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***GENDER AND REAL ESTATE SALES PEOPLE:  
PERCEPTIONS OF SELF AND OTHERS  
IN THE REAL ESTATE PROFESSION***

A thesis presented in partial fulfilment  
of the requirements of  
Master of Business Studies at Massey University

Esther Mary Livingston

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## *ABSTRACT*

This research was a preliminary investigation. It set out to explore the effect of gender on the way in which men and women working in the real estate industry perceived themselves, a typical male and a typical female real estate sales person.

Data were collected using a questionnaire which was mailed to approximately 2195 full time real estate sales people working for the four largest real estate companies in New Zealand.

A 14 item semantic differential scale was employed to assess these perceptions and a number of themes emerged. Gender was an important factor when people appraised themselves, a typical male and a typical female real estate sales person. Results suggested that sex role stereotypes were influential when these perceptions were considered.

Multivariate procedures indicated that while the scale had internally consistent properties, it could discriminate between male and female respondents by a moderate amount only.

Directions for future research are discussed, particularly the measurement of outcome variables and the impact of gender related perceptions on these, and the need to redefine and redevelop the scale.

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# *CHAPTER 1*

## *INTRODUCTION*

The twentieth century has witnessed some fundamental changes in the nature of work. These developments include changes in work related attitudes and values and the composition of the labour force. The increasing number of women participating in paid employment (Horsfield, 1988) and the issues associated with this is one of the most debated change areas.

A body of literature documents the history of women at work (Horsfield, 1988; Hunt, 1988; Harriman, 1985; Sinclair-Deckard, 1979; O'Leary, 1974). A variety of disciplines have contributed to this, such as economics, psychology and sociology. Despite the diverse disciplinary roots of this body of research, there is a dominant and recurring theme which asserts that women, in general, have very different work experiences and expectations from men. These disparate work experiences stem from the interaction of a myriad of economic, sociological, psycho-social, technological and political factors.

Early researchers produced evidence to support the notion that inherent sex based diversity explained the differential work experiences of men and women (Hoffman and Maier, 1961 cited Beakham, Carbonell and Gustafson, 1988). These propositions were supported by cultural norms and socialisation processes.

The resurgence of the women's movement in the late 1960s and early 1970s focussed attention on the issues associated with women at work. A plethora of research investigating sex based differences emerged (Maccoby and Jacklyn, 1974; Deaux, 1985).

While results produced conflicting evidence, the overall conclusion was that gender differences had been greatly exaggerated. Sex was not found to be an important determinant of individual behaviour; research findings suggested that greater differences could be found within rather than between the sexes (Harriman, 1985).

These findings were reinforced by research conducted in work settings. A growing body of literature documented similarities in the way in which men and women approached employment (Harriman, 1985; Brief and Oliver, 1976). For example, Donnell and Hall (1980) demonstrated that gender differences were largely insignificant when attitudes to work, managerial decision making, leadership and motivation were considered.

The consequence of much of this research was the emergence of a new research focus. The literature became centred on the tenet that the differential work experiences of men and women could no longer be rationalised by assuming that inherent gender diversity resulted in distinct male and female behaviours and attitudes, thus justifying traditional patterns of work and employment (Terborg, Peters, Ilgen and Smith, 1977).

Alternative explanations focussed on sex as a social category. These explanations were based on the premise that society divided men and women into specific gender related categories and that there were certain behaviours and attributes associated with these social categories. These expectations formed common assumptions about the appropriate behaviour of men and women and were termed sex role stereotypes.

Research has demonstrated that sex role stereotypes (or sex stereotypes) are widely held, very pervasive and resistant to change (Myers, 1983).

Sex role stereotypes portray women as passive, dependent, submissive and emotional beings who lack the aggressiveness, leadership ability and rationality believed to be a central part of managerial positions and professional occupations (Schein, 1978; Bass, Kruskal and Alexander, 1971). Stereotypes modify judgements about a person's suitability and aptitude to a certain occupation or profession. For example, a common stereotype presumes that all women want to have children and do not aspire to management roles and/or positions of responsibility. This can lead a prospective employer to assume that a young woman will leave the organisation before a young man employed at the same time. In turn, this can have the effect of making an employer reluctant to promote a woman to positions of responsibility as the employer believes she is more likely to leave than her male counterparts, thus negating training and expertise invested in her as a promotion prospect. Tied in with this are attitudes to work carried out by women. For example, women work to supplement the income of the main breadwinner.

The effect of stereotypical thinking on employment and career development is documented by a large body of literature (Schein, 1973 and 1975; Rappaport and Hackett, 1977; Rosen and Jerdee, 1978). A number of researchers, for example Furotan and Wyer (1986); Rosen and Jerdee (1978); Schein (1978) have investigated the way in which men and women are perceived at work and how stereotyping influences these perceptions. Research in this area covers a broad range of topics such as the masculinity and femininity of occupations, career choice and development, promotion decisions, performance appraisal and employability.

The present study is concerned with how male and female real estate sales people perceived themselves, a typical male salesperson and a typical female salesperson.

The aim of the present research is to explore the effect of gender on perceptions of self and others working in the industry.

This thesis incorporates the following sections.

- (a) Chapter 2 provides a review of the literature
- (b) Chapter 3 presents the aims of this research and a summary of the research model.
- (c) Chapter 4 describes the research methodology.
- (d) The results of this study are presented in Chapter 5.
- (e) These results are discussed in Chapter 6.
- (f) Conclusions are drawn in Chapter 7.

A number of factors are beyond the scope of this research. These include the way in which sex role stereotypes are formed and developed, the cognitive processes involved in stereotype functioning, the influence of broader social environmental and cultural issues in cultivating sex stereotyping, the role of occupational sex typing in promoting sex role expectations in the work place and the effect of traditional research designs in creating sex biases.

## CHAPTER 2

### LITERATURE REVIEW

The twentieth century has witnessed a number of changes and developments in the paid work force. One of the most significant of these has been the increasing participation of women in the paid work environment over the last 50 years and the issues associated with this. Table 2.1 illustrates this trend in New Zealand.

*Table 2.1: A Comparison of Labour Force Participation Rates Between 1931 and 1981 for Women Aged 15 to 64 Years*

---

<i>Year</i>	<i>% Women Aged 15 - 64 Years Active In The Labour Force</i>	<i>% Of Labour Force</i>
1931	26.4	21.2
1981	48.5	34.2

---

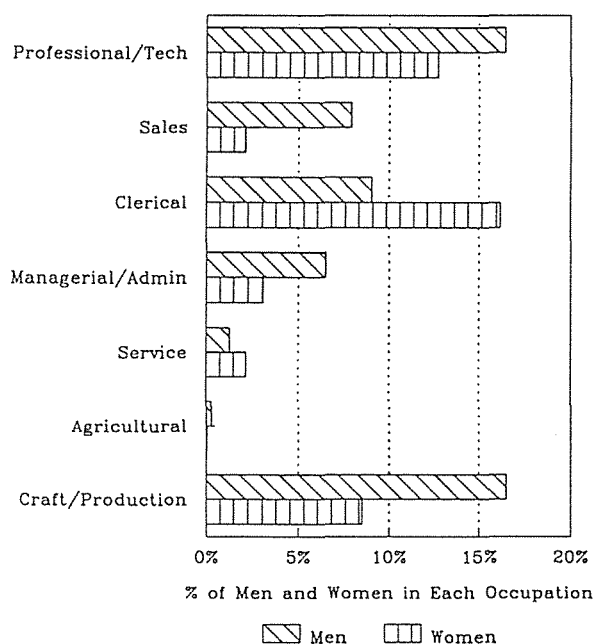
*Source: Horsfield (1988).*

Figures from the 1986 Census indicated that 52% of New Zealand women aged over 15 years were active in full and part time employment (Horsfield, 1988). Coupled with these increased participation rates has been the development of a body of literature documenting the experiences of women in the paid work force (Hunt, 1988; Walby, 1988; Marshall, 1986; Tilly and Scott, 1987; Harriman, 1985). A recurrent and dominant theme in this literature is that women, in general, have very different work experiences from men (Harriman, 1985). These experiences are characterised by the following factors.

First, women constitute the majority of the part time work force. In 1981, women represented 82.6% of New Zealand's part time labour force (Horsfield, 1988).

Second, the majority of women are employed in a narrow range of occupations. Toulson (1989) surveyed 1211 New Zealand workers of which 58% were male and 42% were female. Figure 2.1 presents breakdown of occupational groupings.

Figure 2.1: Breakdown of Job Classification by Gender



Source: Toulson (1989)



Third, women have lower average remuneration rates than men. In April 1978 the average weekly earnings of women were 71.1% of the average weekly earnings of men (Horsfield, 1988). Despite various attempts to close this earnings gap, such as the Equal Pay Act (1972), it has remained relatively static. In May 1987 women's average weekly earnings were still only 72.2% of the average weekly male earnings (Horsfield, 1988).

Finally, there is a lack of developed or established career paths in occupations employing predominantly women. In 1987, 55% of working women in New Zealand were employed in sales, clerical, teaching, book-keeping, typing and medical (nursing) (Public Service Association, 1987). Developed and/or established career paths are not normally associated with these types of occupations. It can be argued that this reflects a traditional social attitude to women's employment which is that women have jobs as opposed to careers to supplement the household income.

Coupled with this is the notion that jobs traditionally undertaken by women typically reflect a nurturing and servicing role that is consistent with societal norms regarding perceptions of the role of women within the home (Harriman, 1985). Furthermore, even in these occupations employing predominantly women, the supervisory and advanced positions tend to be held by men. Thus, it can be seen that the histories, experiences and expectations of men and women engaged in paid employment are generally very different.

Historically, scant attention has been paid to these disparate employment experiences. This resulted from a universal acceptance of the nuclear family as the basic unit of modern western society (Spence, Deaux and Helmrich, 1985). This breadwinner model was developed after the industrial revolution when specialisation of labour became an increasingly predominant characteristic of the work force.

This model was built on the assumption that the husband (or father) engaged in productive or paid work outside the home while the wife (or mother) filled a supportive role and took responsibility for maintenance of the family home and child care (Harriman, 1985). This model divided male and female labour in society into instrumental and expressive roles (Parsons, 1955 cited Spence, Deaux and Helmrich, 1985).

The net effect of the general acceptance of this model of socio-psychological behaviour was that the division of male and female labour, and evidence of the characteristics that documented this, for example, a lack of developed career paths in female occupations and lower rates of pay, were not viewed as problematic and, indeed, biologically inevitable (Spence, Deaux and Helmrich, 1985). The use of male subjects in much of the early research relating to the work environment provides an illustration of the acceptance of male domination of the paid work environment (Spence, Deaux and Helmrich, 1985). The initial work on the Atkinson-McClelland achievement theory of motivation, which employed male subjects only, is an example of this (McClelland, 1966, cited Spence, Deaux and Helmrich, 1985).

The 1960s and 1970s witnessed a resurgence of the women's movement. Issues relating to the lives and wellbeing of women and their role in society became increasingly topical. In particular, attention was focussed on the disparities between men's and women's employment (for example, Zellman, 1976; Nieva and Gutek, 1981). A mass of literature concentrating on the effects of gender on working lives emerged (Nieva and Gutek, 1981; Harriman, 1985; Tilley and Scott, 1987).

A variety of theories were proposed to explain the phenomena surrounding gender and employment. These theories and explanations were anchored in a broad range of political, sociological, psycho-social and economic issues.

There are two major thrusts in the gender at work literature relevant to this research. The first of these is the idea that inherent sex based differences provide an adequate explanation for the differential work experiences of men and women. The second is literature concerned with sex as a social category and the implications this has on the way in which individuals perceive themselves and others in the work environment.

Early research was focussed on the notion that inherent sex based diversity meant that men and women were suited to different kinds of work (O'Leary, 1974). These fundamental gender differences were thought to account for the disparate work experiences of women and men. The behaviour and personalities of men and women were believed to cluster at opposite ends of the same continuum (Spence, Deaux and Helmrich, 1985).

During the 1970s investigation into gender differences burgeoned. Deaux (1985) asserted that the "longest history and most extensive list of references within the area of sex and gender in all probability belongs to the investigation of sex differences" (page 55).

The first major review of sex based differences research was carried out by Maccoby and Jacklyn (1974). This review concluded that differences between the sexes had been greatly exaggerated. While some differences were found in verbal ability, mathematical ability, visual spatial ability and aggression, conflicting evidence or very little difference was found when creativity, cognitive style, general intelligence and personality traits were considered (Maccoby and Jacklyn, 1974).

Although this review was subject to some methodological problems, one of which was the paucity of reliable literature in some of the areas examined, the bulk of the evidence suggested that if sex differences in factors such as intelligence, aggression, cognitive functioning and sociability were biologically determined, they were not large and did not favour any particular sex (Spence, Deaux and Helmrich, 1985). Furthermore, the degree to which detected differences could be attributed to socialisation processes was unknown.

Maccoby and Jacklyn's (1974) review instigated a plethora of research into actual differences between the sexes. Some that had not been identified were detected, for example in non verbal message decoding (Hall, 1978, cited Deaux, 1984). However, the basic tenets of research concerned with sex as a major determinant in behaviour were as follows:

First, the majority of observed sex differences could not be described as "durable main effects, but rather are influenced by task characteristics, resulting in frequent interactions between sex of subject and sex linkage of task" (Deaux, 1984, page 107)

Second, when main effects were found they were often qualified by interactions and situational factors (Deaux, 1984). An illustration of this is Eagly and Carly's (1981, cited Deaux, 1984) finding that women conformed significantly more in face to face situations when under surveillance than in non observed situations. Fordi, Macaulay, and Thome (1977, cited Deaux, 1984) demonstrated that various situational components could elicit or minimize the differences in male and female aggressive behaviour.

The relationship between sex differences, effect of the problem context, and subject sex role type (as measured by the Bem Sex Role Inventory) on problem solving ability was investigated by Beckham, Carbonell and Gustafson (1988).

No significant effect was found for sex or sex role type and there was no interaction of sex role type and sex with the context of the problem. However, both men and women performed better on masculine context problems. Consequently, men and women were no longer seen as differing in kind - the question now became one of degree (Spence, Deaux and Helmrich, 1985).

These conclusions were reinforced by research examining gender differences in leadership roles. Researchers have been unable to draw any distinct conclusions, especially when the results of laboratory and field settings are compared (Spence, Deaux and Helmrich, 1985). Experiments conducted in laboratory settings have been found to be more likely to detect gender based differences (Osborn and Vicars, 1976). This was attributed to the effects of the laboratory setting. Indeed, gender differences "may be artifacts in a laboratory situation where greater control may yield significant differences even when such differences account for a very minor proportion of the observed variance" (Spence, Deaux and Helmrich 1985, page 166).

Additionally, the intense short term laboratory setting could make factors such as gender more obvious. In work settings where information about individual capabilities and personalities is more freely available, gender becomes a less salient factor and exerts less influence on perceptions of performance and style (Spence, Deaux and Helmrich, 1985).

Research employing college students was found to be more likely to find sex differences in leadership style (Spence, Deaux and Helmrich, 1985). Bartol (1976) found no evidence of sex differences in performance when type of occupation, amount of training and organisation level were controlled.

Thus, it can be surmised that sex is not a strong determinant of individual differences in behaviour (Deaux, 1984).

This finding has been reinforced by research examining sex differences in work settings. Mottaz (1986) found that men and women did not differ significantly in overall work satisfaction within either upper or lower level occupations. Furthermore, in upper level occupations both men and women perceived similar levels of work rewards and reported similar work values (Mottaz, 1986).

Brief and Oliver (1976) found no significant differences in attitudes towards expectancy, valence and instrumentality of 25 job outcomes when they sampled male and female retail sales managers. These results indicated that "extreme caution should be exercised when making generalizations about sex differences in work attitudes" (Brief and Oliver, 1976, page 526).

Beutell and Brenner (1986) examined sex differences in work values in 202 advanced undergraduate business students. While they found some differences in 18 out of 25 values on their scale, these differences were minimal and did not necessarily conform to patterns predicted by stereotypes. Typically, men attached more importance to income, advancement, working on central organisational problems, while women rated comfortable work environment and congenial associates more highly than men. However, contrary to conventional beliefs females had high preferences on items such as independence, accomplishment, use of knowledge and skills, use of education, social contribution and intellectual stimulation. Male preferences for leisure and security also indicated a change from traditional norms. Beutell and Brenner (1986) asserted that the importance of their results lies in the apparent stability in the pattern of job outcome preferences among men and women seeking business careers. This supported the notion that men and women were more homogeneous in job orientation than their counterparts nearly 16 years ago. Consequently, it can be argued that gender is not necessarily a controlling factor when aspirations and attitudes to work are considered.

Donnell and Hall (1980) sampled 2000 managers in their investigation of sex based differences in managerial behaviour. Their conclusion demonstrated that generally, women did not differ from men in the way they approached the management task. No differences could be detected in personal values, managerial philosophy or managerial style when the organisation's human or technical resources were considered.

It can be argued that such results are to be expected because women in managerial positions have accepted the values, attitude and behaviours that pervade male employment domains. Moore and Rickel (1980) demonstrated that a group of women in a non traditional business role saw themselves as more orientated towards both achievement and production than those in a traditional occupation.

Additionally, they viewed themselves as having characteristics more like managers and men and saw no self characteristics conflicting with those ascribed to male managers. This group also considered the domestic role as less important and had fewer children than those in a traditional occupation. No difference was detected in attitudes to the importance of careers, perceptions of husbands' attitudes or level of education of spouse or parents.

Despite this type of argument, the research cited provides clear evidence that the differential work experiences of men and women can not be rationalised by the contention that women and men are inherently different in their approach to employment.

A more convincing explanation is anchored research focussing on sex as a social category and the implications that this has on how individuals perceive and interact with each other. This is examined in the second half of this review.

This second major thrust of the effects of the gender at work literature grew out of research conducted in the early 1970s which began to look at sex as a social category. From this perspective sex was viewed as an indicator by which observers evaluated and chose responses. The focus of much of the gender literature moved from how men and women actually differed to how individuals thought or believed the sexes differed (Deaux, 1984).

Sex role stereotypes are a social categorization technique and can be defined as the structured group of beliefs that exist about the personal attributes of women and men. A review of the body of literature associated with gender and ethnic stereotypes suggests that there are three basic principles incorporated in the notion of a stereotype (Ashmore, Del Boca and Wohlers, 1986).

First, stereotypes are cognitive structures. This means that they are a belief, judgement, expectation, attribution or an assumption. Second, stereotypes are beliefs about what certain members of a group are like. These target groups are socially defined, so the term social category is used to define the stereotyped object. The personal attributes of members of this group are used to indicate the content of stereotypes. Content is not limited to personality traits, it can be extended to include other types of personal information, such as physical appearance, occupation and sexual orientation. Third, stereotypes are best considered as a set of structured beliefs rather than a single structured belief (Ashmore, Del Boca and Wohlers, 1986).

Stereotypes are widely held and very pervasive. Evidence of their existence has been found in young children (Levy and Carter, 1989). Research has indicated that they are widely held across social groups and are resistant to change (Myers, 1983).



Broverman, Vogel, Broverman, Clarkson and Rosenkrantz (1972) conducted a seminal work on sex role stereotypes and drew three main conclusions.

- (a) There was a broad consensus about the content of sex stereotypes across groups differing in sex, age, marital status and educational level.
- (b) Attributes associated with men were found to be more highly valued than those typically associated with women.
- (c) Competence, rationality and assertion were traits associated with men, while positively valued female traits entailed behaviours such as warmth and expressiveness.

Furthermore, the sex role definitions created by stereotypes were seen to be implicitly and uncritically accepted to the extent that they were incorporated into the self concept of both men and women (Broverman, Vogel, Broverman, Clarkson and Rosenkrantz, 1972). Thus, to a large degree, behavioural standards and expectations were seen to be defined by an individual's sex.

Initially, research focussed on descriptive accounts of stereotype content. Support has been found for the theory that women's progress in careers and occupations outside traditional domains of employment has been hindered by stereotypic judgements about what is appropriate behaviour rather than actual differences in performance (Schein, 1978; Rappaport and Hackett, 1977; Nieva and Gutek, 1981). This was because it was believed that women did not possess the characteristics, such as leadership ability, aggressiveness, competitiveness and ambition seen as integral to managerial and professional jobs and occupations.

Schein (1973) concentrated on how perceived sex differences could influence expectations of women's competency in managerial roles. Eighty six traits central to the management task were identified and of these 60 were seen as more typical of male behaviour, while 8 were seen as more appropriate to female behaviour.

Schein (1975) sampled 300 male and 176 female middle managers and concluded that both successful men and managers were perceived as having leadership ability, competitive drives, self confidence, objectivity, aggressiveness, forcefulness, ambition and desire for responsibility. Women were not perceived as possessing these characteristics. Thinking male and thinking manager were seen to be synonymous (Schein, 1975).

Bass, Kruskal and Alexander (1971) investigated male managers' perceptions of women's employability by administering a questionnaire to 174 male managers and staff personnel. Overall reactions towards women were not favourable and general perceptions included the following:

- (a) women could not supervise men
- (b) women were less dependable
- (c) women should display deference.

Rosen and Jerdee (1978) sampled 884 male managers when they investigated perceived sex differences. This study concluded that perceptions were consistently more favourable towards men. In general, men were seen to have better decision making and leadership skills. The skills, aptitudes, interests and motivation perceived to be possessed by women were more consistent with clerical tasks. Furthermore, women were perceived as more timid, jealous and sensitive to criticism, while men were seen as better able to cope with pressure and stress associated with managerial tasks.

Schein (1978) found sex stereotypes to be highly pervasive in her investigation of the effect of sex role stereotyping on perceptions of ability and performance. Biogness (1976) found that when performance criteria were objectively defined, high performing females were rated more highly than high performing males on masculine tasks. These results could be partially explained by the fact that stereotypic thinking meant that women would not be expected to perform very well. Consequently, when women did perform well, the competency of the performance was inflated.

Brief and Wallace (1976) found support for this explanation when they concluded that both men and women were evaluated and rewarded equally when a gender neutral occupation was employed.

Garland and Price (1977) demonstrated that negative attitudes to women in management correlated with attributing successful management to luck or ease of the job. Alternatively, those holding positive attitudes to women in managerial positions were more likely to attribute success to hard work and ability.

These findings place women in non traditional occupations in an awkward position. This is because while women are perceived more favourably than men, if their success is contrary to expectations, it is often attributed to factors other than skill and ability (Schein, 1978).

Dobbins, Cardy and Truxillo (1988) investigated the effects of the purpose of appraisal and individual differences on stereotypes of women and on evaluations of male and female ratees in both a field and laboratory setting. The results indicated that when appraisals were made for administrative decisions as opposed to scale development (experimental purposes), those raters with traditional stereotypes of women rated them less accurately than those with nontraditional stereotypes.

Furthermore, when 810 raters rated the teaching effectiveness of eight male and six female professors, results indicated that women were evaluated more favourably by raters with nontraditional stereotypes than those raters holding traditional stereotypes.

Thus, it can be seen that stereotypes exert considerable influence on how individuals perceive and judge behaviour of men and women in work environments. However, these social indicators may not necessarily relate to the behaviour of the individual being appraised.

Jackson, MacCoun and Kerr (1987) sampled 174 male and 306 female undergraduate students asked them to evaluate the likability, adjustment and occupational stability of target individuals who were employed in either traditional or nontraditional occupations. Results indicated that female participants were more influenced by gender role attitudes as they rated non traditional women more favourably on all dimensions than traditional targets. Male respondents' evaluations were dependent on the targets' gender and the evaluation dimension in question.

Furotan and Wyer (1986) investigated the suitability of people for typically masculine or feminine jobs and found that when a job candidate gender was explicit, gender exerted influence on the participants' beliefs about occupational suitability. This influence was found to be only minimally dependent on trait information available about the candidate. The conclusion was that gender was combined with trait information available about a candidate when judgements of occupational suitability were made (Furotan and Wyer, 1986).

An important point demonstrated by these studies is that the degree to which stereotypes influence judgements is contingent on other factors.

Whether or not people hold traditional values, and how familiar the individual is with the person being appraised are examples of factors affecting the saliency of stereotypes. Terborg and Ilgen (1975) found that the amount of information available about the target person influenced the saliency of stereotypes. Rosen and Jerdee (1974) found that ability of stereotypical information to influence peoples' judgements was dependent on whether or not specific rules were operative.

Exposure to rules and norms, and the amount of information available to an individual on which to base judgements are factors affected by the length of time an individual has been working in an industry. Consequently, the length of time that an individual has been working in an industry may also be a factor affecting the saliency of stereotypes on the perception process.

Mathison (1986) examined sex differences in the perception of assertiveness among female managers. Mathison (1986) concluded that the assumption that both men and women would view assertive women negatively was not supported. Female respondents reported more negative perceptions of assertive women than male respondents. A possible explanation for this was that the positive perceptions of men were based on a verbal description and removed from real life situations. Consequently, the male respondents did not view themselves as competing with or threatened by the target individuals being appraised. However, this does not provide an explanation for the negative responses of women. A more convincing explanation offered by Mathison (1986) was a shift in men's attitudes.

Massengill and Di Marco (1979) examined the relationship between men and women and requisite management characteristics and concluded that sex role stereotypes regarding differences and similarities between men in general, women in general and successful managers did not favour women in a management role.

A high degree of similarity between men and managers was found by male respondents, but none between women and men nor women and managers. Female respondents perceived a moderately high degree of similarity between women and both men and managers. These differences were attributed to the fact that men and women perceived the role of managers in the same way, but showed differences in the way in which they perceived women. Male subjects perceived women to be significantly lower than both men and managers on 17 items in the dominant aggressive group. Women perceived women as significant differences on 7 of these items. Thus, one aspect upon which men and women agreed was that women were lacking in the characteristics of successful managers in one area - that of dominant aggressive characteristics. Male respondents perceived women as significantly less able on dimensions of ego strength and dominant-aggressive characteristics.

Consequently, women were perceived as less able to cope with the stressors and difficulties associated with managerial and professional positions. This area receives considerable attention when people are selected for managerial positions and these results suggest that stereotypes have negative consequences for women pursuing managerial positions and professional occupations (Massengill and Di Marco, 1979). Thus, it can be seen that sex role stereotypes exert considerable influence on the way men and women are perceived in work situations.

It is interesting to view the research examining the implications of sex role stereotypes at work in conjunction with the social change that has occurred over the last twenty years. These include changes such as the decline of the nuclear family as the basic social unit, which is evidenced by an increasing divorce rate and a growing number of single parent families and a liberalisation of social attitudes (Zellman, 1976). This is documented by recognition of the need for pay equity, equal employment opportunities legislation, and affirmative action programmes.

Spence, Deaux and Helmrich (1985) asserted that "sex role attitudes have moved strongly away from traditional positions over the last fifteen to twenty years, thus mirroring and stimulating changes in role related behaviours" (page 154). While there is evidence to suggest that the rate of liberalisation of traditional attitudes is beginning to slow, the net effect of these changes indicate that, generally, younger cohorts at work would view their contemporaries in less traditional terms.

Alternatively, some researchers argue that the emancipation of women and their entry into non traditional occupations has not led to massive changes in stereotypes or the ability that these social categories have to influence individual judgements about the suitability of men and women for specific occupations.

Lueptow (1985) conducted a longitudinal study examining perceptions of masculinity and femininity and found results contrary to what was expected. Major changes included an increase in the sex typing of both sexes. Furthermore, both men and women saw themselves as considerably more sex typed in 1983 than they did in 1974, although men saw themselves as considerably more feminine. A corresponding increase in masculinity for women was not found. Lueptow (1985) concluded that this study demonstrated that "while men and women increasingly enter non traditional roles, they may well do this with a persisting differentiation in personality trait expectations and behaviours" (page 862).

This present research was concerned with the effect of gender on the way in which a group of individuals working in a New Zealand industry perceived themselves and others working in the same occupation. The sample was selected from the New Zealand real estate industry. A semantic differential scale was employed to explore the way in which respondents perceived themselves, a typical male sales person and a typical female sales person.

An intensive review of the literature revealed only one piece of research that had direct relevance to this study. Rappaport and Hackett (1977) used a semantic differential scale when they investigated the perceptions held by male and female real estate sales people. One hundred and twelve sales people were sampled and results indicated that both male and female respondents had similar perceptions of male real estate sales people on all eleven variables examined. Sales men were viewed as competent, highly career oriented, intelligent, assertive, outgoing and confident. Furthermore, sales men were viewed as possessing good sales techniques. Neutral responses were recorded regarding the trustfulness, open mindedness and emotionability of real estate sales men. However, male and female respondents recorded quite different perceptions when female real estate sales people were considered. Male respondents tended to view women as more emotional, more apprehensive and less outgoing with weaker sales techniques.

In summary, this literature review has cited two areas of the gender-at-work literature that provide possible explanations for any differences in perception detected by the research of by Rappaport and Hackett (1977) and the present study.

The first of these is that any differences found in the way real estate sales people appraised themselves and their contemporaries can be attributed to inherent sex based differences. However, there is little evidence to support this proposition. A pilot study conducted as part of this research demonstrated that both male and female real estate sales people believe that similar behaviours and attributes are integral to effective sales techniques.

The second and more feasible explanation focusses on the idea that gender divides men and women into social categories. These categories are delineated by certain behaviours and traits which are perceived to typify the behaviour of the members of these social groups.



Thus, women tend to be perceived as warm, expressive, submissive and emotional while men are seen as dominant, aggressive, rational.

The division of labour in society has meant that men have tended to undertake the role of economic provider and principal bread winner, while women have traditionally been responsible for care of the home and children.

The net effect of this is that women are often perceived as not possessing the attributes, personalities, skills and abilities believed to be integral to many managerial and professional positions. Thus, when individuals appraise the way in which they perceive men and women working in a particular profession, it is likely their perceptions will be influenced by societal norms prescribing the appropriate behaviour of men and women as social groups.

## ***CHAPTER 3***

### ***RESEARCH AIMS AND MODEL***

#### **3.1. *RESEARCH OBJECTIVES***

The main objective of this research was to explore the effect of gender on the way in which real estate sales people perceived themselves, a typical male and a typical female real estate sales person.

This objective coupled with a review of the relevant literature led to the postulation of the following research propositions:

**Research Proposition 1:** Gender will influence the way in which respondents perceive themselves, a typical male and a typical female real estate sales person.

**Research Proposition 2:** There will be a degree of similarity in the way in which males and female perceive themselves as real estate sales people. This is supported by research documenting similarities in the way in which men and women approach employment. (Donnell & Hall, 1980; Brief and Oliver, 1976).

**Research Proposition 3:** There will be substantial differences in the way in which men and women perceive a typical female real estate sales person. This is supported by research demonstrating the effect that societal norms and sex role stereotypes have on the perception process. (Schein, 1978; Rappaport and Hackett, 1977).

A second aim of this research was to explore the semantic differential scale employed to discover the existence of any underlying relationships between scale items.

### **3.2. RESEARCH MODEL AND TECHNIQUES**

Perceptions were appraised using a 14 item semantic differential scale which was applied to each of the three perceptions assessed. This scale allowed for the evaluation of both the direction and intensity of respondents' perceptions.

The Statistical Package for the Social Sciences, SPSSx (SPSSx Inc., 1983) was utilised to analyse the data obtained from the questionnaire. Both univariate and multivariate techniques were employed. Two multivariate techniques were used. These were a series of stepwise discriminant analyses and factor analysis. Principal axes factoring with orthogonal rotations were used.

Stepwise discriminant analysis was applied to perceptions of self, perceptions of a typical male and female real estate sales person to determine which, if any, of those variables cited as the independent variables discriminated between male and female respondents.

This research model is illustrated diagrammatically in Figure 3.1.

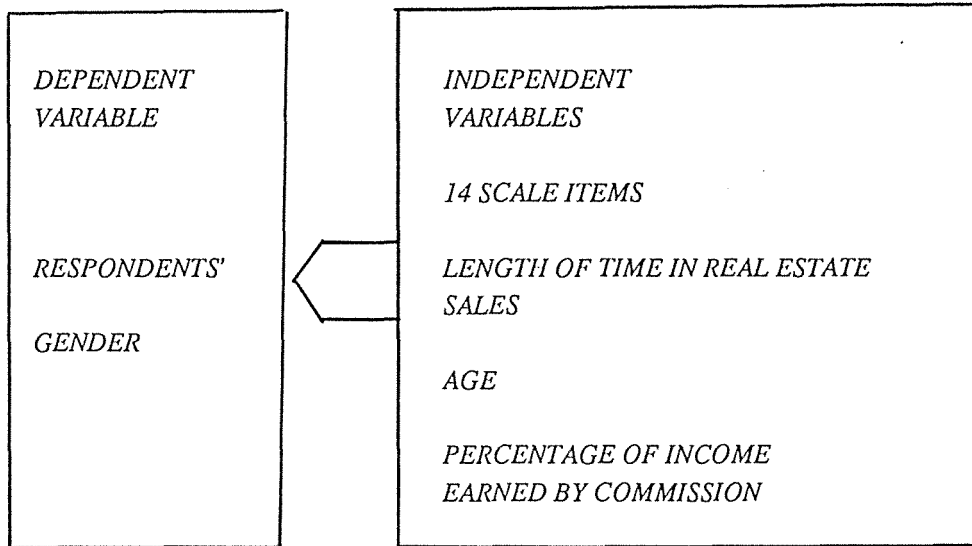


Figure 3.1: Diagrammatic Illustration of the Research Model

The dependent variable in this analysis was respondents' gender. The independent variables were the 14 scale items, respondents' age, the percentage of respondents' income earned by commission and the length of time that respondents had been employed in real estate sales.

The demographic variables were selected for the following reasons.

### Age

Research in the area of women at work has demonstrated that women are more active in paid employment than they were 20 years ago (Horsfield, 1988). This would suggest that as time has progressed the way in which people perceive individuals may not be as greatly affected by social norms that prescribe behaviour of men and women. This is because gender may be less salient in shaping individuals' perceptions as more people have been exposed to women working in positions of responsibility and professional occupations.

### **Length of Time in Real Estate Sales**

The real estate industry is relatively free of occupational sex typing. Both male and female sales people have been active in this domain for the last 30 years (McGoldrick, 1989). Thus, it is expected that gender based assumptions made about male and female sales people would be less important as traditional barriers would have had a chance to breakdown (Rappaport and Hackett, 1977).

### **Commissioned Earnings**

The percentage of income earned by commission was included as an independent variable because it provides a measure of self efficacy and is a highly salient aspect of a real estate sales person's work (McGoldrick, 1990).

A principal axes factoring procedure was applied to the sample as a whole, and then male and female respondents as independent groups. Varimax and quartimax rotations, both orthogonal techniques, were employed. The purpose of this procedure was to examine the possibility of any underlying relationships between the 14 scale items.

### **3.3 *SAMPLE RATIONALISATION***

The real estate industry provided a suitable sample to study because it is not an employment domain dominated by either sex. Both men and women have been active in this area for the last 30 years (McGoldrick, 1989). While the controlling body of the real estate sales force in New Zealand, the Real Estate Institute of New Zealand does not record gender information, it is of the opinion that "the real estate sales force is approaching 50% women" (Keys, 1990). These factors suggest that the industry is relatively free from occupational sex typing.

Occupations are regarded as "sex typed when a large majority of those in them are of one sex and when there is an associated normative explanation that this is how it should be" (Epstein, 1970, cited Schein, 1973, page 95). The predominance of women in nursing, which is viewed as a caring nurturing profession, and the relatively high number of men in foreign exchange dealing, characterised by rational, aggressive, competitive and unemotional behaviour, provide an illustration of occupational sex typing. The behaviour and attitudes recognised as appropriate for these two occupations are characterised by the behavioural and attitudinal norms traditionally socially ascribed to the dominant sex in each.

Real estate sales is not an employment domain of either sex and the real estate sales is not perceived as either "men's" or "women's" work. Thus the behavioural and attitudinal norms of the real estate sales industry are not likely to be sex role defined. Respondents were probably used to working with both men and women. Consequently, when they considered how they perceived a typical male or female real estate sales person, their responses were more likely to reflect their perceptions of these groups and were not as likely to be affected by occupational norms that have been sex role defined.

## ***CHAPTER 4***

### ***RESEARCH METHOD***

The objective of the present study was to conduct a preliminary investigation to explore the effect of gender on the way in which men and women working in the real estate industry perceived themselves, a typical male real estate sales person and a typical female real estate sales person. The technique employed to measure these perceptions needed to be able to appraise the respondents' psychological conception of themselves, men and women working as real estate sales people by assessing how respondents believed each of these groups performed on the dimensions that comprised a real estate sales person.

Two approaches to data collection were considered. These were personal interviewing and a scale built on the principles of belief and attitude measurement. Personal interviewing techniques offered the advantage of allowing depth and detail of information. However, personal interviewing was rejected because it was too time consuming and costly. Furthermore, it inhibited the size of the sample that could be surveyed.

The use of a scale technique offered the following advantages.

- (a) The most prevalent method of measuring gender related attitudes is some type of Likert scale (Del Boca, Ashmore and McManus, 1986). These scales have high face validity because they have been in relatively widespread use since the early 1970s (Del Boca, Ashmore and McManus, 1986).
- (b) A scale type questionnaire allowed a mail survey to be conducted. Thus a wider sample could be taken at a cheaper cost. This provided an additional benefit because very little information has been collected about real estate sales people as a group in New Zealand. By using a broad national sample a data base could begin to become established.
- (c) The data provided by a scale was amenable to statistical analysis.

A semantic differential scale was developed and employed in a pilot survey which examined perceptions of a typical gender non-specific real estate sales person. This semantic differential scale was employed in the present research for the following reasons.

- (a) The semantic differential scale is considered appropriate for exploratory investigations (Emory, 1985).
- (b) The semantic differential scale uses ordinal and/or interval data and allows for the computation of arithmetic means, medians, tests of significance, correlations and factor analysis (Hughes, 1974).
- (c) The semantic differential is considered to be a relatively powerful tool and has wide use in the field of belief and attitude measurement (Hughes, 1974).



(d) This type of scale has been used in this capacity (Rappaport and Hackett, 1977). Furthermore, a pilot study adapted it for use within the New Zealand real estate industry.

The semantic differential scale consists of bipolar pairs, which can be adjectives and/or phrases with cues spaced between them. Osgood, Suci and Tannenbaum (1957) developed the semantic differential scale as a means of appraising respondents' perceptions of objects and/or the intensity of respondents' attitudes. It is a type of "quantitative-judgement method that results in (assumed interval) scales that are often further analysed by such techniques as factor analysis" (Green, Tull and Albaum, 1988, page 298). Thus, the semantic differential provided an appropriate method of obtaining information about the way in which real estate sales people perceived themselves and others working in the industry.

#### **4.1                    *DEVELOPMENT OF THE SCALE***

The semantic differential scale was used to assess respondents' perceptions of themselves, a typical male real estate sales person and a typical female real estate salesperson.

A similar technique was employed by Rappaport and Hackett (1977) when they examined male and female perceptions of real estate sales people. Because this scale was developed in an American environment, and was over 10 years old, a series of steps was undertaken to ensure the content validity and relevance of the scale to a New Zealand setting. In order to be content valid, the component items of the attitude scale must adequately represent the domain of investigation (Del Boca, Ashmore and MacManus, 1986).

The validation process involved six indepth interviews with managers of predominantly residential companies in Palmerston North.

An example of the semantic differential scale employed by Rappaport and Hackett (1977) is illustrated in Figure 4.1.

	Extremely	Quite	Slightly	Neither	Slightly	Quite	Extremely	
Outgoing	_____	_____	_____	_____	_____	_____	_____	Reserved
Assertive	_____	_____	_____	_____	_____	_____	_____	Humble
Trusting	_____	_____	_____	_____	_____	_____	_____	Suspicious
Confident	_____	_____	_____	_____	_____	_____	_____	Apprehensive
Unemotional	_____	_____	_____	_____	_____	_____	_____	Emotional
Imaginative	_____	_____	_____	_____	_____	_____	_____	Unimaginative
Competent	_____	_____	_____	_____	_____	_____	_____	Incompetent
Open Minded	_____	_____	_____	_____	_____	_____	_____	Closed Minded
Intelligent	_____	_____	_____	_____	_____	_____	_____	Unintelligent
Career Oriented	_____	_____	_____	_____	_____	_____	_____	Home Oriented
Good Sales Technique	_____	_____	_____	_____	_____	_____	_____	Poor Sales Technique

*Figure 4.1: An Example of the Semantic Differential Utilised by Rappaport and Hackett (1977)*

The objective of these interviews was to obtain information that clearly described the behavioural dimensions and attributes that identified a typical real estate sales person and to identify those behaviours and attributes that distinguished between effective and ineffective sales people.

This was achieved by using a critical incidents technique and a checklist of the original variables used by Rappaport and Hackett (1977). Interviewees were asked to think about the most effective member of their sales team and describe his/her behaviour in three words.

They were then asked to think about this person while a checklist of variables was read out and answer yes or no depending on whether these words could be applied to their most effective sales person. Participants were then asked to go back over the list and give examples of behaviour they believed described the variable in question. The purpose of this was to detect any ambiguous words or phrases and to ensure that the words and phrases employed had a common meaning amongst people working in the real estate industry. This process was then repeated while interviewees kept their least effective sales person in mind.

These interviews led to the reconstruction of Rappaport and Hacketts' (1977) scale. The following adjective pairs were deleted because they did not capture behaviours perceived as integral to real estate sales.

- (a) intelligent-unintelligent
- (b) career oriented-home oriented
- (c) emotional-unemotional
- (d) good sales technique-poor sales technique

The first three sets of bipolar pairs were not seen to be characteristics that distinguished effective from ineffective sales people. For example, real sales people could be intelligent or unintelligent. The last adjective pair was highly ambiguous and interpreted in a variety of different ways. Consequently, all four were excluded from scale construction.

These interviews further indicated that the following adjective pairs were important factors when the behaviours and attributes of real estate salespeople were considered.

- (a) disciplined-undisciplined
- (b) thorough-superficial

- (c) committed-uncommitted
- (d) reacts positively with failure-reacts negatively with failure
- (e) proactive-reactive
- (f) genuine-insincere
- (g) sensitive-insensitive

These items were combined with those retained from the original scale and a semantic differential scale designed to incorporate the major behaviours and traits central to real estate sales was developed. The scale items developed as a result of these interviews meant that respondents could indicate the way in which they perceived a given individual or group by marking a point between the bipolar adjective pairs. In this particular scale, those adjectives or phrases incorporating effectiveness were listed on the left hand side of the scale and those incorporating ineffectiveness were listed on the right hand side of the scale.

A seven point scale with numerical cues was employed so that cues could be evenly balanced around a neutral point (point 4). The advantages of this were twofold. Firstly, it meant that the scale appeared visually balanced. Thus, respondents were not encouraged to provide responses that favoured either the positive or negative side of the neutral point.

Secondly, it meant that a range of responses on each item was possible. A high number of cues can enhance reliability. However, a respondent is unlikely to employ more than eight and a large number of cues can be irritating or confusing for the respondent (Hughes, 1974). Numerical cues were employed because they simplify the process of computer coding for data analysis (Hughes, 1974). No evidence was found to support the notion of reversing the order of variables or inverting their appearance.

Figure 4.2 illustrates the scale developed for use in the present research.

	<i>Extremely</i>	<i>Quite</i>	<i>Slightly</i>	<i>Neither</i>	<i>Slightly</i>	<i>Quite</i>	<i>Extremely</i>	
Outgoing	1	2	3	4	5	6	7	Reserved
Assertive	1	2	3	4	5	6	7	Passive
Trusting	1	2	3	4	5	6	7	Suspicious
Confident	1	2	3	4	5	6	7	Apprehensive
Imaginative	1	2	3	4	5	6	7	Unimaginative
Competent	1	2	3	4	5	6	7	Incompetent
Open minded	1	2	3	4	5	6	7	Close minded
Disciplined	1	2	3	4	5	6	7	Undisciplined
Thorough	1	2	3	4	5	6	7	Superficial
Committed	1	2	3	4	5	6	7	Uncommitted
Reacts Positively With Failure	1	2	3	4	5	6	7	Reacts Negatively With Failure
Proactive	1	2	3	4	5	6	7	Reactive
Genuine	1	2	3	4	5	6	7	Insincere
Sensitive	1	2	3	4	5	6	7	Insensitive

Figure 4.2: *The Semantic Differential Scale Employed in the Present Research*

## 4.2 QUESTIONNAIRE DESIGN

The questionnaire was divided into two parts and complete copy of the questionnaire is presented in Appendix 4.1. The first part, Section A concentrated on eliciting demographic information. This was achieved using a funnel approach (Emory, 1985) to question sequence. Simple general questions were asked first about the respondent's history in real estate sales.

Questions concerning income, age and ethnic origin, areas often seen as sensitive, were placed further along in Section A. This was to avoid making respondents feel threatened early on, thus dampening their motivation to continue (Emory, 1985). The areas covered by Section A included length of time in real estate sales, the type of property in which respondents dealt, the number of full time sales people working in the respondent's office, the gender composition of the office, the rural/urban location of the office, respondent's sex, age, ethnic origin, and earnings for the last financial year.

Section B focussed on appraising participants' perceptions of themselves, a typical male sales person and a typical female sales person. Section B contained three identical semantic differential scales presented on three separate pages (the basic scale employed is presented in Figure 4.2). Each of these had different instructions about how to complete the particular scale that followed at the top of each page. The presentation of these scales was randomised in order to prevent an order effect.

#### **4.3                    *SAMPLE SELECTION AND SURVEY DISTRIBUTION***

Four companies agreed to participate in this research. These have been labelled Company 1, Company 2, Company 3, and Company 4 for the purposes of this research to preserve the confidentiality of participants.

Participants in Companies 1, 2 and 3 were made aware of the research programme by the inclusion of a brief description of the research in the Company Newsletter approximately 3 weeks before the questionnaires were distributed. This described the objectives of the research and what was required of respondents in term of completing the questionnaire. (Examples of these are contained in Appendix 4.2).

The Managing Director of Company 4 wrote to all branch managers and informed them of the Company's involvement.

Companies 1, 2 and 3 distributed questionnaires through each branch principal. Survey forms were distributed amongst the sample by branch managers who received a package containing:

- (a) a covering letter explaining the research in more detail and the instructions as to how surveys should be distributed; and,
- (b) sufficient numbers of information and instruction sheets, survey forms and stamped addressed envelopes for each fulltime sales person in the office to complete a questionnaire and return. (Appendix 4.3 contains examples of these)

Company 4 supplied a list of employees and survey forms were mailed directly to each person on this list. Each envelope contained:

- (a) a personalised covering letter providing information on the research; and,
- (b) a copy of the questionnaire and a stamped self addressed envelope. (Appendix 4.4 contains a copy of these).

The questionnaires were mailed out over the period of 7 June 1990 to 18 June 1990. Ten days after the initial mailing follow up letters were sent to each branch manager in Companies 1, 2 and 3 and to each individual listed as an employee of Company 4. This letter thanked those who had already participated and reminded those who still had to distribute forms, or to complete them, to do so as soon as possible. (Appendix 4.5 contains copies of the follow up letters).

Survey forms were then collected over the next eight weeks. (Appendix 4.6 documents the rate at which these arrived).

#### 4.4 THE SAMPLE

The sample comprised the 4 largest real estate sales companies operating in New Zealand in February 1990. Table 3.1 provides a breakdown of the sample according to company, number of employees, and the source of data.

Table 4.1: Breakdown of Sample Composition by Company Size

<i>Company No.</i>	<i>No. of Sales Personnel</i>	<i>Information Source</i>
1	485	Managing Director
2	321	REINZ*
3	608	REINZ*
4	781	REINZ*
<i>Total</i>	<i>2195</i>	

- Note:
1. REINZ is the abbreviation for the Real Estate Institute of New Zealand
  2. Figures as at 8 February 1990

All full time real estate sales people employed by these companies were included in the sample. The size of the sample was approximately 2195.



A problem was encountered with survey distribution to Companies 1, 2 and 3 as each Managing Director estimated the approximate number of sales staff in each branch location. While their estimations were as accurate as possible, they tended to be based on the total number of News Letters and information briefings forwarded to each office. Consequently, these estimations included administrative and support staff.

Information supplied by Company 4 concerning their employees and their work addresses incorporated all employees including support and administrative staff, as well as staff operating rental departments and so forth. Consequently, these people received questionnaires as well as full time sales staff. However, these people did not meet criteria to enable them to participate in the survey.

The net effect of these distribution problems meant that approximately 876 excess forms were distributed. Table 4.2 provides an illustration of the forms returned and perhaps an indication of the some of the difficulties and trends associated with the distribution procedure.

*Table 4.2: Forms Returned As Not Reaching the Sample.*

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<i>Company 1:</i>	No returns were received as gone no address, and so forth.
<i>Company 2:</i>	Ten forms were returned gone no address from one office.
<i>Company 3:</i>	All surveys seemed to reach the appropriate office. Sixteen were returned as surplus to requirements from three offices.
<i>Company 4:</i>	Twenty-three survey forms were returned, and eight of the follow up letters associated with these particular forms were also returned as gone no address, not at this address or no longer in real estate. Eight follow up letters were also returned for the same reasons. Thus, it would be safe to assume that minimum of thirty forms did not find their addressees. Information was received from 4 offices regarding the retirement or resignation of 23 sales people.

---

One thousand five hundred and forty three full time real estate agents responded. Of these 87 forms could not be included in the sample because they had been incorrectly completed. Six of these were received as not fully completed because of ill health or retirement. Therefore, the sample comprised 1456 fulltime real estate sales people.

## CHAPTER 5

### RESULTS

#### 5.1 THE SAMPLE

A breakdown of responses received from the four companies sampled is presented in Table 5.1.

Table 5.1: A Breakdown of Responses Received by Company and Gender

---

Coy. No.	No. Respondents			Percentage Total Responses
	Men	Women	Total	
1.	133	80	213	14.6
2.	208	130	339	23.3
3.	255	174	429	29.4
4.	303	172	475	32.6
Not Stated	1			0.1
<i>Total</i>	900	556	1456	100.0

---

The following descriptive information was obtained about the sample from Section A of the questionnaire. Nine hundred, or 61.8% of respondents were men and 556, or 38.2% were women.

The average length of time all respondents had been employed in real estate sales was 4 years and 3 months. The range was 1 month to 54 years. The average length of time that male respondents had been working in real estate sales was 5 years and 9 months. This ranged from 1 month to 54 years. Comparatively, female respondents had been working in real estate sales for an average of 3 years and 8 months and this ranged from 1 month to 24 years. Table 5.2 presents the results of t-tests carried out on the length of time respondents had been dealing in real estate. (t-test results are presented in Appendix 5.1).

*Table 5.2 Results of t-tests Carried out on the Length of Time Respondents had been Dealing in Real Estate*

<i>Item</i>	<i>Male Mean</i>	<i>Female Mean</i>	<i>Level of Significance</i>
Time	5.0979	3.0851	0.000

These results suggested that women, in general, had been employed in real estate sales for shorter time periods than their male counterparts.

The average number of full time sales people in each office was 9.6 people. Office size ranged from 1 to 38 fulltime sales people. The average number of women employed fulltime per office was 4.1 and this ranged from 1 to 22.

Comparatively, the average number of men employed fulltime per office was 5.7 and this ranged from 1 to 24.

Table 5.3 illustrates the property types that the respondents spent the majority of their time dealing in.

*Table 5.3: Property Type Dealt In*

<i>Property Type</i>	<i>Number Respondents</i>			<i>% of Sample</i>
	<i>Men</i>	<i>Women</i>	<i>Total</i>	
Residential	764	539	1303	89.6
Rural	81	13	94	3.4
Commercial	45	4	49	6.5
Industrial	4	0	4	0.1
Not Stated	6	0	6	0.4
<i>Total</i>	<i>900</i>	<i>556</i>	<i>1456</i>	<i>100</i>

The ages of respondents ranged from 19 years and 5 months to 71 years and 8 months. The mean age of respondents was 42 years and 7 months. The average age of male respondents was 43 years and 4 months and this ranged from 20 years and 7 months to 71 years and 8 months. The age range of female respondents was 19 years and 5 months to 66 years and 8 months. The mean age of female respondents was 41 years and 5 months. Table 5.4 presents the results of t-tests carried out on respondents' age. (t-test results are presented in Appendix 5.1) These results suggested that male respondents, on average, were significantly older than female respondents.

Table 5.4 Results of t-tests Carried out on Respondents' Age

<i>Item</i>	<i>Male Mean</i>	<i>Female Mean</i>	<i>Level of Significance</i>
Age	43.4314	41.5823	0.000

Office location in terms of population density is presented in Table 5.5.

Table 5.5: Office Location in Rural/Urban Centres

<i>Location</i>	<i>No. of Respondents</i>			<i>% of sample in each location</i>
	<i>Men</i>	<i>Women</i>	<i>Total</i>	
Rural (1*)	46	34	80	5.5
Town (2*)	215	133	348	23.9
City (3*)	249	138	387	26.6
Big City (4*)	387	249	636	43.7
Not Stated	3		3	0.3
<i>Total</i>	<i>900</i>	<i>554</i>	<i>1454</i>	<i>100</i>

where (1\*) = a rural area (population less than 4,000)  
 (2\*) = a town (population 5,000 to 20,000)  
 (3\*) = a city (population 21,000 to 65,000)  
 (4\*) = a large city (population 66,000 plus)

The ethnic composition of the sample is presented in Table 5.6. Because the sample was highly skewed towards Europeans and other ethnic groups were not sufficiently represented no further analysis was carried out using ethnic origin as a variable.

Table 5.6: *Ethnic Composition of the Sample*

<i>Ethnic Origin</i>	<i>Number of Respondents</i>			<i>% of Sample</i>
	<i>Men</i>	<i>Women</i>	<i>Total</i>	
European	840	531	1371	94.2
Maori	14	6	20	1.4
Other*	25	10	35	2.4
Chinese	11	4	15	1.0
British	3	2	5	0.3
Canadian	1	0	1	0.1
Australian	1	1	2	0.1
Asian/Eurasian	2	2	4	0.3
American	1	0	1	0.1
Not Stated	2	0	2	0.2
<i>Total</i>	<i>900</i>	<i>556</i>	<i>1456</i>	<i>100</i>

*NB \* Other includes respondents indicating "other" as their ethnic origin but not specifying ethnic origin, Iranians, Fijians, Indian Fijians and Indians.*

The reported mean income for the financial year 1 April 1989 to 31 March 1990 was \$43,097. This ranged from \$148 to \$274,000. Average earnings of male respondents was \$44,481 and male earnings ranged from \$800 to \$274,000. The mean earnings for female respondents was \$40,664. Female earnings ranged from \$148 to \$128,000.

Reported earnings was an interesting factor for two reasons. Firstly, it suggested that the sample was atypical. Average earnings industry wide are closer to \$25,000. (McGoldrick, 1990). Alternatively, it may have suggested that people employed by larger companies (as this sample was) have the opportunity to earn more than those employed by smaller companies. A more likely explanation is that respondents overstated their earnings.

A probable cause for this is that earnings are seen to be the yardstick by which people in a commissioned occupation such as real estate sales measure their efficiency. This factor may have motivated respondents to record higher incomes than were actually earned.

The second difficulty with earnings was that 27.7% of the sample had been in real estate sales less than 1 year. This caused confusion in responses because the question asked for income for the last financial year. Subjects tended to choose either one of two possible response options. Firstly, there was a tendency to respond by filling in their previous occupation's salary, which did not necessarily reflect their capacity to earn in real estate sales. The second response pattern was to fill in how much they had been able to earn to date in real estate sales. As a result of these difficulties reported earnings was not employed in further analysis.

To overcome this difficulty, the percentage of income earned by commission was employed. Overall, 89.4% of respondents' income was earned by commission. The average percentage of earnings obtained by commission was 88.64% for male respondents and 91.5% for female respondents. Table 5.7 presents the results of t-tests carried out on the data relating to percentage of income earned by commission. (t-test results are presented in Appendix 5.1)

*Table 5.7: Results of t-tests Carried out on Percentage of Income Earned by Commission*

<i>Item</i>	<i>Male Mean</i>	<i>Female Mean</i>	<i>Level of Significance</i>
Commissioned Earnings	88.6441	91.4978	0.000



These results perhaps provide an indication that female respondents, in general, were less advanced in terms of the salaried management positions than were male respondents. This would account for the greater amount of women's incomes being accounted for by commission.

Initially, univariate analysis was carried out on the data contained in Section B. The objective of this was to determine whether or not respondents' gender had affected their perceptions on the three scales completed.

A standard t-test was conducted to determine whether or not any differences existed in the way in which male and female real estate sales people perceived themselves, a typical male real estate salesperson and a typical female real estate sales person. Means and the significance of the results are presented in Tables 5.8, 5.9 and 5.10. The level of significance is set at 0.05. (t-test results are presented in Appendix 5.2)

### **Perceptions Of Self As A Real Estate Sales Person**

Table 5.8 presents a summary of the results of t-tests conducted on perceptions of self as a real estate sales person. Five scale items produced statistically insignificant results when male and female perceptions of self were compared. These were confident-apprehensive, competent-incompetent, disciplined-undisciplined, committed-uncommitted and positive-negative reactions to failure. This suggested that there may have been a degree of similarity in the way in which male and female real estate people perceived themselves.

These results suggested that female respondents, on average, saw themselves as more outgoing, more assertive, more imaginative, more open minded, more trusting, more genuine, more sensitive, more assertive and more thorough than male respondents. On all items producing a statistically significant result, men generally saw themselves as nearer the right hand side of the scale.

*Table 5.8: Means and Level of Significance for Perceptions of Self*

<i>Item</i>	<i>Male Mean*</i>	<i>Female Mean*</i>	<i>Level of Significance</i>
Outgoing-Reserved	2.5419	2.3128	0.000
Assertive-Passive	2.5805	2.4180	0.006
Trusting-Suspicious	2.3523	2.1359	0.002
Confident-Apprehensive	2.0503	2.1232	N S
Imaginative-Unimaginative	2.2975	2.1772	0.036
Competent-Incompetent	1.8915	1.8644	N S
Open minded-Close minded	1.9520	1.7960	0.004
Disciplined-Undisciplined	2.3427	2.2248	N S
Thorough-Superficial	2.2313	1.9225	0.000
Committed-Uncommitted	1.9161	1.8192	N S
Reacts Positively-Negatively			
With Failure	2.5711	2.5815	N S
Proactive-Reactive	2.8164	2.7419	0.001
Genuine-Insincere	1.5061	1.3561	0.001
Sensitive-Insensitive	2.2089	1.7266	0.000

*NB \* The higher the mean score, the closer the mean response to the right hand side of the scale.*

*Note: N S is, in all cases, an abbreviation for Not Significant*

## Perceptions Of A Typical Male Real Estate Sales Person

Table 5.9 presents a summary of the results of t-tests conducted on perceptions of a typical male real estate sales person.

*Table 5.9: Means and Level of Significance for Perceptions of a Typical Male Real Estate Sales Person*

<i>Item</i>	<i>Male Mean*</i>	<i>Female Mean*</i>	<i>Level of Significance</i>
Outgoing-Reserved	2.3236	2.3485	N S
Assertive-Passive	2.3019	2.0401	0.000
Trusting-Suspicious	3.2291	3.7258	0.000
Confident-Apprehensive	2.1333	2.0474	N S
Imaginative-Unimaginative	3.0337	3.5473	0.000
Competent-Incompetent	2.4927	2.5858	N S
Open minded-Close minded	2.9044	3.2500	0.000
Disciplined-Undisciplined	2.8880	2.8185	N S
Thorough-Superficial	2.8512	3.0982	0.000
Committed-Uncommitted	2.3906	2.3993	N S
Reacts Positively-Negatively			
With Failure	3.1562	3.4663	0.000
Proactive-Reactive	3.1954	3.3581	0.028
Genuine-Insincere	2.7635	3.2382	0.000
Sensitive-Insensitive	3.3091	3.9252	0.000

*NB \* The higher the mean score, the closer the mean response to the right hand side of the scale.*

The items producing statistically significant results suggested that male respondents, on average, saw a typical male real estate sales person as more passive and as reacting more positively with failure than did female respondents.

Male respondents, on average, also perceived a typical male real estate sales person as more trustworthy, imaginative, open minded, thorough, proactive, genuine and sensitive than did female respondents.

Five variables produced results that were not statistically significant when male and female perceptions of a typical male real estate sales person were examined. These were outgoing-reserved, confident-apprehensive, competent-incompetent, disciplined-undisciplined, and committed-uncommitted. A possible explanation for this is that there was a certain amount of agreement between male and female respondents about how these traits were manifested in a typical male real estate sales person.

### **Perceptions Of A Typical Female Real Estate Sales Person**

Table 5.10 presents a summary of results of t-tests conducted on perceptions of a typical female real estate sales person.

Statistically significant results were obtained on all 14 scale items. This suggested that male and female respondents had quite different perceptions of a typical female real estate sales person. Male respondents, on average, perceived a typical female real estate sales person as more reserved, passive, suspicious, apprehensive, unimaginative, incompetent, close minded, undisciplined, superficial, uncommitted, reactive, insincere and insensitive.

A typical female real estate sales person was also seen as reacting more negatively with failure by male respondents. This suggested that male real estate sales people, in general, perceived a typical female real estate sales person more negatively than did women respondents.

*Table 5.10: Means and Level of Significance for Perceptions of a Typical Female Real Estate Sales Person*

<i>Item</i>	<i>Male Mean*</i>	<i>Female Mean*</i>	<i>Level of Significance</i>
Outgoing-Reserved	2.3149	2.0855	0.000
Assertive-Passive	2.3770	2.1964	0.000
Trusting-Suspicious	3.2426	2.5529	0.000
Confident-Apprehensive	2.5203	2.0866	0.000
Imaginative-Unimaginative	2.7212	2.1558	0.000
Competent-Incompetent	2.6129	2.0018	0.000
Open minded-Close minded	3.1129	2.2790	0.000
Disciplined-Undisciplined	2.9245	2.2278	0.000
Thorough-Superficial	2.7652	2.0633	0.000
Committed-Uncommitted	2.7914	2.1591	0.000
Reacts Positively-Negatively With Failure	3.8739	2.9259	0.000
Proactive-Reactive	3.5400	2.9775	0.000
Genuine-Insincere	2.8613	2.0468	0.000
Sensitive-Insensitive	2.5648	2.0288	0.000

*NB \* The higher the mean score, the closer the mean response to the right hand side of the scale.*

### 5.2.1 Summary Of Univariate Analysis Of Data

In summary, when perceptions of self were examined using a standard t-test, significant differences were found on nine scale items. Similarly, nine variables produced statistically significant results when respondents' perceptions of a typical male real estate sales person were considered. These two sets of analysis had the following significant variables in common. These were:

- (a) assertive-passive
- (b) trusting-suspicious
- (c) open minded-close minded
- (d) thorough-superficial
- (e) proactive-reactive
- (f) genuine-insincere
- (g) sensitive-insensitive

A possible explanation for these findings is that those items producing consistently significant results tended to reflect those behaviours and traits that have traditionally been associated with one sex as a social group rather than the other. For example, women are typically perceived as more sensitive than are men (Broverman, Vogel, Broverman, Clarkson and Rosenkrantz, 1972).

The variables that produced insignificant results and common to both sets of analysis were:

- (a) confident-apprehensive
- (b) competent-incompetent
- (c) disciplined-undisciplined
- (d) committed-uncommitted

The regularity with which these results produced insignificant results is consistent with the explanation postulated above. These scale items would not necessarily be expected to produce significant results. This is because they would not differentiate between men's and women's perceptions as they do not embody behaviours traditionally associated with one sex and not the other. For example, men as a group are not typically perceived as more competent or incompetent than women as a group.

Respondents' perceptions of themselves and male real estate sales people were not as clearly differentiated as respondents' conception of a typical female real estate sales person. Univariate analysis of respondents' perceptions of a typical female real estate sales person produced significant results on all 14 scale items. This suggested that men, in general, had more negative perceptions of female real estate sales people than did women.

Univariate analysis is concerned with the variation of scale items as independent variables. It does not address possible interaction and relationships between scale items. Further analysis required a statistical technique capable of evaluating multivariate relationships between the variables.



### 5.3. *MULTIVARIATE ANALYSIS OF DATA*

#### 5.3.1 *Stepwise Discriminant Analysis*

The use of multivariate techniques was supported by the following factors. First, the pooled within groups correlational matrices suggested that some variables were highly correlated. (See Appendix 5.3.1). Second, similarities in the standard deviations indicated that there was a similar range in scores between the two groups. (See Appendix 5.3.2). Third, an examination of Wilks' Lambda and univariate F ratios suggested that a number of factors had potential discriminatory power even after a bonferonni adjustment had been carried out. (See Appendix 5.3.3).

The investigative nature of the present study meant that these potentially discriminating variables should be explored. The first objective of multivariate analysis was to identify these discriminatory variables.

A series of stepwise discriminant analyses was conducted. The purpose of this was to identify those variables with the strongest discriminatory power. The discriminatory power of variables is reduced if the difference in group means is small or if two or more variables share the same discriminating information. In the latter case, while variables may be effective discriminators in their own right, they do not contribute to the analysis because their contribution is redundant (Klecka, 1980).

Typically, stepwise discriminant analysis begins with the variable with the most univariate discrimination.

It conducts a pairing process with the remaining variables to find out which paired combination has the most discriminatory power (Klecka, 1980). After establishing this, the stepwise procedure combines this pair with the remaining variables to find out which combination of variables makes the most discriminating triplet (Klecka, 1980).

The procedure carries on in this fashion until all possible variables have been selected and the remaining variables are not important in terms of their discriminatory power. Stepwise procedures chose the optimal rather than the best set of discriminating variables (Klecka, 1980).

The criteria employed for selecting variables in this research was Wilks' Lambda and the partial F ratio. Wilks' Lambda is a measure of residual discrimination and is a statistic which accounts for both the variation between groups and the groups' cohesiveness or homogeneity (Klecka, 1980). The Lambda is converted into an overall multivariate statistic known as the F ratio.

A series of stepwise discriminant analyses using Wilks' Lambda and the F ratio was carried out on the data sets derived from the three semantic differential scales completed by each participant. Respondents' age, the percentage of respondents' income generated by commission, the length of time that respondents had been employed in real estate sales and the 14 semantic differential scale items were identified as the independent variables in the analyses. Respondents' gender was the dependent variable. Thus, the aim of this procedure was to determine which, if any, of the variables or items could distinguish or discriminate between male and female responses. The results of these analyses are presented in Tables 5.11, 5.13 and 5.15.

A method of estimating the variance in the dependent variable attributable to the independent variables is to square the canonical correlation.

Tables 5.12, 5.14 and 5.16 present the canonical correlational, the square of this, the overall Wilks' Lambda, the level of significance of Wilks' Lambda and the percentage of responses that could be correctly predicted by the discriminating variables. If Wilks' Lambda produced a statistically significant result, it suggested that the results may be generalised across the population (Klecka, 1980).

It is interesting to note that in some cases the mean responses, when compared to the means established by univariate analysis, have altered. This is attributable to the treatment of missing variables. A missing response on any of the items identified as independent variables automatically excluded the whole response (or case). The net effect of this was to reduce the sample size in each set of analysis.

### **Stepwise Discriminant Analysis Of Perceptions Of Self As Real Estate Sales Person**

Table 5.11 presents a summary of the results of the stepwise discriminant analysis conducted on respondents' perceptions of themselves. (Summary statistics are presented in Appendix 5.4.1).

These results suggested that these 11 variables discriminated between male and female respondents when their perceptions of themselves as real estate sales people were considered. Redundant variables are trusting-suspicious, imaginative-unimaginative, open minded-close minded, disciplined-undisciplined, proactive-reactive, and genuine-insincere.

*Table 5.11: Summary of Stepwise Discriminant Analysis of Perceptions of Self  
Using Wilks' Lambda and the Partial F Ratio*

<i>Step</i>	<i>Variable</i>	<i>Mean Male*</i>	<i>Mean Female*</i>	<i>Wilks' Lambda</i>	<i>Level of Significance</i>
1.	Sensitive-Insensitive	2.20442	1.70913	.95106	0.000
2.	Length of Time in Real Estate Sales	5.38989	3.47933	.93395	0.000
3.	Confident-Apprehensive	2.02762	2.0745	.92406	0.000
4.	Assertive-Passive	2.57044	2.38942	.91633	0.000
5.	Thorough-Superficial	2.21133	1.95673	.91125	0.000
6.	Competent-Incompetent	1.86188	1.83654	.90710	0.000
7.	Reactions to Failure	2.55663	2.60337	.90443	0.000
8.	Percentage of Income Earned By Commission	88.31077	91.59615	.90228	0.000
9.	Age	43.49637	41.71216	.90013	0.000
10.	Committed-Uncommitted	1.91022	1.87091	.89880	0.000
11.	Outgoing-Reserved	2.49862	2.33173	.89777	0.000

*NB \* The higher the mean score, the closer the mean response to the right hand side of the scale.*

Table 5.12 presents a summary of the overall statistics produced by the stepwise procedure.

*Table 5.12: Summary of Overall Statistics of Stepwise Discriminant Analysis of Perceptions of Self as a Real Estate Sales Person*

---

Canonical Correlation	0.33197293
Variance in Dependent Variable Attributable to Independent Variables	10.2%
Overall Wilks' Lambda	0.8977732
Level of Significance	0.000
% Correctly Predicted	63.50%

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**Stepwise Discriminant Analysis Of Male And Female Perceptions Of A Typical Male Real Estate Sales Person**

Table 5.13 presents a summary of the results of the application of the stepwise procedure to perceptions of a typical male real estate sales person. (Summary statistics are presented in Appendix 5.4.2).

These results suggested that these 12 variables discriminated between male and female respondents when their perceptions of a typical male real estate sales person were considered. Redundant variables were confident-apprehensive, competent-incompetent, open minded-close minded, proactive-reactive and age.

*Table 5.13: Summary of Stepwise Discriminant Analysis of Perceptions of a Typical Male Real Estate Sales Person Using Wilks' Lambda and the Partial F Ratio*

<i>Step</i>	<i>Variable</i>	<i>Male Mean*</i>	<i>Female Mean*</i>	<i>Wilks' Lambda</i>	<i>Level of Significance</i>
1.	Sensitive-Insensitive	3.30972	3.99753	.94649	0.000
2.	Assertive-Passive	2.32778	2.05926	.92411	0.000
3.	Length of Time in Real Estate Sales	5.39864	3.28598	.90648	0.000
4.	Imaginative-Unimaginative	3.05417	3.56049	.89198	0.000
5.	Disciplined-Undisciplined	2.94583	2.87407	.87781	0.000
6.	Outgoing-Reserved	2.32778	2.41235	.87406	0.000
7.	Thorough-Superficial	2.89028	3.18272	.86617	0.000
8.	Trusting-Suspicious	3.20833	3.72346	.86367	0.000
9.	Percentage of Income Earned by Commission	88.2236	91.0337	.86191	0.000
10.	Reactions to Failure	3.17778	3.54568	.86063	0.000
11.	Committed-Uncommitted	2.42083	2.44198	.85956	0.000
12.	Genuine-Insincere	2.76528	3.29383	.85854	0.000

*NB \* The higher the mean score, the closer the mean response to the right hand side of the scale.*

Table 5.14 presents a summary of the overall statistics produced by the stepwise discriminant analysis.

*Table 5.14: Summary of Overall Statistics of Stepwise Discriminant Analysis of a Typical Male Real Estate Sales Person*

---

Canonical Correlation	0.361170
Variance in Dependent Variable Attributable to Independent Variables	14.4%
Overall Wilks' Lambda	0.8585360
Level of Significance	0.000
% Correctly Predicted	67.49%

---

**Stepwise Discriminant Analysis Of Male And Female Perceptions Of A Typical Female Real Estate Sales Person**

The results of the stepwise discriminant analysis of perceptions of a typical female real estate sales person are presented in Table 5.12. (Summary statistics are presented in Appendix 5.4.3).

These results suggested that these 10 variables discriminated between male and female respondents when their perceptions of a typical female real estate sales person were considered. Redundant variables were outgoing-reserved, trusting-suspicious, confident-apprehensive, competent-incompetent, thorough-superficial, committed-uncommitted and proactive-reactive.

*Table 5.15: Summary of Stepwise Discriminant Analysis of Perceptions of a Typical Female Real Estate Sales Person Using Wilks' Lambda and the Partial F Ratio*

<i>Step</i>	<i>Variable</i>	<i>Male Mean*</i>	<i>Female Mean*</i>	<i>Wilks' Lambda</i>	<i>Level of Significance</i>
1.	Open minded-Close minded	3.12694	2.29426	.91113	0.000
2.	Reactions to Failure	3.93935	2.97129	.88372	0.000
3.	Length of Time in Real Estate Sales	5.40127	3.54605	.86911	0.000
4.	Genuine-Insincere	2.90973	2.05024	.85623	0.0 00
5.	Percentage of Income Earned by Commission	88.2073	92.3588	.85043	0.000
6.	Disciplined-Undisciplined	2.95346	2.25598	.84845	0.000
7.	Assertive-Passive	2.36530	2.22249	.84683	0.000
8.	Imaginative-Unimaginative	2.73625	2.17943	.84568	0.000
9.	Age	43.1819	41.6688	.84473	0.000
10.	Sensitive-Insensitive	2.63047	2.05024	.84382	0.000

*NB \* The higher the mean score, the closer the mean response to the right hand side of the scale.*



Table 5.16 presents a summary of the overall statistics produced by the stepwise procedure.

*Table 5.16: Summary of Overall Statistics of Stepwise Discriminant Analysis of a Typical Female Real Estate Sales Person*

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Canonical Correlation	0.395120
Variance in Dependent Variable Attributable to Independent Variables	15.6%
Overall Wilks' Lambda	0.8438233
Level of Significance	0.000
% Correctly Predicted	67.59%

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### 5.3.2 Summary Of The Stepwise Discriminant Analyses

In summary, a series of stepwise discriminant analyses was employed to identify those variables that discriminated between male and female respondents when their perceptions of themselves, a typical male real estate sales person and a typical female real estate sales person were considered.

The independent variables were the 14 semantic differential scale items, age, the length of time respondents had been employed in real estate sales and the percentage of income earned by commission. The dependent variable was respondents' gender.

There were five variables identified as common to each stepwise discriminant analysis.

These were:

- (a) sensitive-insensitive
- (b) length of time in real estate sales
- (c) percentage of income earned by commission
- (d) assertive-passive
- (e) positive-negative reactions to failure

A possible explanation for the consistent appearance of these as discriminating variables is that those scale items incorporated behaviours and attributes believed to be more typical of one sex as opposed to the other. The time that people had spent working in real estate sales appeared consistently as a discriminating variable possibly because people working in the industry longer have had exposure to real estate sale people of both sexes and have formed definite beliefs about how they believed different groups of individuals were likely to behave.

A possible explanation for the consistent appearance of percentage of income generated by commission is that it is a highly salient aspect of a real estate person's work.

When the results of the stepwise discriminant analysis of a typical male real estate sales person were examined 12 variables were identified as discriminating between male and female respondents. On all scale items except the assertive-passive and disciplined-undisciplined items the male mean reflected a more positive result.

Stepwise discriminant analysis of the perceptions that men and women held towards a typical female real estate sales person indicated that there were ten variables that discriminated between male and female respondents. On all scale items the mean response of women was more positive than that of men.

When results pertaining to perceptions of a typical male and a typical female real estate sales person were compared, three additional factors were identified discriminating variables common to both analyses. These were the imaginative-unimaginative, disciplined-undisciplined and genuine-insincere variables. A possible explanation for this is that these variables further incorporate behaviours seen as sex typed. Sex typed behaviours have been identified as more likely to distinguish between individuals' perceptions of men and women than non sex typed behaviours (Myers, 1983).

The canonical correlations were squared to provide estimates of the variance in the dependent variable that could be attributed to the independent variables in each case. In all three analyses, a moderate amount of sample variance was explained by the independent variables. In each case the overall Wilks' Lambda produced a significant result.

However, caution must be exercised when generalising these findings across the population. This is because the squared canonical correlations could only account for a moderate amount of variance, which indicated that other factors not measured are responsible for much of the variance in the dependent variable. The Wilks' Lambdas in each case were relatively high, which suggested that there was a substantial amount of residual discrimination. Furthermore, the ability of the discriminating variables to accurately predict the percentage of responses into male/female groups was only moderate in each case.

### 5.3.3 *Factor Analysis Using Principal Axes Factoring*

The next research procedure employed was factor analysis. Factor analysis is a generic term which describes a variety of procedures used to explore and detect underlying relationships and patterns between variables (Green, Tull and Albaum, 1988).

When presented with a variety of correlational coefficients for a group of variables, factor analytic techniques facilitate the exploration of underlying patterns and/or relationships, and consequently, enable the researcher to see whether the data can be reduced and rearranged into a smaller set of factors. These factors or components may be viewed as source variables which explain some of the interrelations evident in the data (Kim, 1975).

Principal axes factoring was used in this research. Principal axes factoring employs communality estimates and an iteration procedure is used to improve the estimates of communality (Kim, 1975). Kim (1975) identified the following steps in principal axes factoring. First, the number of factors to be elicited from the unreduced correlational matrix is selected. The main elements of the correlational matrix are then replaced with the initial estimates of communalities. These are determined by squaring the multiple correlation between a variable and the rest of the variables in the matrix (Kim, 1975).

In the second step, the same number of factors is extracted from this contracted matrix. The variances attributable to these factors then become the new estimates of communality.

These new communalities then replace the diagonal elements (Kim, 1975). This process continues until the differences between two successive communality estimates are insignificant.

Following the recommendations of Rummel (1970) factors with eigenvalues greater than or equal to 1 were extracted and then considered in conjunction with the scree or discontinuity tests. (Scree tests are presented in Appendices 5.5.1, 5.5.2 and 5.5.3, along with initial and final statistics).

A varimax rotation, an orthogonal procedure, was applied to data obtained from the sample as a whole, and male and female respondents as independent groups. (Rotated factor matrices and factor transformation matrices are presented in Appendices 5.6.1, 5.6.2 and 5.6.3 respectively).

The application of principal axes factoring procedures with varimax rotations to these groups suggested that in each case there was really only one general factor. This was investigated further using a quartimax rotation, which is another orthogonal technique. The quartimax rotation aims to reduce the intricacy of the variables to a minimum by detecting the presence of large general factors (Kim, 1975). (Rotated factor matrices and factor transformation matrices are presented in Appendices 5.7.1, 5.7.2 and 5.7.3).

Finally, the internal consistency of scales was determined using Cronbach's (1951) alpha and the standardised item alpha. These results are presented in Tables 5.17, 5.18 and 5.19.

## **Principal Axes Factoring with Varimax and Quartimax Rotations Applied to the Sample as a Whole.**

Using a varimax rotation, three possible factors could be identified when perceptions of self were considered. However, the eigenvalues for the second and third factors were less than the established cut off value 1. This suggested that the varimax rotation identified one general factor in this data set.

When the sample's perceptions of a typical male and a typical female real estate sales person were subjected to the varimax rotation, two possible factors emerged in both cases. Low eigenvalues and scrutiny of the scree plots suggested that the second factor was trivial in both cases. In the case of males only four of the 14 variables did not load on the first factor. These were the assertive-passive, outgoing-reserved, confident-apprehensive and committed-uncommitted variables. In the female case, only three variables loaded on the second factor. These were the assertive-passive, outgoing-reserved and confident-apprehensive variables.

The quartimax rotations provided support for the conclusion that only one general factor could be identified in each case. When the sample was considered as a whole, three possible factors were extracted from the perceptions of self scale. However, eigenvalues for the second and third factors fell below 1 indicating that there was one general factor in this situation.

When perceptions of a typical male and female real estate sales person were considered, two factors emerged. The first of these in both cases was a large general factor incorporating all but three variables. The second of these was a factor comprising the outgoing-reserved, assertive-passive and confident-apprehensive variables. Scrutiny of the scree plots coupled with the fact the eigenvalues were close to 1, suggested that further analysis was not justified.

The reliability coefficients for this set of data are summarised in Table 5.17.

*Table 5.17: The Reliability Coefficients for the Perceptions Scales of the Sample as a Whole*

<i>Perception</i>	<i>Standardised Item Alpha</i>
Perceptions of Self as a Real Estate Sales Person	.8905
Perceptions of a Typical Male Real Estate Sales Person	.9140
Perceptions of a Typical Female Real Estate Sales Person	.9097

**Principal Axes Factoring with Varimax and Quartimax Rotations Applied to Male Respondents as a Group.**

When the perceptions of men as a subgroup of the whole sample were considered, findings were similar. Principal axes factoring with varimax rotations suggested that three factors could be detected when perceptions of self were considered. As in the previous situation the analysis indicated that one general factor existed as the eigenvalues for the second and third factors were less than 1.

When male respondents' perceptions of a typical male real estate sales person were considered, the rotated factor matrix suggested that there were two possible factors. All variables excluding assertive-passive, confident-apprehensive and outgoing-reserved loaded on the first factor.



Comparatively, when male perceptions of a typical female real estate sales person were examined, the rotated factor matrix suggested that three factors could be identified. Scrutiny of these displayed a general factor incorporating the disciplined-undisciplined, committed-uncommitted, thorough-superficial, competent-incompetent, proactive-reactive, and reaction to failure variables. The second factor incorporated the genuine-insincere, sensitive-insensitive, trusting-suspicious, open minded-close minded and the imaginative-unimaginative variables. Variables loading on the third factor were the assertive-passive, confident-apprehensive and outgoing-reserved items. This particular finding was interesting because three factors incorporating distinct sets of behaviour could be identified. The first could be described as competency factor, the second as an expressiveness factor and the third as an extroversion factor. In this particular case behaviours traditionally seen as more typical of women loaded on the second factor. However, examination of the scree plots and eigenvalues for the second and third factors suggested that they were trivial factors. In both cases the eigenvalues was close to or less than 1.

Once again, the application of quartimax rotations to perceptions of male respondents as an independent group suggested that one general factor was evident. When perceptions of self were considered, the three possible factors were detected. The first was a general factor and the second and third factors were trivial as their eigenvalues were less than 1.

The application of a quartimax rotation to male respondents' perceptions of a typical male real estate sales person suggested that there was one general factor. While a second factor was evident, it had an eigenvalue close to 1 and only two out of the 14 variables loaded on this. These were the assertive-passive and outgoing-reserved items.

When perceptions of women were considered using quartimax rotation, three possible factors were evident. A pattern similar to that produced by the varimax rotation suggested that one general factor was obvious. Three variables loaded on the second factor and these were the outgoing-reserved, assertive-passive and confident-apprehensive scale items.

The reliability coefficients for this set of data are summarised in Table 5.18.

*Table 5.18: The Reliability Coefficients for the Perceptions Scales for Male Respondents as an Independent Group*

<i>Perception</i>	<i>Standardised Item Alpha</i>
Perceptions of Self as a Real Estate Sales Person	.8879
Perceptions of a Typical Male Real Estate Sales Person	.9140
Perceptions of a Typical Female Real Estate Sales Person	.9097

### **Principal Axes Factoring with Varimax and Quartimax Rotations Applied to Female Respondents as a Group.**

The application of principal axes factoring with varimax rotations to female respondents as a group produced similar results. When perceptions of self were considered, three factors transpired. The second and third factors had eigenvalues of less than 1.

Analysis of female respondents' perceptions of a typical male real estate sales person suggested that two possible factors could be detected after rotation. The first factor appeared to be a general factor with the second factor being a subset of this. Four variables loaded on the second factor and these were the assertive-passive, confident-apprehensive, outgoing-reserved and committed-uncommitted items.

When female respondents' perceptions of a typical female real estate sales person were subjected to the principal axes factoring with varimax rotation, two possible factors were extracted. However, the eigenvalue of the second factor was less than the established cut off value of 1. It is interesting to note however, that the variables loading on the second factor were assertive-passive, confident-apprehensive, and outgoing-reserved.

When principal axes factoring with quartimax rotations was applied to perceptions of the female members of the sample as a group, self perceptions indicated the existence of three possible factors. However, further scrutiny of the data suggested that there was only one general factor. The second and third factors had eigenvalues of less than 1.

Examination of female respondents perceptions of a typical male real estate sales person intimated that there were two factors. Further inspection of the data indicated that there was really only one general factor, as the second factor had only the assertive-passive variable loading on it.

Similarly, when the data relating to female perceptions of a typical female real estate sales person was run through the same statistical procedure, two factors were found. The results indicated that one general factor was present as the only variable loading on the second factor was the assertive-passive scale item.

The reliability coefficients for this set of data are summarised in Table 5.19.

*Table 5.19: The Reliability Coefficients for the Perceptions Scales for Female Respondents as an Independent Group*

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<i>Perception</i>	<i>Standardised Item Alpha</i>
Perceptions of Self as a Real Estate Sales Person	.8495
Perceptions of a Typical Male Real Estate Sales Person	.9140
Perceptions of a Typical Female Real Estate Sales Person	.9097

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### 5.3.4 Summary of Principal Axis Factoring with Varimax and Quartimax Rotations

The interesting issue that arose from the use of the varimax rotation was that in each case one general factor was evident. This suggested that when the data were rotated, they were perhaps not strong enough to support more than one factor in each case. This possibility was explored using a quartimax rotation. The rotated factor matrices resulting from the quartimax rotation supported the findings of the varimax rotation and suggested that there was one general factor in each case.

While a second, and sometimes a third, factor did emerge in each set of analysis using both varimax and quartimax rotations, examination of the scree plots and eigenvalues suggested that these factors were trivial. This indicated that further analysis was unnecessary.

In the majority of situations where the eigenvalues of the second factor was slightly greater than 1, there were three variables, of which either one or a combination of the three loaded on the second factor. These variables were the assertive-passive, outgoing-reserved, and confident-apprehensive items. In a negligible number of cases the committed-uncommitted variable loaded on the second factor.

A possible explanation for this is that the second factor embodied those attributes and behaviours associated with relating to others, that is a factor encompassing behaviours external to the individual. The other variables could then perhaps be classified as internal, or behaviour and attributes not necessarily evident when individuals interact with others. Consequently, these four variables tended to load as a subset of the main factor when factor analytic techniques were employed.

Cronbach's (1951) reliability coefficients were relatively high and this suggested that the scales had strong internal consistency in each case.

## *CHAPTER 6*

### *DISCUSSION*

A number of issues arose from the application of a semantic differential scale to the perceptions real estate sales people held about themselves and others working in the industry. Support was found for the main research proposition. Respondents' gender influenced the way in which real estate sales people perceived themselves, a typical male and a typical female real estate sales person. In all three cases these findings were intuitively reasonable.

It was interesting to compare the results of this study with those obtained from a pilot study conducted as part of this research. In the pilot study, the same 14 variables were employed in a semantic differential scale and this was used to appraise male and female real estate sales people's perceptions of a gender-non-specific real estate sales person. The results of this pilot study indicated that differences could not be detected on 13 out of the 14 variables examined. This suggested that both men and women had similar perceptions of the characteristics of real estate sales people.

A comparison of these findings with the results of the present study indicated that gender was an important characteristic when real estate sales people appraised their perceptions of themselves and others working in the industry.

Research proposition 2, which asserted that some similarities would be found in the way men and women perceived themselves, was partially endorsed by the univariate analysis of perceptions of self. Insignificant results were found on five out of the 14 scale items. This indicated that there was, perhaps, a degree of similarity in the way in which men and women perceived themselves on these scale items. This is consistent with other research. For example, Donnell and Hall (1980); Brief and Oliver (1976), have demonstrated that there were similarities in attitudes and values that women and men have towards the paid work environment.

The mean reported self perceptions of both sexes tended to reflect positive scores. Landy (1985) asserted that self evaluations of performance and work related behaviours are generally more positive and attributed to intrinsic factors than are reports of others.

Examination of univariate analysis of self perceptions indicated that women reported more positive perceptions on all variables producing significant results than the reported perceptions of men. There are two likely interpretations of these results.

The first of these is anchored in the contention that women tend to be more complaisant when appraising behaviour and performance. This is supported by findings, such as Rose and Andippan (1978, cited Walsh, Weinberg and Fairfield, 1987), which have demonstrated that women were more likely to be lenient in evaluations than were men.

Another possible interpretation is that those variables producing statistically significant results included those behaviours and or attributes that are normally regarded as being more characteristic of behaviour socially ascribed to women.



Thus, women saw themselves as more sensitive, genuine, open minded, imaginative, trusting, outgoing, assertive, proactive and thorough, because the majority of these behaviours have traditionally been sex typed as being more appropriate for women than men (Broverman, Vogel, Broverman, Clarkson and Rosenkrantz, 1972).

This could suggest that, while women and men held certain beliefs about themselves as real estate sales people, gender was an important factor when male and female respondents considered how they appraised themselves on attributes and traits that have been traditionally sex typed. This is consistent with findings of Broverman, Vogel, Broverman, Clarkson and Rosenkrantz (1972) which concluded that men and women tended to see themselves in ways that were consistent with societal norms which prescribe the behaviour appropriate to men and women.

Examination of those variables producing insignificant results, such as confident-apprehensive and disciplined-undisciplined, reinforces this speculation. These variables tended to be those not usually perceived as being more characteristic of one sex as opposed to the other. It could be argued that two of these variables, the assertive-passive and outgoing-reserved variables, on which female responses were more positive and significant are actually behaviours typically seen as more characteristic of men. However, when these variables are scrutinised, it can be seen that the outgoing-reserved item could be interpreted as a measure of expressiveness, that is people who are outgoing may be seen as more expressive and emotional.

Because women, as a social group are typically attributed with emotionality and expressiveness traits, (Broverman, Vogel, Broverman, Clarkson and Rosenkrantz, 1972) this variable may reflect behaviour regarded as more socially consistent with behaviour ascribed to women than men.

The assertive-passive variable may also include assumptions about emotionality and expressiveness. Additionally, the term "assertive" has been associated with women in recent years. An illustration of this is the increasing number of assertiveness training courses being run through polytechnics and social support agencies for women. This could have influenced male respondents' understanding of the term "assertive".

Furthermore, the assertive-passive may have been ambiguous. The term "assertive" is often confused with the term "aggressive". It would be interesting to establish the direction of the mean male response had the word "passive" been paired with the word "aggressive".

Univariate analysis of perceptions of a typical male real estate sales person indicated that male and female respondents had similar perceptions of a typical male real estate sales person on some items. This was consistent with the findings of Rappaport and Hackett (1977) which found some similarities in the way male and female respondents appraised male real estate sales people. On all scale items producing a significant result, except the assertive-passive item, men reported more positive perceptions than did women.

Mean responses of women's perceptions of a typical female real estate sales person reflected a similar trend. More positive perceptions of a typical female real estate sales person were recorded by women respondents. This was also consistent with the findings of Rappaport and Hackett (1977) in which male respondents recorded distinctly more negative perceptions of sales women than did female respondents.

These results can be partially explained by the following rationalisations. First, individuals tend to report more positive perceptions of themselves and people they perceive as being similar to themselves (Myers, 1983).

Thus, it could be argued that male respondents reported more positive perceptions of a typical male real estate sales person on some items because they saw that they had more in common with a typical male real estate sales person than did women. The consistently more positive perceptions of a typical female real estate sales person recorded by women could also be partially explained by this phenomenon.

Second, it is not known how respondents' arrived at their perceptions of a typical male or female real estate sales person per se. This is a limitation of this study. It could be that respondents' own behaviour was employed as the yardstick by which definitions of "typical" behaviour were established. These perceptions may then have been modified slightly to fit in with occupational norms and expectations of how "typical" real estate sales people of either sex operate. Consequently, if the self concept of the individual completing the survey did form the basis of his/her report of the perception of a typical real estate sales person of the same gender, it is likely that this would be more positive than descriptions of perceptions of people of the opposite gender.

In the case of perceptions of a typical male real estate sales person, the significant differences tended to occur on those scale items incorporating traditionally sex typed behaviours, for example, trustworthiness, imaginativeness, open mindedness, and sensitivity. These are behaviours typically associated with women as a group.

A possible explanation for the positive perceptions of male respondents on these scale items lies in the identification of male respondents with a typical male real estate sales person, and the incorporation of their self concept into this appraisal.

The result of this was that men had more information on which to base their appraisal, thus the effects of stereotypical thinking were less salient. Consequently, men, as a group, saw their behaviour less in terms of sex based categories, and more as something that was characteristic of the individual.

Women, on the other hand, viewed the behaviour of a typical male real estate sales person in more stereotypic terms and thus, appraised a typical male real estate sales person more towards the end of the scale that did not incorporate typically female sex typed behaviours.

The one variable that produced a significant result on which women reported a more positive response than men was assertive-passive. As suggested before this is perhaps because men identified more with passivity than assertiveness.

Perhaps the most interesting issue arising out of the univariate analysis was the finding that on all dimensions appraised, men had more negative perceptions of a typical female real estate sale person than did women. As discussed, a partial explanation for this lies in the contention that individuals describe others more positively when they perceive that they have something in common with the individual being appraised.

However, results indicated that men reported more negative perceptions of a typical female real estate sale person even on those dimensions embodying behaviour and attributes, such as sensitivity and imaginativeness, traditionally ascribed to women as a social group. These differences in perceptions could suggest that male respondents held more conservative values towards women at work and generally perceived that women, in general, had inappropriate personalities, behaviours and attributes for mediating in the buying and selling of property.

This is consistent with the findings of Rappaport and Hackett (1977) which concluded that men in general held more negative perceptions about the capability of women to achieve in real estate sales. This contention is also consistent with much of the research examining the way in which men and women are perceived at work.

Researchers, for example Schein (1978), and Rosen and Jerdee (1978) have consistently demonstrated that men, in general, have more negative perceptions of the ability of women to succeed in managerial roles and professional occupations.

Univariate analysis could not explain the relationships between variables or recognise the individual contribution of each variable. To overcome these difficulties multivariate techniques were employed. A series of stepwise discriminant analyses was used to identify which variables, if any, discriminated between male and female respondents when their perceptions of themselves as a real estate sales person, a typical male and a typical female real estate sale person were considered. The stepwise discriminant analyses indicated in all cases that less than 15% of the variation in the dependent variable could be attributed to the independent variable. Between 60 and 70% of cases could be correctly predicted into male and female groups using this technique. While these results appear to reflect only moderate levels of variation and prediction, these are to be expected when social constructs such as stereotypes are examined. This is because these types of social constructs tend to be highly individualised.

Furthermore, the scale employed was open to a variety of interpretations and other important discriminating variables may not have been measured by the scale. While the overall Wilks' Lambdas for the stepwise discriminant analyses were significant, indicating that findings could be generalised, the squared canonical correlations suggested that a substantial amount of variance was attributable to factors not measured by the independent variables.

The application of factor analytic techniques to the three perceptions reported by respondents indicated that only one general factor emerged in each case. This suggested that when the data were rotated, they were not strong enough to support the existence of more than one factor.

It is interesting to note that in most cases where a second factor emerged it incorporated the assertive-passive, confident-apprehensive and outgoing reserved variables. A possible explanation for the development of this subset is that these variables incorporated those behaviours and attributes that characterise behaviours evident in interpersonal relationships.

## **6.1 LIMITATIONS**

There is a number of limitations to be noted in relation to this investigation. The first limitation is that a number of problems were encountered with the distribution of surveys. It was difficult to ascertain the actual numbers of full time real estate salespeople employed by each company. A combination of factors played a role in this. While figures supplied by the Real Estate Institute of New Zealand indicated numbers of real estate sales people employed by the various companies, the actual number of surveys distributed to each office of Companies 1, 2 and 3 had to be calculated using the estimates of office size provided by each managing director. The result of this was that while the figures supplied were as accurate as possible, they tended to include support and administrative staff. Consequently, too many surveys were distributed. This made it difficult to quantify the exact sample size and to calculate return rates.

Further difficulties associated with distribution exacerbated this problem. The real estate industry is characterised by high growth (McGoldrick, 1990). This meant that records kept at Head Office of each company tend to be slightly out of date. Furthermore, the real estate industry is a high turnover occupation (McGoldrick, 1990). This presented a problem in the case of Company 4 as surveys were addressed to people no longer employed in real estate sales.

Difficulties were also encountered in distributing surveys through office principals in Companies 1, 2 and 3. Survey distribution through the office principal offered advantages of reducing distribution costs and demonstrating company support, thus providing motivation to participate. However, it offered no guarantee that survey forms did reach all members of the sample.

The second major limitation is that the sample comprised only those sales people employed by the 4 largest companies in New Zealand. These people tended to work in large offices, which are not necessarily characteristic of the real estate industry (Keys, 1990). It could be that the size of these companies exerts a strong influence on the development of their organisational climate and culture. This in turn may be conducive to the development of specific values and attitudes which form regardless of the employees' sex. Different sized companies may emphasize and reward different aspects and types of real estate sales behaviour. Thus, the findings of this research can not necessarily be generalised across the real estate industry as a whole or to other occupational groups.

The third limitation is that approximately 30% of the sample had been employed in real estate sales less than 1 year. It may be that industry values and behavioural norms take longer than 1 year to be assimilated. For example, if a respondent had only been employed in real estate sales for 2 months and was previously employed in a highly sex typed occupation, the values and attitudes that the previous occupation had shaped about men and women at work may have influenced the respondent's perceptions to a greater degree than did his/her perceptions of a typical male and female real estate sales person.

The fourth limitation is that the mean income reported by the sample was not typical of average earnings industry wide. The most likely explanation for this is actual overstatement of income.

However, this is not conclusive and may suggest that the sample is atypical of real estate sales people. This places constraints on the generalisability of findings.

The fifth limitation is that while significant differences were found in the way men and women perceive themselves and each other, outcome variables were not measured. Consequently, it is very difficult to draw conclusions regarding the implications of these findings in terms of how individuals' perceptions can influence the way in which people interact at work, their productivity and so forth.

Finally, in the present study 89.5% of respondents were dealing mainly in residential property. Thus, these findings could not necessarily be generalised across the industry because the sales people operating in rural, commercial and industrial property or those who are spread over all of these categories were under represented in the sample.

Notwithstanding these difficulties, the data gathered in this research does provide a sound base upon which future research can build and provides some interesting directions for future research.

## **6.2**                    ***FUTURE RESEARCH***

This research provides some interesting initial findings. The data supported the notion that gender is an important factor when individuals perceived themselves as real estate sales people and others working in the industry. This raises the issue of the effect that these perceptions have on outcomes, such as the way in which men and women real estate sale people relate to each other at work, the types of clients that individual sales people attract, and their productivity. Consequently an important direction for future research is the study of outcomes and the implications of differing perceptions on these.



There is a need for further investigation into the variables responsible for variation made apparent by the discriminant analyses. Only a small amount of the variation in the dependent variable, gender, could be attributed to the independent variables, that is, the 14 scale items, respondents' age, the length of time that they had been employed in real estate sales and the percentage of respondents' income earned by commission. Research needs to focus on identifying other variables responsible for variation in the dependent variable when the stepwise discriminant analyses are carried out.

The results generated by this research suggest that there is possibly some agreement in the way in which men and women perceived themselves as real estate sales people. For example, no differences were detected in self appraisals of confidence, competency and reactions to failure. It could be that while individuals perceive similarities on traits and attributes possessed, the actual manifestation of these behaviours occurs in different ways. An interesting direction for future research would be an investigation into how these behaviours are actually manifested and executed by male and female real estate sales people.

Another direction for future research would be to investigate the perceptions of male and female real estate sale people that are held by clients. It would be interesting to compare these findings with the results from this study to establish whether or not the perceptions held by the general public are compatible with those held by people working in the industry. The investigation of any differences highlighted by such research and possible causes of these also provides a direction for future research.

Discussions with managers and supervisors have indicated that clients have particular preferences for dealing with female and male real estate sales people in different circumstances. For example, it would seem that male real estate sales people are preferred in negotiating the selling of rural and commercial property, whereas women real estate sales people are preferred when buying residential property.

Future research could focus on these preferences. It would be interesting to explore these preferences to establish whether or not these are industry norms. Furthermore, research could focus on determining whether these are imposed on the industry from outside, reflecting wider cultural and social norms or whether they have evolved within the industry. Future research could also address whether or not these norms are peculiar to large companies where there are greater staff numbers and more sales people operating out of the office.

It is possible that in smaller companies where sales people are required to cover a wider range of property type that these divisions are not as pronounced as in larger companies. Furthermore, it would be interesting to compare the perceptions held by people employed by smaller companies, when they consider themselves and others working in the industry, with the results of the present study.

To summarise, the findings of this study suggested that gender was an important factor when real estate sales people considered the way in which they perceived themselves, a typical male and a typical female real estate sales person. It would seem that sex role stereotypes are influential in shaping these perceptions.

A number of limitations are associated with this study and these involve distribution problems and characteristics of the sample which limit the generalising of findings across the real estate industry.

There are several directions which future research could take and these include the examination of outcome variables, and the effect that people's perceptions have on these, the perceptions that clients hold towards male and female real estate sales people, and the possibility of sex defined norms within the industry.

## *CHAPTER 7*

### *CONCLUSIONS*

This research was a preliminary investigation carried out to explore the effect of gender on individual perceptions. It represents the first step in a series of investigations into the effect of gender on the way in which people perceive themselves and others in the work environment. The data gathered in the process of this research provides a sound basis for further investigation into the real estate industry.

The aim of this research was to investigate the influence of gender on males' and females' perceptions of themselves as real estate sales people, and their perceptions of a typical male and a typical female real estate sales person.

In exploring the perceptions that real estate sales people hold about themselves and men and women working in the industry, three basic themes emerged. First, when respondents considered the way in which they viewed themselves as real estate sales persons, both men and women perceived themselves as quite confident, competent, disciplined, committed and as reacting quite positively with failure. On those scale items producing statistically significant results, the mean female response was more positive than the average male response.

This can be explained by the postulations that women tend to be more lenient in their evaluations of performance and that those items producing significant results incorporated behaviours and attitudes traditionally ascribed to women. In all cases reported perceptions of self tended to be positive.

Second, both women and men perceived a typical male real estate sales person as quite outgoing, confident, competent, disciplined and committed. On all scale items producing a statistically significant result, except the assertive-passive variable, men held more positive perceptions of a typical male real sales person than women. This reflects a tendency in individuals to describe those whom they see as having more in common with themselves in a more positive manner.

Third, when perceptions of a typical female real estate sales person were considered, the average male response was consistently more negative than the average female response. This occurred even on those items incorporating behaviours and attributes normally associated with women as a social group. This perhaps reflects wider, traditional social norms which do not necessarily support the notion of women working outside traditional employment domains.

The scale employed was an attempt to develop a measure that would provide some level of discrimination between male and female respondents. The stepwise discriminant analyses suggested that gender discriminated between male and female respondents by a moderate amount only. Despite this, the information obtained from the factor analysis suggested that the scale has consistent properties and was useful at this stage in exploring the relationship between individual's gender and the way in which she/he perceives herself/himself and others in work environments.

Future research should be guided by these results and could explore a number of issues.

First, research employing social constructs such as the 14 item semantic differential scale necessarily means that further research is needed to refine and redevelop the scale. This includes examining the highly individualised nature of perceptions and identifying other areas and factors not addressed by the scale that may be responsible for the variance that was not accounted for by the scale items.

Second, the influence of gender perceptions on outcome variables, such as performance, and whether these perceptions lead to an organisational culture which enhances or inhibits individual motivation needs to be explored.

Finally, the types of training programmes to illustrate to individuals how and why gender does affect perceptions of people's capability to perform and the implications of these for men and women at work provides a direction for future research. In the long term, research could work towards finding ways to reduce the negative consequences of such stereotypic views with the aim of providing a working environment in which all individuals have an equal opportunity to perform and develop.

In summary, this research was a preliminary investigation. It was the first large quantitative study to be carried out within New Zealand's real estate industry. It provides a sound basis for future research examining both the importance of gender related perceptions within a work environment and the real estate industry.

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## *APPENDICES*

***APPENDIX 4.1***

***Questionnaire Employed In The Study***

## *PERCEPTIONS OF REAL ESTATE PEOPLE*

The last fifty years have witnessed a number of changes in the workforce. For example, there is now a greater number of women engaged in paid employment and the service sector, containing industries such as real estate, has grown rapidly. This has led to much debate and speculation regarding the way in which people relate to each other in work situations, the reasons which motivate people to work, and the attitudes and values which different individuals bring into their work situations.

I am interested in finding out how you think about yourself and other people working in the real estate industry. This project has the support of the organisation in which you work.

The objective of this study is to determine how real estate agents perceive themselves, how they perceive male real estate agents and how they perceive female real estate agents.

This study is composed of two parts. These are attached to this sheet. Section A asks you some basic questions about your work as a real estate agent. Please try to be *as accurate as possible* when responding to these questions. Section B is concerned with the way in which you perceive yourself, male real estate agents in general and female agents in general.

This questionnaire is simple and easy to complete. Take your time and remember that there are no right or wrong answers - I am primarily interested in *your opinions*.

This questionnaire is anonymous. There is a number in a box in the top right hand corner of the page titled Section A. By using a code number rather than the participating companies' names, the confidentiality of these companies is ensured. Please do not write your name anywhere on the paper. The information you provide will be held in the strictest confidence at Massey University and your individual responses will be seen only by me when I code them for computer analysis. You will notice that there is a margin on the right hand side of the page titled "For Office Use Only". This contains little boxes and/or numbers in brackets. These are there only to assist me with the computer coding, so please just ignore them.

The overall findings and results of this study will be fed back to your employer and will be made available to you.

The information you provide will enable us to build profiles of real estate sales people and to determine how real estate agents perceive themselves and others working in this industry.

Once you have completed the survey, please detach this front page and place your complete survey in the attached pre-stamped and self addressed envelope and return to me.

So that the information gathered in this research will have maximum impact and provide us with reliable results, it is important that I survey as large and as representative sample as possible. To this end I greatly value your co-operation. Your time and effort in completing this survey is much appreciated and I look forward to receiving your completed responses in the near future.

Thanks



Esther Livingston

SECTION A

For Office  
Use Only


(1 - 5)

**INSTRUCTIONS:** Please answer the following questions by filling in the appropriate boxes.

1. How long have you been in real estate sales?

Years

Months

--	--	--	--

(6 - 9)

2. Would you regard the **majority** of your work as involving (please tick the **single** most appropriate category)

Residential Property

Commercial Property

Rural Property

Industrial Property

(10)

For Office  
Use Only

3. How many full time sales people including yourself are employed in your office?

(11 - 13)

How many of these are women

(14 - 16)

How many of these are men

(17 - 19)

4. Is the office you currently work in located in (please tick the appropriate category)

(i) a rural area

(20)

(ii) a town (population 5,000 - 20,000)

(iii) a city (population 21,000 - 65,000)

(iv) a large city (population 66,000 plus)

5. Are you male female (please tick)

(21)

6. How old are you?

(Years)

(Months)

(22 - 25)



For Office  
Use Only

7. What is your ethnic origin?

European

Maori

Other  \_\_\_\_\_  
(please specify)

(26)

8. Think about your earnings in the last financial year.  
How much did you earn **before tax** to the nearest \$1000  
in the year **April 1, 1989 to March 31, 1990**.

Earnings \$ \_\_\_\_\_

(27 - 32)

What percentage of this was commission based?

%

(33 - 35)

What percentage of this was salary based?

%

(36 - 38)

END OF CARD

## SECTION B

### INSTRUCTIONS

I am interested in finding out how you would describe people working in the real estate industry. The pages that follow present you with the same scale three times. However, the instructions describing how to complete the scale will be different each time and will be written at the top of each page. Please read these carefully and then complete the scale that follows.

Please attempt all items. Do not spend a lot of time on any one item. Your first response (the one that comes immediately to mind) is probably the best one. There are no right or wrong answers, I am primarily interested in ***your opinions.***

***IMPORTANT: Please complete this survey in the order in which it appears and make sure you finish the page that you are on before moving onto the next scale.***

Before turning the page and moving onto the next scale, take a few seconds to relax and prepare yourself for the next set of instructions.

## SELF PERCEPTION SCALE

I am interested to know how you would describe **yourself** on the following scale. Listed below are a number of paired adjectives. For each pair on the scale would you please circle the number that best describes you as a real estate agent.

For example, if you think that you are quite outgoing you would circle the number that best reflects your opinion towards the outgoing end of the scale. If, on the other hand you feel that you are typically reserved, you would circle a number that best reflects your opinion at the reserved end of the scale. If you think that you are neither outgoing or reserved, you would circle a number that best reflects your opinion at the middle of the scale.

CARD 2


2
---

(5)

*Extremely   Quite   Slightly   Neither   Slightly   Quite   Extremely*

Outgoing	1	2	3	4	5	6	7	Reserved (6)
Assertive	1	2	3	4	5	6	7	Passive
Trusting	1	2	3	4	5	6	7	Suspicious
Confident	1	2	3	4	5	6	7	Apprehensive
Imaginative	1	2	3	4	5	6	7	Unimaginative
Competent	1	2	3	4	5	6	7	Incompetent
Open minded	1	2	3	4	5	6	7	Close minded
Disciplined	1	2	3	4	5	6	7	Undisciplined
Thorough	1	2	3	4	5	6	7	Superficial
Committed	1	2	3	4	5	6	7	Uncommitted
Reacts Positively With Failure	1	2	3	4	5	6	7	Reacts Negatively With Failure
Proactive	1	2	3	4	5	6	7	Reactive
Genuine	1	2	3	4	5	6	7	Insincere
Sensitive	1	2	3	4	5	6	7	Insensitive (19)

**PERCEPTIONS OF A TYPICAL MALE REAL ESTATE AGENT**

I am interested to know how you would describe *a typical male real estate agent* on the following scale. Listed below are a number of paired adjectives. For each pair on the scale would you please circle the number that you believe best describes a typical male real estate agent.

For example, if you think that a typical male real estate agent is quite outgoing you would circle the number that best reflects your opinion towards the outgoing end of the scale. If, on the other hand you feel that a typical male real estate agent is typically reserved, you would circle a number that best reflects your opinion at the reserved end of the scale. If you think that a typical male real estate agent is neither outgoing or reserved, you would circle a number that best reflects your opinion at the middle of the scale.

---

*Extremely   Quite   Slightly   Neither   Slightly   Quite   Extremely*

Outgoing	1	2	3	4	5	6	7	Reserved (20)
Assertive	1	2	3	4	5	6	7	Passive
Trusting	1	2	3	4	5	6	7	Suspicious
Confident	1	2	3	4	5	6	7	Apprehensive
Imaginative	1	2	3	4	5	6	7	Unimaginative
Competent	1	2	3	4	5	6	7	Incompetent
Open minded	1	2	3	4	5	6	7	Close minded
Disciplined	1	2	3	4	5	6	7	Undisciplined
Thorough	1	2	3	4	5	6	7	Superficial
Committed	1	2	3	4	5	6	7	Uncommitted
Reacts Positively With Failure	1	2	3	4	5	6	7	Reacts Negatively With Failure
Proactive	1	2	3	4	5	6	7	Reactive
Genuine	1	2	3	4	5	6	7	Insincere
Sensitive	1	2	3	4	5	6	7	Insensitive (33)

## *PERCEPTIONS OF A TYPICAL FEMALE REAL ESTATE AGENT*

I am interested to know how you would describe *a typical female real estate agent* on the following scale. Listed below are a number of paired adjectives. For each pair on the scale would you please circle the number that you believe best describes a typical female real estate agent

For example, if you think that a typical female real estate agent is quite outgoing you would circle the number that best reflects your opinion towards the outgoing end of the scale. If, on the other hand you feel that a typical female real estate agent is typically reserved, you would circle a number that best reflects your opinion at the reserved end of the scale. If you think that a typical female real estate agent is neither outgoing or reserved, you would circle a number that best reflects your opinion at the middle of the scale.

*Extremely   Quite   Slightly   Neither   Slightly   Quite   Extremely*

Outgoing	1	2	3	4	5	6	7	Reserved (34)
Assertive	1	2	3	4	5	6	7	Passive
Trusting	1	2	3	4	5	6	7	Suspicious
Confident	1	2	3	4	5	6	7	Apprehensive
Imaginative	1	2	3	4	5	6	7	Unimaginative
Competent	1	2	3	4	5	6	7	Incompetent
Open minded	1	2	3	4	5	6	7	Close minded
Disciplined	1	2	3	4	5	6	7	Undisciplined
Thorough	1	2	3	4	5	6	7	Superficial
Committed	1	2	3	4	5	6	7	Uncommitted
Reacts Positively With Failure	1	2	3	4	5	6	7	Reacts Negatively With Failure
Proactive	1	2	3	4	5	6	7	Reactive
Genuine	1	2	3	4	5	6	7	Insincere
Sensitive	1	2	3	4	5	6	7	Insensitive (47)

***APPENDIX 4.2***

***Examples Of Survey Information Included In Company Newsletters To  
Inform Staff Of Their Role In Participation***

## **Massey University Survey**

We have been asked by a student from Massey University, Esther Livingston, Assistant Lecturer, Department of Human Resource Management, to assist in completing a special project which is part of her studies in People Behaviour. This will involve each salesperson completing a questionnaire, which takes approximately 10 - 15 minutes, about real estate sales people and their perceptions of themselves, the people they work with and their environment.

This survey will be completely confidential. There are no right or wrong answers, just opinions. You will receive a copy of the finished analysis which will possibly provide a base for developing recruiting programmes and formatting presentation styles for training modules. Within the next four weeks every salesperson will receive a survey form. Please take the time to complete the form and return in the self addressed envelope and return to Ms Livingston. It might even be fun.

## People Chosen for Massey Study

Hi — my name is Esther Livingston and I work in the Human Resource Management Department at Massey University. An area that I am very interested in is the way in which we perceive ourselves, the people we work with and our work environment.

In 1989 I carried out a research project that looked at how male and female real estate agents perceive a typical agent working in the industry. The general conclusion from this research was that men and women, on the whole, believe that similar behaviours are important to sound and effective practices. However, discussions with a number of managers in the real estate industry indicate that clients seem to have preferences for dealing with men in some circumstances and women in others.

This year I am looking at such things as age, sex, number of agents in the office and office location and how these things affect the way agents view themselves and others in the industry. I am fortunate to have the endorsement of Real Estate Ltd for this part of my research.

Within the next four weeks you will receive a survey form. I would be very grateful if you could take 15 minutes out of your day to complete this and place it in the self addressed return envelope and return it to me.

The objective of this study is to determine how real estate agents perceive themselves, how they perceive a typical male agent and how they perceive a typical female agent. The results of this study may be used to provide input into training, selection and remuneration programmes.

This survey form consists of two basic parts. The instructions are clear and the form is not difficult to complete. Please note — there are no right or wrong answers — I am interested in your opinions.

The information you provide is confidential and will be seen only by me when I code it for computer analysis.

I hope you will participate in this study and look forward to receiving your completed survey forms. I anticipate the information this study generates will be relevant and of interest to you and Real Estate Ltd.

Thank you for your time.



***APPENDIX 4.3***

***Letters Sent To Branch Principals Providing Them With Distribution  
Instructions And An Example Of The Package Distributed To Each Fulltime  
Sales Person***

Company 1

Facsimile

11 June 1990



**MASSEY  
UNIVERSITY**

Palmerston North  
New Zealand  
Telephone (063) 69-099

**FACULTY OF  
BUSINESS STUDIES**

DEPARTMENT OF  
HUMAN  
RESOURCE  
MANAGEMENT

Dear

*Re: Perceptions of Real Estate People*

My name is Esther Livingston. You may have seen something about some research I am conducting this year in your May Newsletter or you may recall assisting me with some research last year.

As part of my post graduate studies in the Human Resource Management Department at Massey University, I am completing a thesis which extends previous work. The objective of this present study is to examine the perceptions real estate agents hold about themselves, a typical male agent and a typical female agent. ... has been selected as one of the companies for study and this research has the endorsement and support of ...

Traditionally, the real estate industry in New Zealand has not been the subject of much research. This study represents a sound academic and empirical start to investigation.

The results of this study will be made available to you through ... early in 1991. They will provide profiles of real estate agents and information from these can be fed into training, remuneration and selection practices. These results will form an important base which can be built on in the future. One area I intend to extend this work into is that of how and why client preferences for dealing with a particular type of agent in specific circumstances develop.

I am sending out surveys to *all sales people* I would be very grateful if you could *distribute the attached survey forms to all your full time sales personnel*. The form itself is simple to fill out and will not take your staff longer than 15 minutes to complete. Please ask your sales staff to complete the form and place it in the attached pre-stamped and self addressed envelope and return it to me as soon as possible.

All information received in the course of this research is strictly confidential. Individual responses will be seen only by me as I code them for computer analysis.

Thank you very much for distributing these survey forms to your full time sales personnel. Your assistance is very much appreciated. If you have any questions or comments, please do not hesitate to contact me at the above address. My contact phone number here at Massey is (063) 69099 extension 8816.

I look forward to receiving completed survey forms from your staff in the very near future. I am sure that the results of this study will prove both interesting and useful to you .

Yours faithfully

Esther Livingston  
Assistant Lecturer  
Department of Human Resource Management



**MASSEY  
UNIVERSITY**

Palmerston North  
New Zealand  
Telephone (063) 69-099

**FACULTY OF  
BUSINESS STUDIES**

DEPARTMENT OF  
HUMAN  
RESOURCE  
MANAGEMENT

Company 2

Facsimile

11 June 1990

Dear

*Re: Perceptions of Real Estate Agents Survey*

My name is Esther Livingston. As part of my post graduate studies within the Human Resource Management Department at Massey University, I am completing a thesis involving the real estate industry. The objective of this research is to establish how real estate agents perceive themselves, a typical male agent and a typical female agent. You may recall seeing an article discussing this research in your last edition of the ... newsletter

... has been selected as one of the companies for study. This research has the support and endorsement of *both* ...

Traditionally, the real estate industry in New Zealand has not been the subject of much research. This study represents a sound empirical and academic start to investigation.

The results of this study will be made available to you through .... early in 1991. They will provide profiles of real estate agents and information from these can be fed into training, remuneration and selection practices. These results form an important base which can be built on in the future. One area I intend to extend this work into is that of how and why client preferences for dealing with a particular type of agent in specific circumstances develop.

I am sending out surveys to all *full time ... sales personnel*. I would be very grateful if you distribute *the attached survey forms to all your full time real estate sales personnel*. The form itself is easy to fill out and will not take longer than 15 minutes to complete. Please ask your sales staff to fill out the form and place it in the attached self addressed pre-stamped envelope and return it to me.

All information gathered in the course of this research is strictly confidential. Individual responses will be seen only by me as I code them for computer analysis.

Thank you very much for distributing the survey forms to all your full time sales staff. Your assistance is very much appreciated. If you have any questions or comments, please do not hesitate to contact me at the above address or to telephone me at Massey. My contact number is (063) 69099 extension 8816.

I look forward to receiving the completed survey forms from your staff in the very near future. I am sure that the results of this study will be of use and interest to you.

Yours faithfully

Esther Livingston  
Assistant Lecturer  
Department of Human Resource Management

Company 3

Facsimile

11 June 1990



**MASSEY  
UNIVERSITY**

Palmerston North  
New Zealand  
Telephone (063) 69-099

**FACULTY OF  
BUSINESS STUDIES**

DEPARTMENT OF  
HUMAN  
RESOURCE  
MANAGEMENT

Dear

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... has been selected as one of the companies for study. This research has the *support and endorsement of ...*

Traditionally, the real estate industry in New Zealand has not been the subject of much research. This study represents a sound academic and empirical start to investigation.

The results of this study will be made available to you through ... early in 1991. They will provide profiles of real estate agents and information from these can be fed into training, remuneration and selection practices. These results form an important base which can be built on in the future. One area I intend to extend this work into is that of how and why client preferences for dealing with a certain type of agent in different circumstances develop.

I am sending out surveys to *all ... sales personnel*. I would be very grateful if you could *distribute the attached survey forms to all the full time real estate sales personnel employed in your office*. The form itself is very easy to fill out and will not take longer than fifteen minutes for your staff to complete. Please ask your sales staff to complete the form and then place it in the attached pre-stamped and self addressed envelope and return it to me as soon as possible.

All information gathered in the course of this research is strictly confidential. Individual responses will be seen only by me as I code them for computer analysis.

Thank you very much for distributing the attached survey forms to your full time sales staff. Your assistance is much appreciated. If you have any questions or comments, please do not hesitate to contact me at the above address. My contact number here at Massey is (063) 69099 extension 8816.

I look forward to receiving completed survey forms from your staff in the very near future. I am sure that the results of this study will be of use and interest to you.

Yours faithfully

Esther Livingston  
Assistant Lecturer  
Department of Human Resource Management

## *PERCEPTIONS OF REAL ESTATE PEOPLE*

The last fifty years have witnessed a number of changes in the workforce. For example, there is now a greater number of women engaged in paid employment and the service sector, containing industries such as real estate, has grown rapidly. This has led to much debate and speculation regarding the way in which people relate to each other in work situations, the reasons which motivate people to work, and the attitudes and values which different individuals bring into their work situations.

I am interested in finding out how you think about yourself and other people working in the real estate industry. This project has the support of the organisation in which you work.

The objective of this study is to determine how real estate agents perceive themselves, how they perceive male real estate agents and how they perceive female real estate agents.

This study is composed of two parts. These are attached to this sheet. Section A asks you some basic questions about your work as a real estate agent. Please try to be *as accurate as possible* when responding to these questions. Section B is concerned with the way in which you perceive yourself, male real estate agents in general and female agents in general.

This questionnaire is simple and easy to complete. Take your time and remember that there are no right or wrong answers - I am primarily interested in *your opinions*.

This questionnaire is anonymous. There is a number in a box in the top right hand corner of the page titled Section A. By using a code number rather than the participating companies' names, the confidentiality of these companies is ensured. Please do not write your name anywhere on the paper. The information you provide will be held in the strictest confidence at Massey University and your individual responses will be seen only by me when I code them for computer analysis. You will notice that there is a margin on the right hand side of the page titled "For Office Use Only". This contains little boxes and/or numbers in brackets. These are there only to assist me with the computer coding, so please just ignore them.


The overall findings and results of this study will be fed back to your employer and will be made available to you.

The information you provide will enable us to build profiles of real estate sales people and to determine how real estate agents perceive themselves and others working in this industry.

Once you have completed the survey, please detach this front page and place your complete survey in the attached pre-stamped and self addressed envelope and return to me.

So that the information gathered in this research will have maximum impact and provide us with reliable results, it is important that I survey as large and as representative sample as possible. To this end I greatly value your co-operation. Your time and effort in completing this survey is much appreciated and I look forward to receiving your completed responses in the near future.

Thanks



Esther Livingston

SECTION A

For Office  
Use Only


(1 - 5)

**INSTRUCTIONS:** Please answer the following questions by filling in the appropriate boxes.

1. How long have you been in real estate sales?

Years

Months

--	--	--	--

(6 - 9)

2. Would you regard the **majority** of your work as involving (please tick the **single** most appropriate category)

Residential Property

Commercial Property

Rural Property

Industrial Property

(10)

For Office  
Use Only

3. How many full time sales people including yourself are employed in your office?

(11 - 13)

How many of these are women

(14 - 16)

How many of these are men

(17 - 19)

4. Is the office you currently work in located in (please tick the appropriate category)

(i) a rural area

(20)

(ii) a town (population 5,000 - 20,000)

(iii) a city (population 21,000 - 65,000)

(iv) a large city (population 66,000 plus)

5. Are you male female (please tick)

(21)

6. How old are you?

(Years)

(Months)

(22 - 25)

For Office  
Use Only

7. What is your ethnic origin?

European

Maori

Other  \_\_\_\_\_  
(please specify)

(26)

8. Think about your earnings in the last financial year.  
How much did you earn *before tax* to the nearest \$1000  
in the year *April 1, 1989 to March 31, 1990*.

Earnings \$ \_\_\_\_\_


(27 - 32)

What percentage of this was commission based?

 %

--	--	--

(33 - 35)

What percentage of this was salary based?

 %

--	--	--

(36 - 38)

END OF CARD 1



## SECTION B

### INSTRUCTIONS

I am interested in finding out how you would describe people working in the real estate industry. The pages that follow present you with the same scale three times. However, the instructions describing how to complete the scale will be different each time and will be written at the top of each page. Please read these carefully and then complete the scale that follows.

Please attempt all items. Do not spend a lot of time on any one item. Your first response (the one that comes immediately to mind) is probably the best one. There are no right or wrong answers, I am primarily interested in ***your opinions.***

***IMPORTANT: Please complete this survey in the order in which it appears and make sure you finish the page that you are on before moving onto the next scale.***

Before turning the page and moving onto the next scale, take a few seconds to relax and prepare yourself for the next set of instructions.

**PERCEPTIONS OF A TYPICAL MALE REAL ESTATE AGENT**

I am interested to know how you would describe *a typical male real estate agent* on the following scale. Listed below are a number of paired adjectives. For each pair on the scale would you please circle the number that you believe best describes a typical male real estate agent.

For example, if you think that a typical male real estate agent is quite outgoing you would circle the number that best reflects your opinion towards the outgoing end of the scale. If, on the other hand you feel that a typical male real estate agent is typically reserved, you would circle a number that best reflects your opinion at the reserved end of the scale. If you think that a typical male real estate agent is neither outgoing or reserved, you would circle a number that best reflects your opinion at the middle of the scale.

*Extremely Quite Slightly Neither Slightly Quite Extremely*

Outgoing	1	2	3	4	5	6	7	Reserved (20)
Assertive	1	2	3	4	5	6	7	Passive
Frustrating	1	2	3	4	5	6	7	Suspicious
Confident	1	2	3	4	5	6	7	Apprehensive
Imaginative	1	2	3	4	5	6	7	Unimaginative
Competent	1	2	3	4	5	6	7	Incompetent
Open minded	1	2	3	4	5	6	7	Close minded
Disciplined	1	2	3	4	5	6	7	Undisciplined
Thorough	1	2	3	4	5	6	7	Superficial
Committed	1	2	3	4	5	6	7	Uncommitted
Reacts Positively With Failure	1	2	3	4	5	6	7	Reacts Negatively With Failure
Proactive	1	2	3	4	5	6	7	Reactive
Genuine	1	2	3	4	5	6	7	Insincere
Sensitive	1	2	3	4	5	6	7	Insensitive (33)

**PERCEPTIONS OF A TYPICAL FEMALE REAL ESTATE AGENT**

I am interested to know how you would describe **a typical female real estate agent** on the following scale. Listed below are a number of paired adjectives. For each pair on the scale would you please circle the number that you believe best describes a typical female real estate agent

For example, if you think that a typical female real estate agent is quite outgoing you would circle the number that best reflects your opinion towards the outgoing end of the scale. If, on the other hand you feel that a typical female real estate agent is typically reserved, you would circle a number that best reflects your opinion at the reserved end of the scale. If you think that a typical female real estate agent is neither outgoing or reserved, you would circle a number that best reflects your opinion at the middle of the scale.

*Extremely   Quite   Slightly   Neither   Slightly   Quite   Extremely*

Outgoing	1	2	3	4	5	6	7	Reserved (34)
Assertive	1	2	3	4	5	6	7	Passive
Trusting	1	2	3	4	5	6	7	Suspicious
Confident	1	2	3	4	5	6	7	Apprehensive
Imaginative	1	2	3	4	5	6	7	Unimaginative
Competent	1	2	3	4	5	6	7	Incompetent
Open minded	1	2	3	4	5	6	7	Close minded
Disciplined	1	2	3	4	5	6	7	Undisciplined
Thorough	1	2	3	4	5	6	7	Superficial
Committed	1	2	3	4	5	6	7	Uncommitted
Reacts Positively With Failure	1	2	3	4	5	6	7	Reacts Negatively With Failure
Proactive	1	2	3	4	5	6	7	Reactive
Genuine	1	2	3	4	5	6	7	Insincere
Sensitive	1	2	3	4	5	6	7	Insensitive (47)

## SELF PERCEPTION SCALE

I am interested to know how you would describe *yourself* on the following scale. Listed below are a number of paired adjectives. For each pair on the scale would you please circle the number that best describes you as a real estate agent.

For example, if you think that you are quite outgoing you would circle the number that best reflects your opinion towards the outgoing end of the scale. If, on the other hand you feel that you are typically reserved, you would circle a number that best reflects your opinion at the reserved end of the scale. If you think that you are neither outgoing or reserved, you would circle a number that best reflects your opinion at the middle of the scale.

CARD 2


2
---

(5)

*Extremely    Quite    Slightly    Neither    Slightly    Quite    Extremely*

Outgoing	1	2	3	4	5	6	7	Reserved (6)
Assertive	1	2	3	4	5	6	7	Passive
Trusting	1	2	3	4	5	6	7	Suspicious
Confident	1	2	3	4	5	6	7	Apprehensive
Imaginative	1	2	3	4	5	6	7	Unimaginative
Competent	1	2	3	4	5	6	7	Incompetent
Open minded	1	2	3	4	5	6	7	Close minded
Disciplined	1	2	3	4	5	6	7	Undisciplined
Thorough	1	2	3	4	5	6	7	Superficial
Committed	1	2	3	4	5	6	7	Uncommitted
Reacts positively With Failure	1	2	3	4	5	6	7	Reacts Negatively With Failure
Proactive	1	2	3	4	5	6	7	Reactive
Genuine	1	2	3	4	5	6	7	Insincere
Sensitive	1	2	3	4	5	6	7	Insensitive (19)

FREEPOST AUTHORITY No. 149  
ESTHER LIVINGSTON  
DEPARTMENT OF HUMAN  
RESOURCE MANAGEMENT  
MASSEY UNIVERSITY  
PRIVATE BAG  
PALMERSTON NORTH

***APPENDIX 4.4***

***Letter And Package Sent To All Fulltime Staff Listed By Company 4***



**MASSEY  
UNIVERSITY**

Palmerston North  
New Zealand  
Telephone (063) 69-099

**FACULTY OF  
BUSINESS STUDIES**

DEPARTMENT OF  
HUMAN  
RESOURCE  
MANAGEMENT

Facsimile

15 June 1990

Dear

*Re: Perceptions of Sales Personnel Questionnaire*

My name is Esther Livingston. As part of my postgraduate studies in the Human Resource Management Department at Massey University I am completing a project involving the real estate industry.

... has been selected as one of the companies for study. This research has the *support and endorsement of* ... has written to each ... branch manager and informed them of ... participation.

The real estate industry in New Zealand has not been the subject of much research. This study is a first attempt to collect information about the real estate industry. Participating in this survey offers you the opportunity to be part of a national sample of real estate agents and to express your opinions about some aspects of the behaviour and attributes of real estate agents.

The purpose of this research is to examine the perceptions that real estate people hold about themselves, a typical female real estate agent and a typical male real estate agent.

The results of this study will be made available to you through ... early in 1991. They will provide profiles of real estate agents and information from these can be fed into training, remuneration and selection practices. These results form an important base which can be built on in the future. One area in which I intend to extend this work is that of examining the development of client preferences for dealing with a certain type of agent in different circumstances.

I am sending out surveys to ... *estate agents*. I would be very grateful if you could *complete the attached questionnaire*. The form itself is very easy to fill out and will not take you longer than fifteen minutes to complete. Please complete the form and then place it in the attached pre-stamped and self addressed envelope and return it to me as soon as possible.

All information received in the course of this research is strictly confidential. Individual responses will be seen only by me as I code them for computer analysis.

Your time and assistance is much appreciated. If you have any questions or comments, please do not hesitate to contact me at the above address. My contact number here at Massey is (063) 69099 extension 8816.

I look forward to receiving a completed survey form from you in the very near future. I am sure that the results of this study will be of use and interest to you and ...

Yours faithfully

Esther Livingston  
Assistant Lecturer  
Department of Human Resource Management

## *PERCEPTIONS OF REAL ESTATE PEOPLE*

The last fifty years have witnessed a number of changes in the workforce. For example, there is now a greater number of women engaged in paid employment and the service sector, containing industries such as real estate, has grown rapidly. This has led to much debate and speculation regarding the way in which people relate to each other in work situations, the reasons which motivate people to work, and the attitudes and values which different individuals bring into their work situations.

I am interested in finding out how you think about yourself and other people working in the real estate industry. This project has the support of the organisation in which you work.

The objective of this study is to determine how real estate agents perceive themselves, how they perceive male real estate agents and how they perceive female real estate agents.

This study is composed of two parts. These are attached to this sheet. Section A asks you some basic questions about your work as a real estate agent. Please try to be *as accurate as possible* when responding to these questions. Section B is concerned with the way in which you perceive yourself, male real estate agents in general and female agents in general.

This questionnaire is simple and easy to complete. Take your time and remember that there are no right or wrong answers - I am primarily interested in *your opinions*.

This questionnaire is anonymous. There is a number in a box in the top right hand corner of the page titled Section A. By using a code number rather than the participating companies' names, the confidentiality of these companies is ensured. Please do not write your name anywhere on the paper. The information you provide will be held in the strictest confidence at Massey University and your individual responses will be seen only by me when I code them for computer analysis. You will notice that there is a margin on the right hand side of the page titled "For Office Use Only". This contains little boxes and/or numbers in brackets. These are there only to assist me with the computer coding, so please just ignore them.

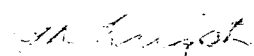
The overall findings and results of this study will be fed back to your employer and will be made available to you.

The information you provide will enable us to build profiles of real estate sales people and to determine how real estate agents perceive themselves and others working in this industry.

Once you have completed the survey, please detach this front page and place your complete survey in the attached pre-stamped and self addressed envelope and return to me.

So that the information gathered in this research will have maximum impact and provide us with reliable results, it is important that I survey as large and as representative sample as possible. To this end I greatly value your co-operation. Your time and effort in completing this survey is much appreciated and I look forward to receiving your completed responses in the near future.

Thanks



Esther Livingston



SECTION A

For Office  
Use Only

(1 - 5)

**INSTRUCTIONS:** Please answer the following questions by filling in the appropriate boxes.

1. How long have you been in real estate sales?

Years

Months

(6 - 9)

2. Would you regard the **majority** of your work as involving (please tick the **single** most appropriate category)

Residential Property

Commercial Property

Rural Property

Industrial Property

(10)

For Office  
Use Only

3. How many full time sales people including yourself are employed in your office?

(11 - 13)

How many of these are women

(14 - 16)

How many of these are men

(17 - 19)

4. Is the office you currently work in located in (please tick the appropriate category)

(i) a rural area

(20)

(ii) a town (population 5,000 - 20,000)

(iii) a city (population 21,000 - 65,000)

(iv) a large city (population 66,000 plus)

5. Are you male female (please tick)

male

female

(21)

6. How old are you?

(Years)

(Months)

(22 - 25)

For Office  
Use Only

7. What is your ethnic origin?

European

Maori

Other

\_\_\_\_\_ (please specify)

(26)

8. Think about your earnings in the last financial year.  
How much did you earn *before tax* to the nearest \$1000  
in the year **April 1, 1989 to March 31, 1990.**

Earnings

\$ \_\_\_\_\_


(27 - 32)

What percentage of this was commission based?

 %

--	--	--

(33 - 35)

What percentage of this was salary based?

 %

--	--	--

(36 - 38)

END OF CARD 1

## SECTION B

### INSTRUCTIONS

I am interested in finding out how you would describe people working in the real estate industry. The pages that follow present you with the same scale three times. However, the instructions describing how to complete the scale will be different each time and will be written at the top of each page. Please read these carefully and then complete the scale that follows.

Please attempt all items. Do not spend a lot of time on any one item. Your first response (the one that comes immediately to mind) is probably the best one. There are no right or wrong answers, I am primarily interested in ***your opinions***.

***IMPORTANT: Please complete this survey in the order in which it appears and make sure you finish the page that you are on before moving onto the next scale.***

Before turning the page and moving onto the next scale, take a few seconds to relax and prepare yourself for the next set of instructions.

**PERCEPTIONS OF A TYPICAL MALE REAL ESTATE AGENT**

I am interested to know how you would describe *a typical male real estate agent* on the following scale. Listed below are a number of paired adjectives. For each pair on the scale would you please circle the number that you believe best describes a typical male real estate agent.

For example, if you think that a typical male real estate agent is quite outgoing you would circle the number that best reflects your opinion towards the outgoing end of the scale. If, on the other hand you feel that a typical male real estate agent is typically reserved, you would circle a number that best reflects your opinion at the reserved end of the scale. If you think that a typical male real estate agent is neither outgoing or reserved, you would circle a number that best reflects your opinion at the middle of the scale.

*Extremely   Quite   Slightly   Neither   Slightly   Quite   Extremely*

Outgoing	1	2	3	4	5	6	7	Reserved (20)
Assertive	1	2	3	4	5	6	7	Passive
Trusting	1	2	3	4	5	6	7	Suspicious
Confident	1	2	3	4	5	6	7	Apprehensive
Imaginative	1	2	3	4	5	6	7	Unimaginative
Competent	1	2	3	4	5	6	7	Incompetent
Open minded	1	2	3	4	5	6	7	Close minded
Disciplined	1	2	3	4	5	6	7	Undisciplined
Thorough	1	2	3	4	5	6	7	Superficial
Committed	1	2	3	4	5	6	7	Uncommitted
Reacts Positively With Failure	1	2	3	4	5	6	7	Reacts Negatively With Failure
Proactive	1	2	3	4	5	6	7	Reactive
Genuine	1	2	3	4	5	6	7	Insincere
Sensitive	1	2	3	4	5	6	7	Insensitive (33)

**PERCEPTIONS OF A TYPICAL FEMALE REAL ESTATE AGENT**

I am interested to know how you would describe **a typical female real estate agent** on the following scale. Listed below are a number of paired adjectives. For each pair on the scale would you please circle the number that you believe best describes a typical female real estate agent

For example, if you think that a typical female real estate agent is quite outgoing you would circle the number that best reflects your opinion towards the outgoing end of the scale. If, on the other hand you feel that a typical female real estate agent is typically reserved, you would circle a number that best reflects your opinion at the reserved end of the scale. If you think that a typical female real estate agent is neither outgoing or reserved, you would circle a number that best reflects your opinion at the middle of the scale.

*Extremely   Quite   Slightly   Neither   Slightly   Quite   Extremely*

Outgoing	1	2	3	4	5	6	7	Reserved (34)
Assertive	1	2	3	4	5	6	7	Passive
Trusting	1	2	3	4	5	6	7	Suspicious
Confident	1	2	3	4	5	6	7	Apprehensive
Imaginative	1	2	3	4	5	6	7	Unimaginative
Competent	1	2	3	4	5	6	7	Incompetent
Open minded	1	2	3	4	5	6	7	Close minded
Disciplined	1	2	3	4	5	6	7	Undisciplined
Thorough	1	2	3	4	5	6	7	Superficial
Committed	1	2	3	4	5	6	7	Uncommitted
Reacts Positively With Failure	1	2	3	4	5	6	7	Reacts Negatively With Failure
Proactive	1	2	3	4	5	6	7	Reactive
Genuine	1	2	3	4	5	6	7	Insincere
Sensitive	1	2	3	4	5	6	7	Insensitive (47)

## SELF PERCEPTION SCALE

I am interested to know how you would describe *yourself* on the following scale. Listed below are a number of paired adjectives. For each pair on the scale would you please circle the number that best describes you as a real estate agent.

For example, if you think that you are quite outgoing you would circle the number that best reflects your opinion towards the outgoing end of the scale. If, on the other hand you feel that you are typically reserved, you would circle a number that best reflects your opinion at the reserved end of the scale. If you think that you are neither outgoing or reserved, you would circle a number that best reflects your opinion at the middle of the scale.

CARD 2


2
---

(5)

*Extremely   Quite   Slightly   Neither   Slightly   Quite   Extremely*

Outgoing	1	2	3	4	5	6	7	Reserved (6)
Assertive	1	2	3	4	5	6	7	Passive
Trusting	1	2	3	4	5	6	7	Suspicious
Confident	1	2	3	4	5	6	7	Apprehensive
Imaginative	1	2	3	4	5	6	7	Unimaginative
Competent	1	2	3	4	5	6	7	Incompetent
Open minded	1	2	3	4	5	6	7	Close minded
Disciplined	1	2	3	4	5	6	7	Undisciplined
Thorough	1	2	3	4	5	6	7	Superficial
Committed	1	2	3	4	5	6	7	Uncommitted
Reacts Positively With Failure	1	2	3	4	5	6	7	Reacts Negatively With Failure
Proactive	1	2	3	4	5	6	7	Reactive
Genuine	1	2	3	4	5	6	7	Insincere
Sensitive	1	2	3	4	5	6	7	Insensitive (19)

FREEPOST AUTHORITY No. 149  
ESTHER LIVINGSTON  
DEPARTMENT OF HUMAN  
RESOURCE MANAGEMENT  
MASSEY UNIVERSITY  
PRIVATE BAG  
PALMERSTON NORTH



*APPENDIX 4.5*

*Follow Up Letters Forwarded To Branch Principals (In The Case Of  
Companies 1, 2 and 3) And To All Fulltime Sales People Employed By  
Company 4*



**MASSEY  
UNIVERSITY**

Palmerston North  
New Zealand  
Telephone (063) 69-099

**FACULTY OF  
BUSINESS STUDIES**

DEPARTMENT OF  
HUMAN  
RESOURCE  
MANAGEMENT

21 June 1990

Dear

*Re: Perceptions of Real Estate Sales People Survey*

So far the response to this survey has been very positive. My thanks to those of you who have given out copies of the *Perceptions of Real Estate People survey* to your full-time sales staff. Your co-operation and effort is very much appreciated and I have already received a number of questionnaires back from your staff.

I would be very grateful if you could remind those members of your staff who have not completed their survey forms to do so and return them to me in the stamped, self addressed envelope as soon as possible.

If you have not yet distributed the supplied forms amongst your full time sales personnel could you please do so and ask you staff to complete the questionnaire and return it to me as soon as possible.

So that the data gathered in this research will have maximum impact and provide us with reliable results, it is important that I survey as large and as representative sample as possible. In order to achieve this, your time and effort in distributing and encouraging your employees to complete the survey is greatly valued. I look forward to receiving completed survey forms from you staff in the near future.

If you have any questions or comments, or if you need some additional survey forms please do not hesitate to contact me at Massey. My telephone number here is (063) 69099 extension 8816. Alternatively, a contact facsimile number is (063) 505608.

Thank you again.

Yours faithfully

Esther Livingston  
Assistant Lecturer  
Department of Human Resource Management



**MASSEY  
UNIVERSITY**

Palmerston North  
New Zealand  
Telephone (063) 69-099

**FACULTY OF  
BUSINESS STUDIES**

DEPARTMENT OF  
HUMAN  
RESOURCE  
MANAGEMENT

25 June 1990

Dear

*Re: Perceptions of Real Estate Sales Personnel Survey*

So far the response to this survey has been very positive. My thanks to those of you who have completed the questionnaire and returned it to me. Your effort and co-operation is greatly appreciated.

If you have not yet completed the questionnaire, please do so and return it to me in the pre-stamped, self addressed envelope as soon as possible.

So that the data gathered in this research will have maximum impact and provide us with reliable results, it is important that I survey as large and representative sample as possible. In order to achieve this, your time and effort in completing the questionnaire is greatly valued. I look forward to receiving your survey forms as soon as possible.

If you have any questions or comments, or would like another copy of the form, please do not hesitate to contact me here at Massey. My telephone number is (063) 69099 extension 8816. Alternatively, a contact facsimile number is (063) 505608.

Thanks again for your time and effort.

Yours faithfully

Esther Livingston  
Assistant Lecturer  
Department of Human Resource Management

*APPENDIX 4.6*

*Rate Of Return Of Responses*

## RETURNS

<i>DATE</i>	<i>NUMBER RETURNED</i>
13.06.90	1
14.06.90	17
15.06.90	28
18.06.90	268
19.06.90	237
20.06.90	152
21.06.90	111
22.06.90	155
25.06.90	141
26.06.90	93
27.06.90	40
28.06.90	36
29.06.90	34
02.07.90	30
03.07.90	21
04.07.90	23
05.07.90	25
06.07.90	22
09.07.90	19
10.07.90	3
11.07.90	18
12.07.90	10
13.07.90	17
16.07.90	6
17.07.90	5
18.07.90	11
19.07.90	1
20.07.90	2

<i>DATE</i>	<i>NUMBER RETURNED</i>
23.07.90	3
24.07.90	1
25.07.90	
26.07.90	1
27.07.90	1
30.07.90	
31.07.90	1
01.08.90	
02.08.90	2
03.08.90	1
06.08.90	
07.08.90	
08.08.90	3
09.08.90	
10.08.90	4
<i>Total</i>	<i>1543</i>

*APPENDIX 5.1*

*Results Of t-tests Applied To Data Supplied About Respondents' Age, Length  
Of Time In Real Estate Sales, And The Percentage Of Respondents' Income  
Earned By Commission*

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	* POOLED VARIANCE ESTIMATE *		* SEPARATE VARIANCE ESTIMATE *			
							T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
TIME	length of time in real estate sales											
GROUP 1	897	5.0979	7.281	0.243	2.03	0.000	5.70	1449	0.000	6.18	1425.79	0.000
GROUP 2	554	3.0851	5.110	0.217								
AGE	age											
GROUP 1	899	43.4314	10.690	0.357	1.53	0.000	3.43	1449	0.000	3.61	1344.14	0.000
GROUP 2	552	41.5823	8.646	0.368								
COMM	percent of earnings commission											
GROUP 1	767	88.6441	24.316	0.878	1.16	0.072	-2.05	1227	0.041	-2.09	1029.50	0.037
GROUP 2	462	91.4978	22.538	1.049								



*APPENDIX 5.2*

*Results Of t-tests Applied To Respondents' Perceptions Of Self, A Typical  
Male And A Typical Female Real Estate Sales Person On The 14 Scale Items  
Appraised*

Perceptions Of Self As A Real Estate Sales Person

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	* * * *	* POOLED VARIANCE ESTIMATE *					* SEPARATE VARIANCE ESTIMATE *					
						F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.			
SELF1					* * * *											
GROUP 1	895	2.5419	1.242	0.042	* * * *	1.06	0.470	3.37	1446	0.000	3.35	1144.79	0.000			
GROUP 2	553	2.3128	1.276	0.054	* * * *											
SELF2					* * * *											
GROUP 1	894	2.5805	1.099	0.037	* * * *	1.01	0.855	2.75	1447	0.006	2.75	1180.97	0.006			
GROUP 2	555	2.4180	1.091	0.046	* * * *											
SELF3					* * * *											
GROUP 1	894	2.3523	1.381	0.046	* * * *	1.21	0.014	3.00	1444	0.003	3.07	1250.57	0.002			
GROUP 2	552	2.1359	1.256	0.053	* * * *											
4					* * * *											
GROUP 1	894	2.0503	0.929	0.031	* * * *	1.19	0.022	-1.40	1444	0.162	-1.37	1090.28	0.171			
GROUP 2	552	2.1232	1.013	0.043	* * * *											
SELF5					* * * *											
GROUP 1	894	2.2975	1.017	0.034	* * * *	1.14	0.091	2.13	1445	0.033	2.10	1112.45	0.036			
GROUP 2	553	2.1772	1.084	0.046	* * * *											
SELF6					* * * *											
GROUP 1	894	1.8915	0.928	0.031	* * * *	1.02	0.782	0.54	1445	0.587	0.54	1179.19	0.587			
GROUP 2	553	1.8444	0.918	0.039	* * * *											
SELF7					* * * *											
GROUP 1	895	1.9520	1.020	0.034	* * * *	1.12	0.141	2.89	1447	0.004	2.93	1222.36	0.004			
GROUP 2	554	1.7960	0.964	0.041	* * * *											
SELF8					* * * *											
GROUP 1	893	2.3427	1.154	0.039	* * * *											
GROUP 2	556	2.2248	1.124	0.048	* * * *	1.05	0.498	1.91	1447	0.056	1.92	1200.64	0.053			

SELF9	GROUP 1	895	2.2313	1.044	0.035	*			*				*			
	GROUP 2	555	1.9225	1.002	0.043	*	1.09	0.277	*	5.56	1448	0.000	*	5.61	1211.66	0.000
						*			*				*			
SELF10	GROUP 1	894	1.9161	1.087	0.036	*			*				*			
	GROUP 2	553	1.8192	1.051	0.045	*	1.07	0.389	*	1.67	1445	0.095	*	1.68	1199.22	0.093
						*			*				*			
SELF11	GROUP 1	893	2.5711	1.232	0.041	*			*				*			
	GROUP 2	552	2.5815	1.337	0.057	*	1.18	0.033	*	-0.15	1443	0.880	*	-0.15	1095.42	0.882
						*			*				*			
SELF12	GROUP 1	877	2.8164	1.202	0.041	*			*				*			
	GROUP 2	527	2.7419	1.294	0.056	*	1.16	0.056	*	1.09	1402	0.275	*	1.07	1044.16	0.284
						*			*				*			
SELF13	GROUP 1	895	1.5061	0.843	0.028	*			*				*			
	GROUP 2	556	1.3561	0.848	0.036	*	1.01	0.869	*	3.29	1449	0.001	*	3.28	1171.37	0.001
						*			*				*			
SELF14	GROUP 1	895	2.2089	1.135	0.038	*			*				*			
	GROUP 2	556	1.7266	0.998	0.042	*	1.29	0.000	*	8.24	1449	0.000	*	8.49	1289.03	0.000
						*			*				*			

Perceptions Of A Typical Male Real Estate Sales Person

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	*	* POOLED VARIANCE ESTIMATE * SEPARATE VARIANCE ESTIMATE										
						F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.			
MALE1					*											
GROUP 1	893	2.3236	0.980	0.033	*											
GROUP 2	551	2.3485	1.254	0.053	*	1.64	0.000	-0.42	1442	0.675	-0.40	958.94	0.692			
MALE2					*											
GROUP 1	891	2.3019	0.938	0.031	*											
GROUP 2	548	2.0401	1.147	0.049	*	1.49	0.000	4.71	1437	0.000	4.50	987.55	0.000			
MALE3					*											
GROUP 1	895	3.2291	1.404	0.047	*											
GROUP 2	547	3.7258	1.478	0.063	*	1.11	0.177	-6.39	1440	0.000	-6.31	1108.31	0.000			
MALE4					*											
GROUP 1	893	2.1333	0.925	0.031	*											
GROUP 2	548	2.0474	1.220	0.052	*	1.74	0.000	1.51	1439	0.131	1.42	929.73	0.157			
MALE5					*											
GROUP 1	890	3.0337	1.235	0.041	*											
GROUP 2	550	3.5473	1.496	0.064	*	1.47	0.000	-7.06	1438	0.000	-6.75	999.78	0.000			
MALE6					*											
GROUP 1	891	2.4927	1.083	0.036	*											
GROUP 2	548	2.5858	1.219	0.052	*	1.27	0.002	-1.51	1437	0.132	-1.47	1054.55	0.143			
MALE7					*											
GROUP 1	889	2.9044	1.284	0.043	*											
GROUP 2	548	3.2500	1.488	0.064	*	1.34	0.000	-4.66	1435	0.000	-4.50	1030.44	0.000			
MALE8					*											
GROUP 1	893	2.8880	1.263	0.042	*											
GROUP 2	551	2.8185	1.318	0.056	*	1.09	0.259	1.00	1442	0.318	0.99	1126.56	0.323			

MALE9	GROUP 1	894	2.8512	1.179	0.039	*			*			*				
	GROUP 2	550	3.0982	1.422	0.061	*	1.46	0.000	*	-3.57	1442	0.000	*	-3.41	1001.20	0.000
MALE10	GROUP 1	891	2.3906	1.135	0.038	*			*			*				
	GROUP 2	551	2.3993	1.285	0.055	*	1.28	0.001	*	-0.13	1440	0.893	*	-0.13	1056.57	0.893
MALE11	GROUP 1	890	3.1562	1.340	0.045	*			*			*				
	GROUP 2	549	3.4663	1.572	0.067	*	1.38	0.000	*	-3.99	1437	0.000	*	-3.84	1022.82	0.000
MALE12	GROUP 1	875	3.1954	1.244	0.042	*			*			*				
	GROUP 2	525	3.3581	1.392	0.061	*	1.25	0.004	*	-2.26	1398	0.024	*	-2.20	1008.36	0.028
MALE13	GROUP 1	892	2.7635	1.266	0.042	*			*			*				
	GROUP 2	550	3.2382	1.424	0.061	*	1.27	0.002	*	-6.59	1440	0.000	*	-6.41	1058.97	0.000
MALE14	GROUP 1	893	3.3091	1.334	0.045	*			*			*				
	GROUP 2	548	3.9252	1.507	0.064	*	1.28	0.001	*	-8.10	1439	0.000	*	-7.87	1050.51	0.000

Perceptions Of A Typical Female Real Estate Sales Person

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	*	* POOLED VARIANCE ESTIMATE *						* SEPARATE VARIANCE ESTIMATE *			
						F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.		
FEMALE1					*										
GROUP 1	886	2.3149	1.128	0.038	*	1.38	0.000	3.96	1434	0.000	*	4.11	1299.55	0.000	
GROUP 2	550	2.0255	0.961	0.041	*						*				
FEMALE2					*						*				
GROUP 1	886	2.3770	1.158	0.039	*	1.37	0.000	3.04	1439	0.002	*	3.16	1309.52	0.000	
GROUP 2	555	2.1964	0.989	0.042	*						*				
FEMALE3					*						*				
GROUP 1	882	3.2426	1.571	0.053	*	1.49	0.000	8.64	1428	0.000	*	9.05	1325.00	0.000	
GROUP 2	548	2.5529	1.285	0.055	*						*				
FEMALE4					*						*				
GROUP 1	886	2.5203	1.236	0.042	*	1.38	0.000	6.86	1438	0.000	*	7.12	1310.96	0.000	
GROUP 2	554	2.0666	1.050	0.045	*						*				
FEMALE5					*						*				
GROUP 1	886	2.7212	1.262	0.042	*	1.44	0.000	8.79	1436	0.000	*	9.17	1320.57	0.000	
GROUP 2	552	2.1558	1.053	0.045	*						*				
FEMALE6					*						*				
GROUP 1	886	2.6129	1.211	0.041	*	1.36	0.000	9.83	1438	0.000	*	10.18	1303.79	0.000	
GROUP 2	554	2.0018	1.039	0.044	*						*				
FEMALE7					*						*				
GROUP 1	886	3.1129	1.346	0.045	*	1.42	0.000	12.14	1436	0.000	*	12.64	1315.76	0.000	
GROUP 2	552	2.2790	1.130	0.048	*						*				
FEMALE8					*						*				
GROUP 1	887	2.9245	1.363	0.046	*	1.34	0.000	9.93	1438	0.000	*	10.28	1297.04	0.000	
GROUP 2	553	2.2278	1.176	0.050	*						*				

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FEMALE9					*				*			*			
GROUP 1	886	2.7652	1.363	0.046	*	1.56	0.000	*	10.24	1437	0.000	*	10.77	1351.34	0.000
GROUP 2	553	2.0633	1.091	0.046	*			*				*			
-----															
FEMALE10					*				*			*			
GROUP 1	887	2.7914	1.443	0.048	*	1.57	0.000	*	8.72	1438	0.000	*	9.18	1353.50	0.000
GROUP 2	553	2.1591	1.152	0.049	*			*				*			
-----															
FEMALE11					*				*			*			
GROUP 1	888	3.8739	1.582	0.053	*	1.45	0.000	*	11.79	1439	0.000	*	12.30	1326.39	0.000
GROUP 2	553	2.9259	1.313	0.056	*			*				*			
-----															
FEMALE12					*				*			*			
GROUP 1	874	3.5400	1.392	0.047	*	1.16	0.066	*	7.55	1405	0.000	*	7.68	1186.87	0.000
GROUP 2	533	2.9775	1.295	0.056	*			*				*			
-----															
FEMALE13					*				*			*			
GROUP 1	887	2.8613	1.461	0.049	*	1.61	0.000	*	11.16	1441	0.000	*	11.77	1368.05	0.000
GROUP 2	556	2.0468	1.151	0.049	*			*				*			
-----															
FEMALE14					*				*			*			
GROUP 1	887	2.5648	1.501	0.050	*	1.89	0.000	*	7.30	1441	0.000	*	7.83	1409.65	0.000
GROUP 2	556	2.0288	1.092	0.046	*			*				*			
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### *APPENDIX 5.3*

*Appendix 5.3.1: Pooled Within Groups Correlational Matrices For The 14 Scale Items, Respondents' Age, Length Of Time In Real Estate Sales And Percentage Of Income Earned By Commission*

*Appendix 5.3.2: Group Means And Standard Deviations For The 14 Scale Items, Respondents' Age, Length Of Time In Real Estate Sales And Percentage Of Income Earned By Commission*

*Appendix 5.3.3: Wilks' Lambda And The Univariate F Ratio For The 14 Scale Items, Respondents' Age, Length Of Time In Real Estate Sales And Percentage Of Income Earned By Commission*



*Appendix 5.3.1: Pooled Within Groups Correlational Matrices*

**Perceptions of Self as a Real Estate Sales Person**

	SELF1	SELF2	SELF3	SELF4	SELF5	SELF6	SELF7	SELF8	SELF9	SELF10	SELF11	SELF12	SELF13	SELF14	TIME	AGE	COMM
SELF1	1.00000																
SELF2	0.55385	1.00000															
SELF3	0.28089	0.23729	1.00000														
SELF4	0.49983	0.53697	0.33371	1.00000													
SELF5	0.35671	0.38900	0.26157	0.46619	1.00000												
SELF6	0.35308	0.48060	0.34998	0.57798	0.44389	1.00000											
SELF7	0.31509	0.29249	0.38429	0.41598	0.44668	0.45127	1.00000										
SELF8	0.19878	0.34099	0.27332	0.35045	0.25194	0.48290	0.35301	1.00000									
SELF9	0.22384	0.33333	0.26290	0.39512	0.33677	0.56097	0.40336	0.63725	1.00000								
SELF10	0.33554	0.38700	0.33601	0.47291	0.37879	0.55088	0.42222	0.50072	0.54008	1.00000							
SELF11	0.30174	0.32698	0.22546	0.37005	0.27563	0.34967	0.36324	0.33742	0.33126	0.41590	1.00000						
SELF12	0.29887	0.33487	0.23429	0.34525	0.25709	0.33238	0.30410	0.34371	0.29195	0.34161	0.39933	1.00000					
SELF13	0.33648	0.31674	0.41884	0.46040	0.41464	0.56134	0.57228	0.38184	0.49565	0.53998	0.34834	0.27100	1.00000				
SELF14	0.25388	0.24831	0.33404	0.33633	0.34036	0.36708	0.38638	0.27078	0.33178	0.32779	0.22891	0.20829	0.51765	1.00000			
TIME	0.00634	-0.02839	0.02712	0.00305	-0.03130	-0.06420	0.05687	-0.04165	-0.02555	-0.01596	-0.05619	-0.02632	-0.01146	0.00573	1.00000		
AGE	0.11804	0.08017	0.04490	0.04491	0.01748	0.08204	0.07068	-0.09892	-0.06371	0.01502	-0.06212	0.00584	-0.01443	-0.00261	0.38180	1.00000	
COMM	0.01799	0.00918	-0.02851	-0.01585	0.01016	0.00657	0.00503	0.06538	0.01675	0.04109	0.00113	-0.00097	0.01745	-0.03537	-0.08499	0.00720	1.00000

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Perceptions of a Typical Male Real Estate Sales Person

	MALE1	MALE2	MALE3	MALE4	MALE5	MALE6	MALE7	MALE8	MALE9	MALE10	MALE11	MALE12	MALE13	MALE14	TIME	AGE	COMM
MALE1	1.00000																
MALE2	0.67274	1.00000															
MALE3	0.20724	0.14392	1.00000														
MALE4	0.59678	0.64861	0.29477	1.00000													
MALE5	0.36791	0.32602	0.43155	0.44566	1.00000												
MALE6	0.41201	0.44797	0.37421	0.53157	0.52467	1.00000											
MALE7	0.33478	0.29360	0.51882	0.38747	0.59520	0.53879	1.00000										
MALE8	0.30661	0.33735	0.43403	0.43055	0.47485	0.58957	0.51425	1.00000									
MALE9	0.34969	0.34631	0.47856	0.44576	0.53874	0.62592	0.55887	0.68678	1.00000								
MALE10	0.42191	0.47451	0.33804	0.56440	0.46019	0.62744	0.47876	0.58126	0.62642	1.00000							
MALE11	0.29298	0.27994	0.35598	0.35532	0.43975	0.45974	0.50529	0.45257	0.48592	0.48562	1.00000						
MALE12	0.33027	0.27627	0.39488	0.38030	0.43862	0.40384	0.45700	0.41918	0.45477	0.41459	0.54079	1.00000					
MALE13	0.26275	0.19432	0.56620	0.34402	0.47924	0.53156	0.53318	0.49040	0.59123	0.48982	0.48855	0.45793	1.00000				
MALE14	0.22269	0.14173	0.51616	0.24169	0.50208	0.43959	0.53558	0.43777	0.52717	0.41013	0.45236	0.40543	0.63304	1.00000			
TIME	0.02100	0.07277	-0.03018	0.06600	0.04155	0.03080	0.01742	0.04287	0.04204	0.05013	-0.00653	0.01781	-0.04269	-0.02431	1.00000		
AGE	0.01352	0.01734	-0.01171	0.06508	-0.02374	0.03561	-0.02988	0.00439	-0.01230	0.01530	-0.04515	-0.02755	-0.07724	-0.05326	0.40475	1.00000	
COMM	0.00607	0.00807	-0.00077	0.01489	-0.01656	-0.00736	-0.03922	-0.02941	-0.01363	-0.00411	0.04471	0.01247	-0.01414	-0.01620	-0.10207	0.00851	1.00000

### Perceptions of a Typical Female Real Estate Sales Person

	FEMALE1	FEMALE2	FEMALE3	FEMALE4	FEMALE5	FEMALE6	FEMALE7	FEMALE8	FEMALE9	FEMALE10	FEMALE11	FEMALE12	FEMALE13	FEMALE14	TIME	AGE	COMM
FEMALE1	1.00000																
FEMALE2	0.59400	1.00000															
FEMALE3	0.20169	0.11126	1.00000														
FEMALE4	0.56269	0.60598	0.24767	1.00000													
FEMALE5	0.35454	0.33218	0.35937	0.43399	1.00000												
FEMALE6	0.36918	0.35844	0.38071	0.49785	0.55287	1.00000											
FEMALE7	0.26630	0.22396	0.48475	0.37545	0.50221	0.59022	1.00000										
FEMALE8	0.30788	0.31072	0.34378	0.40915	0.39626	0.60776	0.48234	1.00000									
FEMALE9	0.28033	0.26350	0.39222	0.37491	0.46172	0.63316	0.47660	0.68222	1.00000								
FEMALE10	0.29275	0.34265	0.31023	0.44825	0.39032	0.53270	0.42312	0.62204	0.60171	1.00000							
FEMALE11	0.20174	0.22344	0.31377	0.32932	0.32633	0.40402	0.47458	0.40341	0.38746	0.46598	1.00000						
FEMALE12	0.23795	0.24323	0.28999	0.35223	0.35344	0.42713	0.39941	0.43286	0.41681	0.44900	0.51007	1.00000					
FEMALE13	0.21535	0.13432	0.55843	0.27513	0.41853	0.49384	0.54540	0.44464	0.52569	0.46469	0.39601	0.36769	1.00000				
FEMALE14	0.16839	0.05099	0.45183	0.17714	0.37069	0.39171	0.46920	0.33327	0.41014	0.31433	0.25431	0.28373	0.63621	1.00000			
TIME	0.01876	0.01669	-0.01438	0.02347	-0.01005	-0.00274	-0.01538	0.01123	0.01143	-0.01637	0.00211	0.01916	-0.05096	-0.02960	1.00000		
AGE	0.04828	-0.04512	0.09111	0.02006	-0.03506	-0.00716	0.01462	0.00274	0.04768	-0.05906	-0.11422	-0.09179	0.02655	0.07270	0.38820	1.00000	
COMM	0.05912	-0.00190	0.03090	0.02900	0.03745	0.03735	0.03063	0.03743	0.02349	0.08883	-0.01363	0.04093	0.09625	-0.01533	-0.10277	0.00099	1.00000

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***Appendix 5.3.2: Group Means and Standard Deviations for the 14 Scale Items, Length of Time in Sales, Percentage of Income Earned by Commission and Age***

**Group Means for Perceptions of Self as a Real Estate Sales Person**

SEX	SELF1	SELF2	SELF3	SELF4	SELF5	SELF6	SELF7	SELF8
MALE	2.49862	2.57044	2.32597	2.02762	2.28177	1.86188	1.93094	2.33287
FEMALE	2.33173	2.38942	2.13221	2.07452	2.18510	1.83654	1.82933	2.24279
TOTAL	2.43772	2.50439	2.25526	2.04474	2.24649	1.85263	1.89386	2.30000

SEX	SELF9888	SELF10	SELF11	SELF12	SELF13	SELF14	TIME	AGE	COMM
MALE	2.21133	1.91022	2.55663	2.80110	1.49448	2.20442	5.38989	43.49637	88.31077
FEMALE	1.95673	1.87019	2.60337	2.72115	1.35096	1.70913	3.47933	41.71216	91.59615
TOTAL	2.11842	1.89561	2.57368	2.77193	1.44211	2.02368	4.69270	42.84529	89.50965

**Group Standard Deviations for Perceptions of Self as a Real Estate Sales Person**

SEX	SELF1	SELF2	SELF3	SELF4	SELF5	SELF6	SELF7	SELF8	
MALE	1.21254	1.08390	1.34969	0.88904	0.98994	0.90808	0.98995	1.13949	
FEMALE	1.29895	1.06975	1.25124	0.98750	1.05139	0.89292	0.98773	1.15381	
TOTAL	1.24680	1.08181	1.31738	0.92603	1.01340	0.90227	0.98992	1.14505	
SEX	SELF9	SELF10	SELF11	SELF12	SELF13	SELF14	TIME	AGE	COMM
MALE	1.02841	1.05267	1.20893	1.18506	0.81901	1.09806	7.15083	10.59955	24.60080
FEMALE	1.00747	1.06984	1.30942	1.28349	0.85695	0.96668	5.41584	8.60102	22.33352
TOTAL	1.02772	1.05867	1.24617	1.22195	0.83555	1.07830	6.63266	9.95032	23.84133

**Group Means for Perceptions of a Typical Male Real Estate Sales Person**

SEX	MALE1	MALE2	MALE3	MALE4	MALE5	MALE6	MALE7	MALE8
MALES	2.32778	2.32778	3.20833	2.16806	3.05417	2.55417	2.92083	2.94583
FEMALES	2.41235	2.05926	3.72346	2.10617	3.56049	2.63457	3.33827	2.87407
TOTAL	2.35822	2.23111	3.39378	2.14578	3.23644	2.58311	3.07111	2.92000

SEX	MALE9	MALE10	MALE11	MALE12	MALE13	MALE14	TIME	AGE	COMM
MALES	2.89028	2.42083	3.17778	3.19444	2.76528	3.30972	5.39864	43.42908	88.22361
FEMALES	3.18272	2.44198	3.54568	3.43210	3.29383	3.99753	3.28598	41.64751	91.30370
TOTAL	2.99556	2.42844	3.31022	3.28000	2.95556	3.55733	4.63808	42.78772	89.33244

**Group Standard Deviations for Perceptions of a Typical Male Real Estate Sales Person**

SEX	MALE1	MALE2	MALE3	MALE4	MALE5	MALE6	MALE7	MALE8
MALES	0.98433	0.96001	1.39976	0.95275	1.24188	1.10750	1.27700	1.27721
FEMALES	1.26661	1.15675	1.47002	1.27080	1.45881	1.25264	1.46971	1.34659
TOTAL	1.09457	1.04265	1.44611	1.07796	1.34558	1.16193	1.36371	1.30248

SEX	MALE9	MALE10	MALE11	MALE12	MALE13	MALE14	TIME	AGE	COMM
MALE	1.19243	1.14674	1.33282	1.24629	1.27091	1.32376	7.23796	10.56982	24.79616
FEMALE	1.43029	1.32744	1.54664	1.39250	1.42818	1.50000	3.86072	8.67558	22.72803
TOTAL	1.29018	1.21435	1.42385	1.30520	1.35306	1.42785	6.31650	9.96245	24.10733

**Group Means for Perceptions of a Typical Female Real Estate Sales Person**

SEX	FEMALE1	FEMALE2	FEMALE3	FEMALE4	FEMALE5	FEMALE6	FEMALE7	FEMALE8
MALES	2.29337	2.36530	3.28068	2.53032	2.73625	2.65021	3.12694	2.95346
FEMALES	2.10766	2.22249	2.53828	2.12919	2.17943	2.04306	2.29426	2.25598
TOTAL	2.22449	2.31233	3.00532	2.38154	2.52972	2.42502	2.81810	2.69476

SEX	FEMALE9	FEMALE10	FEMALE11	FEMALE12	FEMALE13	FEMALE14	TIME	AGE	COMM
MALES	2.81664	2.84344	3.93935	3.59379	2.90973	2.63047	5.40127	43.18195	88.20733
FEMALES	2.11244	2.22249	2.97129	3.00000	2.04785	2.05024	3.54605	41.68883	92.35885
TOTAL	2.55546	2.61313	3.58030	3.37356	2.59006	2.41526	4.71318	42.62815	89.74712



**Group Standard Deviations for Perceptions of a Typical Female Real Estate Sales Person**

SEX	FEMALE1	FEMALE2	FEMALE3	FEMALE4	FEMALE5	FEMALE6	FEMALE7	FEMALE8		
MALES	1.12054	1.15738	1.58967	1.22163	1.26428	1.22892	1.35326	1.37854		
FEMALES	0.98691	1.00873	1.28624	1.05146	1.07684	1.07202	1.17202	1.20312		
TOTAL	1.07623	1.10628	1.52655	1.17702	1.22755	1.20884	1.34986	1.35815		
SEX	FEMALE9	FEMALE10	FEMALE11	FEMALE12	FEMALE13	FEMALE14	TIME	AGE	COMM	
MALES	1.37787	1.45537	1.60701	1.41272	1.49303	1.54462	7.25454	10.57369	24.66231	
FEMALES	1.11208	1.17151	1.31916	1.31401	1.17431	1.12945	5.44483	8.63593	20.99664	
TOTAL	1.32950	1.38929	1.57706	1.40594	1.44423	1.43220	6.69882	9.92164	23.44634	

*Appendix 5.3.3: Wilks Lambda (U Statistic) and Univariate F Ratios*

**Wilks' Lambda and Univariate F Ratios for Perceptions of Self as a Real Estate Sales Person**

WITH 1 AND 1138 DEGREES OF FREEDOM

VARIABLE WILKS' LAMBDA F SIGNIFICANCE

---

SELF1	0.99584	4.749	0.0295
SELF2	0.99351	7.439	0.0065
SELF3	0.99498	5.739	0.0168
SELF4	0.99941	0.6773	0.4107
SELF5	0.99789	2.407	0.1211
SELF6	0.99982	0.2082	0.6482
SELF7	0.99756	2.788	0.0952
SELF8	0.99856	1.636	0.2011
SELF9	0.98577	16.43	0.0000
SELF10	0.99967	0.3775	0.5391
SELF11	0.99967	0.3714	0.5424
SELF12	0.99901	1.131	0.2878
SELF13	0.99316	7.841	0.0052
SELF14	0.95106	58.56	0.0000
TIME	0.98075	22.33	0.0000
AGE	0.99254	8.551	0.0035
COMM	0.99560	5.035	0.0250

**Wilks' Lambda and F Ratio for Perceptions of a Typical Male Real Estate Sales Person**

WITH 1 AND 1123 DEGREES OF FREEDOM

VARIABLE WILKS' LAMBDA F SIGNIFICANCE

---

MALE1	0.99862	1.548	0.2137
MALE2	0.98471	17.44	0.0000
MALE3	0.97074	33.85	0.0000
MALE4	0.99924	0.8541	0.3556
MALE5	0.96735	37.91	0.0000
MALE6	0.99890	1.241	0.2654
MALE7	0.97839	24.80	0.0000
MALE8	0.99930	0.7866	0.3753
MALE9	0.98815	13.46	0.0003
MALE10	0.99993	0.7850E-01	0.7794
MALE11	0.98460	17.56	0.0000
MALE12	0.99235	8.652	0.0033
MALE13	0.96481	40.96	0.0000
MALE14	0.94649	63.49	0.0000
TIME	0.97420	29.74	0.0000
AGE	0.99263	8.343	0.0039
COMM	0.99624	4.2434	0.0396

**Wilks' Lambda and F Ratio for Perceptions of a Typical Female Real Estate Sales Person**

WITH 1 AND 1125 DEGREES OF FREEDOM

VARIABLE	WILKS' LAMBDA	F	SIGNIFICANCE
FEMALE1	0.99305	7.878	0.0051
FEMALE2	0.99611	4.396	0.0363
FEMALE3	0.94476	65.77	0.0000
FEMALE4	0.97287	31.37	0.0000
FEMALE5	0.95195	56.79	0.0000
FEMALE6	0.94109	70.43	0.0000
FEMALE7	0.91113	109.7	0.0000
FEMALE8	0.93841	73.84	0.0000
FEMALE9	0.93448	78.88	0.0000
FEMALE10	0.95335	55.05	0.0000
FEMALE11	0.91200	108.5	0.0000
FEMALE12	0.95834	48.90	0.0000
FEMALE13	0.91683	102.1	0.0000
FEMALE14	0.96167	44.84	0.0000
TIME	0.98209	20.52	0.0000
2AGE	0.99471	5.982	0.0146
COMM	0.99268	8.298	0.0040

*APPENDIX 5.4*

*Summary Statistics For The Stepwise Discriminant Analysis*

*Appendix 5.4.1:*

*Summary Statistics Of The Stepwise Discriminant Analysis  
For Perceptions Of Self As A Real Estate Sales Person*

SUMMARY TABLE

STEP	ACTION	IN	LAMBDA	SIGNIFICANCE
	ENTERED	REMOVED		
1	SELF14	1	.95106	.0000
2	TIME	2	.93395	.0000
3	SELF4	3	.92406	.0000
4	SELF2	4	.91633	.0000
5	SELF9	5	.91125	.0000
6	SELF6	6	.90710	.0000
7	SELF11	7	.90443	.0000
8	COMM	8	.90228	.0000
9	AGE	9	.90013	.0000
10	SELF10	10	.89880	.0000
11	SELF1	11	.89777	.0000

*Appendix 5.4.2:*

*Summary Statistics Of The Stepwise Discriminant Analysis  
For Perceptions Of A Typical Male Real Estate Sales  
Person*

SUMMARY TABLE

STEP	ACTION ENTERED	REMOVED	IN	LAMBDA	SIGNIFICANCE
1	MALE14		1	.94649	.0000
2	MALE2		2	.92411	.0000
3	TIME		3	.90648	.0000
4	MALE5		4	.89198	.0000
5	MALE8		5	.87781	.0000
6	MALE1		6	.87046	.0000
7	MALE9		7	.86617	.0000
8	MALE3		8	.86367	.0000
9	COMM		9	.86191	.0000
10	MALE11		10	.86063	.0000
11	MALE10		11	.85956	.0000
12	MALE13		12	.85854	.0000

*Appendix 5.4.3: Summary Statistics Of The Stepwise Discriminant Analysis  
For Perceptions Of A Typical Female Real Estate Sales  
Person*

SUMMARY TABLE

STEP	ACTION ENTERED	REMOVED	IN	LAMBDA	SIGNIFICANCE
1	FEMALE7		1	.91113	.0000
2	FEMALE11		2	.88372	.0000
3	TIME		3	.86911	.0000
4	FEMALE13		4	.85623	.0000
5	COMM		5	.85043	.0000
6	FEMALE8		6	.84845	.0000
7	FEMALE2		7	.84683	.0000
8	FEMALE5		8	.84568	.0000
9	AGE		9	.84473	.0000
10	FEMALE14		10	.84382	.0000



## *APPENDIX 5.5*

*5.5.1: Initial Statistics, Scree Plots And Final Statistics For  
The Sample As A Whole*

*5.5.2: Initial Statistics, Scree Plots And Final Statistics For  
Male Respondents As An Independent Group*

*5.5.3: Initial Statistics, Scree Plots And Final Statistics For  
Female Respondents As An Independent Group*

*APPENDIX 5.5.1: Initial Statistics, Scree Plots And Final Statistics For Factor Analysis  
For The Sample As A Whole*

*Appendix 5.5.1 (a): Perceptions of Self as a Real Estate Sales Person*

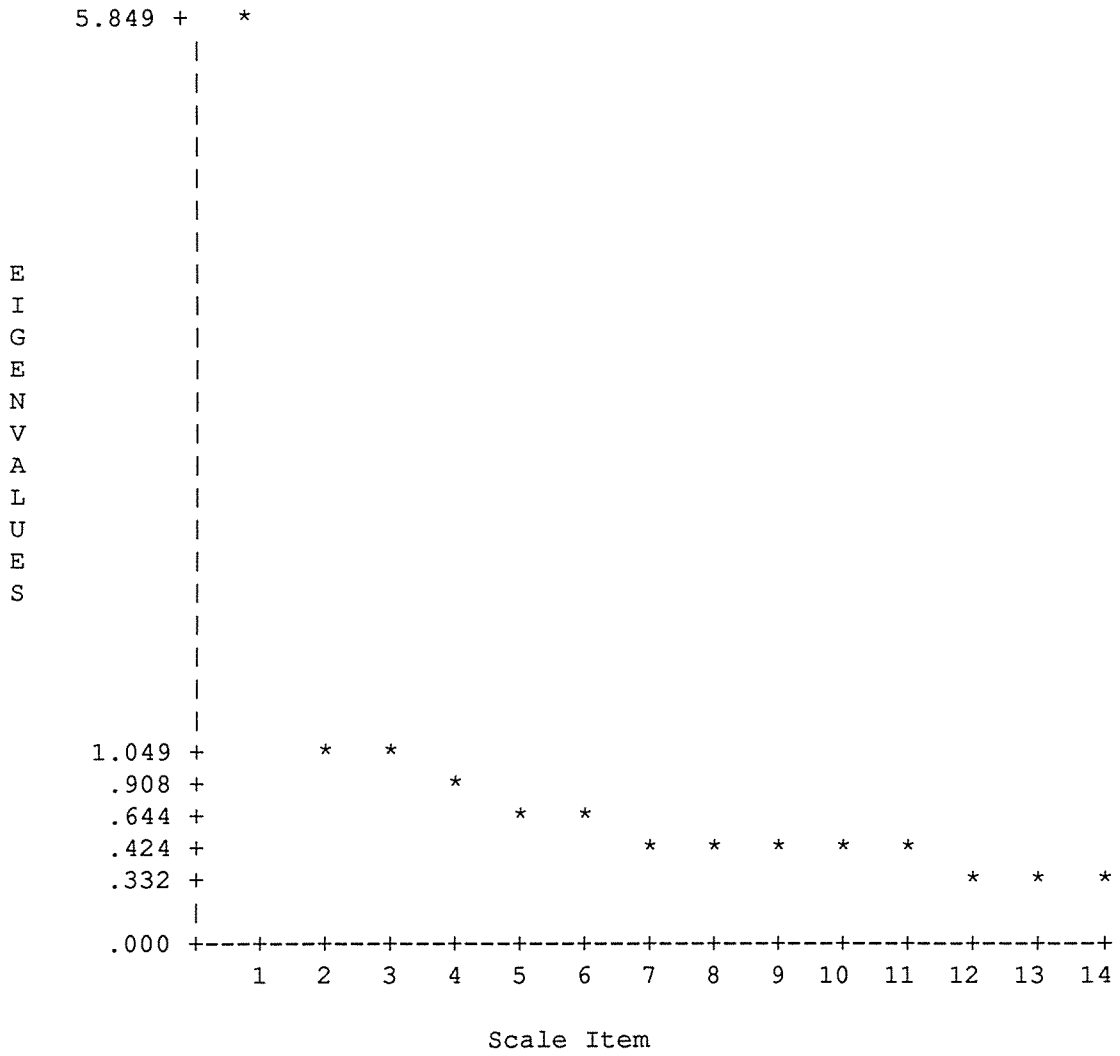
ANALYSIS NUMBER 1 LISTWISE DELETION OF CASES WITH MISSING VALUES

EXTRACTION 1 FOR ANALYSIS 1, PRINCIPAL AXIS FACTORING (PAF)

INITIAL STATISTICS:

VARIABLE	COMMUNALITY	FACTOR	EIGENVALUE	PCT OF VAR	CUM PCT
SELF1	.38639	1	5.84942	41.8	41.8
SELF2	.43995	2	1.19644	8.5	50.3
SELF3	.23770	3	1.04924	7.5	57.8
SELF4	.50152	4	0.90815	6.5	64.3
SELF5	.34184	5	0.71999	5.1	69.5
SELF6	.54233	6	0.64350	4.6	74.0
SELF7	.41634	7	0.60782	4.3	78.4
SELF8	.45407	8	0.54569	3.9	82.3
SELF9	.51844	9	0.51943	3.7	86.0
SELF10	.47877	10	0.47795	3.4	89.4
SELF11	.30462	11	0.42384	3.0	92.4
SELF12	.26519	12	0.39388	2.8	95.3
SELF13	.54462	13	0.33269	2.4	97.6
SELF14	.30701	14	0.33194	2.4	100.0

Perceptions of Self as a Real Estate Sales Person



FINAL STATISTICS:

VARIABLE	COMMUNALITY	FACTOR	EIGENVALUE	PCT OF VAR	CUM PCT
SELF1	.49533	1	5.35281	38.2	38.2
SELF2	.58637	2	0.74390	5.3	43.5
SELF3	.26603	3	0.54233	3.9	47.4
SELF4	.56512				
SELF5	.36397				
SELF6	.55611				
SELF7	.47231				
SELF8	.59997				
SELF9	.61887				
SELF10	.52248				
SELF11	.28599				
SELF12	.25297				
SELF13	.69096				
SELF14	.36254				

*Appendix 5.5.1 (b): Perceptions of a Typical Male Real Estate Sales Person*

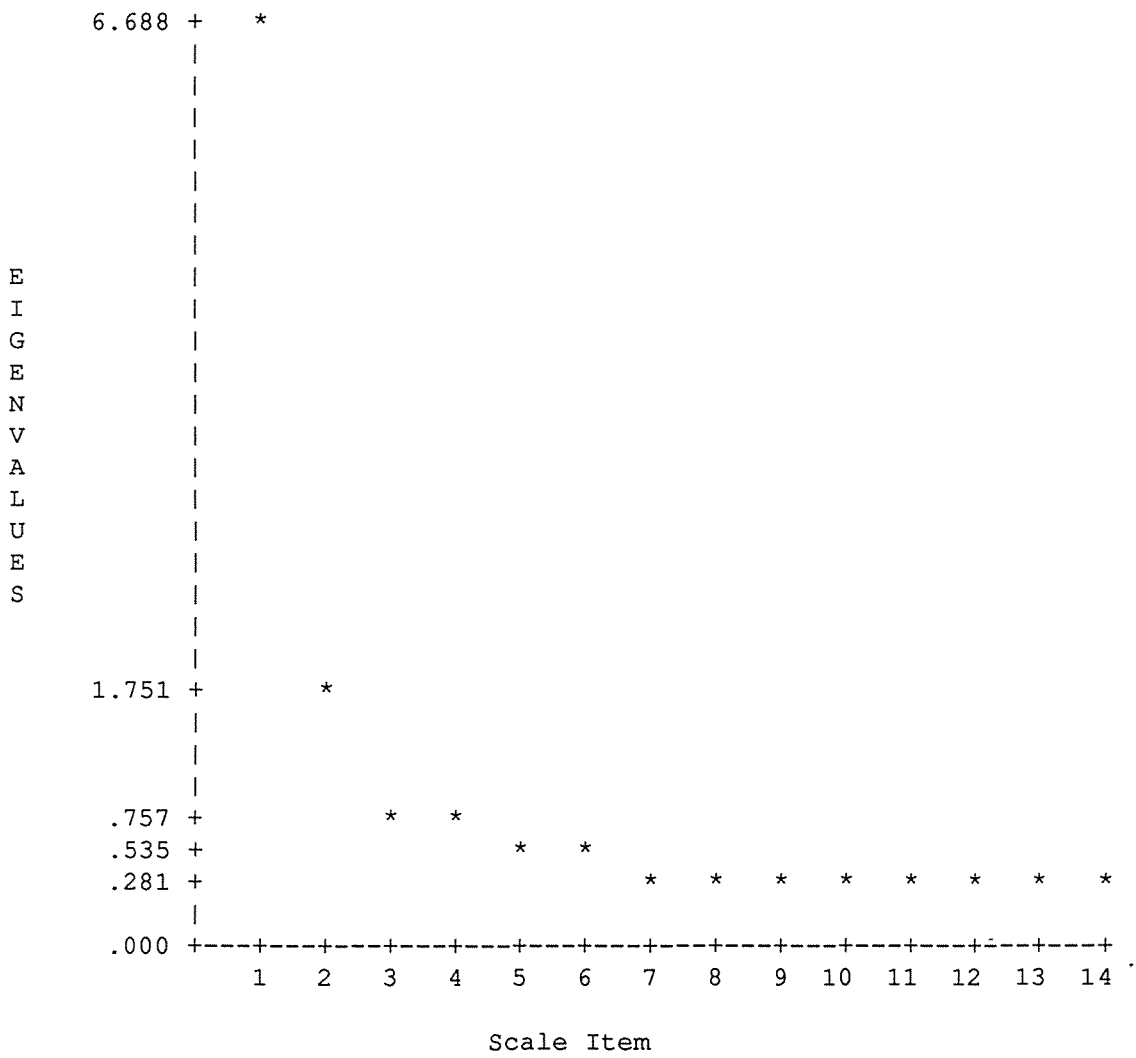
ANALYSIS NUMBER 1 LISTWISE DELETION OF CASES WITH MISSING VALUES

EXTRACTION 1 FOR ANALYSIS 1, PRINCIPAL AXIS FACTORING (PAF)

INITIAL STATISTICS:

VARIABLE	COMMUNALITY	FACTOR	EIGENVALUE	PCT OF VAR	CUM PCT
MALE1	.49886	1	6.68751	47.8	47.8
MALE2	.55485	2	1.75126	12.5	60.3
MALE3	.41291	3	0.82030	5.9	66.1
MALE4	.55725	4	0.75667	5.4	71.5
MALE5	.47946	5	0.57234	4.1	75.6
MALE6	.55478	6	0.53498	3.8	79.5
MALE7	.53110	7	0.44988	3.2	82.7
MALE8	.54598	8	0.43358	3.1	85.8
MALE9	.63081	9	0.39482	2.8	88.6
MALE10	.55910	10	0.35806	2.6	91.1
MALE11	.44715	11	0.33434	2.4	93.5
MALE12	.40981	12	0.32876	2.3	95.9
MALE13	.57807	13	0.29693	2.1	98.0
MALE14	.53290	14	0.28058	2.0	100.0

Perceptions of a Typical Male Real Estate Sales Person



FINAL STATISTICS:

VARIABLE	COMMUNALITY	FACTOR	EIGENVALUE	PCT OF VAR	CUM PCT
MALE1	.51561	1	6.23112	44.5	44.5
MALE2	.71582	2	1.35618	9.7	54.2
MALE3	.41540				
MALE4	.63396				
MALE5	.48684				
MALE6	.56129				
MALE7	.56079				
MALE8	.50296				
MALE9	.63042				
MALE10	.55987				
MALE11	.42872				
MALE12	.39090				
MALE13	.61420				
MALE14	.57051				

*Appendix 5.5.1 (c): Perceptions of a Typical Female Real Estate Sales Person*

ANALYSIS NUMBER 1 LISTWISE DELETION OF CASES WITH MISSING VALUES

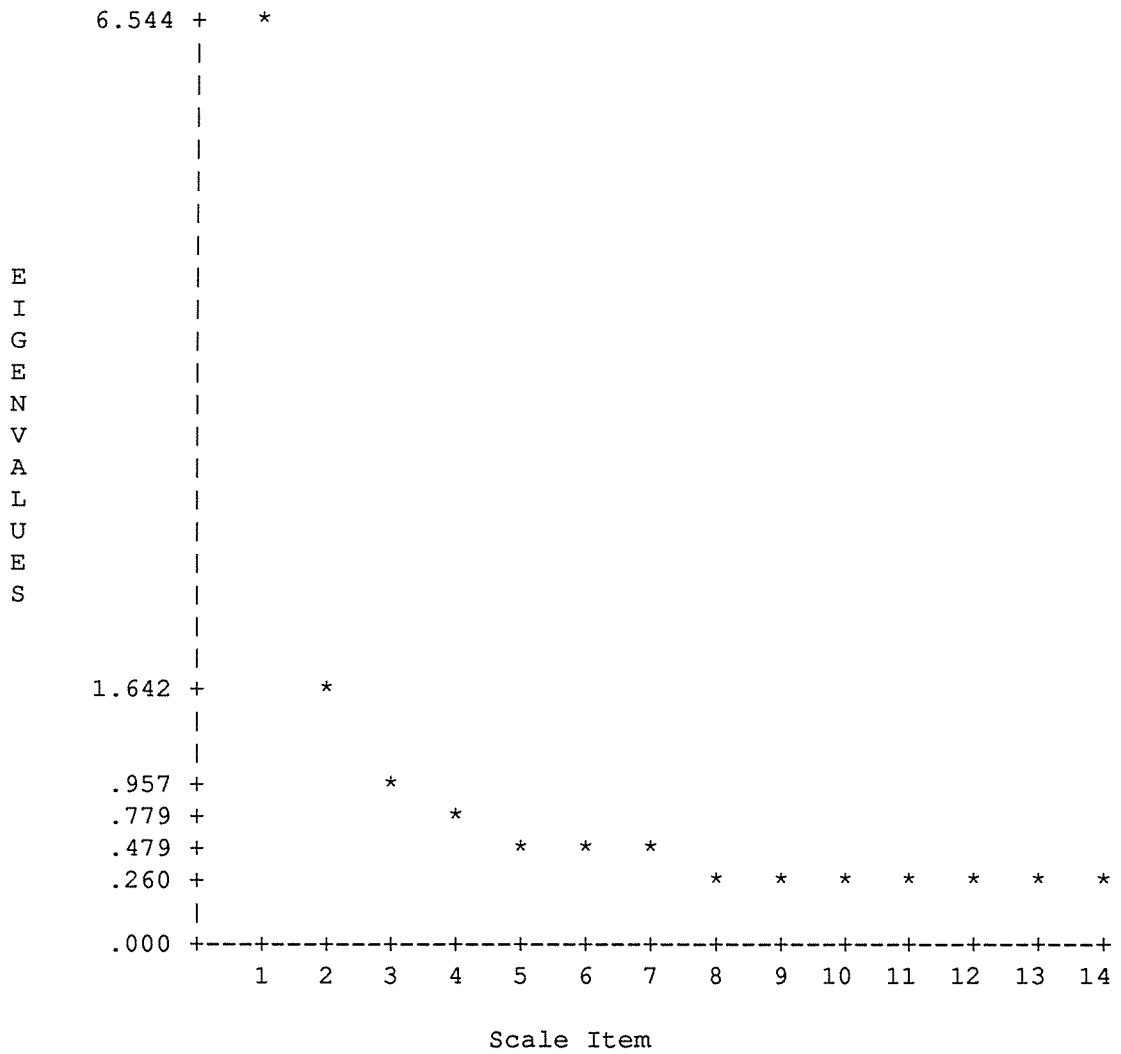
EXTRACTION 1 FOR ANALYSIS 1, PRINCIPAL AXIS FACTORING (PAF)

INITIAL STATISTICS:

VARIABLE	COMMUNALITY	FACTOR	EIGENVALUE	PCT OF VAR	CUM PCT
FEMALE1	.44277	1	6.54353	46.7	46.7
FEMALE2	.48162	2	1.64152	1.7	58.5
FEMALE3	.39715	3	0.95664	6.8	65.3
FEMALE4	.53419	4	0.77900	5.6	70.9
FEMALE5	.43541	5	0.61514	4.4	75.3
FEMALE6	.61722	6	0.56714	4.1	79.3
FEMALE7	.55575	7	0.47946	3.4	82.7
FEMALE8	.59639	8	0.43517	3.1	85.8
FEMALE9	.62901	9	0.41445	3.0	88.8
FEMALE10	.55320	10	0.36861	2.6	91.4
FEMALE11	.43241	11	0.33829	2.4	93.8
FEMALE12	.38829	12	0.31524	2.3	96.1
FEMALE13	.61629	13	0.28565	2.0	98.1
FEMALE14	.46926	14	0.26017	1.9	100.0



Perceptions of a Typical Female Real Estate Sales Person



FINAL STATISTICS:

VARIABLE	COMMUNALITY	FACTOR	EIGENVALUE	PCT OF VAR	CUM PCT
FEMALE1	.46950	1	6.07546	43.4	43.4
FEMALE2	.63963	2	1.20357	8.6	52.0
FEMALE3	.39652				
FEMALE4	.62069				
FEMALE5	.43830				
FEMALE6	.62804				
FEMALE7	.57021				
FEMALE8	.55451				
FEMALE9	.59155				
FEMALE10	.52646				
FEMALE11	.37981				
FEMALE12	.36037				
FEMALE13	.66278				
FEMALE14	.44065				

*APPENDIX 5.5.2: Initial Statistics, Scree Plots And Final Statistics For Factor Analysis  
For Male Respondents As An Independent Group*

*Appendix 5.5.2 (a): Perceptions of Self as a Real Estate Sales Person*

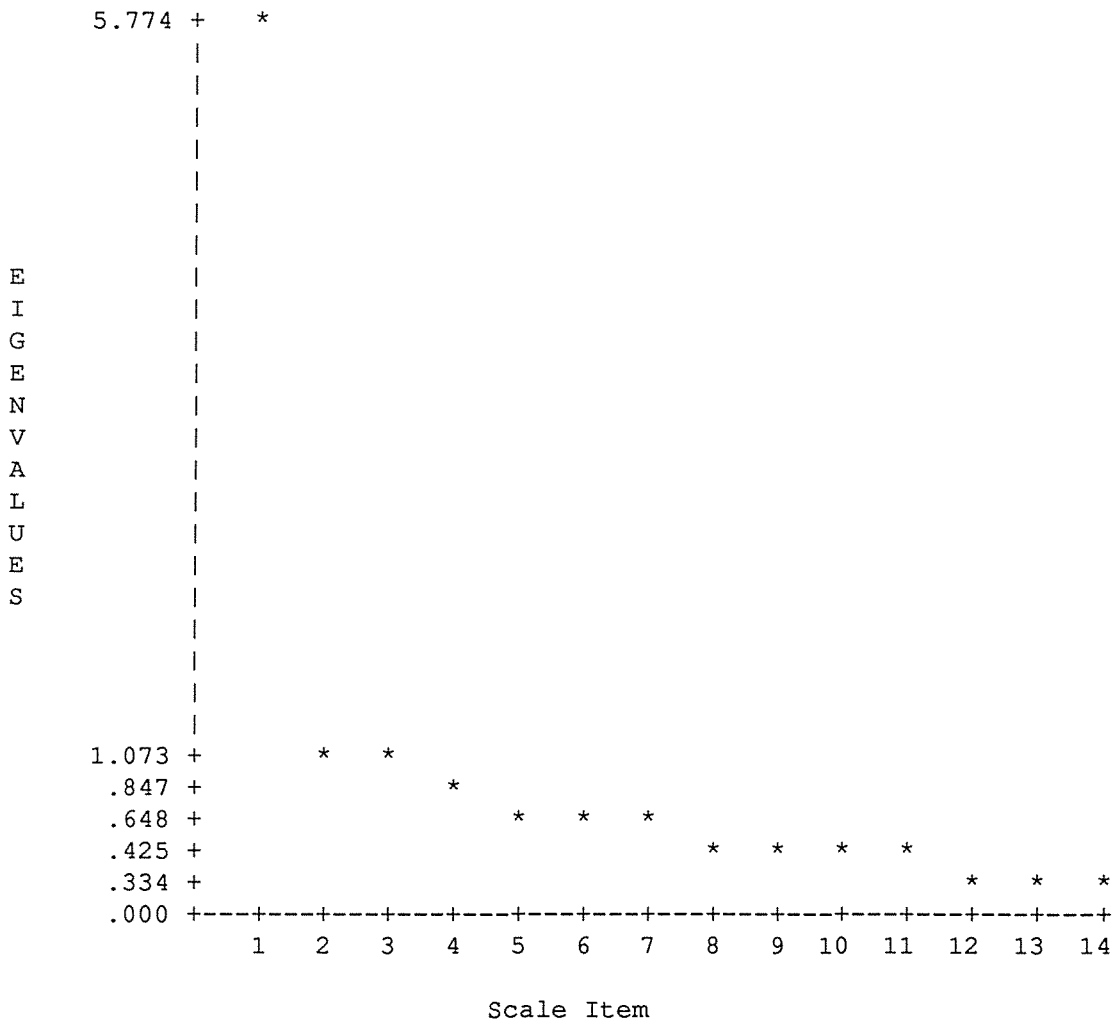
ANALYSIS NUMBER 1 LISTWISE DELETION OF CASES WITH MISSING VALUES

EXTRACTION 1 FOR ANALYSIS 1, PRINCIPAL AXIS FACTORING (PAF)

INITIAL STATISTICS:

VARIABLE	COMMUNALITY	FACTOR	EIGENVALUE	PCT OF VAR	CUM PCT
SELF1	.36685	1	5.77351	41.2	41.2
SELF2	.42667	2	1.16700	8.3	49.6
SELF3	.23082	3	1.07343	7.7	57.2
SELF4	.50959	4	0.84730	6.1	63.3
SELF5	.34282	5	0.75719	5.4	68.7
SELF6	.53517	6	0.65664	4.7	73.4
SELF7	.42214	7	0.64817	4.6	78.0
SELF8	.42063	8	0.56565	4.0	82.1
SELF9	.47699	9	0.54271	3.9	85.9
SELF10	.45903	10	0.48122	3.4	89.4
SELF11	.30736	11	0.42467	3.0	92.4
SELF12	.28829	12	0.38002	2.7	95.1
SELF13	.55628	13	0.34865	2.5	97.6
SELF14	.29155	14	0.33382	2.4	100.0

Perceptions of Self as a Real Estate Sales Person



FINAL STATISTICS:

VARIABLE	COMMUNALITY	FACTOR	EIGENVALUE	PCT OF VAR	CUM PCT
SELF1	.47008	1	5.26508	37.6	37.6
SELF2	.59346	2	0.69972	5.0	42.6
SELF3	.25323	3	0.54969	3.9	46.5
SELF4	.55062				
SELF5	.36161				
SELF6	.55750				
SELF7	.49133				
SELF8	.55012				
SELF9	.60469				
SELF10	.48693				
SELF11	.30667				
SELF12	.28192				
SELF13	.66907				
SELF14	.33726				

*Appendix 5.5.2 (b): Perceptions of a Typical Male Real Estate Sales Person*

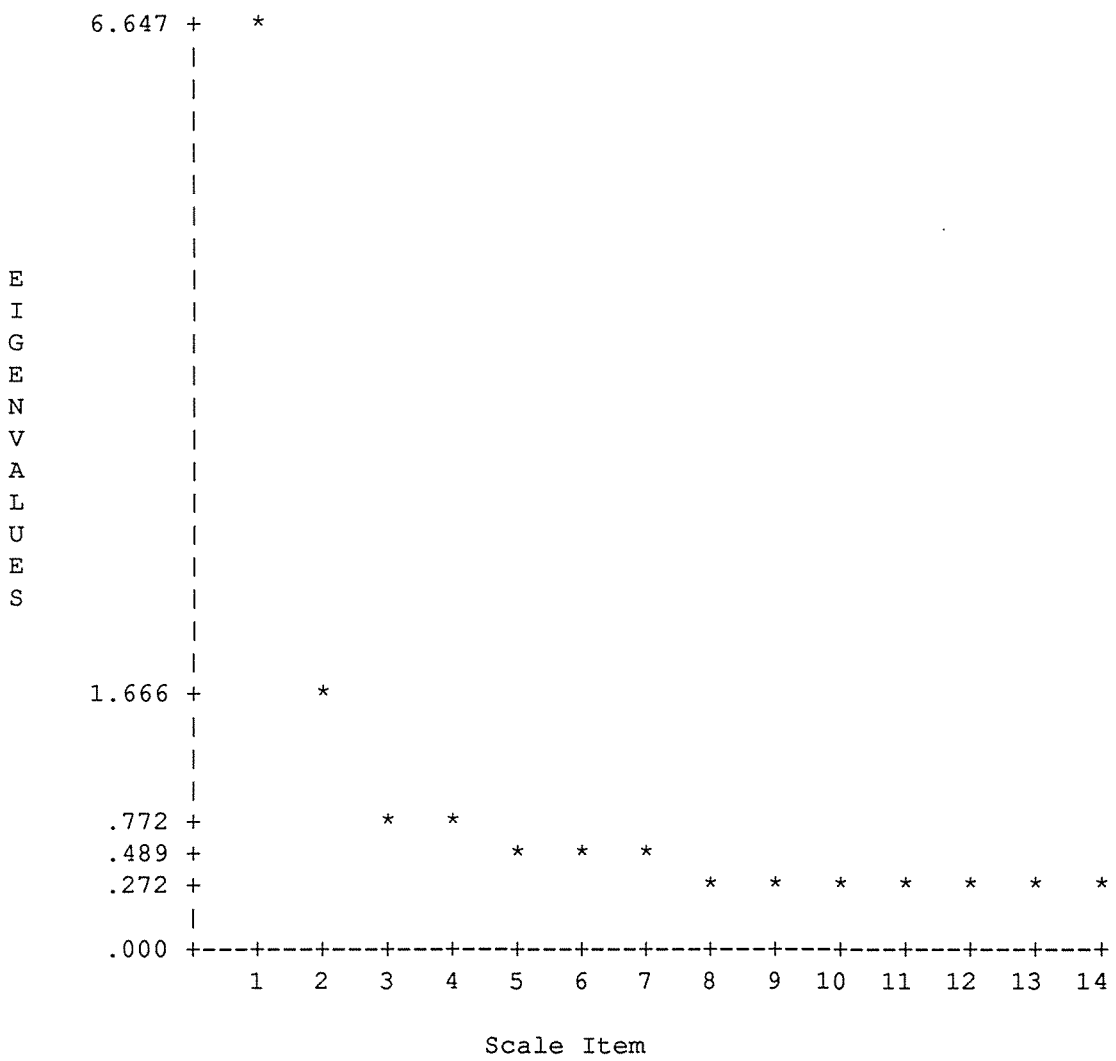
ANALYSIS NUMBER 1 LISTWISE DELETION OF CASES WITH MISSING VALUES

EXTRACTION 1 FOR ANALYSIS 1, PRINCIPAL AXIS FACTORING (PAF)

INITIAL STATISTICS:

VARIABLE	COMMUNALITY	FACTOR	EIGENVALUE	PCT OF VAR	CUM PCT
MALE1	.48427	1	6.64709	47.5	47.5
MALE2	.54192	2	1.66639	11.9	59.4
MALE3	.44391	3	0.85452	6.1	65.5
MALE4	.55931	4	0.77216	5.5	71.0
MALE5	.49372	5	0.57997	4.1	75.1
MALE6	.55082	6	0.53666	3.8	79.0
MALE7	.49968	7	0.48923	3.5	82.5
MALE8	.55520	8	0.43077	3.1	85.5
MALE9	.63451	9	0.41321	3.0	88.5
MALE10	.56712	10	0.36329	2.6	91.1
MALE11	.44712	11	0.34443	2.5	93.6
MALE12	.37245	12	0.32463	2.3	95.9
MALE13	.55823	13	0.30567	2.2	98.1
MALE14	.48016	14	0.27199	1.9	100.0

Perceptions of a Typical Male Real Estate Sales Person



FINAL STATISTICS:

VARIABLE	COMMUNALITY	FACTOR	EIGENVALUE	PCT OF VAR	CUM PCT
MALE1	.51650	1	6.18305	44.2	44.2
MALE2	.69425	2	1.24540	8.9	53.1
MALE3	.43051				
MALE4	.62823				
MALE5	.50351				
MALE6	.54796				
MALE7	.51695				
MALE8	.54015				
MALE9	.63439				
MALE10	.56537				
MALE11	.42892				
MALE12	.34576				
MALE13	.57804				
MALE14	.49793				



*Appendix 5.5.2 (c): Perceptions of a Typical Female Real Estate Sales Person*

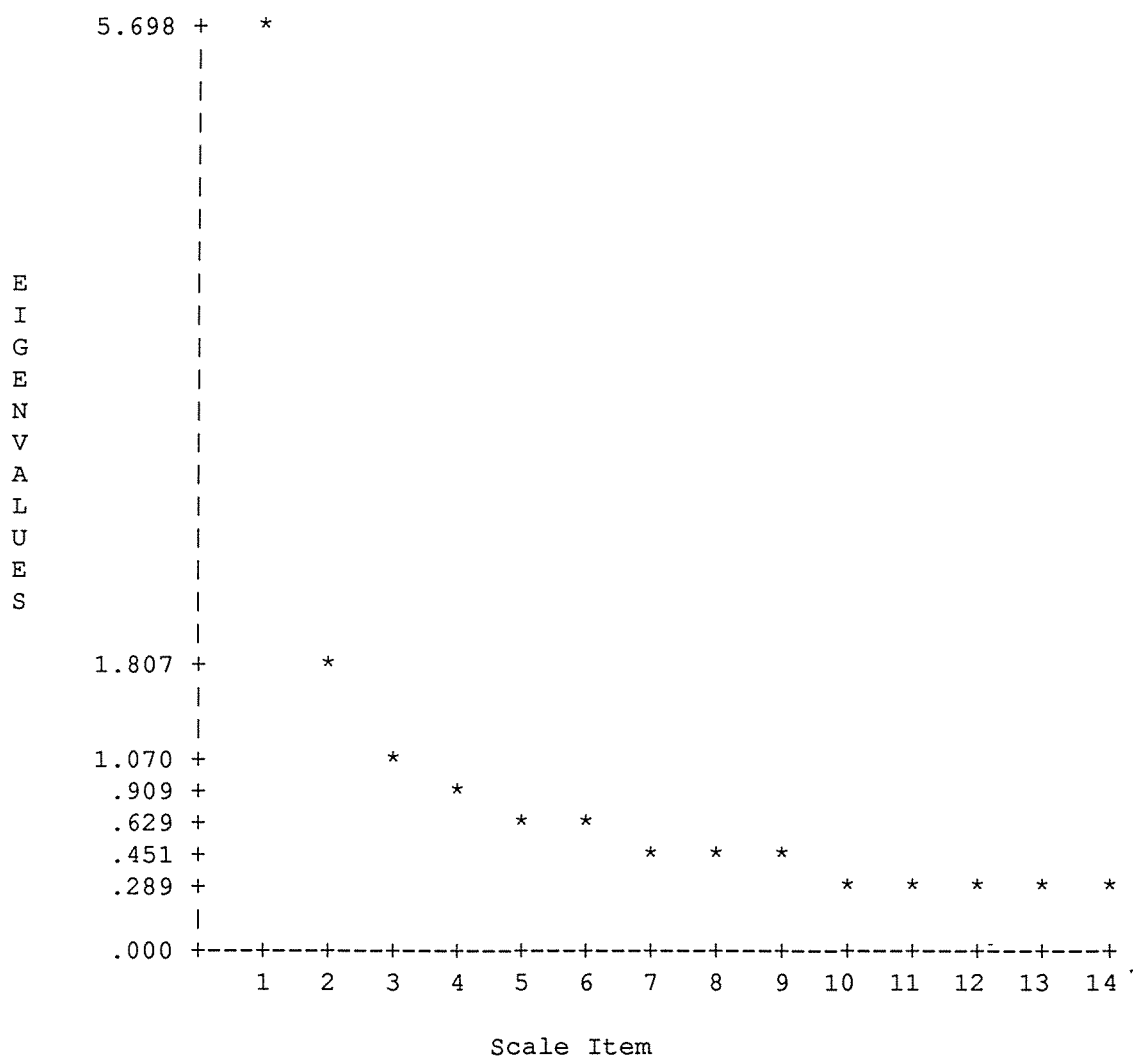
ANALYSIS NUMBER 1 LISTWISE DELETION OF CASES WITH MISSING VALUES

EXTRACTION 1 FOR ANALYSIS 1, PRINCIPAL AXIS FACTORING (PAF)

INITIAL STATISTICS:

VARIABLE	COMMUNALITY	FACTOR	EIGENVALUE	PCT OF VAR	CUM PCT
FEMALE1	.41535	1	5.69848	40.7	40.7
FEMALE2	.46044	2	1.80696	12.9	53.6
FEMALE3	.35643	3	1.07035	7.6	61.3
FEMALE4	.48545	4	0.90877	6.5	67.7
FEMALE5	.36740	5	0.69122	4.9	72.7
FEMALE6	.54441	6	0.62920	4.5	77.2
FEMALE7	.49469	7	0.51122	3.7	80.8
FEMALE8	.54365	8	0.48952	3.5	84.3
FEMALE9	.57153	9	0.45102	3.2	87.5
FEMALE10	.50866	10	0.39788	2.8	90.4
FEMALE11	.36841	11	0.38044	2.7	93.1
FEMALE12	.34367	12	0.34985	2.5	95.6
FEMALE13	.56008	13	0.32571	2.3	97.9
FEMALE14	.43997	14	0.28937	2.1	100.0

Perceptions of a Typical Female Real Estate Sales Person



FINAL STATISTICS:

VARIABLE	COMMUNALITY	FACTOR	EIGENVALUE	PCT OF VAR	CUM PCT
FEMALE1	.53859	1	5.22283	37.3	37.3
FEMALE2	.61956	2	1.37471	9.8	47.1
FEMALE3	.41336	3	0.59790	4.3	51.4
FEMALE4	.58492				
FEMALE5	.38141				
FEMALE6	.55720				
FEMALE7	.51172				
FEMALE8	.61125				
FEMALE9	.59352				
FEMALE10	.58088				
FEMALE11	.31009				
FEMALE12	.32646				
FEMALE13	.65965				
FEMALE14	.50684				

*APPENDIX 5.5.3: Initial Statistics, Scree Plots And Final Statistics For Factor Analysis  
For Female Respondents As An Independent Group*

*Appendix 5.5.3 (a): Perceptions of Self as a Real Estate Sales Person*

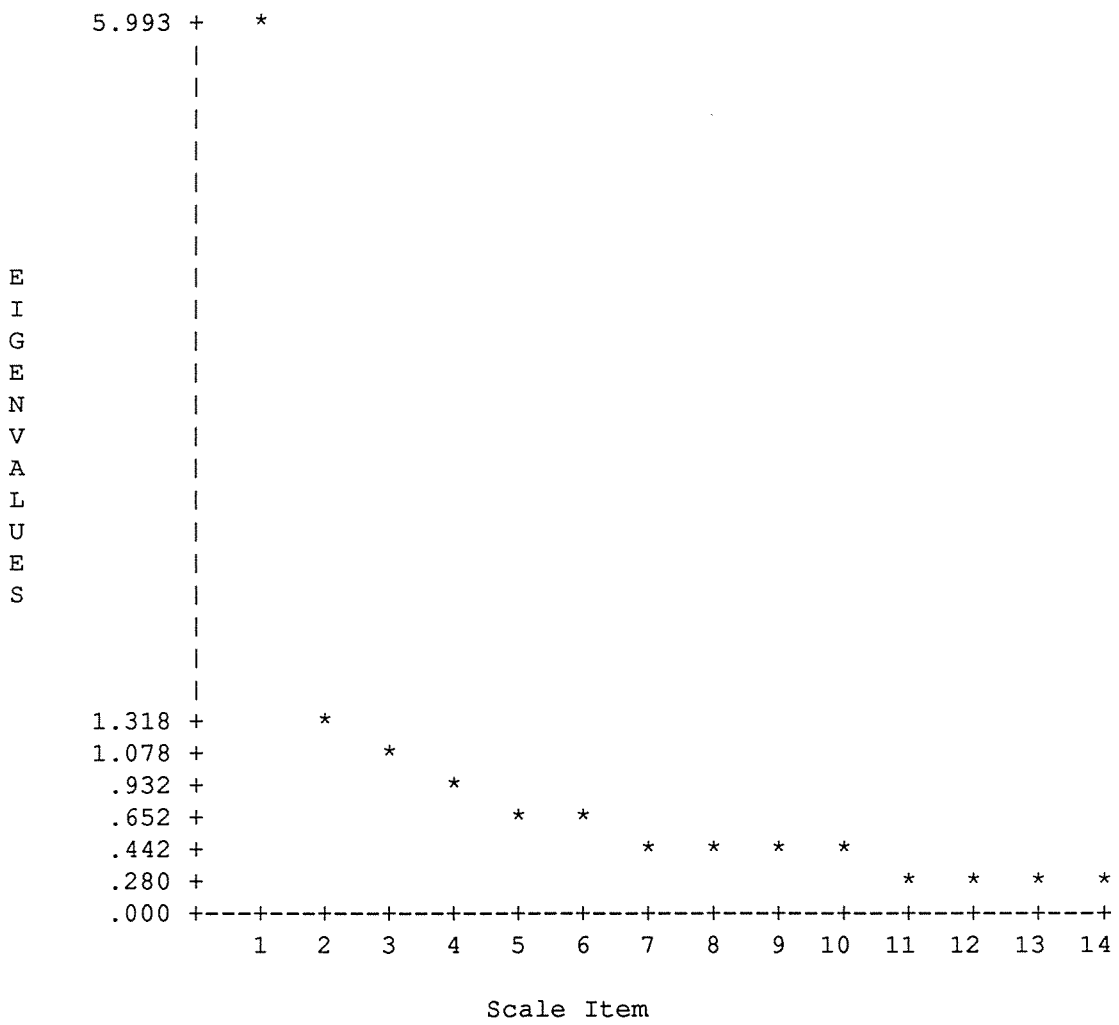
ANALYSIS NUMBER 1 LISTWISE DELETION OF CASES WITH MISSING VALUES

EXTRACTION 1 FOR ANALYSIS 1, PRINCIPAL AXIS FACTORING (PAF)

INITIAL STATISTICS:

VARIABLE	COMMUNALITY	FACTOR	EIGENVALUE	PCT OF VAR	CUM PCT
SELF1	.42926	1	5.99297	42.8	42.8
SELF2	.47253	2	1.31760	9.4	52.2
SELF3	.25789	3	1.07828	7.7	59.9
SELF4	.54008	4	0.93203	6.7	66.6
SELF5	.34912	5	0.70473	5.0	71.6
SELF6	.57260	6	0.65236	4.7	76.3
SELF7	.44035	7	0.58827	4.2	80.5
SELF8	.53069	8	0.48080	3.4	83.9
SELF9	.60299	9	0.46232	3.3	87.2
SELF10	.53919	10	0.44190	3.2	90.4
SELF11	.33614	11	0.39598	2.8	93.2
SELF12	.25151	12	0.37390	2.7	95.9
SELF13	.54097	13	0.29910	2.1	98.0
SELF14	.34565	14	0.27975	2.0	100.0

Perceptions of Self As A Real Estate Sales Person



FINAL STATISTICS:

VARIABLE	COMMUNALITY	FACTOR	EIGENVALUE	PCT OF VAR	CUM PCT
SELF1	.53521	1	5.53139	39.5	39.5
SELF2	.59790	2	0.89638	6.4	45.9
SELF3	.27086	3	0.58507	4.2	50.1
SELF4	.62549				
SELF5	.37582				
SELF6	.56564				
SELF7	.45953				
SELF8	.67081				
SELF9	.64529				
SELF10	.59205				
SELF11	.28696				
SELF12	.23116				
SELF13	.77264				
SELF14	.38349				

*Appendix 5.5.3 (b): Perceptions of a Typical Male Real Estate Sales Person*

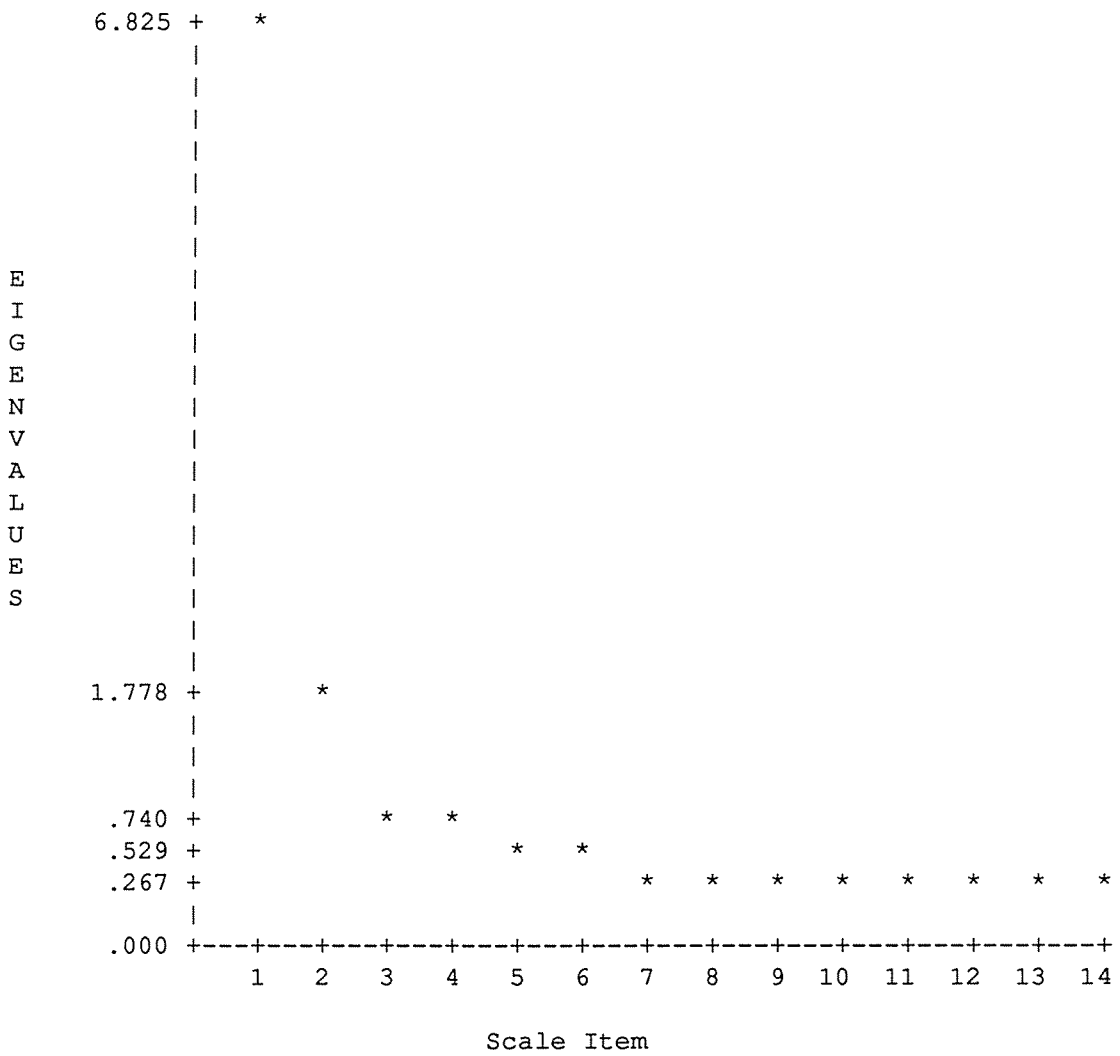
ANALYSIS NUMBER 1 LISTWISE DELETION OF CASES WITH MISSING VALUES

EXTRACTION 1 FOR ANALYSIS 1, PRINCIPAL AXIS FACTORING (PAF)

INITIAL STATISTICS:

VARIABLE	COMMUNALITY	FACTOR	EIGENVALUE	PCT OF VAR	CUM PCT
MALE1	.53341	1	6.82506	48.8	48.8
MALE2	.57661	2	1.77769	12.7	61.4
MALE3	.37162	3	0.83560	6.0	67.4
MALE4	.57616	4	0.73977	5.3	72.7
MALE5	.49467	5	0.55643	4.0	76.7
MALE6	.57387	6	0.52935	3.8	80.5
MALE7	.56761	7	0.44958	3.2	83.7
MALE8	.57496	8	0.42833	3.1	86.7
MALE9	.63468	9	0.36148	2.6	89.3
MALE10	.57478	10	0.34302	2.5	91.8
MALE11	.45843	11	0.30717	2.2	94.0
MALE12	.47742	12	0.30249	2.2	96.1
MALE13	.59423	13	0.27692	2.0	98.1
MALE14	.57269	14	0.26711	1.9	100.0

Perceptions of a Typical Male Real Estate Sales Person





FINAL STATISTICS:

VARIABLE	COMMUNALITY	FACTOR	EIGENVALUE	PCT OF VAR	CUM PCT
MALE1	.56229	1	6.38345	45.6	45.6
MALE2	.71493	2	1.39903	10.0	55.6
MALE3	.36532				
MALE4	.64479				
MALE5	.48714				
MALE6	.57857				
MALE7	.60487				
MALE8	.50693				
MALE9	.62469				
MALE10	.56293				
MALE11	.42471				
MALE12	.45300				
MALE13	.63273				
MALE14	.61958				

*Appendix 5.5.3 (c): Perceptions of a Typical Female Real Estate Sales Person*

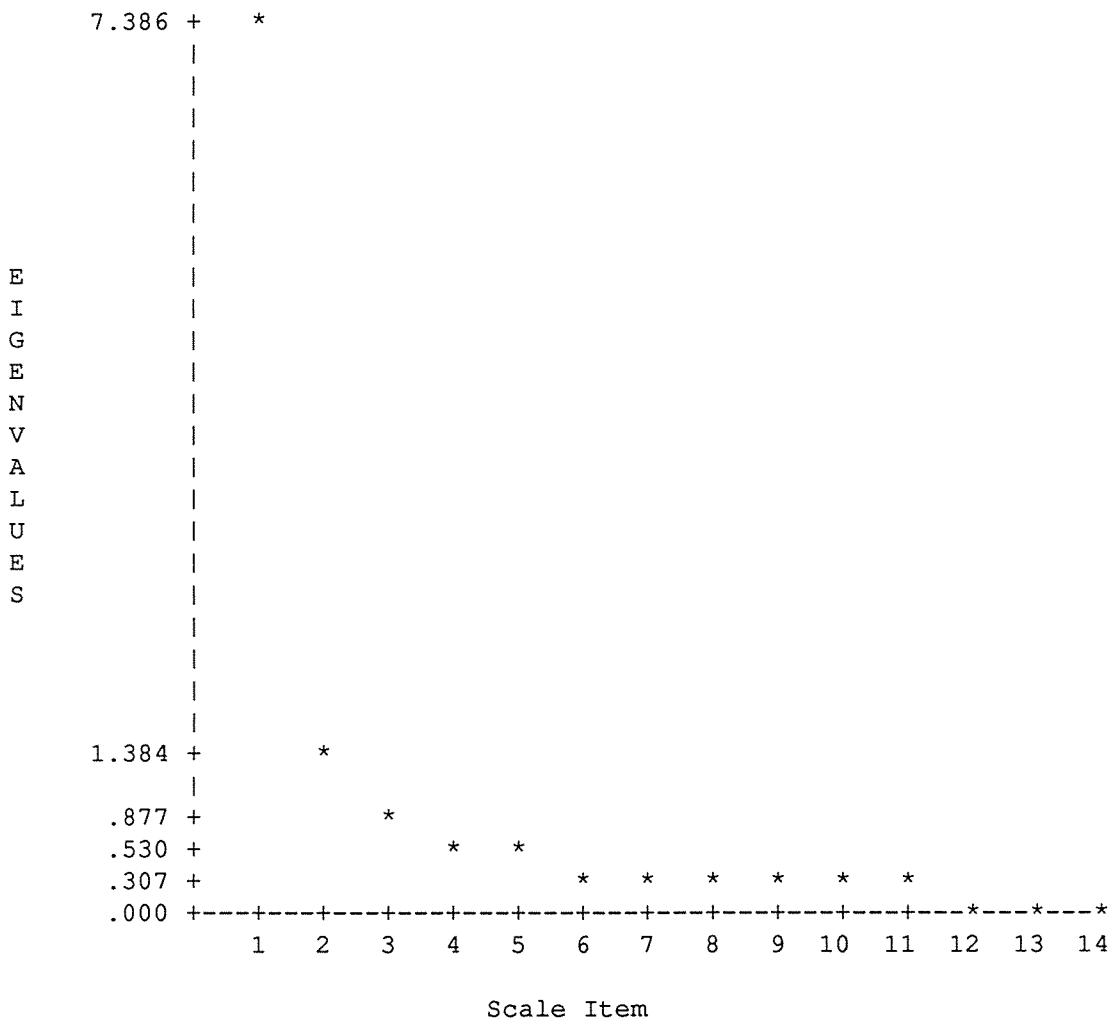
ANALYSIS NUMBER 1 LISTWISE DELETION OF CASES WITH MISSING VALUES

EXTRACTION 1 FOR ANALYSIS 1, PRINCIPAL AXIS FACTORING (PAF)

INITIAL STATISTICS:

VARIABLE	COMMUNALITY	FACTOR	EIGENVALUE	PCT OF VAR	CUM PCT
FEMALE1	.50930	1	7.38612	52.8	52.8
FEMALE2	.54539	2	1.38413	9.9	62.6
FEMALE3	.38683	3	0.87686	6.3	68.9
FEMALE4	.62200	4	0.69751	5.0	73.9
FEMALE5	.52696	5	0.52991	3.8	77.7
FEMALE6	.70643	6	0.49965	3.6	81.2
FEMALE7	.56287	7	0.47631	3.4	84.6
FEMALE8	.63659	8	0.41437	3.0	87.6
FEMALE9	.70797	9	0.38829	2.8	90.4
FEMALE10	.59964	10	0.33654	2.4	92.8
FEMALE11	.44842	11	0.30705	2.2	95.0
FEMALE12	.40490	12	0.26005	1.9	96.8
FEMALE13	.67054	13	0.24591	1.8	98.6
FEMALE14	.52216	14	0.19730	1.4	100.0

Perceptions of a Typical Female Real Estate Sales Person



FINAL STATISTICS:

VARIABLE	COMMUNALITY	FACTOR	EIGENVALUE	PCT OF VAR	CUM PCT
FEMALE1	.54974	1	6.97560	49.8	49.8
FEMALE2	.67487	2	0.99783	7.1	57.0
FEMALE3	.37411				
FEMALE4	.69974				
FEMALE5	.51722				
FEMALE6	.72322				
FEMALE7	.57205				
FEMALE8	.60779				
FEMALE9	.70691				
FEMALE10	.58574				
FEMALE11	.39449				
FEMALE12	.36179				
FEMALE13	.69424				
FEMALE14	.51154				

## **APPENDIX 5.6**

***Appendix 5.6.1: Rotated Factor Matrices And Factor Transformation  
Matrices For Principal Axes Factoring With Varimax  
Rotations Applied To The Sample As A Whole***

***Appendix 5.6.2: Rotated Factor Matrices And Factor Transformation  
Matrices For Principal Axes Factoring With Varimax  
Rotations Applied To Male Respondents As An  
Independent Group***

***Appendix 5.6.3 Rotated Factor Matrices And Factor Transformation  
Matrices For Principal Axes Factoring With Varimax  
Rotations Applied To Female Respondents As An  
Independent Group***

***APPENDIX 5.6.1: Rotated Factor Matrices And Factor Transformation Matrices  
For Principal Axes Factoring With Varimax Rotations Applied To The  
Perceptions Of The Sample As A Whole***

***Appendix 5.6.1 (a): Perceptions of Self as a Real Estate Sales Person***

**ROTATED FACTOR MATRIX:**

	FACTOR 1	FACTOR 2	FACTOR 3
SELF2	<b>.72182</b>	.11454	.22854
SELF1	<b>.65960</b>	.23706	.06375
SELF4	<b>.62717</b>	.30185	.28402
SELF5	<b>.41963</b>	.38989	.18939
SELF12	<b>.36104</b>	.19705	.28946
SELF11	<b>.33416</b>	.26479	.32282
SELF13	.19647	<b>.74443</b>	.31335
SELF7	.24515	<b>.58381</b>	.26716
SELF14	.16236	<b>.55414</b>	.17061
SELF3	.20581	<b>.44630</b>	.15649
SELF8	.16853	.18814	<b>.73224</b>
SELF9	.17549	.31033	<b>.70126</b>
SELF10	.32168	.37382	<b>.52846</b>
SELF6	.41578	.38267	<b>.48662</b>

**FACTOR TRANSFORMATION MATRIX:**

	FACTOR 1	FACTOR 2	FACTOR 3
FACTOR 1	.57614	.59090	.56471
FACTOR 2	.80732	-.30351	-.50608
FACTOR 3	-.12765	.74747	-.65191

*Appendix 5.6.1 (b): Perceptions of a Typical Male Real Estate Sales Person*

**ROTATED FACTOR MATRIX:**

	FACTOR 1	FACTOR 2
MALE13	.77494	.11693
MALE14	.75469	.03081
MALE9	.71192	.35156
MALE7	.70458	.25369
MALE3	.64115	.06576
MALE5	.63008	.29973
MALE8	.60234	.37437
MALE11	.59747	.26786
MALE6	.57963	.47468
MALE12	.55521	.28748
MALE2	.05716	.84413
MALE4	.27053	.74885
MALE1	.17833	.69556
MALE10	.52894	.52923

**FACTOR TRANSFORMATION MATRIX:**

	FACTOR 1	FACTOR 2
FACTOR 1	.83234	.55427
FACTOR 2	-.55427	.83234

*Appendix 5.6.1 (c): Perceptions of a Typical Female Real Estate Sales Person*

**ROTATED FACTOR MATRIX:**

	FACTOR 1	FACTOR 2
FEMALE13	<b>.80875</b>	.09330
FEMALE7	<b>.71612</b>	.23955
FEMALE9	<b>.68421</b>	.35129
FEMALE14	<b>.66373</b>	.01081
FEMALE6	<b>.64835</b>	.45573
FEMALE8	<b>.62634</b>	.40276
FEMALE3	<b>.62315</b>	.09060
FEMALE10	<b>.57916</b>	.43708
FEMALE11	<b>.55314</b>	.27174
FEMALE5	<b>.54208</b>	.38006
FEMALE12	<b>.51487</b>	.30867
FEMALE2	.06489	<b>.79713</b>
FEMALE4	.29106	<b>.73210</b>
FEMALE1	.16487	<b>.66507</b>

**FACTOR TRANSFORMATION MATRIX:**

	FACTOR 1	FACTOR 2
FACTOR 1	.83409	.55163
FACTOR 2	-.55163	.83409



**APPENDIX 5.6.2: Rotated Factor Matrices And Factor Transformation Matrices  
For Principal Axes Factoring With Varimax Rotations Applied To The  
Perceptions Of Male Respondents As An Independent Group**

**Appendix 5.6.2 (a): Perceptions of Self as a Real Estate Sales Person**

**ROTATED FACTOR MATRIX:**

	FACTOR 1	FACTOR 2	FACTOR 3
SELF13	<b>.71593</b>	.21733	.33059
SELF7	<b>.62674</b>	.23470	.20842
SELF14	<b>.53644</b>	.12712	.18259
SELF3	<b>.44135</b>	.21015	.11948
SELF5	<b>.42599</b>	.36817	.21117
SELF2	.10772	<b>.72680</b>	.23155
SELF1	.23931	<b>.64111</b>	.04230
SELF4	.37995	<b>.57060</b>	.28404
SELF12	.25176	<b>.38371</b>	.26704
SELF11	.27876	<b>.38108</b>	.28938
SELF9	.27934	.15317	<b>.70936</b>
SELF8	.17038	.16989	<b>.70159</b>
SELF6	.40825	.37555	<b>.49980</b>
SELF10	.38541	.33593	<b>.47491</b>

**FACTOR TRANSFORMATION MATRIX:**

	FACTOR 1	FACTOR 2	FACTOR 3
FACTOR 1	.61618	.56777	.54585
FACTOR 2	-.19888	.78276	-.58969
FACTOR 3	.76208	-.25480	-.59524

*Appendix 5.6.2 (b): Perceptions of a Typical Male Real Estate Sales Person*

**ROTATED FACTOR MATRIX:**

	FACTOR 1	FACTOR 2
MALE13	<b>.74883</b>	.13152
MALE9	<b>.72704</b>	.32527
MALE14	<b>.70490</b>	.03221
MALE8	<b>.66582</b>	.31118
MALE7	<b>.65907</b>	.28735
MALE3	<b>.65457</b>	.04524
MALE6	<b>.58828</b>	.44932
MALE11	<b>.58191</b>	.30050
MALE10	<b>.57039</b>	.48993
MALE5	<b>.56906</b>	.42389
MALE12	<b>.51128</b>	.29042
MALE2	.10395	<b>.82670</b>
MALE4	.32175	<b>.72436</b>
MALE1	.12235	<b>.70818</b>

**FACTOR TRANSFORMATION MATRIX:**

	FACTOR 1	FACTOR 2
FACTOR 1	.82633	.56318
FACTOR 2	-.56318	.82633

*Appendix 5.6.2 (c): Perceptions of a Typical Female Real Estate Sales Person*

**ROTATED FACTOR MATRIX:**

	FACTOR 1	FACTOR 2	FACTOR 3
FEMALE8	<b>.72538</b>	.21827	.19347
FEMALE10	<b>.69899</b>	.18693	.23947
FEMALE9	<b>.69217</b>	.30082	.15465
FEMALE6	<b>.58103</b>	.37175	.28530
FEMALE12	<b>.47010</b>	.26812	.18322
FEMALE11	<b>.44775</b>	.28914	.16126
FEMALE13	.32586	<b>.74269</b>	.04346
FEMALE14	.15746	<b>.69392</b>	-.02291
FEMALE3	.19985	<b>.60508</b>	.08547
FEMALE7	.39052	<b>.57863</b>	.15617
FEMALE5	.31898	<b>.42670</b>	.31239
FEMALE2	.22090	-.04712	<b>.75402</b>
FEMALE1	.11536	.11311	<b>.71588</b>
FEMALE4	.30580	.14280	<b>.68631</b>

**FACTOR TRANSFORMATION MATRIX:**

	FACTOR 1	FACTOR 2	FACTOR 3
FACTOR 1	.69528	.57642	.42933
FACTOR 2	.00907	-.60433	.79668
FACTOR 3	-.71868	.55003	.42541

**APPENDIX 5.6.3: Rotated Factor Matrices And Factor Transformation Matrices  
For Principal Axes Factoring With Varimax Rotations Applied To The  
Perceptions Of Female Respondents As An Independent Group**

**Appendix 5.6.3 (a): Perceptions of a Self as a Real Estate Sales Person**

**ROTATED FACTOR MATRIX:**

	FACTOR 1	FACTOR 2	FACTOR 3
SELF8	<b>.77700</b>	.14833	.21232
SELF9	<b>.70474</b>	.19558	.33223
SELF10	<b>.62529</b>	.27801	.35182
SELF6	<b>.46634</b>	.45266	.37850
SELF11	<b>.42054</b>	.23879	.23039
SELF12	<b>.35909</b>	.30551	.09420
SELF2	.23918	<b>.72677</b>	.11181
SELF4	.29851	<b>.69106</b>	.24252
SELF1	.12288	<b>.69077</b>	.20725
SELF5	.16694	<b>.47856</b>	.34486
SELF13	.27667	.14731	<b>.82121</b>
SELF14	.16451	.23041	<b>.55076</b>
SELF7	.38998	.21459	<b>.51127</b>
SELF3	.25107	.18425	<b>.41698</b>

**FACTOR TRANSFORMATION MATRIX:**

	FACTOR 1	FACTOR 2	FACTOR 3
FACTOR 1	.61639	.56187	.55170
FACTOR 2	-.43273	.82704	-.35881
FACTOR 3	-.65788	-.01757	.75292

*Appendix 5.6.3 (b): Perceptions of a Typical Male Real Estate Sales Person*

**ROTATED FACTOR MATRIX:**

	FACTOR 1	FACTOR 2
MALE13	<b>.78513</b>	.12766
MALE14	<b>.78358</b>	.07470
MALE7	<b>.74136</b>	.23505
MALE9	<b>.69157</b>	.38266
MALE5	<b>.66630</b>	.20781
MALE12	<b>.61059</b>	.28315
MALE11	<b>.61019</b>	.22886
MALE3	<b>.59208</b>	.12150
MALE6	<b>.58197</b>	.48977
MALE8	<b>.57436</b>	.42077
MALE2	.05519	<b>.84373</b>
MALE4	.23445	<b>.76800</b>
MALE1	.22139	<b>.71644</b>
MALE10	.49807	<b>.56111</b>

**FACTOR TRANSFORMATION MATRIX:**

	FACTOR 1	FACTOR 2
FACTOR 1	.82865	.55976
FACTOR 2	-.55976	.82865

*Appendix 5.6.3 (c): Perceptions of a Typical Female Real Estate Sales Person*

**ROTATED FACTOR MATRIX:**

	FACTOR 1	FACTOR 2
FEMALE13	<b>.81364</b>	.17951
FEMALE9	<b>.76497</b>	.34888
FEMALE14	<b>.69405</b>	.17274
FEMALE7	<b>.67630</b>	.33862
FEMALE8	<b>.67621</b>	.38799
FEMALE6	<b>.64040</b>	.55956
FEMALE10	<b>.64006</b>	.41959
FEMALE3	<b>.59662</b>	.13475
FEMALE11	<b>.58080</b>	.23907
FEMALE5	<b>.53180</b>	.48416
FEMALE12	<b>.52232</b>	.29828
FEMALE2	.14320	<b>.80893</b>
FEMALE4	.32859	<b>.76926</b>
FEMALE1	.27374	<b>.68906</b>

**FACTOR TRANSFORMATION MATRIX:**

	FACTOR 1	FACTOR 2
FACTOR 1	.80957	.58703
FACTOR 2	-.58703	.80957

## **APPENDIX 5.7**

***Appendix 5.7.1: Rotated Factor Matrices And Factor Transformation  
Matrices For Principal Axes Factoring With  
Quartimax Rotations Applied To The Sample As A  
Whole***

***Appendix 5.7.2: Rotated Factor Matrices And Factor Transformation  
Matrices For Principal Axes Factoring With  
Quartimax Rotations Applied To Male Respondents  
As An Independent Group***

***Appendix 5.7.3 Rotated Factor Matrices And Factor Transformation  
Matrices For Principal Axes Factoring With  
Quartimax Rotations Applied To Female Respondents  
As An Independent Group***

***APPENDIX 5.7.1: Rotated Factor Matrices And Factor Transformation Matrices  
For Principal Axes Factoring With Quartimax Rotations Applied To The  
Perceptions Of The Sample As A Whole***

***Appendix 5.7.1 (a): Perceptions of Self as a Real Estate Sales Person***

**ROTATED FACTOR MATRIX:**

	FACTOR 1	FACTOR 2	FACTOR 3
SELF13	.74494	-.36448	-.05642
SELF6	.73049	.04692	.14244
SELF4	.70373	.25196	-.0800
SELF10	.68993	-.01439	.21510
SELF9	.64873	-.07334	.43891
SELF7	.64870	-.21944	-.05783
SELF2	.61310	.44852	-.09650
SELF5	.59005	.03912	-.11953
SELF8	.58226	.00636	.51078
SELF1	.57253	.31592	-.26025
SELF14	.53300	-.26081	-.10209
SELF11	.52606	.06587	.07007
SELF3	.48313	-.15531	-.09217
SELF12	.48235	.13138	.05518

**FACTOR TRANSFORMATION MATRIX:**

	FACTOR 1	FACTOR 2	FACTOR 3
FACTOR 1	.99648	.02117	.08110
FACTOR 2	.03372	.78457	-.61912
FACTOR 3	.07674	-.61968	-.78110



*Appendix 5.7.1 (b): Perceptions of a Typical Male Real Estate Sales Person*

**ROTATED FACTOR MATRIX:**

	FACTOR 1	FACTOR 2
MALE9	.78808	.09670
MALE13	.77007	-.14558
MALE7	.74883	.00674
MALE14	.72251	-.22018
MALE6	.70388	.25660
MALE5	.69372	.07480
MALE8	.69218	.15442
MALE10	.67405	.32484
MALE11	.65241	.05549
MALE3	.62689	-.14970
MALE12	.61900	.08797
MALE2	.33276	.77788
MALE4	.50268	.61748
MALE1	.39805	.59763

**FACTOR TRANSFORMATION MATRIX:**

	FACTOR 1	FACTOR 2
FACTOR 1	.96869	.24826
FACTOR 2	-.24826	.96869

*Appendix 5.7.1 (c): Perceptions of a Typical Female Real Estate Sales Person*

**ROTATED FACTOR MATRIX:**

	FACTOR 1	FACTOR 2
FEMALE13	<b>.78708</b>	-.20805
FEMALE6	<b>.76989</b>	.18792
FEMALE9	<b>.76520</b>	.07759
FEMALE7	<b>.75416</b>	-.03809
FEMALE8	<b>.73008</b>	.14662
FEMALE10	<b>.69866</b>	.19579
FEMALE5	<b>.64335</b>	.15621
FEMALE14	<b>.62196</b>	-.23197
FEMALE11	<b>.61415</b>	.05132
FEMALE3	<b>.61328</b>	-.14288
FEMALE12	<b>.59198</b>	.09966
FEMALE2	.35111	<b>.71858</b>
FEMALE4	.53799	<b>.57555</b>
FEMALE1	.39604	<b>.55916</b>

**FACTOR TRANSFORMATION MATRIX:**

	FACTOR 1	FACTOR 2
FACTOR 1	.97781	.20948
FACTOR 2	-.20948	.97781

***APPENDIX 5.7.2: Rotated Factor Matrices And Factor Transformation Matrices  
For Principal Axes Factoring With Quartimax Rotations Applied To The  
Perceptions Of Male Respondents As An Independent Group***

***Appendix 5.7.2 (a): Perceptions of Self as a Estate Sales Person***

**ROTATED FACTOR MATRIX:**

	FACTOR 1	FACTOR 2	FACTOR 3
SELF13	.76737	-.03057	-.28157
SELF6	.72001	.19596	.02627
SELF4	.71228	-.03508	.20504
SELF10	.67066	.19246	.01004
SELF7	.66006	-.11018	-.20858
SELF9	.60076	.48769	-.07701
SELF5	.59738	-.06595	.01997
SELF2	.58788	-.01886	.49749
SELF1	.54506	-.21529	.35586
SELF11	.53817	.05595	.11795
SELF8	.53123	.51759	.00351
SELF14	.52541	-.07184	-.23675
SELF12	.51084	.04555	.13744
SELF3	.47767	-.11329	-.11057

**FACTOR TRANSFORMATION MATRIX:**

	FACTOR 1	FACTOR 2	FACTOR 3
FACTOR 1	.99280	.10981	.04793
FACTOR 2	.03509	-.64902	.75996
FACTOR 3	.11456	-.75280	-.64820

*Appendix 5.7.2 (b): Perceptions of a Typical Male Real Estate Sales Person*

**ROTATED FACTOR MATRIX:**

	FACTOR 1	FACTOR 2
MALE9	<b>.79551</b>	.03946
MALE13	<b>.74555</b>	-.14901
MALE8	<b>.73335</b>	.04853
MALE7	<b>.71841</b>	.02877
MALE6	<b>.71118</b>	.20538
MALE10	<b>.70924</b>	.24971
MALE5	<b>.68405</b>	.18865
MALE14	<b>.66860</b>	-.22562
MALE11	<b>.65127</b>	.06900
MALE3	<b>.62642</b>	-.19523
MALE12	<b>.58180</b>	.08522
MALE4	.56255	<b>.55836</b>
MALE2	.39669	<b>.73272</b>
MALE1	.37086	<b>.61560</b>

**FACTOR TRANSFORMATION MATRIX:**

	FACTOR 1	FACTOR 2
FACTOR 1	.97432	.22516
FACTOR 2	-.22516	.97432

*Appendix 5.7.2 (c): Perceptions of a Typical Female Real Estate Sales Person*

**ROTATED FACTOR MATRIX:**

	FACTOR 1	FACTOR 2	FACTOR 3
FEMALE9	<b>.75379</b>	.01122	-.15871
FEMALE8	<b>.74085</b>	.05746	-.24308
FEMALE6	<b>.73198</b>	.14317	-.03000
FEMALE10	<b>.71115</b>	.11090	-.25068
FEMALE13	<b>.69227</b>	-.11627	.40853
FEMALE7	<b>.67262</b>	.01062	.24327
FEMALE12	<b>.56405</b>	.07429	-.05278
FEMALE5	<b>.56017</b>	.19666	.17012
FEMALE11	<b>.55386</b>	.05257	-.02365
FEMALE3	<b>.52178</b>	-.03685	.37383
FEMALE14	<b>.51707</b>	-.15090	.46551
FEMALE2	.29990	<b>.71533</b>	-.13386
FEMALE1	.29977	<b>.66754</b>	.05583
FEMALE4	.46240	<b>.60824</b>	-.03392

**FACTOR TRANSFORMATION MATRIX:**

	FACTOR 1	FACTOR 2	FACTOR 3
FACTOR 1	.96866	.23705	.07419
FACTOR 2	-.17842	.87182	-.45619
FACTOR 3	-.17282	.42865	.88679

**APPENDIX 5.7.3: Rotated Factor Matrices And Factor Transformation Matrices  
For Principal Axes Factoring With Quartimax Rotations Applied To The  
Perceptions Of Female Respondents As An Independent Group**

**Appendix 5.7.3 (a): Perceptions of Self as a Estate Sales Person**

**ROTATED FACTOR MATRIX:**

	FACTOR 1	FACTOR 2	FACTOR 3
SELF9	.76322	-.20255	-.14747
SELF10	.75703	-.09851	-.09621
SELF6	.74236	.12047	-.00501
SELF8	.72615	-.25424	-.28084
SELF13	.70902	-.14373	.49927
SELF4	.66261	.42896	-.04928
SELF7	.65043	-.07856	.17408
SELF2	.56671	.51051	-.12695
SELF11	.52993	-.01968	-.07578
SELF5	.52757	.28247	.13305
SELF14	.52228	.02837	.33153
SELF1	.52091	.51325	.02078
SELF3	.48813	-.02618	.17863
SELF12	.44404	.09100	-.16032

**FACTOR TRANSFORMATION MATRIX:**

	FACTOR 1	FACTOR 2	FACTOR 3
FACTOR 1	.99224	.11788	.03965
FACTOR 2	-.11100	.98314	-.14532
FACTOR 3	-.05611	.13979	.98859

*Appendix 5.7.3 (b): Perceptions of a Typical Male Real Estate Sales Person*

**ROTATED FACTOR MATRIX:**

	FACTOR 1	FACTOR 2
MALE13	<b>.78609</b>	-.12165
MALE7	<b>.77771</b>	-.00598
MALE9	<b>.77605</b>	.14979
MALE14	<b>.76822</b>	-.17153
MALE6	<b>.70499</b>	.28557
MALE5	<b>.69790</b>	-.00866
MALE8	<b>.67640</b>	.22231
MALE12	<b>.66825</b>	.08023
MALE11	<b>.65107</b>	.02873
MALE10	<b>.64730</b>	.37937
MALE3	<b>.60061</b>	-.06774
MALE2	.31366	<b>.78520</b>
MALE4	.46067	<b>.65770</b>
MALE1	.43229	<b>.61271</b>

**FACTOR TRANSFORMATION MATRIX:**

	FACTOR 1	FACTOR 2
FACTOR 1	.96123	.27575
FACTOR 2	-.27575	.96123

*Appendix 5.7.3 (c): Perceptions of a Typical Female Real Estate Sales Person*

**ROTATED FACTOR MATRIX:**

	FACTOR 1	FACTOR 2
FEMALE9	<b>.84049</b>	-.02187
FEMALE6	<b>.82091</b>	.22210
FEMALE13	<b>.80997</b>	-.19543
FEMALE8	<b>.77786</b>	.05220
FEMALE10	<b>.75923</b>	.09644
FEMALE7	<b>.75630</b>	.00778
FEMALE14	<b>.69951</b>	-.14908
FEMALE5	<b>.69024</b>	.20195
FEMALE4	<b>.63262</b>	.54729
FEMALE11	<b>.62682</b>	-.03981
FEMALE12	<b>.60022</b>	.03904
FEMALE3	<b>.59529</b>	-.14050
FEMALE1	<b>.54816</b>	.49925
FEMALE2	.48340	<b>.66423</b>

**FACTOR TRANSFORMATION MATRIX:**

	FACTOR 1	FACTOR 2
FACTOR 1	.98499	.17260
FACTOR 2	-.17260	.98499