  $\alpha=0.10, t=1.287$

When  $t^*$ -value = 1.31 which is higher than 1.287, then the conclusion is we reject  $H_0$ , i.e.  $\mu_1$  and  $\mu_5$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the insurance company's reputation is more important than the good after-sale service in customers' mind.

4.  $H_0: \mu_5 - \mu_4 = 0$  (reject)

$H_a: \mu_5 - \mu_4 \neq 0$

$$t^* = \frac{1.48 - 1.69}{\sqrt{\frac{0.55(161) + 0.6(161)}{322}} \cdot \sqrt{\frac{1}{162} + \frac{1}{162}}}$$

$$= \frac{-0.21}{0.083}$$

$$= \underline{-2.52}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.654$  ;  $\alpha=0.10, t=1.287$

When  $t^*$ -value = 2.52 which is higher than 1.287, then the conclusion is we reject  $H_0$ , i.e.  $\mu_5$  and  $\mu_4$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the factor good after-sale service of the insurance company are more important than the

factor of good agents of the insurance company in people's mind.

5.  $H_0: \mu_4 - \mu_6 = 0$  (reject)

$H_a: \mu_4 - \mu_6 \neq 0$

$$t^* = \frac{1.69 - 2.09}{\sqrt{\frac{0.6(161) + 0.85(161)}{322}} \cdot \sqrt{\frac{1}{162} + \frac{1}{162}}}$$

$$= \frac{-0.4}{0.094}$$

$$= \underline{\underline{-4.27}}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.654$ ;  $\alpha=0.10, t=1.287$

When  $t^*$ -value = 4.27 which is higher than 1.287, then the conclusion is we reject  $H_0$ , i.e.  $\mu_4$  and  $\mu_6$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the insurance company has good agents is more important than its policy has additional benefits.

6.  $H_0: \mu_6 - \mu_8 = 0$  (reject)

$H_a: \mu_6 - \mu_8 \neq 0$

$$t^* = \frac{2.09 - 2.25}{\sqrt{\frac{0.85(161) + 1.16(161)}{322}} \cdot \sqrt{\frac{1}{162} + \frac{1}{162}}}$$

$$= \frac{-0.16}{0.11}$$

$$= \underline{\underline{-1.45}}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.654$ ;  $\alpha=0.10, t=1.287$

When  $t^*$ -value = 1.45 which is higher than 1.287, then the conclusion is we reject  $H_0$ , i.e.  $\mu_6$  and  $\mu_8$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the factors of 'additional benefits of policy' is more important than the factor 'foreign based company' in customers' mind.

7.  $H_0: \mu_8 - \mu_3 = 0$  (reject)

$H_a: \mu_8 - \mu_3 \neq 0$

$$t^* = \frac{2.25 - 2.43}{\sqrt{\frac{1.16(161) + 1.2(161)}{322}} \cdot \sqrt{\frac{1}{162} + \frac{1}{162}}}$$



$$= \frac{-0.18}{0.12}$$

$$= \underline{-1.51}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.654$  ;  $\alpha=0.10, t=1.287$

When  $t^*$ -value = 1.51 which is higher than 1.287, then the conclusion is we reject  $H_0$ , i.e.  $\mu_8$  and  $\mu_3$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the factor 'foreign based company' is more important than the factor 'the company having cheaper products' in people's mind.

8.  $H_0: \mu_3 - \mu_7 = 0$  (reject)

$H_a: \mu_3 - \mu_7 \neq 0$

$$t^* = \frac{2.43 - 3.1}{\sqrt{\frac{1.2(161) + 1.32(161)}{322}} \cdot \sqrt{\frac{1}{162} + \frac{1}{162}}}$$

$$= \frac{-0.67}{0.12}$$

$$= \underline{-5.43}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.654$  ;  $\alpha=0.10, t=1.287$

When  $t^*$ -value = 5.43 which is higher than 1.287, then the conclusion is we reject  $H_0$ , i.e.  $\mu_3$  and  $\mu_7$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the factor of 'Hong Kong based company' is less important than the factor of 'cheaper products'.

## Appendix 2.5

### Question 8 Younger Age Group

	N	Min	Max	Mean	Std. Deviation	Variance
8.1 Reputation	131	1	5	1.51	0.88	0.77
8.2 Suitable products	131	1	5	1.60	0.90	0.81
8.3 Cheaper products	131	1	5	2.47	1.07	1.14
8.4 Good agents	131	1	5	1.80	0.86	0.74
8.5 Good after-sale service	131	1	5	1.65	0.96	0.92
8.6 Additional benefits of policy	131	1	5	2.18	0.97	0.95
8.7 Hong Kong based company	131	1	5	3.11	1.09	1.18
8.8 Foreign based company	131	1	5	2.37	1.09	1.19

$$t^* = \frac{(x_1 - x_2) - (\mu_1 - \mu_2)}{\sqrt{\frac{S_1(n_1 - 1) + S_2(n_2 - 1)}{n_1 + n_2 - 2}} \cdot \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

1.  $H_0: \mu_1 - \mu_2 = 0$  (reject)

$H_a: \mu_1 - \mu_2 \neq 0$

$$t^* = \frac{1.56 - 1.6}{\sqrt{\frac{0.77(130) + 0.81(130)}{260}} \cdot \sqrt{\frac{1}{131} + \frac{1}{131}}}$$

$$= \frac{-0.09}{0.11}$$

$$= \underline{\underline{-0.82}}$$

According to the one-tail t-table,  $\alpha = 0.05$ ,  $t = 1.656$ ;  $\alpha = 0.10$ ,  $t = 1.288$

When  $t^*$ -value = 0.82 which is lower than 1.288, then the conclusion is we accept  $H_0$ , i.e.  $\mu_1$  and  $\mu_2$  have no difference at the statistic level of  $\alpha = 0.10$

In other words, the factors of 'reputation' and 'suitable products' are the same important in the young age group's mind.

2.  $H_0: \mu_2 - \mu_5 = 0$  (reject)

$H_a: \mu_2 - \mu_5 \neq 0$

$$t^* = \frac{1.6 - 1.65}{\sqrt{\frac{0.81(130) + 0.92(130)}{260}} \cdot \sqrt{\frac{1}{131} + \frac{1}{131}}}$$

$$= \frac{-0.05}{0.11}$$

$$= \underline{-0.44}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.656$  ;  $\alpha=0.10, t=1.288$

When  $t^*$ -value = 0.44 which is lower than 1.288, then the conclusion is we accept  $H_0$ , i.e.  $\mu_2$  and  $\mu_5$  have no difference at the statistic level of  $\alpha=0.10$

In other words, the factors of 'suitable products' and 'good after-sale service' are the same important in the young age group's mind.

3.  $H_0: \mu_1 - \mu_5 = 0$  (reject)

$H_a: \mu_1 - \mu_5 \neq 0$

$$t^* = \frac{1.51 - 1.65}{\sqrt{\frac{0.77(130) + 0.92(130)}{260}} \cdot \sqrt{\frac{1}{131} + \frac{1}{131}}}$$

$$= \frac{-0.14}{0.11}$$

$$= \underline{-1.23}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.656$  ;  $\alpha=0.10, t=1.288$

When  $t^*$ -value = 1.23 which is lower than 1.288, then the conclusion is we accept  $H_0$ , i.e.  $\mu_1$  and  $\mu_5$  have no difference at the statistic level of  $\alpha=0.10$

In other words, the factors of 'reputation' and 'good after-sale service' are the same important in the young age group's mind.

4.  $H_0: \mu_5 - \mu_4 = 0$  (reject)

$H_a: \mu_5 - \mu_4 \neq 0$

$$t^* = \frac{1.65 - 1.8}{\sqrt{\frac{0.92(130) + 0.74(130)}{260}} \cdot \sqrt{\frac{1}{131} + \frac{1}{131}}}$$

$$= \frac{-0.15}{0.11}$$

$$= \underline{-1.33}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.656$  ;  $\alpha=0.10, t=1.288$

When  $t^*$ -value = 1.33 which is higher than 1.288, then the conclusion is we reject  $H_0$ , i.e.  $\mu_5$  and  $\mu_4$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the factor 'good after-sale service' is more important than the factor 'good agents' in the

young age group' s mind.

5.  $H_0: \mu_4 - \mu_6 = 0$  (reject)

$H_a: \mu_4 - \mu_6 \neq 0$

$$t^* = \frac{1.8 - 2.18}{\sqrt{\frac{0.74(130) + 0.95(130)}{260}} \cdot \sqrt{\frac{1}{131} + \frac{1}{131}}}$$

$$= \frac{-0.38}{0.11}$$

$$= \underline{\underline{-3.35}}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.656$  ;  $\alpha=0.10, t=1.288$

When  $t^*$ -value = 3.35 which is higher than 1.288, then the conclusion is we reject  $H_0$ , i.e.  $\mu_4$  and  $\mu_6$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the factor 'good agents' is more important than the factor 'additional benefits of policy' in the young age group' s mind.

6.  $H_0: \mu_6 - \mu_8 = 0$  (reject)

$H_a: \mu_6 - \mu_8 \neq 0$

$$t^* = \frac{2.18 - 2.37}{\sqrt{\frac{0.95(130) + 0.19(130)}{260}} \cdot \sqrt{\frac{1}{131} + \frac{1}{131}}}$$

$$= \frac{-0.19}{0.13}$$

$$= \underline{\underline{-1.49}}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.656$  ;  $\alpha=0.10, t=1.288$

When  $t^*$ -value = 1.49 which is higher than 1.288, then the conclusion is we reject  $H_0$ , i.e.  $\mu_6$  and  $\mu_8$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the factor 'additional benefits of policy' is more important than the factor 'foreign based company' in the young age group' s mind.

7.  $H_0: \mu_8 - \mu_3 = 0$  (reject)

$H_a: \mu_8 - \mu_3 \neq 0$

$$t^* = \frac{2.37 - 2.47}{\sqrt{\frac{1.19(130) + 1.14(130)}{260}} \cdot \sqrt{\frac{1}{131} + \frac{1}{131}}}$$

$$= \frac{-0.1}{0.13}$$

$$= \underline{-0.75}$$

According to the one-tail t-table,  $\alpha=0.05$ ,  $t=1.656$  ;  $\alpha=0.10$ ,  $t=1.288$

When  $t^*$ -value = 0.75 which is lower than 1.288, then the conclusion is we accept  $H_0$ , i.e.  $\mu_8$  and  $\mu_3$  have no difference at the statistic level of  $\alpha=0.10$

In other words, the factors of 'foreign based company' and 'cheaper products' are in the same importance level in the young age group's mind.

8.  $H_0: \mu_3 - \mu_7 = 0$  (reject)

$H_a: \mu_3 - \mu_7 \neq 0$

$$t^* = \frac{2.47 - 3.11}{\sqrt{\frac{1.14(130) + 1.18(130)}{260} \cdot \left( \frac{1}{131} + \frac{1}{131} \right)}}$$

$$= \frac{-0.64}{0.13}$$

$$= \underline{-4.81}$$

According to the one-tail t-table,  $\alpha=0.05$ ,  $t=1.656$  ;  $\alpha=0.10$ ,  $t=1.288$

When  $t^*$ -value = 4.81 which is higher than 1.288, then the conclusion is we reject  $H_0$ , i.e.  $\mu_3$  and  $\mu_7$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the factor 'cheaper products' is more important than the factor 'Hong Kong based company' in the young age group's mind.

### Question 8 Older Age Group

Question 8	N	Min	Max	Mean	Std. Deviation	Variance
8.1 Reputation	31	1	5	1.26	0.51	0.26
8.2 Suitable products	31	1	5	1.32	0.83	0.69
8.3 Cheaper products	31	1	5	2.42	1.31	1.72
8.4 Good agents	31	1	5	1.45	0.77	0.59
8.5 Good after-sale service	31	1	5	1.29	0.64	0.41
8.6 Additional benefits of policy	31	1	5	1.94	0.89	0.80
8.7 Hong Kong based company	31	1	5	2.84	1.39	1.94
8.8 Foreign based company	31	1	5	1.90	1.08	1.16

$$t^* = \frac{(x_1 - x_2) - (\mu_1 - \mu_2)}{\sqrt{\frac{S_1(n_1 - 1) + S_2(n_2 - 1)}{n_1 + n_2 - 2}} \cdot \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

1. Ho:  $\mu_1 - \mu_5 = 0$  (reject)

Ha:  $\mu_1 - \mu_5 \neq 0$

$$\begin{aligned} t^* &= \frac{1.26 - 1.29}{\sqrt{\frac{0.26(30) + 0.41(30)}{60}} \cdot \sqrt{\frac{1}{31} + \frac{1}{31}}} \\ &= \frac{-0.03}{0.15} \\ &= \underline{-0.2} \end{aligned}$$

According to the one-tail t-table,  $\alpha = 0.05$ ,  $t = 1.697$ ;  $\alpha = 0.10$ ,  $t = 1.31$

When  $t^*$ -value = 0.2 which is lower than 1.31, then the conclusion is we accept Ho, i.e.  $\mu_1$  and  $\mu_5$  have no difference at the statistic level of  $\alpha = 0.10$

In other words, the factors of 'reputation' and 'good after-sale service' are the same important in the older age group's mind.

2. Ho:  $\mu_5 - \mu_2 = 0$  (reject)

Ha:  $\mu_5 - \mu_2 \neq 0$

$$\begin{aligned} t^* &= \frac{1.29 - 1.32}{\sqrt{\frac{0.41(30) + 0.69(30)}{60}} \cdot \sqrt{\frac{1}{31} + \frac{1}{31}}} \end{aligned}$$

$$= \frac{-0.03}{0.19}$$

$$= \underline{-0.16}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.697$  ;  $\alpha=0.10, t=1.31$

When  $t^*$ -value = 0.16 which is lower than 1.31, then the conclusion is we accept  $H_0$ , i.e.  $\mu_5$  and  $\mu_2$  have no difference at the statistic level of  $\alpha=0.10$

In other words, the factors of 'good after-sale service' and 'suitable products' are the same important in the older age group' s mind.

3.  $H_0: \mu_1 - \mu_2 = 0$  (reject)

$H_a: \mu_1 - \mu_2 \neq 0$

$$t^* = \frac{1.26 - 1.32}{\sqrt{\frac{0.26(30) + 0.69(30)}{60}} \cdot \sqrt{\frac{1}{31} + \frac{1}{31}}}$$

$$= \frac{-0.06}{0.18}$$

$$= \underline{-0.34}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.697$  ;  $\alpha=0.10, t=1.31$

When  $t^*$ -value = 0.34 which is lower than 1.31, then the conclusion is we accept  $H_0$ , i.e.  $\mu_1$  and  $\mu_2$  have no difference at the statistic level of  $\alpha=0.10$

In other words, the factors of 'reputation' and 'suitable products' are the same important in the older age group' s mind.

4.  $H_0: \mu_2 - \mu_4 = 0$  (reject)

$H_a: \mu_2 - \mu_4 \neq 0$

$$t^* = \frac{1.32 - 1.45}{\sqrt{\frac{0.69(30) + 0.59(30)}{60}} \cdot \sqrt{\frac{1}{31} + \frac{1}{31}}}$$

$$= \frac{-0.13}{0.2}$$

$$= \underline{-0.65}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.697$  ;  $\alpha=0.10, t=1.31$

When  $t^*$ -value = 0.65 which is lower than 1.31, then the conclusion is we accept  $H_0$ , i.e.  $\mu_2$  and  $\mu_4$  have no difference at the statistic level of  $\alpha=0.10$

In other words, the factors of 'suitable products' and 'good agents' are the same important in the older age

group's mind.

5.  $H_0: \mu_5 - \mu_4 = 0$  (reject)

$H_a: \mu_5 - \mu_4 \neq 0$

$$t^* = \frac{1.29 - 1.45}{\sqrt{\frac{0.41(30) + 0.59(30)}{60}} \cdot \sqrt{\frac{1}{31} + \frac{1}{31}}}$$

$$= \frac{-0.16}{0.18}$$

$$= \underline{\underline{-0.89}}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.697$ ;  $\alpha=0.10, t=1.31$

When  $t^*$ -value = 0.89 which is lower than 1.31, then the conclusion is we accept  $H_0$ , i.e.  $\mu_5$  and  $\mu_4$  have no difference at the statistic level of  $\alpha=0.10$

In other words, the factors of 'good after-sale service' and 'good agents' are the same important in the older age group's mind.

6.  $H_0: \mu_1 - \mu_4 = 0$  (reject)

$H_a: \mu_1 - \mu_4 \neq 0$

$$t^* = \frac{1.26 - 1.45}{\sqrt{\frac{0.26(30) + 0.59(30)}{60}} \cdot \sqrt{\frac{1}{31} + \frac{1}{31}}}$$

$$= \frac{-0.19}{0.17}$$

$$= \underline{\underline{-1.15}}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.697$ ;  $\alpha=0.10, t=1.31$

When  $t^*$ -value = 1.15 which is lower than 1.31, then the conclusion is we accept  $H_0$ , i.e.  $\mu_1$  and  $\mu_4$  have no difference at the statistic level of  $\alpha=0.10$

In other words, the factors of 'reputation' and 'good agents' are the same important in the older age group's mind.

7.  $H_0: \mu_4 - \mu_8 = 0$  (reject)

$H_a: \mu_4 - \mu_8 \neq 0$

$$t^* = \frac{1.45 - 1.9}{\sqrt{\frac{0.59(30) + 1.16(30)}{60}} \cdot \sqrt{\frac{1}{31} + \frac{1}{31}}}$$



$$= \frac{-0.45}{0.24}$$

$$= \underline{-1.89}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.697$  ;  $\alpha=0.10, t=1.31$

When  $t^*$ -value = 1.89 which is higher than 1.31, then the conclusion is we reject  $H_0$ , i.e.  $\mu_4$  and  $\mu_8$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the factor 'good agents' is more important than the factor 'foreign based company' in the older age group's mind.

8.  $H_0: \mu_8 - \mu_6 = 0$  (reject)

$H_a: \mu_8 - \mu_6 \neq 0$

$$t^* = \frac{1.9 - 1.94}{\sqrt{\frac{1.16(30) + 0.8(30)}{60}} \cdot \sqrt{\frac{1}{31} + \frac{1}{31}}}$$

$$= \frac{-0.04}{0.25}$$

$$= \underline{-0.16}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.697$  ;  $\alpha=0.10, t=1.31$

When  $t^*$ -value = 0.16 which is lower than 1.31, then the conclusion is we accept  $H_0$ , i.e.  $\mu_8$  and  $\mu_6$  have no difference at the statistic level of  $\alpha=0.10$

In other words, the factors of 'foreign based company' and 'additional benefits of policy' are the same important in the older age group's mind.

9.  $H_0: \mu_6 - \mu_3 = 0$  (reject)

$H_a: \mu_6 - \mu_3 \neq 0$

$$t^* = \frac{1.94 - 2.42}{\sqrt{\frac{0.8(30) + 1.72(30)}{60}} \cdot \sqrt{\frac{1}{31} + \frac{1}{31}}}$$

$$= \frac{-0.48}{0.29}$$

$$= \underline{-1.66}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.697$  ;  $\alpha=0.10, t=1.31$

When  $t^*$ -value = 1.66 which is higher than 1.31, then the conclusion is we reject  $H_0$ , i.e.  $\mu_6$  and  $\mu_3$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the factor 'additional benefits of policy' is more important than the factor 'cheaper products'

in the older age group's mind.

10.  $H_0: \mu_3 - \mu_7 = 0$  (reject)

$H_a: \mu_3 - \mu_7 \neq 0$

$$\begin{aligned} t &= \frac{2.42 - 2.84}{\sqrt{\frac{1.72(30) + 1.94(30)}{60}} \cdot \sqrt{\frac{1}{31} + \frac{1}{31}}} \\ &= \frac{-0.42}{0.34} \\ &= \underline{\underline{-1.22}} \end{aligned}$$

According to the one-tail t-table,  $\alpha=0.05$ ,  $t=1.697$ ;  $\alpha=0.10$ ,  $t=1.31$

When  $t^*$ -value = 1.22 which is lower than 1.31, then the conclusion is we accept  $H_0$ , i.e.  $\mu_3$  and  $\mu_7$  have no difference at the statistic level of  $\alpha=0.10$

In other words, the factors of 'cheaper products' and 'Hong Kong based company' are the same important in the older age group's mind.

### Question 8 Relatively Low Education Group

	N	Min	Max	Mean	Std. Deviation	Variance
8.1 Reputation	54	1	5	1.26	0.56	0.31
8.2 Suitable products	54	1	5	1.41	0.84	0.70
8.3 Cheaper products	54	1	5	2.41	1.21	1.45
8.4 Good agents	54	1	5	1.46	0.69	0.48
8.5 Good after-sale service	54	1	5	1.35	0.62	0.38
8.6 Additional benefits of policy	54	1	5	1.96	1.03	1.06
8.7 Hong Kong based company	54	1	5	2.81	1.21	1.47
8.8 Foreign based company	54	1	5	2.02	1.11	1.23

$$t^* = \frac{(x_1 - x_2) - (\mu_1 - \mu_2)}{\sqrt{\frac{S_1(n_1 - 1) + S_2(n_2 - 1)}{n_1 + n_2 - 2}}} \cdot \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}$$

1. Ho:  $\mu_1 - \mu_5 = 0$  (reject)

Ha:  $\mu_1 - \mu_5 \neq 0$

$$t^* = \frac{1.26 - 1.35}{\sqrt{\frac{0.31(53) + 0.38(53)}{106}}} \cdot \sqrt{\frac{1}{54} + \frac{1}{54}}$$

$$= \frac{-0.09}{0.11}$$

$$= \underline{-0.8}$$

According to the one-tail t-table,  $\alpha = 0.05$ ,  $t = 1.676$ ;  $\alpha = 0.10$ ,  $t = 1.299$

When  $t^*$ -value = 0.8 which is lower than 1.299, then the conclusion is we accept Ho, i.e.  $\mu_1$  and  $\mu_5$  have no difference at the statistic level of  $\alpha = 0.10$

In other words, the factors 'reputation' and 'good after-sale service' of the insurance company are the same important in the relatively low education group's mind.

2. Ho:  $\mu_5 - \mu_2 = 0$  (reject)

Ha:  $\mu_5 - \mu_2 \neq 0$

$$t^* = \frac{1.35 - 1.41}{\sqrt{\frac{0.38(53) + 0.7(53)}{106}}} \cdot \sqrt{\frac{1}{54} + \frac{1}{54}}$$

$$= \frac{-0.06}{0.14}$$

$$= \underline{-0.42}$$

According to the one-tail t-table,  $\alpha=0.05$ ,  $t=1.676$  ;  $\alpha=0.10$ ,  $t=1.299$

When  $t^*$ -value = 0.42 which is lower than 1.299, then the conclusion is we accept  $H_0$ , i.e.  $\mu_5$  and  $\mu_2$  have no difference at the statistic level of  $\alpha=0.10$

In other words, the factors ‘good after-sale service’ and ‘suitable products’ of the insurance company are the same important in the relatively low education group’s mind.

3.  $H_0: \mu_1 - \mu_2 = 0$  (reject)

$H_a: \mu_1 - \mu_2 \neq 0$

$$t^* = \frac{1.26 - 1.41}{\sqrt{\frac{0.31(53) + 0.7(53)}{106}} \cdot \sqrt{\frac{1}{54} + \frac{1}{54}}}$$

$$= \frac{-0.15}{0.14}$$

$$= \underline{-1.1}$$

According to the one-tail t-table,  $\alpha=0.05$ ,  $t=1.676$  ;  $\alpha=0.10$ ,  $t=1.299$

When  $t^*$ -value = 1.1 which is lower than 1.299, then the conclusion is we accept  $H_0$ , i.e.  $\mu_1$  and  $\mu_2$  have no difference at the statistic level of  $\alpha=0.10$

In other words, the factors ‘reputation’ and ‘suitable products’ of the insurance company are the same important in the relatively low education group’s mind.

4.  $H_0: \mu_2 - \mu_4 = 0$  (reject)

$H_a: \mu_2 - \mu_4 \neq 0$

$$t^* = \frac{1.41 - 1.46}{\sqrt{\frac{0.7(53) + 0.48(53)}{106}} \cdot \sqrt{\frac{1}{54} + \frac{1}{54}}}$$

$$= \frac{-0.05}{0.15}$$

$$= \underline{-0.34}$$

According to the one-tail t-table,  $\alpha=0.05$ ,  $t=1.676$  ;  $\alpha=0.10$ ,  $t=1.299$

When  $t^*$ -value = 0.34 which is lower than 1.299, then the conclusion is we accept  $H_0$ , i.e.  $\mu_2$  and  $\mu_4$  have no difference at the statistic level of  $\alpha=0.10$

In other words, the factors ‘suitable products’ and ‘good agents’ of the insurance company are the same important in the relatively low education group’s mind.

5.  $H_0: \mu_5 - \mu_4 = 0$  (reject)

$H_a: \mu_5 - \mu_4 \neq 0$

$$\begin{aligned} t^* &= \frac{1.35 - 1.46}{\sqrt{\frac{0.38(53) + 0.48(53)}{106}} \cdot \sqrt{\frac{1}{54} + \frac{1}{54}}} \\ &= \frac{-0.11}{0.13} \\ &= \underline{\underline{-0.87}} \end{aligned}$$

According to the one-tail t-table,  $\alpha = 0.05, t = 1.676$ ;  $\alpha = 0.10, t = 1.299$

When  $t^*$ -value = 0.87 which is lower than 1.299, then the conclusion is we accept  $H_0$ , i.e.  $\mu_5$  and  $\mu_4$  have no difference at the statistic level of  $\alpha = 0.10$

In other words, the factors 'good after-sale service' and 'good agents' of the insurance company are the same important in the relatively low education group's mind.

6.  $H_0: \mu_1 - \mu_4 = 0$  (reject)

$H_a: \mu_1 - \mu_4 \neq 0$

$$\begin{aligned} t^* &= \frac{1.26 - 1.46}{\sqrt{\frac{0.31(53) + 0.48(53)}{106}} \cdot \sqrt{\frac{1}{54} + \frac{1}{54}}} \\ &= \frac{-0.2}{0.12} \\ &= \underline{\underline{-1.65}} \end{aligned}$$

According to the one-tail t-table,  $\alpha = 0.05, t = 1.676$ ;  $\alpha = 0.10, t = 1.299$

When  $t^*$ -value = 1.65 which is higher than 1.299, then the conclusion is we reject  $H_0$ , i.e.  $\mu_1$  and  $\mu_4$  are significant different at the statistic level of  $\alpha = 0.10$

In other words, the factor 'reputation' is more important than the factor 'good agents' in the relatively low education group's mind.

7.  $H_0: \mu_4 - \mu_6 = 0$  (reject)

$H_a: \mu_4 - \mu_6 \neq 0$

$$\begin{aligned} t^* &= \frac{1.46 - 1.96}{\sqrt{\frac{0.48(53) + 1.06(53)}{106}} \cdot \sqrt{\frac{1}{54} + \frac{1}{54}}} \\ &= \frac{-0.5}{0.17} \\ &= \underline{\underline{-2.96}} \end{aligned}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.676$  ;  $\alpha=0.10, t=1.299$

When  $t^*$ -value = 2.96 which is higher than 1.299, then the conclusion is we reject  $H_0$ , i.e.  $\mu_4$  and  $\mu_6$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the factor ‘good agents’ is more important than the factor ‘additional benefits of policy’ in the relatively low education group’s mind.

8.  $H_0: \mu_6 - \mu_8 = 0$  (reject)

$H_a: \mu_6 - \mu_8 \neq 0$

$$t^* = \frac{1.96 - 2.02}{\sqrt{\frac{1.06(53) + 1.23(53)}{106}} \cdot \sqrt{\frac{1}{54} + \frac{1}{54}}}$$

$$= \frac{-0.06}{0.21}$$

$$= \underline{\underline{-0.29}}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.676$  ;  $\alpha=0.10, t=1.299$

When  $t^*$ -value = 0.29 which is lower than 1.299, then the conclusion is we accept  $H_0$ , i.e.  $\mu_6$  and  $\mu_8$  have no difference at the statistic level of  $\alpha=0.10$

In other words, the factors ‘additional benefits of policy’ and ‘foreign based company’ are the same important in the relatively low education group’s mind.

9.  $H_0: \mu_8 - \mu_3 = 0$  (reject)

$H_a: \mu_8 - \mu_3 \neq 0$

$$t^* = \frac{2.02 - 2.41}{\sqrt{\frac{1.23(53) + 1.45(53)}{106}} \cdot \sqrt{\frac{1}{54} + \frac{1}{54}}}$$

$$= \frac{-0.39}{0.22}$$

$$= \underline{\underline{-1.75}}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.676$  ;  $\alpha=0.10, t=1.299$

When  $t^*$ -value = 1.75 which is higher than 1.299, then the conclusion is we reject  $H_0$ , i.e.  $\mu_8$  and  $\mu_3$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the factor ‘foreign based company’ is more important than the factor ‘cheaper products’ in the relatively low education group’s mind.

10.  $H_0: \mu_3 - \mu_7 = 0$  (reject)

$H_a: \mu_3 - \mu_7 \neq 0$

$$\begin{aligned}
 t^* &= \frac{2.41 - 2.81}{\sqrt{\frac{1.45(53) + 1.47(53)}{106}} \cdot \sqrt{\frac{1}{54} + \frac{1}{54}}} \\
 &= \frac{-0.4}{0.23} \\
 &= \underline{\underline{-1.72}}
 \end{aligned}$$

According to the one-tail t-table,  $\alpha=0.05$ ,  $t=1.676$  ;  $\alpha=0.10$ ,  $t=1.299$

When  $t^*$ -value = 1.72 which is higher than 1.299, then the conclusion is we reject  $H_0$ , i.e.  $\mu_3$  and  $\mu_7$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the factor 'cheaper products' is more important than the factor 'Hong Kong based company' in the relatively low education group's mind.

**Question 8 Relatively High Education Group**

Question 8	N	Min	Max	Mean	Std. Deviation	Variance
8.1 Reputation	108	1	5	1.56	0.92	0.85
8.2 Suitable products	108	1	5	1.61	0.92	0.84
8.3 Cheaper products	108	1	5	2.49	1.07	1.15
8.4 Good agents	108	1	5	1.87	0.90	0.81
8.5 Good after-sale service	108	1	5	1.69	1.02	1.04
8.6 Additional benefits of policy	108	1	5	2.21	0.92	0.84
8.7 Hong Kong based company	108	1	5	3.19	1.10	1.22
8.8 Foreign based company	108	1	5	2.42	1.08	1.16

$$t^* = \frac{(x_1 - x_2) - (\mu_1 - \mu_2)}{\sqrt{\frac{S_1(n_1 - 1) + S_2(n_2 - 1)}{n_1 + n_2 - 2}} \cdot \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

1. Ho:  $\mu_1 - \mu_2 = 0$  (reject)

Ha:  $\mu_1 - \mu_2 \neq 0$

$$t^* = \frac{1.56 - 1.61}{\sqrt{\frac{0.85(107) + 0.84(107)}{214}} \cdot \sqrt{\frac{1}{108} + \frac{1}{108}}}$$

$$= \frac{-0.05}{0.13}$$

$$= \underline{-0.4}$$

According to the one-tail t-table,  $\alpha = 0.05$ ,  $t = 1.66$ ;  $\alpha = 0.10$ ,  $t = 1.29$

When  $t^*$ -value = 0.4 which is lower than 1.29, then the conclusion is we accept Ho, i.e.  $\mu_1$  and  $\mu_2$  have no difference at the statistic level of  $\alpha = 0.10$

In other words, the factors 'reputation' and 'suitable products' are the same important in the relatively high education group's mind.

2. Ho:  $\mu_2 - \mu_5 = 0$  (reject)

Ha:  $\mu_2 - \mu_5 \neq 0$

$$t^* = \frac{1.61 - 1.69}{\sqrt{\frac{0.84(107) + 1.04(107)}{214}} \cdot \sqrt{\frac{1}{108} + \frac{1}{108}}}$$

$$= \frac{-0.08}{0.13}$$



$$= \underline{-0.6}$$

According to the one-tail t-table,  $\alpha=0.05$ ,  $t=1.66$  ;  $\alpha=0.10$ ,  $t=1.29$

When  $t^*$ -value = 0.6 which is lower than 1.29, then the conclusion is we accept  $H_0$ , i.e.  $\mu_2$  and  $\mu_5$  have no difference at the statistic level of  $\alpha=0.10$

In other words, the factors 'suitable products' and 'good after-sale service' are the same important in the relatively high education group's mind.

3.  $H_0: \mu_1 - \mu_5 = 0$  (reject)

$H_a: \mu_1 - \mu_5 \neq 0$

$$t^* = \frac{1.56 - 1.69}{\sqrt{\frac{0.85(107) + 1.04(107)}{214}} \cdot \sqrt{\frac{1}{108} + \frac{1}{108}}}$$

$$= \frac{-0.13}{0.13}$$

$$= \underline{-0.98}$$

According to the one-tail t-table,  $\alpha=0.05$ ,  $t=1.66$  ;  $\alpha=0.10$ ,  $t=1.29$

When  $t^*$ -value = 0.98 which is lower than 1.29, then the conclusion is we accept  $H_0$ , i.e.  $\mu_1$  and  $\mu_5$  have no difference at the statistic level of  $\alpha=0.10$

In other words, the factors 'reputation' and 'good after-sale service' are the same important in the relatively high education group's mind.

4.  $H_0: \mu_5 - \mu_4 = 0$  (reject)

$H_a: \mu_5 - \mu_4 \neq 0$

$$t^* = \frac{1.69 - 1.87}{\sqrt{\frac{1.04(107) + 0.81(107)}{214}} \cdot \sqrt{\frac{1}{108} + \frac{1}{108}}}$$

$$= \frac{-0.18}{0.13}$$

$$= \underline{-1.38}$$

According to the one-tail t-table,  $\alpha=0.05$ ,  $t=1.66$  ;  $\alpha=0.10$ ,  $t=1.29$

When  $t^*$ -value = 1.38 which is higher than 1.29, then the conclusion is we reject  $H_0$ , i.e.  $\mu_5$  and  $\mu_4$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the factor 'good after-sale service' is more important than the factor 'good agents' in the relatively high education group's mind.

5.  $H_0: \mu_4 - \mu_6 = 0$  (reject)

$H_a: \mu_4 - \mu_6 \neq 0$

$$\begin{aligned} t^* &= \frac{1.87 - 2.21}{\sqrt{\frac{0.81(107) + 0.84(107)}{214}} \cdot \sqrt{\frac{1}{108} + \frac{1}{108}}} \\ &= \frac{-0.34}{0.12} \\ &= \underline{-2.75} \end{aligned}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.66$ ;  $\alpha=0.10, t=1.29$

When  $t^*$ -value = 2.75 which is higher than 1.29, then the conclusion is we reject  $H_0$ , i.e.  $\mu_4$  and  $\mu_6$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the factor 'good agents' is more important than the factor 'additional benefits of policy' in the relatively high education group's mind.

6.  $H_0: \mu_6 - \mu_8 = 0$  (reject)

$H_a: \mu_6 - \mu_8 \neq 0$

$$\begin{aligned} t^* &= \frac{2.21 - 2.42}{\sqrt{\frac{0.84(107) + 1.16(107)}{214}} \cdot \sqrt{\frac{1}{108} + \frac{1}{108}}} \\ &= \frac{-0.21}{0.14} \\ &= \underline{-1.54} \end{aligned}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.66$ ;  $\alpha=0.10, t=1.29$

When  $t^*$ -value = 1.54 which is higher than 1.29, then the conclusion is we reject  $H_0$ , i.e.  $\mu_6$  and  $\mu_8$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the factor 'additional benefits of policy' is more important than the factor 'foreign based company' in the relatively high education group's mind.

7.  $H_0: \mu_8 - \mu_3 = 0$  (reject)

$H_a: \mu_8 - \mu_3 \neq 0$

$$\begin{aligned} t^* &= \frac{2.42 - 2.49}{\sqrt{\frac{1.16(107) + 1.15(107)}{214}} \cdot \sqrt{\frac{1}{108} + \frac{1}{108}}} \\ &= \frac{-0.07}{0.15} \\ &= \underline{-0.48} \end{aligned}$$

According to the one-tail t-table,  $\alpha=0.05$ ,  $t=1.66$  ;  $\alpha=0.10$ ,  $t=1.29$

When  $t^*$ -value = 0.48 which is lower than 1.29, then the conclusion is we accept  $H_0$ , i.e.  $\mu_8$  and  $\mu_3$  have no difference at the statistic level of  $\alpha=0.10$

In other words, the factors ‘foreign based company’ and ‘cheaper products’ are in the same importance level in the relatively high education group’ s mind.

8.  $H_0: \mu_3 - \mu_7 = 0$  (reject)

$H_a: \mu_3 - \mu_7 \neq 0$

$$\begin{aligned} t^* &= \frac{2.49 - 3.19}{\sqrt{\frac{0.15(107) + 1.22(107)}{214}} \cdot \sqrt{\frac{1}{108} + \frac{1}{108}}} \\ &= \frac{-0.7}{0.15} \\ &= \underline{\underline{-4.7}} \end{aligned}$$

According to the one-tail t-table,  $\alpha=0.05$ ,  $t=1.66$  ;  $\alpha=0.10$ ,  $t=1.29$

When  $t^*$ -value = 4.7 which is higher than 1.29, then the conclusion is we reject  $H_0$ , i.e.  $\mu_3$  and  $\mu_7$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the factor ‘cheaper products’ is more important than the factor ‘Hong Kong based company’ in the relatively high education group’ s mind.

### Question 8 Relatively Low Income Group

	N	Min	Max	Mean	Std. Deviation	Variance
8.1 Reputation	107	1	5	1.50	0.92	0.84
8.2 Suitable products	107	1	5	1.64	0.99	0.99
8.3 Cheaper products	107	1	5	2.47	1.14	1.29
8.4 Good agents	107	1	5	1.82	0.90	0.81
8.5 Good after-sale service	107	1	5	1.68	1.02	1.05
8.6 Additional benefits of policy	107	1	5	2.12	0.96	0.92
8.7 Hong Kong based company	107	1	5	3.07	1.15	1.33
8.8 Foreign based company	107	1	5	2.32	1.15	1.31

$$t^* = \frac{(x_1 - x_2) - (\mu_1 - \mu_2)}{\sqrt{\frac{S_1(n_1 - 1) + S_2(n_2 - 1)}{n_1 + n_2 - 2}} \cdot \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

1.  $H_0: \mu_1 - \mu_2 = 0$  (reject)

$H_a: \mu_1 - \mu_2 \neq 0$

$$t^* = \frac{1.5 - 1.64}{\sqrt{\frac{0.84(106) + 0.99(106)}{212}} \cdot \sqrt{\frac{1}{107} + \frac{1}{107}}}$$

$$= \frac{-0.14}{0.13}$$

$$= \underline{\underline{-1.08}}$$

According to the one-tail t-table,  $\alpha = 0.05, t = 1.66$ ;  $\alpha = 0.10, t = 1.29$

When  $t^*$ -value = 1.08 which is lower than 1.29, then the conclusion is we accept  $H_0$ , i.e.  $\mu_1$  and  $\mu_2$  have no difference at the statistic level of  $\alpha = 0.10$

In other words, the factors 'reputation' and 'suitable products' are the same important in the relatively low income group's mind.

2.  $H_0: \mu_2 - \mu_5 = 0$  (reject)

$H_a: \mu_2 - \mu_5 \neq 0$

$$t^* = \frac{1.64 - 1.68}{\sqrt{\frac{0.99(106) + 1.05(106)}{212}} \cdot \sqrt{\frac{1}{107} + \frac{1}{107}}}$$

$$= \frac{-0.04}{0.14}$$

$$= \underline{-0.29}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.66$  ;  $\alpha=0.10, t=1.29$

When  $t^*$ -value = 0.29 which is lower than 1.29, then the conclusion is we accept  $H_0$ , i.e.  $\mu_2$  and  $\mu_5$  have no difference at the statistic level of  $\alpha=0.10$

In other words, the factors 'suitable products' and 'good after-sale service' are the same important in the relatively low income group's mind.

3.  $H_0: \mu_1 - \mu_5 = 0$  (reject)

$H_a: \mu_1 - \mu_5 \neq 0$

$$t^* = \frac{1.5 - 1.68}{\sqrt{\frac{0.84(106) + 1.05(106)}{212}} \cdot \sqrt{\frac{1}{107} + \frac{1}{107}}}$$

$$= \frac{-0.18}{0.13}$$

$$= \underline{-1.35}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.66$  ;  $\alpha=0.10, t=1.29$

When  $t^*$ -value = 1.35 which is higher than 1.29, then the conclusion is we reject  $H_0$ , i.e.  $\mu_1$  and  $\mu_5$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the factor 'reputation' is more important than the factor 'good after-sale service' in the relatively low income group's mind.

4.  $H_0: \mu_5 - \mu_4 = 0$  (reject)

$H_a: \mu_5 - \mu_4 \neq 0$

$$t^* = \frac{1.68 - 1.82}{\sqrt{\frac{1.05(106) + 0.81(106)}{212}} \cdot \sqrt{\frac{1}{107} + \frac{1}{107}}}$$

$$= \frac{-0.14}{0.13}$$

$$= \underline{-1.06}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.66$  ;  $\alpha=0.10, t=1.29$

When  $t^*$ -value = 1.06 which is lower than 1.29, then the conclusion is we accept  $H_0$ , i.e.  $\mu_5$  and  $\mu_4$  have no difference at the statistic level of  $\alpha=0.10$

In other words, the factors 'good after-sale service' and 'good agents' are the same important in the

relatively low income group's mind.

5.  $H_0: \mu_4 - \mu_6 = 0$  (reject)

$H_a: \mu_4 - \mu_6 \neq 0$

$$t^* = \frac{1.82 - 2.12}{\sqrt{\frac{0.81(106) + 0.92(106)}{212}} \cdot \sqrt{\frac{1}{107} + \frac{1}{107}}}$$

$$= \frac{-0.3}{0.13}$$

$$= \underline{\underline{-2.36}}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.66$  ;  $\alpha=0.10, t=1.29$

When  $t^*$ -value = 2.36 which is higher than 1.29, then the conclusion is we reject  $H_0$ , i.e.  $\mu_4$  and  $\mu_6$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the factor 'good agents' is more important than the factor 'additional benefits of policy' in the relatively low income group's mind.

6.  $H_0: \mu_6 - \mu_8 = 0$  (reject)

$H_a: \mu_6 - \mu_8 \neq 0$

$$t^* = \frac{2.12 - 2.32}{\sqrt{\frac{0.92(106) + 1.31(106)}{212}} \cdot \sqrt{\frac{1}{107} + \frac{1}{107}}}$$

$$= \frac{-0.2}{0.14}$$

$$= \underline{\underline{-1.39}}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.66$  ;  $\alpha=0.10, t=1.29$

When  $t^*$ -value = 1.39 which is higher than 1.29, then the conclusion is we reject  $H_0$ , i.e.  $\mu_6$  and  $\mu_8$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the factor 'additional benefits of policy' is more important than the factor 'foreign based company' in the relatively low income group's mind.

7.  $H_0: \mu_8 - \mu_3 = 0$  (reject)

$H_a: \mu_8 - \mu_3 \neq 0$

$$t^* = \frac{2.32 - 2.47}{\sqrt{\frac{1.31(106) + 1.29(106)}{212}} \cdot \sqrt{\frac{1}{107} + \frac{1}{107}}}$$

$$= \frac{-0.15}{0.16}$$

$$= \underline{-0.96}$$

According to the one-tail t-table,  $\alpha=0.05$ ,  $t=1.66$  ;  $\alpha=0.10$ ,  $t=1.29$

When  $t^*$ -value = 0.96 which is lower than 1.29, then the conclusion is we accept  $H_0$ , i.e.  $\mu_8$  and  $\mu_3$  have no difference at the statistic level of  $\alpha=0.10$

In other words, the factors 'foreign based company' and 'cheaper products' are in the same importance level in the relatively low income group's mind.

8.  $H_0: \mu_3 - \mu_7 = 0$  (reject)

$H_a: \mu_3 - \mu_7 \neq 0$

$$t^* = \frac{2.47 - 3.07}{\sqrt{\frac{1.29(106) + 1.33(106)}{212}} \cdot \sqrt{\frac{1}{107} + \frac{1}{107}}}$$

$$= \frac{-0.6}{0.16}$$

$$= \underline{-3.83}$$

According to the one-tail t-table,  $\alpha=0.05$ ,  $t=1.66$  ;  $\alpha=0.10$ ,  $t=1.29$

When  $t^*$ -value = 3.83 which is higher than 1.29, then the conclusion is we reject  $H_0$ , i.e.  $\mu_3$  and  $\mu_7$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the factor 'cheaper products' is more important than the factor 'Hong Kong based company' in the relatively low income group's mind.

### Question 8 Relatively High Income Group

	N	Min	Max	Mean	Std. Deviation	Variance
8.1 Reputation	55	1	5	1.38	0.62	0.39
8.2 Suitable products	55	1	5	1.36	0.62	0.38
8.3 Cheaper products	55	1	5	2.45	1.09	1.18
8.4 Good agents	55	1	5	1.56	0.74	0.55
8.5 Good after-sale service	55	1	5	1.38	0.62	0.39
8.6 Additional benefits of policy	55	1	5	2.15	0.97	0.94
8.7 Hong Kong based company	55	1	5	3.04	1.15	1.33
8.8 Foreign based company	55	1	5	2.22	1.01	1.03

$$t^* = \frac{(x_1 - x_2) - (\mu_1 - \mu_2)}{\sqrt{\frac{S_1(n_1 - 1) + S_2(n_2 - 1)}{n_1 + n_2 - 2}} \cdot \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

1.  $H_0: \mu_2 - \mu_1 = 0$  (reject)

$H_a: \mu_2 - \mu_1 \neq 0$

$$t^* = \frac{1.36 - 1.38}{\sqrt{\frac{0.38(54) + 0.39(54)}{108}} \cdot \sqrt{\frac{1}{55} + \frac{1}{55}}}$$

$$= \frac{-0.02}{0.12}$$

$$= \underline{-0.17}$$

According to the one-tail t-table,  $\alpha = 0.05$ ,  $t = 1.671$ ;  $\alpha = 0.10$ ,  $t = 1.296$

When  $t^*$ -value = 0.17 which is lower than 1.296, then the conclusion is we accept  $H_0$ , i.e.  $\mu_2$  and  $\mu_1$  have no difference at the statistic level of  $\alpha = 0.10$

In other words, the factors 'suitable products' and 'reputation' are the same important in the relatively high income group's mind.

2.  $H_0: \mu_1 - \mu_4 = 0$  (reject)

$H_a: \mu_1 - \mu_4 \neq 0$

$$t^* = \frac{1.38 - 1.56}{\sqrt{\frac{0.39(54) + 0.55(54)}{108}} \cdot \sqrt{\frac{1}{55} + \frac{1}{55}}}$$



$$= \frac{-0.18}{0.13}$$

$$= \underline{-1.38}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.66$  ;  $\alpha=0.10, t=1.29$

When  $t^*$ -value = 1.38 which is higher than 1.29, then the conclusion is we reject  $H_0$ , i.e.  $\mu_1$  and  $\mu_4$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the factor ‘reputation’ is more important than the factor ‘good agents’ in the relatively high income group’s mind.

3.  $H_0: \mu_4 - \mu_6 = 0$  (reject)

$H_a: \mu_4 - \mu_6 \neq 0$

$$t^* = \frac{1.56 - 2.15}{\sqrt{\frac{0.55(54) + 0.94(54)}{108}} \cdot \sqrt{\frac{1}{55} + \frac{1}{55}}}$$

$$= \frac{-0.59}{0.16}$$

$$= \underline{-3.58}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.66$  ;  $\alpha=0.10, t=1.29$

When  $t^*$ -value = 3.58 which is higher than 1.29, then the conclusion is we reject  $H_0$ , i.e.  $\mu_4$  and  $\mu_6$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the factor ‘good agents’ is more important than the factor ‘additional benefits of policy’ in the relatively high income group’s mind.

4.  $H_0: \mu_6 - \mu_8 = 0$  (reject)

$H_a: \mu_6 - \mu_8 \neq 0$

$$t^* = \frac{2.15 - 2.22}{\sqrt{\frac{0.94(54) + 1.03(54)}{108}} \cdot \sqrt{\frac{1}{55} + \frac{1}{55}}}$$

$$= \frac{-0.07}{0.19}$$

$$= \underline{-0.37}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.671$  ;  $\alpha=0.10, t=1.296$

When  $t^*$ -value = 0.37 which is lower than 1.296, then the conclusion is we accept  $H_0$ , i.e.  $\mu_6$  and  $\mu_8$  have no difference at the statistic level of  $\alpha=0.10$

In other words, the factors ‘additional benefits of policy’ and ‘foreign based company’ are in the same

importance level in the relatively high income group's mind.

5.  $H_0: \mu_8 - \mu_3 = 0$  (reject)

$H_a: \mu_8 - \mu_3 \neq 0$

$$t^* = \frac{2.22 - 2.45}{\sqrt{\frac{1.03(54) + 1.18(54)}{108}} \cdot \sqrt{\frac{1}{55} + \frac{1}{55}}}$$

$$= \frac{-0.23}{0.2}$$

$$= \underline{\underline{-1.15}}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.671$ ;  $\alpha=0.10, t=1.296$

When  $t^*$ -value = 1.15 which is lower than 1.296, then the conclusion is we accept  $H_0$ , i.e.  $\mu_8$  and  $\mu_3$  have no difference at the statistic level of  $\alpha=0.10$

In other words, the factors 'foreign based company' and 'cheaper products' are in the same importance level in the relatively high income group's mind.

6.  $H_0: \mu_6 - \mu_3 = 0$  (reject)

$H_a: \mu_6 - \mu_3 \neq 0$

$$t^* = \frac{2.15 - 2.45}{\sqrt{\frac{0.94(54) + 1.18(54)}{108}} \cdot \sqrt{\frac{1}{55} + \frac{1}{55}}}$$

$$= \frac{-0.3}{0.2}$$

$$= \underline{\underline{-1.53}}$$

According to the one-tail t-table,  $\alpha=0.05, t=1.66$ ;  $\alpha=0.10, t=1.29$

When  $t^*$ -value = 1.53 which is higher than 1.29, then the conclusion is we reject  $H_0$ , i.e.  $\mu_6$  and  $\mu_3$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the factor 'additional benefits of policy' is more important than the factor 'cheaper products' in the relatively high income group's mind.

7.  $H_0: \mu_3 - \mu_7 = 0$  (reject)

$H_a: \mu_3 - \mu_7 \neq 0$

$$t^* = \frac{2.45 - 3.04}{\sqrt{\frac{1.18(54) + 1.33(54)}{108}} \cdot \sqrt{\frac{1}{55} + \frac{1}{55}}}$$

$$\begin{aligned} &= \frac{-0.59}{0.21} \\ &= \underline{\underline{-2.76}} \end{aligned}$$

According to the one-tail t-table,  $\alpha=0.05$ ,  $t=1.66$  ;  $\alpha=0.10$ ,  $t=1.29$

When  $t^*$ -value = 2.76 which is higher than 1.29, then the conclusion is we reject  $H_0$ , i.e.  $\mu_3$  and  $\mu_7$  are significant different at the statistic level of  $\alpha=0.10$

In other words, the factor 'cheaper products' is more important than the factor 'Hong Kong based company' in the relatively high income group's mind.

## **Appendix 3      Companies Interviews Translation**

### **For Company N:**

**1.      How many agents in your company?**

N:      There are about 700 agents in our company in March 2001. This figure would increase in the future.

**2.      What are the vision and values of the training department?**

N:      Our value is to help the agents to gain knowledge and the knowledge can apply to their work. Our vision is that there will be value added to the agents after they received the training.

**3.      In your view, what is the role of training playing in the life insurance industry?**

N:      I think the role of training is to keep the good agents retain in the industry. The way of training is through examinations. If agents take more examinations, it could mean that they have the attitude toward the career. The role of training is also to train the agents' knowledge and skills, so that they can analysis the needs of the customers and provide the most suitable policy to them.

**4.      What kind of training program the company offers to the agents?**

N:      There are three kinds of training program. They are the programs for the new agents, existing agents and managers.

**5.      What are the objectives of the training program?**

N:      For the program designed to new agents, e.g. the USDS program, it provides them the basic knowledge of the products, the sales skills and the practice of the industry.

For the program designed to existing agents, it trains them more skillful and reinforces their attitude.

For the program designed to managers, it trains them the knowledge of management. For example, recruiting and training of new agents.

**6. Are there any difficulties to execute the training program? How can you overcome these problems?**

N: There must have difficulties to execute the training program.

First, it is the preparation of the training program. The trainers should find out the needs of the agents, then decide a suitable program for them.

Second, it is the problem of timing. Let say, a two-hour training course may need one day to collect the information. It is very difficult for the trainers to balance the time of finding the materials and doing the tasks in the company.

**7. How to analyze the training needs of the agents?**

N: We will collect the ideas from the agents and the evaluation from the trainers. Moreover, we have to sensitive to the environment to see what training they should need, e.g. from the newspapers or some friends.

**8. Is there any evaluation of the trained agents and of the program? If yes, how to evaluate?**

N: Yes, we will evaluate them by the report of the trainers.

**9. Do you think training can help to reduce turnover rate and improve quality of services? To what extent?**

N: Training definitely can improve the quality of services. Some agents may unable to deal with certain kinds of problem because of their limited skills. For example, some agents may not know very will of certain policies and procedures, training is a way to help them improve the quality of services.

Of course, there is something that training could not help. The agent's attitude and habit are very difficult to change. For example, the agents were asked be punctual in the training course, but he would still be late.

This is quite depending on the agent's characteristics.

Training has some help in reducing the turnover rate, but it is not the vital factor. An agent with adequate training would also leave their job because of any other reasons.

**10. In your view, what will be the future development of the training program?**

N: There will be diversification of the products. This means the functions of insurance companies and banks would be more similar. Therefore, the knowledge of the agents should be more comprehensive.

There may be change of the style of training program. For examples, some self-study packages or E-learning. Training is not limited to the traditional style, i.e. with classrooms and trainers.

**11. What are the requirements / criteria of your company in the process of agent recruitment?**

N: First, the agent must meet the requirements of the industry, i.e. F.5 standard with age 18. Second, we have to know why the agents apply to the job. Does he want to improve the living standard or want to help people? The objective of the agent is very important. Moreover, we will assess the candidates' experience and qualification.

**12. Does your company have special training program for recruiting University graduates. If yes, why?**

N: Yes, this is because we think most of the elite people in Hong Kong are come from the universities.

**13. Training department, agency and other professional organizations offer training course to agents. What is the difference among them?**

N: Generally speaking, the training courses offered by the company is to provide basic knowledge to the agents, whereas the training courses offered by the outside institutions, e.g. LUTC, provide agents a qualified title after

they pass the examinations.

The main difference of the training courses between company and agency is that, the company's training is suitable for all agents, while the agency's training is tailor made to each of the agents.

**14. Agents have different levels of education. Is there any problem of designing the training program because of this? How does your company deal with this problem?**

N: Each training course has its own objective and requirements. Different training courses target at different groups of agents. For example, a course teaches agents how to use a palm requires them have the basic knowledge of using a computer. The different level of education is not a big problem in designing the training program.

**For Company B:**

**1. How many agents in your company?**

B: About 180.

**2. What are the vision and values of the training department?**

B: The vision and values of our Training and Development department is to help the agents develop their life long career, i.e. insurance.

**3. In your view, what is the role of training playing in the life insurance industry?**

B: The role of training is playing more important in the life insurance industry. There is high competition of this industry, if an agent without good training, he may soon have to leave this industry. An agent should enrich himself in order to survive in the industry.

**4. What kind of training program the company offers to the agents?**

B: Our training program is not sophisticated as we are so young in the industry and we have relatively few agents when compared with other companies. However, we provide basic training to the agents.  
You can see the reference.

**5. What are the objectives of the training program?**

B: see the 'design idea' from the reference

**6. Are there any difficulties to execute the training program? How can you overcome these problems?**

B: Yes, it is the problem of resources and we find difficult to invite lecturers for the training courses. As we've got only 180 agents, it is inefficient for our company to offer training courses.

To solve the problem, we would sponsor the agents to take some courses



outside the company, e.g. LUA, VTC.

**7. How to analyze the training needs of the agents?**

B: We will have meeting with the up-line managers regularly to see what the needs of the agents.

**8. Is there any evaluation of the trained agents and of the program?  
If yes, how to evaluate?**

B: Also, from the meetings with up-line managers.

**9. Do you think training can help to reduce turnover rate and improve quality of services? To what extent?**

B: Yes, absolutely. So, we want training help the agents stay in the company. Also, we are careful in the recruitment process to choose the right candidates and provide attractive basic allowance. But we will have the performance appraisal of the agents. If the agents perform badly, he will be disqualified.

**10. In your view, what will be the future development of the training program?**

B: It will be more professionalism and eliminate the weak agents.

**11. What are the requirements / criteria of your company in the process of agent recruitment?**

B: They must be F.5 standard or above. It is not important for their experience as we will provide them training.

**12. Does your company have special training program for recruiting University graduates. If yes, why?**

B: No, we mainly focus on newspaper advertisement or referrals.

**13. Training department, agency and other professional organizations offer**

**training course to agents. What is the difference among them?**

B: Our company provides short-term courses to the agents. If the agents want long-term courses, they have to go to other institutes and pay their own fee.

I think the training courses from the training department, agency and other professional organizations have the same objective to refine the agents skill.

Agents who take the courses or examinations from the professional organization may receive some qualified titles.

**14. Agents have different levels of education. Is there any problem of designing the training program because of this? How does your company deal with this problem?**

B: There is not much differentiation of our training programs as our company is still young in the industry, there are few agents in the company.

But we divide the teams in the agency according to their education level.

**For Company P:**

**1. How many agents in your company?**

P: Around 2,000.

**2. What are the vision and values of the training department?**

P: The vision of our Training and Development department is to be the Number one professional training department. Our values are to provide the best training and resources to our agents and act as a channel between the company and the agents.

**3. In your view, what is the role of training playing in the life insurance industry?**

P: In the company point of view, the training should let the agents know the basic principles, products and ethics of life insurance industry. Second, the agents should be more knowledgeable and professional after training. Third, the agents should understand the whole industry.

In the whole industry's point of view, the training should improve the agents' sales technique and help them to maintain good relationship with clients.

**4. What kind of training program the company offers to the agents?**

P: There are several kinds of training program the company offers to the agents. They are preparation courses, introduction courses, product courses, management courses, sales skill courses and attitude training. Also, the company will arrange some related seminars to the agents.

**5. What are the objectives of the training program?**

P: The preparation courses are for the examinations of IIQAS, this is because the persons must pass the examinations so that they can be registered as agents. The introduction courses help the agents to familiarize with the company culture. The product and sales skill courses enable the agents to

have essential knowledge and skill to perform the job well.

**6. Are there any difficulties to execute the training program? How can you overcome these problems?**

P: There are many difficulties to execute the training program. For examples, the agent's educational backgrounds are so different, there are insufficient experience trainers and the agency managers do not give briefing to the agents before a training course.

To ease the problem, we will put more detail information on the training course application form. Moreover, we will invite some agency managers to act as guest trainers and communicate with the managers to analysis the agents' training needs.

**7. How to analyze the training needs of the agents?**

P: We will have some meetings with the senior managers to analyze the training needs of the agents. Also, we will use informal ways to collect the information, e.g. talking with the agents in the pantry or at lunch hour. Moreover, there will be a needs analysis questionnaire send to the agencies every year.

**8. Is there any evaluation of the trained agents and of the program? If yes, how to evaluate?**

P: Yes, we will have evaluation after each training course to see the agents' reaction about the program and how much the agents have learned. We hope the agents would have the learning transfer, that is, they can apply the knowledge to their tasks.

**9. Do you think training can help to reduce turnover rate and improve quality of services? To what extent?**

P: I think training could help to reduce the turnover rate indirectly. It is more important that training could maintain a consistent core value to different agencies.

**10. In your view, what will be the future development of the training program?**

P: In my opinion, I expect that there will be more media in the future training program. Traditionally, the training courses are in classrooms. However, I think there will be more training through seminars, intranet, some kinds of software and more training from outside professional institutes in the future.

**11. What are the requirements / criteria of your company in the process of agent recruitment?**

P: It is very depending on different agencies. However, the candidates must meet the legislative requirement, i.e. pass the IIQAS examinations and 18 years old. More often, it is an essential for the candidates have social and working experience.

**12. Does your company have special training program for recruiting University graduates. If yes, why?**

P: No, we don't have special training program for recruiting university graduates until now.

**13. Training department, agency and other professional organizations offer training course to agents. What is the difference among them?**

P: The main difference among them is that, the training department provides training which is knowledge based, the agency provides training which is sales technique and skills based, while the outside professional organizations provide both knowledge and skills training.

**14. Agents have different levels of education. Is there any problem of designing the training program because of this? How does your company deal with this problem?**

P: Yes, it is a problem of their different levels of education. Part of the agents has very low level of education. So, we use Cantonese and simple language in PowerPoint to teach in the training courses hoping this would help them to understand the content of the courses. But most important, I

think the managers of the agents should give them a briefing before they attend the training course so that the agents could have a preparation for the course. And after that, the managers should give the agents a follow up training, to see whether the agents understanding the course or not.

**Appendix 4 Outstanding Agents Interviews Translation**

**Ms Canny Wan - Business Director, Synergy Agency Office, New York Life  
Insurance Worldwide Ltd  
- 2000 MDRT**

1. What do you think are the factors of being a successful agent?

Canny: The most important factor that lead to an agent success is attitude. The agent should believe in insurance that it can help the public.

The other elements of being a successful agent are knowledge and skill. An agent could receive training from the Company, the Agency and some courses outside the company. The agent receives more or less knowledge depending on his / her Agency's training program, and it is also depending on the agent's learning attitude. Most successful agent would attain some courses outside or take some examinations to enhance their knowledge so that they becomes more professional.

In conclude, the factors of being a successful agent are attitude, knowledge and skill. The attitude, which is the internal factor, is the most important one and it is the first step to enter this career. The knowledge and the skill, which are the external factors, can be trained by the Company, Agency and other institutions in the industry.

2. Do you have training from the company or outside?

Canny: I have been an life insurance agent since 1996. I think I am very lucky that, every company I worked for provided me much training. Until now, I still have training from my company, my agency and I attain some insurance courses outside the company each year.

I think learning is endlessly in this career. Anyone who does not equip well would be eliminated by the industry.

3. Is training a vital element to help you success?

Canny: I can use the knowledge learned from the training when I talked with the clients. The training can improve my knowledge and skills to deal with the customers. I can see that most of the agents who join the LUTC's training program would increase their productivity, even though they have less time to do the business. Therefore, I think training is an effective way to help an agent to success.

4. What benefits you received from the training?

Canny: Other than the previous I have said, I think the environment of training let me think more positive and more optimistic.

5. Do you think the current training program should be improved? Why?

Canny: I think the trainers of the training program should have the experience in front line, that is, they should have been an agent before, so that they know more about the needs of the agents and could have better communication with them. This could increase the efficiency of the training program.

In the future market, there will be more and more new products and the products will be much more complicated, for example, the investment-linked policy. Therefore, the training program should be more comprehensive to let the agents fully understand different kinds of policies. Of course, an agent should be ethical to his / her clients. However, it is very difficult to teach agents ethics in the lessons. Instead, providing some EQ training to the agents may help them become more ethical.

6. In your view, what are the common problems of the rookies in this field and in what way the company's training as well as outside organizations can help them?

Canny: There are two problems a new agent may face, the source of clients and the agent's attitude.

Some new agents may find it difficult to sell out the policies when all



his friends and relatives have bought insurance. Besides, some agents may bear in mind that it is not good to sell insurance to his close friends and relatives. He may think selling insurance is a terrible business.

In regard to these difficulties, the company or the agency will provide several methods to the agents to help them find potential customers. For example, rent a shop in a plaza, this is the other way to sell the policies. For the attitude of the agents, it is quite difficult to change the agent's mind. So, the company will very careful to select the right candidates in the recruitment process. Making sure that the applicant's attitude is outgoing and aggressive or let him bear in mind that the nature of the business and the challenge he is going to encounter.

7. In your view, what are the ways that can improve the professional standards of insurance agent in the industry?

Canny: Two ways. First, it is training. Second, it is the recruitment process. The company could higher the standard of hiring the insurance practitioners, for example, increase the education level.

(Because of the time constraint, we cannot finish the interview.)

**Wilson Lui** - *Senior Agency Director, New York Life Insurance Worldwide Ltd*  
- *CIAM*  
- *LUTCF*  
- *MDRT*

1. What do you think are the factors of being a successful agent?

Wilson: The attitude, knowledge, skill and habit are the key factors of being a successful agent. Among these four factors, attitude and habit are the most important. This is because the knowledge and skill could be learned and trained from the company. However, the attitude and habit are depended on the agent's character. So, the key point is that, the agent has to believe in insurance in the first step. Some agents enter into this career because they want to earn more money, or some may think that the job gives them a good prospect. Most of the successful agents tend to have good habit and attitude toward the industry. They almost have to learn in the life time.

2. Do you have training from the company or outside?

Wilson: I am the trainer in the company. As a trainer, sometimes I may learn from the trainees. I also take the courses outside my company, for example, LUTC and CIA. Sometimes an agent may feel very down. If he can have more training or present in some seminars, he would feel more positive.

3. Is training a vital element to help you success?

Wilson: Keep on training is the formula to success.

4. What benefits you received from the training?

Wilson: I think if a person is humble to learn, then he can receive the benefits from training.

5. Do you think the current training program should be improved? Why?

Wilson: It is very important for the training program to involve more practical training, e.g. how to serve a client's different needs.

6. In your view, what are the common problems of the rookies in this field and in what way the company's training as well as outside organizations can help them?

Wilson: The new agents may not well control their emotion and they may not adapt the fluctuation of the income level. They are not prepared before entering this industry. When they change the job from an employee to a businessman (i.e. an agent), he has to work much harder.

The agency provides counseling to the new agents or the up-line manager's coaching to the new agents could cheer up them.

The company can provide some seminars about how to ease the stress or control the emotion, etc.

7. In your view, what are the ways that can improve the professional standards of insurance agent in the industry?

Wilson: The IIQAS examinations have eliminated the lowest quality agents.

The company has to provide more training to the agents and encourage them to take outside courses or examinations to enhance their knowledge, e.g. LOMA, LUTC, AMTC, CIAM, etc.

8. What will be the coming future market you expect?

Wilson: The insurance will combine with the financial planning. Banks have diversified its products with insurance; insurance companies also have diversified its products with fund investment. Insurance companies not only sell the basic protection policies, but sell more unit-linked policies in recent years. The customers are demanding higher quality of insurance agents, insurance agents will tend to be more professional in the future.

9. In your opinions, in what aspects the company should

enhance the training to let the agents to fulfill future market needs?

Wilson: The company can cooperate with the universities to launch some educational programs to its agents. The agents should provide full services to the clients, e.g. the analysis of financial investment, the knowledge about taxation and law, business insurance, estate planning, etc. So the company should provide those kinds of knowledge to its agents.

***Simon Yip*** - ***Senior Business Manager, The Prudential Assurance Co Ltd***  
- ***Qualifying Member of MDRT (several years)***  
- ***Highest Cases Court 1994-2000***  
- ***Master Club 1998, 2000***  
- ***Achievers Club 1995-1997, 1999***  
- ***100 Cases Club 1994, 1995***  
- ***150 Cases Club 1999***  
- ***200 Cases Club 1996-1998, 2000***  
- ***6 Application Club 1999, 2000***  
- ***Travel Incentive 1994-1998, 2000***

1. What do you think are the factors of being a successful agent?

Simon: I think the person should have the attitude that he wants to be success, this is the most important factor.

2. Do you have training from the company or outside?

Simon: I attain the training courses from the company if the training courses are compulsory.

3. Is training a vital element to help you success?

Simon: I agree that training can help a person to success. However, it is not the most important factor. As I mentioned before, I think the person's attitude is the most important.

4. What benefits you received from the training?

Simon: I have got some improvement from the training.

5. Do you think the current training program should be improved? Why?

Simon: I think I am not qualified to criticize the current training program. Maybe this is just my opinion.

The training is divided into two parts. First, it is the training from the company. The company's training is designed for a group of people. Second, it is the training from the leader. The training from the leader would be more tailor-made to the agent. It is more important than the training from the company.

6. In your view, what are the common problems of the rookies in this field and in what way the company's training as well as outside organizations can help them?

Simon: The agent would be always turned down by the clients. But I think this is not the problem. All agents should have this experience.

The new agents should first attain the training from the company. After he got the basic knowledge, he may try to have training outside the company.

7. In your view, what are the ways that can improve the professional standards of insurance agent in the industry?

Simon: I think the IIQAS and MPF examinations have already improve the professional standards of insurance agents. I agree that if there are more examinations, the professional standards would increase.

8. What will be the coming future market you expect?

Simon: There would be more customers buying insurance on the internet, that means there would be fewer agents needed. But it may need a long time for this buying habit to change

Moreover, some small insurance companies may merge together to compete with the big insurance companies.

9. In your opinions, in what aspects the company should enhance the training to let the agents to fulfill future market needs?

Simon: I think the company should have immediate response to the market

when there is any change. For example, when more customers like the investment-linked policies, the company should develop more products that satisfy the customers needs.

***Michelle Pau - Unit Manager, The Prudential Assurance Co Ltd***  
***- LUATC Graduate***  
***- Distinguished Salesperson Award (HKMA) 1990-1992, 1994-1999***  
***- Distinguished Agent Award (LUAHK) 1992-2000***  
***- International Quality Award (LIMRA) 1993-2000***  
***- Qualifying & Life Member of MDRT 1990-2000***  
***- Assistant Unit Manager – Highest Productivity Award 1998***  
***- Champion Agent of the Year 1989-1991, 1993-1997, 1999***  
***- Company Travel Incentive 1989-1999***  
***- 100 Cases Club 1992-1998***  
***- Ruby Club 1999***  
***- Presidents Club 1990-1991, 1993-1999***  
***- Superstar Award 1997-1999***

1. What do you think are the factors of being a successful agent?

Michelle: I think a successful agent must work very hard and most important has a good habit. With a good habit, they can perform the job better. Besides, a successful agent must have a positive attitude.

2. Do you have training from the company or outside?

Michelle: I have taken the examinations of LUTC. Also, I always attend the seminars of LUA. In the coming future, I will help LUA that I will be a moderator in some training courses.

3. Is training a vital element to help you success?

Michelle: I think training partially help me to success. I agree that practice makes perfect. Being an agent, practice is very important. Training mainly can help the agents to get some ideas and have motivation to the job.

4. What benefits you received from the training?

Michelle: Training can bring knowledge to the agents. Sometimes, I will get new ideas and increase the motivation. It brings me a more positive



attitude.

5. Do you think the current training program should be improved? Why?

Michelle: Yes, sure the current training program should be improved. Because of the keen competition, high turnover rate and the hi-tech environment in the industry, the training program should concern more on the training on high technology. In our company, we have a one-card system and Prupower. These are the systems with high technology to cope with the change of the environment. Moreover, companies may introduce the paper-less system to save the office space. Because of the hi-tech environment, the training program should concern more on the use of the high technology.

6. In your view, what are the common problems of the rookies in this field and in what way the company's training as well as outside organizations can help them?

Michelle: The common problems of agents are difficult to find clients and always reject by the customers. I think the company should provide the training that helps them to have a well psychological preparation and the training that helps them to build up confidence.

7. In your view, what are the ways that can improve the professional standards of insurance agent in the industry?

Michelle: The image of the insurance industry is high turnover rate and low quality, this may because there is insufficient control of the industry. I think the government introduces the IIQAS examinations would increase the standard of the insurance agents. This is the first step to improve the professional standards of insurance agents. Also, the agency manager should set a good example to his team members and build up a good culture.

8. What will be the coming future market you expect?

Michelle: I think the clients will be more demanding in the future. There should

be more examinations for the insurance agents to control their quality. Also, more regulations should be introduced to monitor the insurance industry. For example, the penalty should be heavier.

Moreover, the future environment would be more hi-tech. Computer is playing an important role not only in the insurance industry. A person can bring a computer anywhere and do the business. It is the fact that the relationship between the agent and the client is very important. The agents should provide comprehensive services to the customers.

9. In your opinions, in what aspects the company should enhance the training to let the agents to fulfill future market needs?

Michelle: I think the company should provide more training concerning on the attitude, selling technique and product types. Of course, as the environment would become more hi-tech, there should be training courses for the agents teaching them how to use the computer to do the tasks. Furthermore, the agents should be trained to provide good services and maintain good relationship with customers.