



THE UNIVERSITY OF  
**WAIKATO**  
*Te Whare Wānanga o Waikato*

Research Commons

<http://researchcommons.waikato.ac.nz/>

## Research Commons at the University of Waikato

### Copyright Statement:

The digital copy of this thesis is protected by the Copyright Act 1994 (New Zealand).

The thesis may be consulted by you, provided you comply with the provisions of the Act and the following conditions of use:

- Any use you make of these documents or images must be for research or private study purposes only, and you may not make them available to any other person.
- Authors control the copyright of their thesis. You will recognise the author's right to be identified as the author of the thesis, and due acknowledgement will be made to the author where appropriate.
- You will obtain the author's permission before publishing any material from the thesis.

# **Sales Role Enrichment: Applying the Job Characteristics Model to New Zealand Salespeople**

A thesis submitted in partial fulfilment  
of the requirements for the degree  
of

**Master of Applied Psychology (Organisational)**

by

**Christopher John Liddell**



THE UNIVERSITY OF  
**WAIKATO**  
*Te Whare Wānanga o Waikato*

**The University of Waikato**

**2013**

## **ABSTRACT**

This study examined sales roles and salespeople in New Zealand through the lens of the Job Characteristics Model (JCM). Specifically, the direct relationships between role enrichment characteristics, psychological states, and job satisfaction were examined as well as the moderation effects of growth need strength (GNS), locus of control (LOC) and openness to experience (OTE) within these relationships. One hundred and ninety-nine salespeople completed an online survey which asked them to provide information about their role and personality. Respondents came from a number of industries, with real estate, fashion and electronics featuring most prominently. Following reliability analysis and factor analysis, correlation analyses were conducted to ascertain the direct relationships between role enrichment, critical psychological states and job satisfaction. Moderation analysis was conducted to provide information about the effects of GNS, LOC and OTE.

The results provided support for the all the hypothesised direct relationships in the JCM, with all relationships found to be significant and positive. The findings confirmed that role enrichment, critical psychological states, and job satisfaction are positively interrelated for New Zealand salespeople. The results also suggested that the JCM has a high level of applicability within a New Zealand sales context. The results were less supportive of the proposed moderation hypotheses, with moderation only observed in three of twenty-four analyses. LOC moderated the relationship between skill variety and experienced meaningfulness, as well as between feedback and knowledge of results. GNS moderated the relationship between experienced meaningfulness and job satisfaction. No moderation effects were observed for OTE.

The findings of this study indicate that role enrichment is an important consideration in designing sales roles from which New Zealand sales professionals can

derive high levels of job satisfaction. Though causation cannot be inferred from the results of this study, there appeared to be reasonable support for the notion that enriched roles enhance the psychological states of salespeople, which in turn increases their job satisfaction. In particular, this appeared to be an appropriate consideration for individuals with high growth need strength levels and an internal LOC. Thus, it is suggested that employers of salespeople endeavour to provide enrichment to their salespeople, as well as seek to develop individuals with high GNS and internal LOC in roles where enrichment is introduced.

Longitudinal research into the JCM within a New Zealand sales context is recommended to provide confirmatory information regarding the direction of causality between role enrichment characteristics, critical psychological states and job satisfaction. Further investigation of specific sales role types is also recommended in order to provide data that is applicable to specific industries or role types. Further research into role enrichment dimensions may also be warranted in order to ascertain whether the distinctions between role dimensions outlined in the JCM are appropriate within a New Zealand sales context.

## **ACKNOWLEDGEMENTS**

The gratitude I feel for the help received during the writing of this thesis is beyond what I can express in these few words. There are however, a notable few that must be mentioned.

I would like to thank my supervisors, Professor Michael O’Driscoll and Dr. Donald Cable, for their guidance and encouragement. Without your help this undertaking would not have been possible. The commitment you both have shown towards this project has been invaluable, and has insured that the long hours of effort spent have been worthwhile.

This project could not have been realised without assistance from several organisations. I would like to thank; Paul Newsom from New Zealand Sales Manager, Cynthia Crosse from the Real Estate Institute of New Zealand, Julia Sherwood from The Sales Training Company and Christy Stead from David Forman.

I would also like to thank my parents, John and Wendy, as well as my partner Kristen. Your support over the course of my Masters study has been instrumental in ensuring its success. Thank you for inspiring me to challenge and improve myself.

I wish to acknowledge the support and advice I have received from my friends throughout my graduate study. In particular, thank you to Nils for always picking up the phone, and to Pita, Dan, Alicia and Armindeep for providing me with an excuse to drink coffee.

## TABLE OF CONTENTS

<b>ABSTRACT</b> .....	<b>ii</b>
<b>ACKNOWLEDGEMENTS</b> .....	<b>iv</b>
<b>TABLE OF CONTENTS</b> .....	<b>v</b>
<b>LIST OF FIGURES</b> .....	<b>viii</b>
<b>LIST OF TABLES</b> .....	<b>ix</b>
<b>CHAPTER 1 - INTRODUCTION</b> .....	<b>1</b>
<b>Defining the “Salesperson”</b> .....	<b>3</b>
Active and Passive Selling .....	4
Business to Business, Business to Consumer and Facilitated Sales .....	5
Auxiliary selling and Account Managers .....	7
<b>The Job Characteristics Model</b> .....	<b>8</b>
Psychological States .....	9
Role Dimensions .....	11
Growth Need Strength .....	13
Job Satisfaction .....	13
The JCM and Sales .....	16
Research Background for the JCM .....	18
The Mediating Effects of Psychological States .....	18
<b>JCM Hypotheses</b> .....	<b>20</b>
Role characteristics and psychological states .....	21
Psychological states and job satisfaction .....	21
Growth need strength .....	22
<b>Expanding on the Moderators of the Job Characteristics Model</b> .....	<b>23</b>
Openness to Experience (OTE) .....	24
Locus of Control .....	27
<b>Chapter Summary</b> .....	<b>32</b>
<b>CHAPTER 2 - METHOD</b> .....	<b>33</b>
<b>Respondents</b> .....	<b>33</b>
<b>Procedure</b> .....	<b>35</b>
<b>Measures</b> .....	<b>37</b>
<b>JCM Measures</b> .....	<b>37</b>
Skill Variety .....	38
Task Identity .....	38
Task Significance .....	38
Role Autonomy .....	39
Role Feedback .....	39

Experienced Meaningfulness .....	40
Experienced Responsibility .....	40
Knowledge of Results .....	41
Job Satisfaction .....	41
<b>Moderator Measures .....</b>	<b>41</b>
Growth Need Strength (GNS).....	41
Locus of Control (LOC) .....	42
Openness to Experience (OTE) .....	43
<b>Statistical Analyses .....</b>	<b>43</b>
<b>CHAPTER 3 - RESULTS.....</b>	<b>45</b>
<b>Factor Analysis and Reliability .....</b>	<b>45</b>
Role Dimensions .....	45
Psychological States .....	47
Job Satisfaction .....	48
Growth Need Strength .....	49
Openness to Experience.....	49
Locus of Control .....	50
<b>Descriptive Statistics .....</b>	<b>51</b>
<b>Correlations .....</b>	<b>52</b>
<b>Hypothesis Testing – Correlations .....</b>	<b>53</b>
<b>Moderation Testing .....</b>	<b>55</b>
Equation One – Experienced Meaningfulness .....	56
Equation Two – Experienced Responsibility.....	59
Equation Three – Knowledge of Results .....	59
Equation Four – Job Satisfaction .....	61
<b>Summary of Results .....</b>	<b>63</b>
<b>CHAPTER 4 - DISCUSSION .....</b>	<b>64</b>
<b>Findings .....</b>	<b>64</b>
<b>Role Characteristics, Psychological States and Job Satisfaction .....</b>	<b>64</b>
<b>Moderator Effects.....</b>	<b>69</b>
Growth Need Strength .....	69
Openness to Experience.....	71
Locus of Control .....	73
<b>Practical Implications .....</b>	<b>77</b>
<b>Strengths and Limitations .....</b>	<b>78</b>
<b>Future Research .....</b>	<b>81</b>
<b>Conclusions .....</b>	<b>83</b>

<b>REFERENCES.....</b>	<b>85</b>
<b>APPENDIX A – ORGANISATION EMAIL.....</b>	<b>94</b>
<b>APPENDIX B – RESPONDENT EMAIL .....</b>	<b>95</b>
<b>APPENDIX C – MAGAZINE ARTICLE.....</b>	<b>96</b>
<b>APPENDIX D – INFORMATION SHEET.....</b>	<b>98</b>
<b>APPENDIX E – SURVEY .....</b>	<b>100</b>
<b>APPENDIX F – SCREE PLOTS .....</b>	<b>113</b>
<b>APPENDIX G – FACTOR LOADING TABLES .....</b>	<b>116</b>
<b>APPENDIX H – MODERATOR INTERACTION PLOTS .....</b>	<b>121</b>

## LIST OF FIGURES

Figure 1.1. The Job Characteristics Model.....	9
Figure 1.2. Modified Job Characteristics Model.....	24
Figure F.1. Scree plot for the role dimension scales .....	113
Figure F.2. Scree plot for psychological states scale.....	113
Figure F.3. Scree plot for the job satisfaction scale .....	114
Figure F.4. Scree plot for the growth need strength scale .....	114
Figure F.5. Scree plot for the openness to experience scale.....	115
Figure F.6. Scree plot for the locus of control scale.....	115
Figure H.1. LOC moderation between SV and EM .....	121
Figure H.2. LOC moderation between TS and EM.....	121
Figure H.3. LOC moderation between FB and KR .....	122
Figure H.4. GNS moderation between EM and JS.....	122

## LIST OF TABLES

Table 2.1. Respondent Demographics, Industry and Job Information .....	34
Table 3.1. Descriptive Statistics .....	52
Table 3.2. Correlation Matrix .....	54
Table 3.3. Experienced Meaningfulness Regression.....	57
Table 3.4. SV – EM Correlations by LOC Group .....	58
Table 3.5. TS – EM Correlations by LOC Group .....	58
Table 3.6. Experienced Responsibility Regression .....	59
Table 3.7. Knowledge of Results Regression.....	60
Table 3.8. FB – KR Correlations by LOC Group .....	61
Table 3.9. Job Satisfaction Regression.....	62
Table 3.10. EM – JS Correlation by GNS Group.....	63
Table G.1. Job Dimension Factor Loadings .....	116
Table G.2. Psychological States Factor Loadings .....	117
Table G.3. Job Satisfaction Factor Loadings .....	117
Table G.4. Growth Need Strength Factor Loadings.....	118
Table G.5. Openness to Experience Factor Loadings .....	119
Table G.6. Locus of Control Factor Loadings.....	120

## CHAPTER 1 - INTRODUCTION

An effective sales force is a key to the success of many organisations. Salespeople lay the financial foundation on which organisations are based, generating the revenue from which continued operation and/or expansion can be achieved (Simintiras, Lancaster, & Cadogan, 1994). Because of this, sales forces account for a significant portion of the marketing investment made by many organisations (Cravens, Ingram, LaForge, & Young, 1993). The importance of the sales role to organisational success makes ensuring the effectiveness of salespeople a priority for organisations. This raises the question of what can be done by organisations to promote effective work-related outcomes for their salespeople. It is this question that provided the broad focus for the present study. Work outcomes can be grouped generally under one of two headings – *organisational*, which relate to the performance of the organisation and *personal*, which encompass the health and/or wellbeing of employees. A number of work outcomes have been targeted empirically. Motivation, performance and job satisfaction are examples of areas to which attention has been paid by researchers.

Job satisfaction was the targeted work outcome in the present study. Job satisfaction has been frequently studied in sales contexts and has been proposed as a vital consideration in reference to the successful functioning of salespeople (Bhuiyan & Menguc, 2002). In addition, it is related to a variety of organisational and personal work outcomes (Westover, Westover, & Westover, 2009). One of the most useful tools that can be used by organisations to influence employee levels of job satisfaction is role design (Katsikea, Theodosiou, Perdikis, & Kehagias, 2011). Research into the role design - job satisfaction relationship has raised a number of considerations. Walker and Guest (1952) found that the mechanical pacing, repetitiveness and fractioning of work tasks was rated as the most objectionable work factor by workers operating on assembly

lines in the car manufacturing industry. Herzberg, Mausner, and Snyderman (1959) and Herzberg (1966) proposed that work consists of two sets of factors which influence job satisfaction, *hygiene factors* (pay, security, work schedule) and *motivator factors* (responsibility, growth, challenge). This framework has undergone recent challenge (Rynes, Gerhart, & Parks, 2005), but is still considered as a launch pad for further theory building efforts.

Following Herzberg (1966), Hackman and Oldham (1975) proposed their job characteristics model (JCM), the facets of which are measured through the Job Diagnostic Survey (JDS), (Hackman & Oldham 1975, 1980). The JCM is based on the postulate that a role's level of enrichment influences individual psychological states, which in turn influence job satisfaction as well as other work outcomes. The JCM is still considered an important framework for encapsulating and examining the relationships between job characteristics and work outcomes. It has been the impetus for several hundred studies into the effects of work design on work outcomes (Renn & Vandenberg, 1995), and serves as the framework for the present study's examination of salesperson job satisfaction. Further information regarding the JCM framework will be presented later in this chapter.

A final general consideration related to the present study is the geographic and social context in which research data were obtained. A number of empirical studies have already examined the relationships between role characteristics and job satisfaction within sales contexts (e.g. Bettencourt & Brown 1997; Livingstone, Roberts & Chonko 1995; Shoemaker 1999). Somewhat problematically, the samples for these have been largely obtained from studies involving U.S salespeople (Bhuan & Menguc, 2002). A degree of universal applicability has been assumed regarding the underpinning theoretical frameworks of work design and role characteristics research. However, the

lack of replication of these factors in the work contexts of other regions suggests that such assumptions are potentially unwarranted. The present study also aimed to provide information related specifically to a New Zealand sales environment.

This thesis has two objectives:

1. To provide further information about the relationships between role characteristics, psychological states and levels of job satisfaction with specific reference to salespeople in a New Zealand context.
2. To build upon the JCM's theoretical framework by exploring potential moderators between role characteristics, psychological states and levels of job satisfaction with specific reference to salespeople within a New Zealand context.

The rationale for the proposed research has three components. Firstly, sales represents an area of significant importance. Discovery about sales roles and professionals will be beneficial to the successful functioning of a number of organisations (Cravens et al., 1993; Simintiras et al., 1994). Secondly, the nature of sales roles highlights the importance of job satisfaction to the successful functioning of sales professionals and teams (Babakus, Cravens, Johnston, & Moncrief, 1996). Thirdly, a lack of JCM research within a New Zealand context indicates the need for an investigation specifically related to this country's salespeople.

### **Defining the “Salesperson”**

This section defines and explores the term “salesperson” within the context of the present study. This will occur in three stages. The first stage will examine the difference between active and passive selling. The next stage will examine three

different forms that sales roles can take. The final stage will investigate the problem that roles with “partial” auxiliary sales functions present to the definition’s utility.

### ***Active and Passive Selling***

Arriving at a workable definition of a “salesperson” is more complex than simply including all individuals who engage in some form of selling behaviour. Intuitively most can agree on what a “salesperson” is, however formalising this intuition presents some challenges.

An initial consideration relates to whether an individual is engaged in selling *passively* or *actively*. Passive selling is distinguishable from active selling in that the employee does not seek to guide buyers’ purchasing decision. In passive selling, employees are responsible simply for conducting the financial transaction which accompanies a product’s purchase. There are numerous examples of passive selling: supermarket checkout operators, convenience store staff and cinema clerks conduct monetary transactions, but ultimately have little influence on the buying decisions made by customers. Because such employees exert no real influence on customer decisions, all forms of passive selling were excluded from the “salesperson” definition utilised in this study.

The present study instead focused on individuals engaged in *active* selling. To be considered *active* in a sales context, an individual facilitates and guides the purchasing decisions of customers. To be a successful active salesperson requires considerable skill and adaptability (Simintiras et al., 1994). As discussed by Jacobs (1985), active selling requires salespeople to take on varied role tasks and identities. Salespeople can be teachers, acting in an instructional capacity by anticipating and answering the questions potential or current buyers may have about products and

services. In situations where a product or service is of considerable cost, salespeople can consult the buyer on potential budgeting and payment arrangements, taking on the role of financial advisor. Depending on the product or service being sold, salespeople may assume the role of consultant, business advisor or banker. Furthermore, salespeople also act as psychologists and social facilitators, seeking to understand the forces that motivate buyers towards purchasing decisions, building positive commercial relationships with customers, while avoiding adversarial tendencies and minimising any potential negative associations experienced by customers during the selling process.

### ***Business to Business, Business to Consumer and Facilitated Sales***

For the present study it was also important to establish the scope to which the *active* salesperson definition will apply. Sales roles can be categorised generally into three forms: business to business (B2B), business to consumer (B2C), and facilitated. Individuals from all three sales role types participated in this study.

B2B sales involve the exchange of goods and/or services for financial capital between one business acting as a provider and another business acting as a buyer. In B2B roles salespeople are employed by providers to act as their representatives, negotiating and often facilitating exchanges. Telephone and IT services, company car fleets and office supplies are some examples of the types of goods and services that are procured in B2B sales arrangements.

B2C sales involve the exchange of goods and/or services for financial capital between business providers and individual consumers. As with B2B selling, B2C salespeople are employed by providers to act as representatives. B2C sales are the most varied in terms of the products and services that are offered. The majority of the products and services available in the B2B arena are also offered to consumers -

telecommunications, IT services and cars again serve as examples. However, more individually targeted and stylised products and services exist in B2C sales, for example fashion, jewellery or health and fitness. The forum through which B2C sales are conducted is often markedly different to that typified in B2B sales. B2C salespeople operate more visibly in communities compared to the secluded office environments of B2B representatives (Hite & Bellizzi, 1985).

The final type of sales role, facilitated, is different from both B2B and B2C in that salespeople in these types of roles are not directly employed as a representative of the product or service provider. Instead, in facilitated roles salespeople act as a middle person between provider and buyer, taking on the role of a semi-autonomous agent. Importantly, salespeople in facilitated sales settings can operate across a number of consumer and business related spheres, where individuals and businesses can assume both the role of provider or buyer. An example of facilitated selling can be found in the real estate market, where agents negotiate the buying and selling of property between different buyer/seller combinations of businesses and individuals. Further examples can also be found in travel sales, where agents negotiate exchanges between airline companies, accommodation providers, tour operators and individual or business consumers.

It is evident that there are differences between B2B, B2C and facilitated sales roles. However, there is a strong case for including all three types of sales role in forming a definitive operationalization of the term 'salesperson'. Commonalities exist in sales roles that transcend the aforementioned differences between sales role types. A salesperson is still considered as such despite the nuances associated with different industries and organisations (Hite & Bellizzi, 1985).

Part of this homogeneity is related to the diverse requirements of sales work. Regardless of the specifics of role type, organisation or industry, salespeople still take on a broad range of tasks such as information dispersal, financial advice as well as social and psychological interpretation (Jacobs, 1985). Sales environments also require individuals to maintain high levels of motivation in potentially demoralising situations (Dubinsky & Hartley, 1986). Sales roles generally have high levels of accountability, where work performance is often measured objectively and transparently. This often results in highly competitive environments which operate separately from other organisational divisions (Simintiras et al., 1994) and where interpersonal conflict is more common (Dubinsky & Hartley, 1986). The transcending commonalities of sales work serve as the impetus for the present study's inclusion of all three sales role types within its *active* 'salespeople' definition.

#### ***Auxiliary selling and Account Managers***

Another consideration pertinent to obtaining an accurate 'salesperson' definition relates to the emphasis placed in a role on selling activities versus the carrying out of non-selling related role tasks. In making this distinction, the goal is to differentiate employees who perform sales as their primary role function from those who engage in selling behaviours in an auxiliary capacity. A number of roles contain elements of sales behaviour, requiring sales activities to be conducted occasionally. Individuals engaged in roles of this type, where selling is an auxiliary function, were not included in the definition utilised in the present study.

There are some clear cut examples of auxiliary selling. For instance, reception staff in health and fitness clubs will occasionally sell new memberships if there are no salespeople present. However, the primary function of these employees is to operate and

administrate the reception desk. Selling behaviours in this instance are secondary to the core role tasks outlined in the role's job description. Examining auxiliary selling can yield less clear cut examples. For example, the roles of many account managers appear to align with an auxiliary selling definition. Elements of being an effective account manager are discernibly sales related, such as the seeking out of new accounts or adding value to existing accounts. Conversely, the primary function of many account managers is the service and maintenance of accounts rather than selling. However, other account manager roles can be almost entirely composed of selling behaviours. This highlights the difficulties associated with identifying salespeople by job title alone. Generally, job title was used to identify potential respondents. However, to be considered suitable for participation in this study, individuals had to be in role where selling was identified as their primary function.

### **The Job Characteristics Model**

This study's examination of salespeople was conducted within the framework of the job characteristics model (JCM). The JCM is based on the notion that individuals can be motivated intrinsically by role tasks. Hackman and Oldham (1975) proposed that five core enrichment characteristics (skill variety, task identity, task significance, autonomy and feedback) foster the presence of three psychological states (experienced meaningfulness of work, experienced responsibility and knowledge of results), which in turn influence a number of personal and work related outcomes. The original JCM is presented below in Figure 1.1

This section will provide an overview of the role dimensions and psychological states proposed in the JCM, as well as the role of growth need strength (GNS) within the model. The targeted work outcome for this study was job satisfaction (JS). An

overview of JS is also provided in this section. Following this, the linkages underlying this study’s application of the JCM to salespeople will be presented. Lastly, research surrounding the utility of the JCM will be examined.

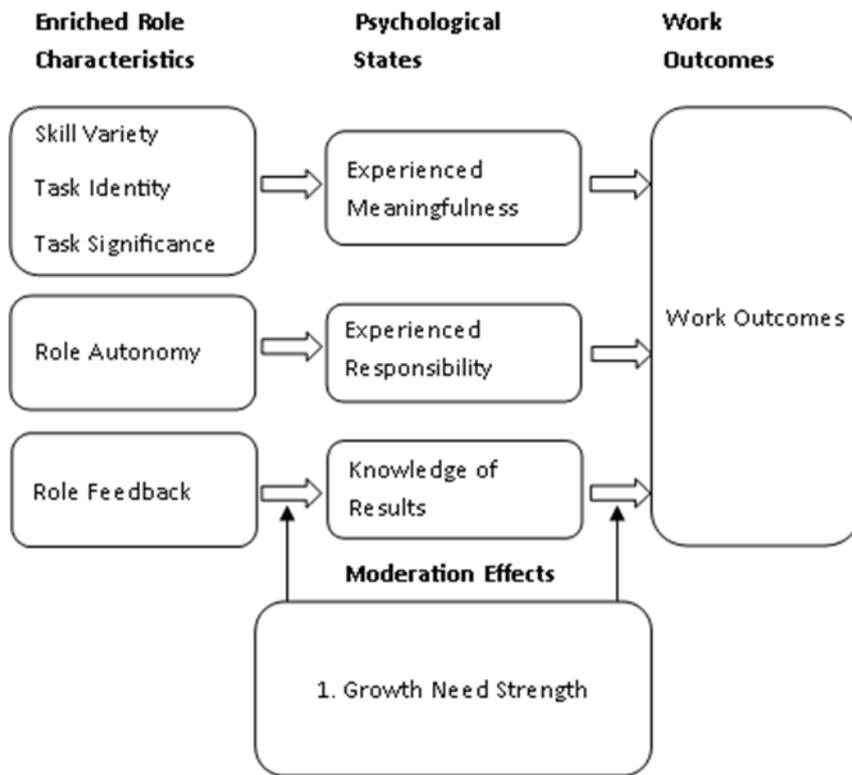


Figure 1.1. The Job Characteristics Model (Hackman & Oldham, 1975)

### ***Psychological States***

The psychological states posited in the JCM represent the central causal relationship of the model. Hackman and Oldham (1975) postulated that an individual can be motivated as a result of *learning* (knowledge of results) that he or she has *personally* (experienced responsibility) performed well in a role or task that he or she considers *worthwhile and important* (experienced meaningfulness).

Hackman and Oldham (1975) postulated that this scenario creates “a self-perpetuating cycle of positive work motivation powered by self-generated rewards”

(p.256). This cycle is predicted in the JCM to continue as long as all three of the psychological states are present, or until a shift occurs in the individual's perception of what he or she considers intrinsically motivating. Hackman and Oldham (1975) first posited that self-generated motivation is highest when all three psychological states were present. Later Hackman and Oldham (1980) strengthened this position to state that all three psychological states were in fact necessary for a role to be intrinsically motivating. The rationale underlying this position can be considered as follows. If an individual performs well on a task that he or she perceives as meaningful, but has no knowledge of the results, the associated intrinsic benefits will lack the linkages necessary for there to be any significant effect on motivation. This principle is also applicable if an individual considers the task to be inconsequential or if they feel little personal responsibility for the task. The specific definitions for psychological state according to Hackman and Oldham (1975) are:

- ***Experienced meaningfulness of work*** reflects the “degree to which the employee experiences the job as one which is generally meaningful, valuable, and worthwhile” (p. 256).
- ***Experienced responsibility for work outcomes*** concerns the “degree to which the employee feels personally accountable and responsible for the results of the work he or she does” (p. 256).
- ***Knowledge of results*** represents reflects the “degree to which the employee knows and understands, on a continuous basis, how effectively he or she is performing the job” (p. 257).

## ***Role Dimensions***

As mentioned, Hackman and Oldham (1975) proposed that the desired psychological states are the result of five role enrichment dimensions. Specifically they theorised that: *experienced meaningfulness* is the result of the combined effects of *skill variety*, *task identity* and *task significance*, levels of *autonomy* foster individuals' *experienced responsibility*, and *feedback* determines workers' *knowledge of results*. Importantly, the JCM is theorised as a perceptually based framework. Specifically, it is based on the notion that the perceptions individuals hold about their relative levels of role enrichment act as precursors to the proposed psychological states. The definitions for each role enrichment dimension, and the rationale underlying each dimensions position in the JCM are discussed below.

- ***Skill variety*** refers to the degree to which a job requires someone to perform a wide range of tasks; a role with high levels of skill variety requires an individual to utilise many different skills in order to get the job done.

The theory underlying the inclusion of *skill variety* in the JCM is that roles that challenge an individual through requiring the utilisation of a wide range of skills and abilities are likely to be perceived as meaningful. Jobs that require a diverse skillset can be important to an employee even if the job itself is not perceived as meaningful in a global sense. Hackman and Oldham (1975) use recreational activities as an example of how variation can pique peoples' interest and investment in a task, pointing out that games, puzzles and activities that tap into multiple skills are often perceived to be more entertaining than simpler, more routine activities.

- ***Task Identity*** is the extent to which employees do an entire piece of work and can identify with the results of their efforts.

The inclusion of *task identity* in the JCM is based on the notion that individuals who are responsible for a complete production or entire service process will perceive the work to be more meaningful than if they are only responsible for a portion of the product or processes. Individuals who are responsible for an entire unit of work are more likely to identify more closely with their work, making it more personally identifiable and thus meaningful.

- ***Task Significance*** refers to the degree to which a job is perceived to have a substantial impact on the lives or work of other people.

The inclusion of *task significance* in the JCM is based on the notion that individuals who perceive their role to be of a significant social importance, or understand that it contributes substantially to the wellbeing of other people, are more likely to find their work meaningful. For example, a helicopter pilot responsible for operating tourist flights may be less likely to perceive meaningfulness in their work than an individual working as an air ambulance, even though a similar set of skills and abilities would be expected for either role.

- ***Autonomy*** concerns the degree to which individuals have a say in scheduling their work and have freedom to do what they want on the job.

Roles high in autonomy require individuals to exercise their own judgement in decision making and problem solving, rather than depending on instructions from external sources such as managers or manuals. This means that the outcomes achieved in roles with high levels of autonomy occur primarily because of the employee's own inputs and efforts, rather than being attributable to the efforts of others. The result is, according to Hackman and Oldham (1975), that individuals with high levels of autonomy will experience higher levels of personal responsibility for work that occurs on the job.

- **Feedback** concerns the degree to which employees receive information about how well they are performing on the job.

The relationship between feedback and knowledge of results is straightforward in its conception. Simply put, employees who receive high levels of feedback have access to a more accurate depiction of their work performance than individuals who receive little or no feedback.

### ***Growth Need Strength***

The potential moderating effects of individual personality characteristics between role dimensions, psychological states, and work outcomes are an important consideration within the JCM framework. Role enrichment does not necessarily lead to positive work outcomes. Rather, some individuals thrive in enriched roles while others do not. Growth need strength (GNS) was introduced into the JCM by Hackman and Oldham (1980) to account for this divergence. Specifically, GNS concerns an individual's need for personal growth, autonomy, and/or achievement. Hackman and Oldham (1980) proposed that individuals high in GNS respond more favourably to enriched roles than those low in GNS, the implication of which is that individuals high in GNS are able to obtain better outcomes when operating within enriched working environments. Additionally, the relationship between the core role characteristics and outcomes provided by the JCM is theorised to be significantly weakened (or non-existent) for individuals with low GNS.

### ***Job Satisfaction***

The major work outcome investigated in this study was job satisfaction (JS). JS can be defined broadly as a measure of the degree to which an individual enjoys or likes their role (Spector, 2008). JS has been widely studied in reference to sales roles

(Babakus et al., 1996). JS shares a close theoretical link with work motivation, where those higher in JS have generally been observed to be more motivated (Westover et al., 2009).

JS has been put forward as a pivotal aspect in a number of different motivational theories (Westover et al., 2009). Research suggests that JS is related to a number of organisational outcomes of potential importance to salespeople and their organisations (Babakus et al., 1996). For instance, JS has been found to relate positively to organisational commitment (Westover et al., 2009), in particular affective commitment (Johnston, Parasuraman, Futrell, & Black, 1990). Salespeople with low levels of job satisfaction are more likely to have affective needs that are unmet, in turn contributing to declines in the attachment they feel towards their organisation (Johnston et al., 1990). Employees with low levels of organisational commitment are more likely to consider and seek out alternative working arrangements, which increases turnover (Johnston et al., 1990) and costs their organisations in terms of replacement costs and loss of expertise. (Dickter, Roznowski, & Harrison, 1996). Furthermore, during this period of consideration employees can cognitively withdraw from work, resulting in lost productivity (Dickter et al., 1996).

JS has been found to be positively related to organisational citizenship behaviour (OCB) (Westover et al., 2009), which, as defined by Organ and Konovsky (1989) refers to behaviours that go beyond the core requirements for a role and are of benefit to the organisation. In particular, Organ (1990) found that employees high in job satisfaction demonstrate lower levels of tardiness than their less satisfied counterparts. Research suggests that there is a moderate positive relationship ( $r = .20$ ) between global measures of JS and job performance (Judge, Thoresen, Bono, & Patton, 2001). While JS and performance are clearly related (Schleicher, Watt, & Greguras, 2004) the direction of

causality between JS and job performance is a source of some debate (Spector, 2008). One explanation is that satisfied employees work harder because their needs are being met. However, there is also support for the hypothesis that employees who perform better on the job enjoy higher levels of JS as a result of receiving rewards such as higher pay and recognition (Jacobs & Solomon, 1977; Spector, 2008)

JS also holds a number of benefits for salespeople in terms of their wellbeing and happiness. JS is positively related to general life satisfaction (Kantak, Futrell, & Sager, 1992). Because most employed persons spend a substantial amount of their lives at work, work in turn becomes a significant factor in a person's general life contentment (Kantak et al., 1992). The spillover hypothesis of work/life balance provides an additional explanation regarding the relationship between JS and life satisfaction. This hypothesis suggests that work and life domains have the potential to influence one another, where positive or negative elements of one area 'spillover' and recreate similar patterns and attitudes in the other (Rain, Lane, & Steiner, 1991). Thus, not only can satisfaction at work be recreated in life, but satisfaction in life may be recreated at work.

JS has been observed to have a negative relationship with employee perceptions of stress (Thomas & Ganster, 1995). Stress has been shown to be positively related to a number of undesirable physical and psychological symptoms, such as heart disease, viral infections and burnout. This suggests that levels of JS can influence both the physical and psychological health of employees, and that low levels of JS are potentially harmful to employee psychological and physical wellbeing (O'Driscoll & Beehr, 1994).

To examine how JS can be effectively promoted, it is important to determine what factors act as antecedents to JS levels. There are three possible views available for

consideration (Spector, 2008). The first is that JS is related to the environmental factors surrounding a role, and is a product of job and organisational characteristics. Alternatively, a personal characteristics perspective can be adopted, the basis of which is that individuals can vary greatly in levels of JS despite highly similar environmental conditions. Because of this, it is theorised that personal attributes (largely related to personality) can be determinants of individual levels of JS. The last viewpoint, and the approach utilised in this study, is that JS is the product of interactions and relative levels of both environmental and personal attributes. This approach highlights the utility of the JCM, which as a theoretical framework incorporates both environment factors (role characteristics) and personality (growth need strength).

### ***The JCM and Sales***

There are a number of links between the role dimensions of the JCM and the type of work encountered in sales jobs. These indicate a strong theoretical case for the application of the JCM to understanding levels of job satisfaction in salespeople. As mentioned earlier, salespeople are often required to perform a wide range of tasks and as a result adopt a number of different inter-role identities (Jacobs, 1985). This aspect of selling shows a clear link to the skill variety dimension of the JCM. Selling in itself is a process made up of a number of integrated steps which from a work design perspective are difficult to separate (Katsikea et al., 2011). This integration means that salespeople often manage entire work processes, rather than repeating isolated steps, which in turn leads to high levels of perceived task identity.

The linkage between task significance and sales work may be of a particular importance to organisations as well as the psychological states of salespeople and their resultant levels of job satisfaction. Studies of salespeople have shown that sales work

can be associated with unethical business practices such as lying, making unrealistic promises and selling products or services that are not required by customers (Marchetti, 1997). However, there is an increasing trend in sales towards ethical selling practices. Lousig-Nont (1998) has noted that many sales managers consider courtesy and ethics to be fundamental to salesperson success. Additionally, ethical sales practices can assist organisations and salespeople in obtaining repeat business and building a positive reputation (Rosengren, 1998). These observations indicate that it may be particularly important for salespeople to believe in and identify with the products or services they sell in order to perceive their work as meaningful and experience high levels of job satisfaction.

Sales work is also potentially closely linked to autonomy. As discussed, selling is a process that is often followed in its entirety by one person (Bhuan & Menguc, 2002). Additionally, a number of different selling approaches can be effective in a given situation, allowing scope for an individual to exercise personal judgement in relation to how work is performed. Both aspects of sales work indicate that autonomy can be a feature in the roles of salespeople. However, the type of role may influence the level of autonomy ultimately perceived by an individual. For instance, it would be expected that there would be significant differences in the amount of autonomy perceived by a door to door salesperson or B2B consultant versus that reported by an individual working in a retail store. However, the nature of sales work in general still indicates a propensity for higher levels of autonomy than would be expected in many other role types.

The final job dimension of the JCM, role feedback, is a pervasive feature of many sales roles (Dubinsky & Skinner, 1984). Salespeople typically have their performance reported based on a form of targeted earning (e.g. units sold, gross profit). These practices provide a clear avenue through which feedback can be obtained and

delivered to salespeople. There is, however, still scope for variation in feedback to occur as a result of different approaches to sales leadership, as well as the variety of methods that can be used for reporting salesperson performance.

### ***Research Background for the JCM***

Meta-analysis of the JCM has indicated moderate support for the model's validity (Fried, 1991). Certain aspects of the JCM have been supported by empirical evidence, while some studies suggest the need for adjustments and modifications. Generally, the linkages between job characteristics, psychological states and work outcomes have been supported (Tiegs, Tetrick, & Fried, 1992). However, there has been some debate as to whether GNS moderates these relationships in the ways purported.

### ***The Mediating Effects of Psychological States***

It has been suggested that the role of psychological states is under-investigated in relation to the JCM (Renn & Vandenberg, 1995). The positing of psychological states as mediators between role characteristics and work outcomes implies two assumptions about the role of experienced meaningfulness, experienced responsibility and knowledge of results within the context of the JCM (Fried, 1991). The first assumption is that the correlations between a role enrichment characteristic and its specified psychological state will be substantially higher than its correlation with the other two unspecified psychological states. The second assumption is that the correlations between psychological states and work outcomes in general will be substantially higher than the direct correlations between role characteristics and work outcomes.

Fried and Ferris (1987) noted that there is partial support for the mediating role of psychological states between role enrichment dimensions and personal work outcomes such as job satisfaction. Regarding the relationships between enrichment

dimensions and psychological states, the findings are mixed. Generally, there is support for the JCM's predicted relationships between skill variety, task identity and experienced meaningfulness. Studies have indicated that these role dimensions correlate more strongly with experienced meaningfulness than the other two hypothesised psychological states. However, research is less supportive of the JCM in relation to the other three proposed role enrichment characteristics (Fried & Ferris, 1987). Findings suggest that the relationships between role feedback and its (unspecified) psychological states (experienced meaningfulness and experienced responsibility) are similar in strength to its relationship with its specified psychological state (knowledge of results). Role autonomy has also demonstrated similar relationship strength with an unspecified psychological state, experienced meaningfulness, as it does with experienced responsibility. Furthermore, task identity has been found in some studies to be more strongly related to experienced responsibility than its specified state of experienced meaningfulness (Fried, 1991).

These findings do not directly contradict the predictions made in the JCM, however they do indicate that adjustments to its theoretical structure may be necessary. It has been suggested that part of the problem may lie in a dimensional overlap between role characteristics. Some authors have suggested that, due to high cross-factor loadings, skill variety, task significance and autonomy are really parts of a single dimension (Dunham, 1976; Dunham, Aldag, & Brief, 1977; Fried & Ferris, 1986). Another possibility is that there are construct overlaps between the model's psychological states. Experienced meaningfulness and experienced responsibility have been observed in some studies to share relatively high levels of construct similarity (Fried & Ferris, 1987). The present study sought to investigate these findings in particular reference to New Zealand salespeople.

The JCM's theorised relationships between psychological states and personal outcomes have generally received empirical support. Fried's (1991) meta-analysis found that the correlations between each psychological state and job satisfaction were significantly stronger than the relationship between enrichment characteristics and job satisfaction. Similar patterns were also observed regarding growth satisfaction and internal work motivation, where experienced meaningfulness and experienced responsibility both appeared to be more strongly related to these outcomes than any individual enrichment dimension. In the same study the results were not as supportive of the JCM's predicted relationships between psychological states and job performance. While performance was linked strongly to role dimensions (e.g. task identity, role feedback), individuals' knowledge of results was observed to have only a weak relationship with performance. Ferris (1991) also found no relationship between experienced meaningfulness, experienced responsibility and performance. This relatively low relationship with performance has served as the impetus for a number of studies excluding psychological states from their respective theoretical frameworks, approaching the JCM as a two stage rather than a three stage model. However, as the present study is concerned primarily with a personal outcome (job satisfaction), applying the JCM in its original three-stage approach appears to offer the greatest utility.

### **JCM Hypotheses**

The theoretical links between the JCM, JS and sales roles lead to the formulation of hypotheses *H1a. – H3h.*

***Role characteristics and psychological states***

***H1a.*** *There will be a positive relationship between skill variety and experienced meaningfulness*

***H1b.*** *There will be a positive relationship between task identity and experienced meaningfulness*

***H1c.*** *There will be a positive relationship between task significance and experienced meaningfulness*

***H1d.*** *There will be a positive relationship between role autonomy and experienced responsibility*

***H1e.*** *There will be a positive relationship between role feedback and experienced knowledge of results*

***Psychological states and job satisfaction***

***H2a.*** *There will be a positive relationship between experienced meaningfulness and job satisfaction*

***H2b.*** *There will be a positive relationship between experienced responsibility and job satisfaction*

***H2c.*** *There will be a positive relationship between experienced knowledge of results and job satisfaction*

***Growth need strength***

***H3a.*** *The relationship between skill variety and experienced meaningfulness will be moderated by GNS, where individuals with higher levels of GNS will demonstrate a stronger positive relationship than those with low GNS.*

***H3b.*** *The relationship between task identity and experienced meaningfulness will be moderated by GNS, where individuals with higher levels of GNS will demonstrate a stronger positive relationship than those with low GNS.*

***H3c.*** *The relationship between task significance and experienced meaningfulness will be moderated by GNS, where individuals with higher levels of GNS will demonstrate a stronger positive relationship than those with low GNS.*

***H3d.*** *The relationship between role autonomy and experienced responsibility will be moderated by GNS, where individuals with higher levels of GNS will demonstrate a stronger positive relationship than those with low GNS.*

***H3e.*** *The relationship between role feedback and knowledge of results will be moderated by GNS, where individuals with higher levels of GNS will demonstrate a stronger positive relationship than those with low GNS.*

***H3f.*** *The relationship between experienced meaningfulness and job satisfaction will be moderated by GNS, where individuals with higher levels of GNS will demonstrate a stronger positive relationship than those with low GNS.*

***H3g.*** *The relationship between experienced responsibility and job satisfaction will be moderated by GNS, where individuals with higher levels of GNS will demonstrate a stronger positive relationship than those with low GNS.*

*H3h. The relationship between experienced knowledge of results and job satisfaction will be moderated by GNS, where individuals with higher levels of GNS will demonstrate a stronger positive relationship than those with low GNS.*

### **Expanding on the Moderators of the Job Characteristics Model**

There has been considerable empirical support for the moderation effect of GNS between role characteristics and work outcomes (de Jong, van der Velde, & Jansen, 2001; Feldman & Arnold, 1978; Fok, Hartman, Patti, & Razeq, 1999; Graen, Scandura, & Graen, 1986; Huang & Iun, 2006). However, a number of other studies have demonstrated mixed results (Houkes, Janssen, de Jong, & Bakker, 2003; Tiegs et al., 1992). Additionally, while the effects of GNS are readily apparent in individuals who possess it in high levels, the original form of the JCM model explains little about those low in GNS. It has been suggested that work can be intrinsically motivating for individuals with both low and high GNS (Houkes, et. al., 2003). These observations suggest that the moderation effects of GNS proposed by the JCM fail to fully capture the inherently complex relationship between role characteristics and work outcomes. There is evidence that a number of other moderators are suitable for consideration in conjunction with GNS (de Jong et al., 2001; Shalley, Gilson, & Blum, 2009).

This study examined two additional moderators, openness to experience (OTE) and locus of control (LOC). Both constructs demonstrate a level of conceptual similarity to GNS. However, the conceptual differences that exist between OTE, LOC and GNS also provide an opportunity for a deeper and expanded understanding of the relationships between the JCM's dimensions and job satisfaction for sales professionals. The modified version of the JCM utilised in the present study is presented below in

Figure 1.2. The remainder of this section will discuss the theoretical background underpinning the inclusion of OTE and LOC in the present study.

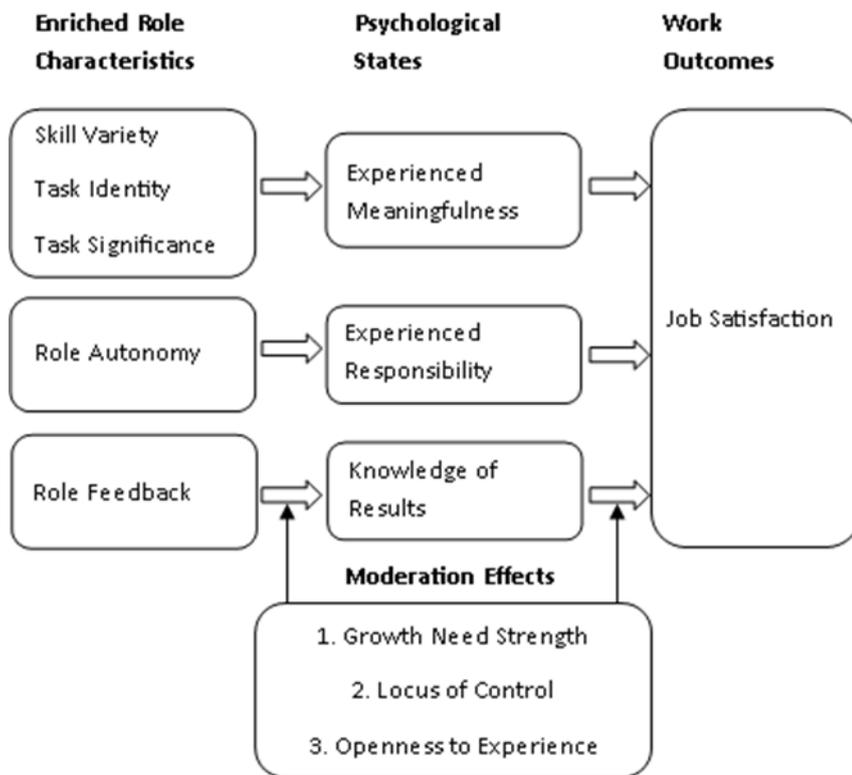


Figure 1.2. Modified Job Characteristics Model

***Openness to Experience (OTE)***

OTE is a factor in the Big Five model of personality, one of the most commonly researched and implemented theories of personality (Barrick & Mount, 1991). The relationship between OTE and work outcomes has received mixed support. It is perhaps the least understood of the five factors in this respect (Abu Elanain, 2009). OTE has been shown to relate to performance in training (Barrick & Mount, 1991), which is not particularly surprising considering that those high in OTE are generally more open to new ideas, and thus are likely to be more accepting of new information presented in training programmes. However, the relationship between OTE and work performance in

general has been inconsistent (Barrick & Mount, 1991). While some have questioned the usefulness of applying OTE in work settings (Barrick, Mitchell, & Stewart, 2003), it is also possible that such assertions undervalue OTE's utility. Those high in OTE are more proficient at creatively considering new ideas and solutions (Burke & Witt, 2002). This suggests that individuals high in OTE might function well in work environments (like sales) that require autonomous problem solving.

Conceptually OTE appears to share a theoretical similarity to GNS. Individuals high in OTE prefer variety over routine, seek change, and have a strong desire to understand their work and the surrounding environment (McCrae, 1993). This shows a degree of overlap with the need of individuals high in GNS to find growth and development in their roles. This overlap has received empirical support via the moderation effects of each construct on the relationship between enriched role characteristics and JS. In a study by de Jong et. al. (2001), similar moderation effects were observed for both GNS and OTE. High levels of either construct coincided with higher JS in roles with high levels of skill variety and autonomy. Furthermore, the same study found significant overlap in the content domains covered by OTE and GNS, where both constructs shared a significant positive relationship. These considerations provide the impetus for the inclusion of OTE in the present study as a moderator between enrichment characteristics and levels of salesperson JS.

Importantly, differences exist between GNS and OTE in terms of the breadth each construct covers. GNS is specifically formulated, relating only to the desire for growth and development within the context of the JCM. By comparison, OTE is a broadly constructed variable. The aforementioned study by de Jong et al. (2001) highlights this difference in breadth of conception. In that study OTE was observed to account for all the variance attributable to GNS, however GNS *did not* account for the

variance explainable by OTE. This indicates that the content domain covered by GNS may be contained already within the more broadly formulated OTE.

The research surrounding OTE in general, as well as in relation to the JCM, indicates its suitability for inclusion in the present study. While some research has already been conducted around OTE's inclusion in the JCM, to the knowledge of this researcher there is yet to be any study which has focused on its moderating effects within the context of sales roles. OTE is potentially important to sales. Openness and adaptability to new experiences may enable salespeople to be effective sellers to a variety of customers in different working environments. It is hypothesised that OTE will have significant moderation effects on the relationship between role enrichment characteristics, psychological states and levels of job satisfaction in sales professionals. It is expected that individuals higher in OTE will be more likely to have high levels of job satisfaction as a result of more positive psychological states induced by enriched working environments. By the inverse of this process, it is expected that individuals lower in OTE will have lower job satisfaction. Hypotheses H4a – H4h relate to OTE's role in the present study, these are stated below.

***H4a.** The relationship between skill variety and experienced meaningfulness will be positively moderated by OTE, where individuals with higher levels of OTE will demonstrate a stronger positive relationship than those with low OTE.*

***H4b.** The relationship between task identity and experienced meaningfulness will be positively moderated by OTE, where individuals with higher levels of OTE will demonstrate a stronger positive relationship than those with low OTE.*

**H4c.** *The relationship between task significance and experienced meaningfulness will be moderated by OTE, where individuals with higher levels of OTE will demonstrate a stronger positive relationship than those with low OTE.*

**H4d.** *The relationship between role autonomy and experienced responsibility will be moderated by OTE, where individuals with higher levels of OTE will demonstrate a stronger positive relationship than those with low OTE.*

**H4e.** *The relationship between role feedback and knowledge of results will be moderated by OTE, where individuals with higher levels of OTE will demonstrate a stronger positive relationship than those with low OTE.*

**H4f.** *The relationship between experienced meaningfulness and job satisfaction will be moderated by OTE, where individuals with higher levels of OTE will demonstrate a stronger positive relationship than those with low OTE.*

**H4g.** *The relationship between experienced responsibility and job satisfaction will be moderated by OTE, where individuals with higher levels of OTE will demonstrate a stronger positive relationship than those with low OTE.*

**H4h.** *The relationship between experienced knowledge of results and job satisfaction will be moderated by OTE, where individuals with higher levels of OTE will demonstrate a stronger positive relationship than those with low OTE.*

#### ***Locus of Control (LOC)***

LOC concerns whether an individual perceives that they are in control of the reinforcements encountered in life and their perception that they are able to personally control the nature of particular life or work outcomes. For the purposes of this study, those having an internal locus of control will be referred to as *internals*, while those

with an external locus of control will be referred to as *externals*. Internals believe that they are in charge of their reinforcement and have the ability to personally affect outcomes within their environment. Conversely, externals believe that outcomes come about as the result of external factors beyond their control, such as luck, fate or the actions of others.

Research indicates that LOC has significant moderating effects on relationships between the enrichment characteristics of the JCM and a number of work outcomes. In a study of teachers, Knoop (1981) found that internals were more likely to perceive their job as being enriched, and have higher job satisfaction, job motivation, job involvement and participation in decision making than their externally orientated counterparts. Furthermore, the same study also found that externals were more likely to experience work alienation and powerlessness than internally orientated individuals in similar roles. Other studies yielded similar findings regarding LOC. Moyle and Parkes (1999) found that internals generally appear to have higher levels of job satisfaction than externals, while Spector (1982) observed that internals demonstrated higher levels of motivation than externals.

While the relationships between role enrichment and work outcomes have received considerable attention in relation to LOC, research regarding its role between role characteristics and psychological states within a JCM context is sparse. However, feedback type and LOC have been raised as an important consideration in educational contexts. Baron, Cowan, Ganz and McDonald (1974) observed interactions between LOC and whether feedback was intrinsic or extrinsic. Intrinsic feedback is obtained from the role itself, and is gathered and interpreted by individuals performing the role. Conversely, extrinsic feedback is obtained through interactions with supervisors or other workers (Baron et. al., 1974). Internals were found to perform significantly better

when supplied with intrinsic rather than extrinsic feedback. On the other hand, externals were observed to perform significantly better when receiving extrinsic rather than intrinsic feedback.

LOC has also been observed to moderate the relationship between enriched role characteristics and procrastination. A study by Lonergan and Maher (2000) found that job enrichment was negatively associated with procrastination. Importantly, the results of that study indicated that procrastination outcomes were heavily influenced by a significant interaction between LOC and role autonomy. When autonomy was low, internals and externals demonstrated little difference in procrastination behaviours. However, when autonomy was high, the procrastination behaviours of internals were significantly reduced while the procrastination levels of externals remained relatively unchanged (Lonergan & Maher, 2000).

LOC has also been observed to moderate the relationship between a number of more general role characteristics and work outcomes. Parkes (1991) found that LOC influences individual reactions to work environments by moderating the relationship between role demand and levels of employees' strain. In high demand-low autonomy roles, externals experienced higher levels of strain than internals. In roles with low demand and high autonomy, externals still experienced strain while internals demonstrated little to no strain reaction (Parkes, 1991). Similar findings regarding LOC and strain were also noted by Rotter (1966), who found that LOC moderates the relationship between stressors and strain. Specifically, Rotter (1966) found that internals were less likely to experience strain than externals in situations where similar types and intensity of stressor were present.

LOC raises several other considerations pertinent to the present study. Yukl (2010) suggests that internals are more likely to be proactive within work contexts. Additionally internals are more likely to be effective than externals in terms of persuading and motivating others towards particular objectives or outcomes (Yukl, 2010). Work design is also an important factor in relation to LOC. Blau (1993) found that internals are more likely to seek development opportunities, and are better at developing important job skills than externals. Linked to this, the same study also indicated that internals had better levels of performance than externals in roles that require initiative and lateral thinking. However, Blau (1993) also noted that externals tend to display higher levels of conformity, and as a result are likely to perform better than internals in roles with prescriptive, predictable tasks and high levels of structure.

These findings suggest that LOC internalisation could be an important consideration in relation to sales roles, enriched role characteristics and job satisfaction. Sales roles are typically less structured, have greater autonomy, and often require diverse problem solving skills (Jacobs, 1985; Simintiras et al., 1994). This suggests that sales roles would score highly in terms of other enrichment characteristics when compared to a general cross-section of role types. Furthermore, the success of salespeople is often associated with their ability to persuade others into making purchasing decisions (Jacobs, 1985). The expectation is that sales roles are more likely to suit individuals with an internal rather than external LOC orientation. There is theoretical support for positing that internals possess higher levels of job satisfaction because they are more motivated to engage in productive selling behaviours.

It was hypothesised that LOC will have significant moderation effects on the relationship between role enrichment characteristics, psychological states and levels of job satisfaction in sales professionals. It was predicted that internals will be more likely

to have high levels of job satisfaction as a result of more positive psychological states induced by enriched working environments. Conversely, it was expected that externals have lower level of job satisfaction than internals as a result of less positive psychological states induced by enriched working environments. The postulated relationships related to LOC's role in the present study are outlined below in hypotheses H5a – H5e

***H5a.** The relationship between skill variety and experienced meaningfulness will be moderated by LOC, where individuals with higher levels of LOC will demonstrate a stronger positive relationship than those with low LOC.*

***H5b.** The relationship between task identity and experienced meaningfulness will be moderated by LOC, where individuals with higher levels of LOC will demonstrate a stronger positive relationship than those with low LOC.*

***H5c.** The relationship between task significance and experienced meaningfulness will be positively moderated by LOC, where individuals with higher levels of LOC will demonstrate a stronger positive relationship than those with low LOC.*

***H5d.** The relationship between role autonomy and experienced responsibility will be moderated by LOC, where individuals with higher levels of LOC will demonstrate a stronger positive relationship than those with low LOC.*

***H5e.** The relationship between role feedback and knowledge of results will be positively by LOC, where individuals with higher levels of LOC will demonstrate a stronger positive relationship than those with low LOC.*

*H5f. The relationship between experienced meaningfulness and job satisfaction will be moderated by LOC, where individuals with higher levels of LOC will demonstrate a stronger positive relationship than those with low LOC.*

*H5g. The relationship between experienced responsibility and job satisfaction will be moderated by LOC, where individuals with higher levels of LOC will demonstrate a stronger positive relationship than those with low LOC.*

*H5h. The relationship between experienced knowledge of results and job satisfaction will be moderated by LOC, where individuals with higher levels of LOC will demonstrate a stronger positive relationship than those with low LOC.*

## **Chapter Summary**

This study examines New Zealand salespeople through the lens of the JCM. It was hypothesised that that role enrichment characteristics would be positively related to psychological states, and that psychological states would be positively related to job satisfaction. GNS, OTE and LOC were hypothesised to moderate the relationships between role enrichment, psychological states and job satisfaction, where higher levels of each moderator were proposed to strengthen the direct relationships between the JCM variables. Following this chapter, the method and results chapters are presented. The results are then interpreted in the discussion chapter.

## CHAPTER 2 - METHOD

### Respondents

Twenty nine organisations participated in the present study. Twenty five of these employed salespeople who could be contacted regarding participation directly. The other four organisations acted as intermediaries by assisting with respondent recruitment. These four organisations comprised two sales training organisations, an online magazine, and an industry association. Due to the distribution methods utilised, it was not possible to determine the total number of salespeople who were contacted, to ascertain survey participation rate. A total of 206 individuals completed the survey in its entirety. Seven cases were removed from the final data set due to their failure to meet the utilised salesperson definition, leaving a total of 199 respondents.

Demographic and employment information for the 199 respondents are presented in Table 2.1. Because respondents were able to identify with multiple ethnicities, the total for ethnicity (218) is greater than the number of respondents (199). Respondents worked in a variety of sales roles across a number of different industries. The eleven most frequently worked in industries are recorded below and the remaining industries are encompassed in the “other” category. The most frequently mentioned “other” industries were car sales (3), eyewear (3), and musical equipment (3). Seven respondents described their industry simply as ‘sales’ and these responses comprised the “miscellaneous sales” category.

Table 2.1

*Respondent Demographics, Industry and Job Information*

	N	Range	Mean	SD
Age	199	18 - 69	34.52	14.87
		Frequency	Percent	
Gender	Male	84	42.2	
	Female	115	57.8	
	Total N	199		
Ethnicity	NZ European	154	77.4	
	Maori	27	13.6	
	Asian	10	5	
	Pacific Peoples	2	1	
	Other	25	12.6	
Sales Industry	Real Estate	37	18.6	
	Fashion	30	15.1	
	Appliance/Electronics	24	12.1	
	Sporting Goods	19	9.5	
	Footwear	17	8.5	
	Jewellery	14	7.0	
	Health/Fitness	8	4.0	
	Industrial Services	8	4.0	
	Telecommunications	7	3.5	
	Travel	5	2.5	
	Recruitment	5	2.5	
	Misc. Sales	7	3.5	
	Other	18	9.0	
	N	Range	Mean	SD
Years - organisation	199	0.1 - 25.0	3.50	4.23
Years - current role	199	0.1 - 25.0	3.43	4.37
Years - current industry	198	0.2 - 43.0	7.20	8.20

## **Procedure**

Twenty-five sales managers, two directors of organisations, one magazine editor and one communications director were contacted through a combination of telephone introduction and an emailed letter (Appendix A). The letter explained the goals of the research as well as its potential benefits. The letter also provided a general overview of the theoretical model, the type of questions being asked and an indication of the type of participation required. The letter also stated that all research data would be collected anonymously, and that no participating organisations or individuals would be identified in any way. Ethical approval for this research was granted by the University of Waikato's School of Psychology Research and Ethics Committee on May 1<sup>st</sup> 2012.

The sales managers who expressed an interest in having their organisation participate were provided with a copy of the survey in order to obtain final approval. Once approval had been obtained, sales managers were provided with a respondent invitation letter (Appendix B) which had embedded in it a link to the online survey, which was administered using Qualtrics online survey software. The respondent letter was then distributed by managers to their employees. A similar process was also followed in the case of the sales industry professional membership association. Once approval had been obtained from the communications director and the association CEO, the respondent email was circulated for one issue of the association's weekly online newsletter.

For the online magazine, a small article (Appendix C) was written by the researcher. The article was designed to mirror the information provided in the respondent email. However, at the suggestion of the magazine editor, more specific information about role characteristics was provided to give a level of contextual interest

to the magazine's target audience. The conclusion of the article contained an invitation to participate and an online link which interested individuals could access to complete the survey.

Two processes were followed in relation to the sales training companies who participated in this study. One company circulated the organisation letter to its client list of New Zealand based sales managers. The sales managers who showed interest via this method of distribution contacted the researcher directly through email. Following this, the same procedure of approval and distribution was followed as had been used with the sales managers who were contacted directly by the researcher in the initial stages of the project. The director of a second sales training company agreed to include the respondent email and survey as part of sales training seminars. At the conclusion of seminars held by the company, individuals were given the option of participating in the survey.

Upon arriving at the survey website, respondents were presented with an information page (Appendix D) that outlined: the goals of the research, why the research was important, the approximate time the survey would take, who was eligible to do the survey, the right of respondents to cease the survey at any time, the provisions for respondent anonymity, and the contact details of the researcher and research supervisors. After reading the information page respondents could choose to continue with the survey or leave the website. Those who did not complete the survey on the initial attempt were given the option of continuing for up to two weeks after beginning the survey. A copy of the survey is contained in Appendix E.

## **Measures**

The measures used in this study are presented in two parts. First, the measures used to assess variables in the JCM are reported. Following this, the measures used to assess the moderators are reported. Skill variety, task identity, task significance, role autonomy, feedback from agents, feedback from the job itself, experienced meaningfulness and knowledge of results were targeted with two-item measures. Experienced responsibility was assessed using three items, and overall feedback with four items. Cronbach's alpha commonly underestimates the reliability of two item measures (Eisinga, te Grotenhuis, & Pelzer, 2012). As recommended by Eisinga et al. (2012), internal consistency was calculated as an alternative for two item measures using Spearman-Brown correlation. Correlations of 0.3 – 0.4 were considered indicative of moderate internal consistency, and correlations greater than 0.4 were considered to indicate good internal consistency (Eisinga et al., 2012). For all other scales reliability was assessed using Cronbach's alpha. Importantly, item adjustments were made to some scales following factor analysis. The reliability statistics reported in this chapter are for the scales prior to any adjustments. The final reliability statistics are reported in the results chapter.

### **JCM Measures**

To enable the survey to be completed by respondents within a manageable time period (15 minutes) a selection of items from Hackman and Oldham's (1975) Job Diagnostic Survey (JDS) were used to measure role dimensions, psychological states and job satisfaction. Two items each were used to measure skill variety, task identity, task significance, autonomy, feedback from agents, feedback from the job itself, experienced meaningfulness and knowledge of results, while experienced responsibility

and job satisfaction were measured through three items. Items consisted of statements about elements of the respondents' roles. Respondents were asked to rate statements on a seven point scale which ranged from "Disagree Strongly (1)" through to "Agree Strongly (7)". The measures for role dimensions, psychological states and job satisfaction are presented below, with their associated internal consistency or reliability statistics.

### ***Skill Variety***

Skill variety was measured with items 1 and 5 from section (A) of the survey (Appendix D). The items used to assess skill variety were "*The job requires me to use a number of complex or high-level skills*" and "*The job is quite simple and repetitive*" (reverse scored). The inter-item correlation for the items measuring skill variety was .52, indicating good internal consistency.

### ***Task Identity***

Task identity was measured with items 3 and 11 from section (A) of the survey (Appendix D). The items used to assess task identity were "*the job is arranged so that I do not have the chance to do an entire piece of work from beginning to end*" (reverse scored) and "*the job provides me the chance to completely finish the pieces of work I begin*". The inter-item correlation for the items measuring task identity was .44, indicating good internal consistency.

### ***Task Significance***

Task significance was measured with items 8 and 14 from section (A) of the survey (Appendix D). The items used to assess task significance were "*this job is one where a lot of other people can be affected by how well-the work gets done*" and "*the*

*job itself is not very significant or important in the broader scheme of things*” (reverse scored). The inter-item correlation for the items measuring task significance was .30, indicating moderate internal consistency.

### ***Role Autonomy***

Role autonomy was measured with items 9 and 13 from section (A) of the survey (Appendix D). The items used to assess role autonomy were *“the job denies me any chance to use my personal initiative or judgment in carrying out the work”* (reverse scored) and *“the job gives me considerable opportunity for independence and freedom in how I do the work”*. The inter-item correlation for the items measuring role autonomy was .39, indicating moderate internal consistency.

### ***Role Feedback***

Feedback was measured through items 4, 7, 10 and 12 from section (A) of the survey (Appendix D). Information about two types of feedback was elicited, feedback from the job itself (A4, A12), and feedback from agents (A7, A10). The items used to assess feedback from the job itself were, *“just doing the work required by the job provides many chances for me to Figure out how well I am doing”* and *“the job itself provides very few clues about whether or not I am performing well”* (reverse scored). The items used to assess feedback from agents were, *“supervisors often let me know how well they think I am performing the job”* and *“the supervisors and co-workers on this job almost never give me any “feedback” about how well I am doing in my work”* (reverse scored). The inter-item correlation for the items feedback from the job itself was .29 indicating a poor level of internal consistency. The inter-item correlation for the items feedback from agents was .64 indicating good internal consistency. An overall alpha level of .59 was observed for the four feedback items, indicating that as a whole

the original feedback measure possessed relatively poor reliability. Following factor analysis adjustments were made to the feedback scales, with items measuring feedback from agents removed from further analysis.

### ***Experienced Meaningfulness***

Experienced meaningfulness was measured through items 1 and 4 from section (B) of the survey (Appendix D). The items used to assess experienced meaningfulness were, “*most of the things I have to do on this job seem useless or trivial*” (reverse scored) and “*the work I do on this job is very meaningful to me*”. The inter-item correlation for the items measuring experienced meaningfulness was .43, indicating good internal consistency. Following factor analysis the number of items used to measure experienced meaningfulness was increased from two to three items. Because of this, Cronbach’s alpha, rather than internal consistency, was used for the finalised experienced meaningfulness items.

### ***Experienced Responsibility***

Experienced responsibility was measured through items 2, 5, and 8 from section (B) of the survey (Appendix D). The items used to assess experienced responsibility were, “*it’s hard, on this job, for me to care very much about whether or not the work gets done right*” (reverse scored) and “*I feel I should personally take the credit or blame for the results of my work on this job*”. The alpha level for the original experienced responsibility measure was .41, indicating poor reliability. Following factor analysis the number of items used to measure experienced responsibility was decreased from three to two items. Because of this, internal consistency, rather than Cronbach’s alpha was used for the finalised experienced responsibility items.

### ***Knowledge of Results***

Knowledge of results was measured through items 7 and 10 from section (B) of the survey (Appendix D). The items used to assess individuals' knowledge of results were, "*I often have trouble figuring out whether I'm doing well or poorly on this job*" (reverse scored) and "*I usually know whether or not my work is satisfactory on this job*". The inter-item correlation for the items assessing knowledge of results was .50, indicating good internal consistency.

### ***Job Satisfaction***

Job satisfaction (global) was measured through items 3, 6, and 9 from section (B) of the survey (Appendix D). The items used for the measurement of JS were, "*Generally speaking, I am very satisfied with this job*", "*I am generally satisfied with the kind of work I do in this job*", and "*I frequently think of quitting this job*" (reverse scored). Hackman and Oldham (1975) reported a coefficient alpha of .76 for their original measure of global job satisfaction. The alpha obtained in the present study for JS scale was .74, indicating good reliability.

### **Moderator Measures**

Three potential moderators were measured as part of this study. These were growth need strength (GNS), locus of control (LOC), and openness to experience (OTE). Descriptions of the scales used to measure each moderator are presented below.

#### ***Growth Need Strength (GNS)***

GNS was assessed using Hackman and Oldham's (1975) Job Diagnostic Survey. The present study utilised the twelve item "forced choice format" measure of GNS. This was measured through items 1-12 from section 3 of the survey (Appendix D). For each

item respondents were presented with two different job descriptions under the headings “Job A” and “Job B”. One description was designed to appeal to individuals high in GNS, while the other was designed to appeal to those low in GNS. Respondents were asked to indicate which role they would prefer on a five point scale ranging from “Strongly Prefer A” through to “Strongly Prefer B”. The midpoint of the scale was “No preference for A or B”. Scores that displayed a preference for the high GNS description were scored at the high end of the scale (5), while those preferring the low GNS description were scored at the low end of the scale (1). No preference responses were scored as a three. Some examples of items used to assess GNS were, “*Job A - A job with little freedom and independence to do your work the way you think best or Job B - A job where the working conditions are poor*” and “*Job A – A very routine job or Job B - A job where your co-workers are not very friendly*”. Hackman and Oldham (1975) reported a coefficient alpha of .71 for their original ‘job choice format’ measure of GNS. The original alpha obtained in the present study for the GNS scale was .69, indicating marginal reliability.

### ***Locus of Control (LOC)***

LOC was assessed using Levenson’s (1981) twenty-item “Total Locus of Control” scale, obtained via the International Personality Item Pool (IPIP) website <http://ipip.ori.org/>. These items are presented in section (E) of the survey (Appendix D). The keys for scoring scales and the psychometric characteristics of the scales are contained within the IPIP website (Goldberg et al., 2006).

The LOC scale contained twenty items. Ten of the items were negatively keyed while the remaining ten were positively keyed. Items were scored on a five-point scale in which respondents rated statements from “Very Inaccurate” through to “Very

Accurate”. Some examples of negatively keyed items included “*I see difficulties everywhere*” and “*I believe that unfortunate events occur because of bad luck*”. Some examples of positively keyed items included “*I like taking responsibility for making decisions*” and “*I come up with good solutions*”. The “total locus of control” scale has a reported coefficient alpha of .86 (Goldberg, 2010). The alpha obtained in the present study for all LOC scale items was .83, indicating good reliability.

### ***Openness to Experience (OTE)***

OTE was assessed using Costa and McRae’s (1992) ten-item scale obtained via the International Personality Item Pool (IPIP) website. Of the scale’s ten items, five were positively keyed and five were negatively keyed. Items were scored on a five-point scale where respondents were asked to rate statements from “Very Inaccurate” through to “Very Accurate”. Some examples of positively keyed items included “*I believe in the importance of art*” and “*I enjoy hearing new ideas*”. Some examples of negatively keyed items included “*I am not interested in abstract ideas*” and “*I avoid philosophical discussions*”. The openness to experience scale used has a reported coefficient alpha of .82 (Goldberg, 2010). The alpha obtained in the present study for all OTE scale items was .72, indicating acceptable reliability.

### **Statistical Analyses**

Several statistical methods were utilised in data analysis. Initially, exploratory factor analysis (EFA) was performed to ascertain scale suitability. To determine if factor analysis was appropriate, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was conducted initially. As recommended by Costello and Osborne (2005), KMO-MSA values above .6 indicated that data were suitable for factor analysis. Bartlett’s test of sphericity was conducted prior to proceeding with EFA. As it was

assumed that sub-factors would be correlated, EFA was conducted using the principal axis factoring method with a direct oblimin rotation used where necessary. A cut-off point of .32 was used to determine if factor loadings were significant (Costello & Osborne, 2005).

The hypotheses regarding the direct relationships between role dimensions, psychological states and job satisfaction were tested using Pearson product moment correlations with a minimum significance level of  $p < 0.05$  used. To analyse the hypothesised moderation effects, the present study utilised a two stage approach. The first stage consisted of hierarchical regression analysis, which was used to detect the presence of interactions between predictor variables and the proposed moderator variables. Interactions noted to be significant in the hierarchical regressions were then analysed further using a comparison of high, mid, and low group correlations.

Prior to performing the hierarchical regressions, all predictor variables and hypothesised moderator variables were centred to obviate multicollinearity (Brambor, Clark, & Golder, 2006). No significant correlations were observed between demographic variables and criterion variables. As such, it was not necessary to control for demographic variables prior to running the regression equations. Four hierarchical regression equations were used to test the moderation hypotheses. Each hierarchical regression equation consisted of two steps. In the first step predictor variables were entered to control for variable main effects. In the second step product terms for the relevant moderator variable(s) and each of the predictor variables were entered. High, medium, low groups were formed based on the applicable moderator levels. Comparisons based on moderator group were then conducted to ascertain differences in relationship strength between the relevant JCM dimensions.

## CHAPTER 3 - RESULTS

### **Factor Analysis and Reliability**

The first part of the results chapter reports the outcomes of factor analysis and the reliability or internal consistency statistics for the measures used in this study. The factor analysis and reliability/consistency outcomes are reported in the following order: role dimensions, psychological states, job satisfaction, growth need strength, openness to experience, locus of control.

#### ***Role Dimensions***

When exploratory factor analysis (EFA) was conducted for the role dimension items using principal axis factoring, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was .60 and a significant result was noted for Bartlett's test of sphericity. This indicated that it was appropriate to continue with factor analysis. Four factors were extracted with eigenvalues greater than one. Examination of the associated scree plot (Figure F.1 - Appendix F) indicated the potential appropriateness of a three factor solution, deviating from the expected five factor solution. However, after reviewing the factor loadings for both three and factor solutions, a four factor solution appeared more interpretable. Rotation of the four factors was carried out using the oblimin method, which converged in ten iterations. The four factors extracted had eigenvalues of 2.63, 1.91, 1.61 and 1.03 respectively and their combination explained 59.8% of the variance. The factor loading table (Table G.1 - Appendix G) was examined, with factor loadings of greater than 0.32 considered significant. Factor one loaded significantly onto both items measuring skill variety (A1, A5). Unexpectedly, factor one also loaded significantly onto the items measuring task significance (A8, A14). Factor two loaded significantly onto the items measuring task identity (A3, A11).

Also unexpectedly, factor two loaded significantly onto the items measuring autonomy (A9, A13). Factor three loaded significantly onto the items measuring feedback from agents (A7, A10), while no significant factor loadings were observed for the items measuring feedback from the job itself (A4, A12)

The potential for construct overlap between skill variety and task significance as well as task identity and autonomy was noted. While combining these measures into two rather than four variables was investigated, several problems were present when this was undertaken. Firstly, items from the original dimensions all correlated relatively strongly with one another ( $r > .35$ ), while a number of weak (.02 - .15) correlations were noted between items from combined dimensions. Additionally, the reliability statistics from the two combined dimensions were inferior to those of the original four. Due to this, it was decided to maintain items measuring skill variety, task significance, task identity and autonomy in their original form as measures of separate dimensions. This also allowed further modelling and data analysis efforts to be conducted within the originally intended JCM based framework.

Changes were made to the feedback measure utilised in this study. The items measuring feedback from the job itself (A4, A12) were removed from the overall feedback scale based on the factor analysis results. This reduced the final scale used to measure feedback from four to two items, and meant that further analysis was conducted using only the items measuring feedback from agents (A7, A10).

The two items measuring skill variety had a final inter-item correlation of .52, indicating good consistency. The two items measuring task identity had an inter-item correlation of .44, also indicating good consistency. The two items measuring task significance had an inter-item correlation of .30, indicating moderate consistency. The

two items measuring autonomy had an inter-item correlation of .39, also indicating moderate consistency. The two items measuring feedback had an inter-item correlation of .64, indicating good consistency.

### ***Psychological States***

When EFA was conducted for the psychological states items using principal axis factoring, the KMO measure of sampling adequacy was .63, and a significant result was noted for Bartlett's test of sphericity. This indicated that it was appropriate to continue with factor analysis. Three factors were extracted with eigenvalues greater than one; further examination of the associated scree plot (Figure F.2 - Appendix F) indicated that, as expected, a three factor solution provided the best fit. Rotation of the three factors was carried out using the oblimin method, which converged in six iterations. The three factors extracted had eigenvalues of 2.26, 1.40 and 1.25 respectively, and explained 70.1% of the variance. The factor loading table (Table G.2 - Appendix G) was examined with factor loadings of greater than 0.32 considered significant. Factor 1 was identified as the experienced meaningfulness factor. As expected, factor one loaded significantly onto both experienced meaningfulness items (B1, B4). Factor two was identified as the knowledge of results factor. As expected, factor two loaded significantly onto both items measuring knowledge of results (B7, B10). Factor three was identified as the experienced responsibility factor. Factor three loaded significantly onto two of the three items used to assess experienced responsibility (B5, B8). Item B2 "*It's hard, on this job, for me to care very much about whether or not the work gets done right*", was originally formulated to measure experienced responsibility. However, the only significant factor loading noted for this item was for the experienced meaningfulness factor (factor one). Further examination of item B2 indicated that it correlated highly with the other experienced meaningfulness items while it was only

weakly related to the items measuring experienced responsibility. Mutual improvements were also noted in reliability/consistency levels when B2 was transplanted from the experienced responsibility scale to the experienced meaningfulness scale. Because of this, item B2 was included as part of the experienced meaningfulness scale rather than experienced responsibility. This increased the experienced meaningfulness scale to three items (B1, B2, B4) and reduced the experienced responsibility scale to two items (B5, B8).

The final three items in the experienced meaningfulness scale had a Cronbach's alpha of .71, indicating an acceptable level of reliability. The final combination of experienced responsibility items had an inter-item correlation of .42 indicating good consistency. The final combination of knowledge of results items had an inter-item correlation of .50, also indicating good consistency.

### ***Job Satisfaction***

When EFA was conducted for the job satisfaction items using principal axis factoring, the KMO measure of sampling adequacy was .64 and a significant result was noted for Bartlett's test of sphericity. This indicated that it was appropriate to continue with factor analysis. One factor was extracted with an eigenvalue of 2.04 which explained 67.9% of the variance. The associated scree plot (Figure F.3 - Appendix F) confirmed that it was appropriate to continue with a one factor solution. The factor loading table (Table G.3 - Appendix G) was examined with factor loadings of greater than 0.32 considered significant. As expected, all items on the utilised job satisfaction scale (B3, B6, and B9) loaded significantly onto the single extracted factor. The final combination of JS scale items had a Cronbach's alpha of .74, indicating a good level of reliability.

### ***Growth Need Strength***

When EFA was conducted for the GNS items using principal axis factoring the KMO measure of sampling adequacy was .71, while a significant result was noted for Bartlett's test of sphericity. This indicated that it was appropriate to continue with factor analysis. Four factors were extracted with eigenvalues greater than one. However, further examination of the associated scree plot (Figure F.4 - Appendix F) indicated that, as expected, it was more appropriate to continue with a one factor solution. The single factor extracted had an eigenvalue of 3.058, and explained 25.5% of the variance. The factor loading table (Table G.4 - Appendix G) was examined, with factor loadings greater than 0.32 considered significant. Significant factor loadings were noted for all scale items with the exception of items C3 "*A job in which greater responsibility is given to those who do the best work* **OR** *A job in which greater responsibility is given to loyal employees who have the most seniority*" and C6 "*A job with a supervisor who is often very critical of you and your work in front of other people* **OR** *A job which prevents you from using a number of skills that you have worked hard to develop*". Further analysis of the GNS scale indicated that these items also contributed to overall reductions in scale reliability. Based on these results it was decided to exclude items C3 and C6 from further analysis, leaving a total of ten items measuring GNS. The final combination of GNS scale items had a Cronbach's alpha of .71, indicating an acceptable level of reliability.

### ***Openness to Experience***

When EFA was conducted for the openness to experience (OTE) items using principal axis factoring the KMO measure of sampling adequacy was .73, and a significant result was noted for Bartlett's test of sphericity, indicating that it was appropriate to continue with factor analysis. Three factors were extracted with

eigenvalues greater than one. The associated scree plot (Figure F.5 - Appendix F) also indicated that a three factor solution was appropriate. However, the factor loadings for a three factor solution were not significant for four items, while significant factor loadings were identified for all items when a two factor solution was used. Because the OTE scale had a limited number of items (10), it was decided to pursue a two factor solution. Rotation of the two factors was carried out using the oblique oblimin method which converged in three iterations. The two factors extracted had eigenvalues of 3.01 and 1.50 respectively. These two factors explained 45.2% of the variance. The factor loading table (Table G.5 - Appendix G) was examined with factor loadings of greater than 0.32 considered significant. Factor two loaded significantly onto items D2 “*I tend to vote for conservative political candidates*” and D9 “*I tend to vote for liberal political candidates*”, while factor one loaded significantly onto all the remaining items. It was noted that items D2 and D9 were both questions related to the respondents’ political preferences. It was felt that different factor loadings were noted for these items because they functioned as a measure of political persuasion, rather than openness to experience. Based on this, it was decided to exclude items D2 and D9 from further analysis, leaving eight items measuring OTE. The final OTE scale items had a Cronbach’s alpha of .75, indicating a good level of reliability.

### ***Locus of Control***

When EFA was conducted on the LOC scale using the principal axis factoring method the KMO measure of sampling adequacy was .83, and a significant result was noted for Bartlett’s test of sphericity. This indicated that it was appropriate to continue with factor analysis. Six factors were extracted with eigenvalues greater than one, while the associated scree plot (Figure F.6 - Appendix F) indicated that a two factor solution was appropriate. However, review of the factor loading tables for two and one factor

solutions indicated a higher level of item fit for a one factor solution. The single factor extracted had an eigenvalue of 5.170, and explained 27.2% of the variance. The factor loading table (Table G.6 - Appendix G) was examined, with factor loadings of greater than 0.32 considered significant. Significant factor loadings were noted for all scale items with the exception of items E5 “*I believe some people are born lucky*”, E10 “*I believe that unfortunate events occur because of bad luck*”, E11 “*I believe the world is controlled by a few powerful people*”, and E13 “*I believe that my success depends on ability rather than luck*”. Reliability analysis of the LOC scale indicated that these items also contributed to overall reductions in scale reliability. Based on these results it was decided to exclude these items from further analysis. The final sixteen LOC scale items had a Cronbach’s alpha of .84, indicating good reliability.

### **Descriptive Statistics**

Table 3.1 contains the descriptive information for each of the measures utilised in the present study. All statistics reported in this table were compiled based on the adjustments made as a result of factor analysis. Table 3.1 shows the mean, standard deviation, skew, kurtosis for each measure. Additionally, it also shows the reliability statistics for each measure. As indicated earlier, two-item measures had internal consistency assessed by Spearman-Brown correlation as an alternative to obtaining a Cronbach’s alpha. For all other measures Cronbach's alpha coefficient of reliability has been reported. Skew and kurtosis were considered to be acceptable for all measures, based on the threshold value of  $< 3$  as suggested by Kline (2005). OTE, GNS and LOC were assessed on five point scales, all other constructs were assessed on seven point scales.

Table 3.1

*Descriptive Statistics*

Variable	Mean	SD	Skew	Kurtosis	Alpha*	IC**
Skill Variety	4.88	1.43	-.46	-.48		.52
Task Identity	5.38	1.27	-.80	.08		.44
Task Significance	5.39	1.15	-.53	-.44		.30
Autonomy	5.64	1.08	-.88	.59		.39
Feedback	5.14	1.46	-.89	.15		.64
Exp. Meaningfulness	5.66	1.06	-1.02	1.27	.71	
Exp. Responsibility	5.68	1.06	-1.04	1.60		.42
Knowledge of Results	5.63	1.01	-.99	.83		.50
Job Satisfaction	5.37	1.21	-1.04	.82	.74	
Openness to Experience	3.85	.62	-.43	.41	.71	
Growth Need Strength	2.96	.62	.22	-.59	.84	
Locus of Control	4.01	.54	-.60	.74	.75	

*Note:* \*Alpha only reported for measure with three or more items, \*\* Inter-correlations only reported for two item measures, SD = Standard deviation, IC = Internal consistency

**Correlations**

The Pearson product-moment correlation coefficients (Pearson's  $r$ ) for all the variables utilised in the present study are presented in Table 3.2. Generally, the correlational data indicated that many of the constructs measured in this study were positively related but still distinct. An exception to this pattern was OTE, which appeared to be largely unrelated to any other constructs. Many correlations were observed to be significant and of a moderate strength or greater, exceeding  $r = .20$ . Openness to experience was related to the least number of other variables measured (2 out of 12). Locus of control correlated significantly with all other measured variables. Experienced meaningfulness was also observed to be highly correlated, demonstrating significant positive relationships with all other constructs except openness to

experience. Of the role dimensions, autonomy demonstrated the highest number of relationships, correlating significantly with all variables except feedback and openness to experience. The strongest correlation between two variables was for experienced meaningfulness and job satisfaction ( $r = .63, p < .01$ ).

### **Hypothesis Testing – Correlations**

The results of the present study supported all the hypotheses related to the direct relationships between the JCM's role dimensions and their associated psychological states (H1a – H1e). Hypothesis 1a, that there would be a positive relationship between skill variety and experienced meaningfulness, was supported by a moderate to strong positive correlation ( $r = .40, p < 0.01$ ). Hypothesis 1b, that there would be a positive relationship between task identity and experienced meaningfulness, was supported by a moderate positive relationship ( $r = .23, p < 0.01$ ). Hypothesis 1c, that there would be a positive relationship between task significance and experienced meaningfulness, was supported by a strong positive relationship ( $r = .54, p < 0.01$ ). Hypothesis 1d, that there would be a positive relationship between role autonomy and experienced responsibility, was supported by a moderate positive relationship ( $r = .35, p < 0.01$ ). Hypothesis 1e, that there would be a positive relationship between role feedback and experienced knowledge of results, was supported by a moderate positive relationship ( $r = .24, p < .01$ ).

Table 3.2

*Correlation Matrix*

Measure	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
<b>SV</b>											
<b>TI</b>	-.02										
<b>TS</b>	.42**	-.04									
<b>FB</b>	-.02	.11	.18**								
<b>AUT</b>	.30**	.39**	.25**	.04							
<b>EXM</b>	.40**	.23**	.54**	.20**	.36**						
<b>EXR</b>	.30**	.22**	.17**	-.11	.35**	.22**					
<b>KWR</b>	.03	.22**	.02	.24**	.12*	.20**	.07				
<b>JS</b>	.20**	.23**	.36**	.26**	.36**	.63**	.19**	.19**			
<b>OTE</b>	.02	-.10	-.05	.04	-.05	-.08	.05	.02	-.07		
<b>GNS</b>	.22**	.029	.07	-.10	.21**	.17**	.16*	.03	.12*	.27**	
<b>LOC</b>	.22**	.16*	.19**	.12*	.28**	.34**	.24**	.20**	.32**	.29**	.33**

*Note.* SV = skill variety; TI = task identity; TS = task significance; FB = feedback; AUT = autonomy; EXM = experienced meaningfulness; EXR = experienced responsibility; KWR = knowledge of results; JS = job satisfaction; OTE = openness to experience; GNS = growth need strength; LOC = locus of control. N = 199. \* $p < .05$ . \*\* $p < .01$

The results of the present study also supported all the hypotheses related to the relationships between psychological states and job satisfaction (H2a –H2c). Hypothesis 2a, that there would be a positive relationship between experienced meaningfulness and job satisfaction, was supported by a strong positive relationship ( $r = .63, p < .01$ ). Hypothesis 2b, that there would be a positive relationship between experienced responsibility and job satisfaction was supported by weak positive relationship ( $r = .19, p < .01$ ). Hypothesis 2c, that there would be a positive relationship between experienced knowledge of results and job satisfaction was supported by a weak positive relationship ( $r = .19, p < .01$ ). These results support the notion that for New Zealand salespeople, role enrichment characteristics, critical psychological states and job satisfaction are positively related. This in turn offers support for the application of the JCM in a New Zealand sales context.

### **Moderation Testing**

A total of four regression equations were constructed to examine the hypotheses regarding the moderation effects of locus of control, openness to experience and growth need strength. Equations 1-3 examined the relationships between the role dimensions of the JCM and their related psychological states. Equation four examined the relationship between psychological states and job satisfaction. The regressions equations are presented below in Tables 3.3, 3.6, 3.7, and 3.9. Accompanying each table are the statistics pertaining to model fit, beta weights,  $R^2$  change value and the product terms for which significant interactions were recorded.

The initial regression analyses indicated four potential interactions warranting further investigation. Specifically three potential moderation effects were noted for LOC regarding the relationships between role dimensions and psychological states. One

potential moderation effect was noted for GNS regarding the relationships between psychological states and job satisfaction. No potential moderation effects were observed for OTE. The results for group comparisons of the significant product terms and their alignment with the related hypotheses are reported in conjunction with their related regression equations.

### ***Equation One – Experienced Meaningfulness***

Equation one examined the linkages that skill variety, task identity, and task significance have with experienced meaningfulness in relation to the effects of the proposed moderator variables (locus of control, openness to experience, growth need strength). In step one of analysis, skill variety, task identity and task significance were entered in conjunction with the moderator variables. In step two, nine product terms were entered as the result of combining the three examined role dimensions and three targeted moderator variables. The beta weightings,  $R^2$  change values, F change values and significance levels for equation one are displayed in Table 3.3.

Step one of the analysis yielded a statistic of  $R^2 = .44$  ( $p < .01$ ), significant beta weightings were noted in this step for skill variety, task identity, task significance and locus of control. Step two of the analysis yielded a significant  $R^2$  change value of .05 ( $p < .05$ ). Significant beta weightings were noted for the product terms pertaining to; locus of control x skill variety and locus of control x task significance, indicating two potential moderation effects for locus of control. No moderation was apparent in relation to both OTE and GNS

Table 3.3

*Experienced Meaningfulness Regression*

Target Variable	Step 1	$\beta$	Step 2	$\beta$
Experienced	Skill Variety	.17**	LOC x SV	.19**
	Task Identity	.21**	LOC x TI	-.06
Meaningfulness	Task Significance	.43**	LOC x TS	-.21**
	Locus of Control	.20**	OTE x SV	-.09
	Openness to Experience	-.11	OTE x TI	.06
	Growth Need Strength	.06	OTE x TS	.01
			GNS x SV	-.02
			GNS x TI	-.02
			GNS x TS	.11
$\Delta R^2$	.42**		.05*	
$\Delta F$	24.82**		1.83*	

*Note.* SV = skill variety; TI = task identity; TS = task significance; OTE = openness to experience; GNS = growth need strength; LOC = locus of control. N = 199. \* $p < .05$ . \*\* $p < .01$

A group comparison investigated the significant moderation effects of LOC on the relationship between skill variety and experienced meaningfulness. Note that for analyses pertaining to locus of control the terms ‘internal’ and ‘external’ have been used instead of high and low. In these instances the ‘internal’ group is analogous with the ‘high’ classification, while ‘external’ describes individuals who scored ‘low’ on the utilised locus of control scale. The strongest relationship between experienced meaningfulness and skill variety was observed for the internal LOC group (.52), followed by the medium LOC group (.39). The weakest skill variety – experienced meaningfulness relationship was observed for the external LOC group (.19). These results fully supported hypothesis 5a – that the relationship between skill variety and experienced meaningfulness is moderated in a positive direction by LOC internalisation. This indicates that for salespeople with an internalised LOC the relationship between skill variety and experienced meaningfulness is stronger than for those with an externalised LOC. The correlations between skill variety and experienced

meaningfulness for each LOC group are presented in Table 3.4. The plots for these relationships are presented in Figure H.1 in Appendix H.

Table 3.4

*Correlations between skill variety and experienced meaningfulness by LOC Group*

Group	SV:EM Correlation
Internal LOC	.52
Medium LOC	.39
External LOC	.19

*Note.* SV = skill variety; EM = experienced meaningfulness; LOC = locus of control. N = 199

A group comparison investigated the moderation effects of LOC on the relationship between task significance and experienced meaningfulness. No notable differences were observed between each of the LOC groups, with the internal LOC group (.51), medium LOC group (.50) and external LOC group (.52) all demonstrating a similar relationship strength between task significance and experienced meaningfulness. These results did not support hypothesis 5c – that the relationship between task significance and experienced meaningfulness is moderated in a positive direction by LOC internalisation. This indicates that LOC did not moderate between task significance and experienced meaningfulness. The correlations between skill variety and experienced meaningfulness for each LOC group are presented in Table 3.5. The plots for these relationships are presented in Figure H.2 in Appendix H.

Table 3.5

*Correlations between task significance and experienced meaningfulness by LOC Group*

Group	TS:EM Correlation
Internal LOC	.51
Medium LOC	.50
External LOC	.52

*Note.* TS = task significance; EM= experienced meaningfulness; LOC = locus of control. N = 199

***Equation Two – Experienced Responsibility***

Equation two investigated the linkages between autonomy and experienced responsibility in relation to the effects of the proposed moderator variables. In step one, autonomy was entered in conjunction with the three moderator variables. In step two of the regression the three product terms for autonomy and the moderator variables were entered. Step one of the analysis yielded a statistic of  $R^2 = .15$  ( $p < .01$ ), where a significant beta weighting was noted for autonomy. Step two of the analysis yielded a non-significant  $R^2$  change value of .003. No significant beta weightings were noted for any of the product terms entered at step two, indicating that no interaction effects were present. Hence, these results did not support any of the hypotheses related to moderation between task significance and experienced meaningfulness. The beta weightings,  $R^2$  change values, F change values and significance levels for equation two are displayed in Table 3.6.

Table 3.6

***Experienced Responsibility Regression***

Target Variable	Step 1	$\beta$	Step 2	$\beta$
Experienced Responsibility	Autonomy	.30**	LOC x AUT	.01
	Locus of Control	.13	OTE x AUT	.00
	Openness to Experience	.01	GNS x AUT	.05
	Growth Need Strength	.05		
$\Delta R^2$	.15**		.003	
$\Delta F$	8.40**		.23	

*Note.* AUT = autonomy; GNS = growth need strength; LOC = locus of control. N = 199.  
\* $p < .05$ . \*\* $p < .01$

***Equation Three – Knowledge of Results***

Equation three investigated the linkages between feedback and knowledge of results in relation to the effects of the proposed moderator variables. In step one

feedback was entered in conjunction with the three moderator variables. In step two of the regression the three product terms for feedback and the moderator variables were entered. The beta weightings,  $R^2$  change values, F change values and significance levels for equation three are displayed in Table 3.7.

Step one of the analysis yielded a statistic of  $R^2 = .09$  ( $p < .01$ ). Significant beta weightings were noted in step 1 for feedback and locus of control. Step two of the analysis yielded a non-significant  $R^2$  change value of .02. A significant beta weighting was noted in step two of equation three for the locus of control x feedback product term, indicating a potential moderation effect for locus of control.

Table 3.7

*Knowledge of Results Regression*

Target Variable	Step 1	$\beta$	Step 2	$\beta$
Knowledge of Results	Feedback	.22**	LOC x FB	-.14*
	Locus of Control	.18**	OTE x FB	.04
	Openness to Experience	-.04	GNS x FB	.07
	Growth Need Strength	.00		
$\Delta R^2$	.09**		.02	
$\Delta F$	4.80**		1.40	

Note. FB = feedback; GNS = growth need strength; LOC = locus of control. N = 199. \* $p < .05$ . \*\* $p < .01$

A group comparison investigated the moderation effects of LOC on the relationship between feedback and knowledge of results. The strongest relationship was observed for the medium LOC group (.36) followed by the external LOC group (.23). The weakest relationship between feedback and knowledge of results was observed for the internal LOC group (.10). These results offered only partial support for hypothesis 5e – that the relationship between feedback and knowledge of results is moderated in a positive direction by more internalised LOC. The stronger relationship for the medium LOC group as compared to the external LOC group supported hypothesis 5e. However,

the weak relationship observed for the internal LOC group in comparison to the medium and external LOC groups was contrary to the hypothesised effects. These results indicate that LOC acts as a moderator between feedback and knowledge of results, but that this moderation is more complex than a simple positive or negative effect. The correlations between feedback and knowledge of results for each LOC group are presented in Table 3.8. The plots for these relationships are presented in Figure H.3 in Appendix H

Table 3.8

*Correlations between feedback and knowledge of results by LOC Group*

Group	FB:KR Correlation
Internal LOC	.10
Medium LOC	.36
External LOC	.23

*Note.* FB= feedback; KR = knowledge of results; LOC = locus of control. N = 199

***Equation Four – Job Satisfaction***

Equation four was constructed to investigate the relationships between role psychological states and job satisfaction. Specifically it examined the linkages that experienced meaningfulness, experienced responsibility and knowledge of results have with job satisfaction in relation to potential moderation effects arising from the three targeted moderator variables. In step one of the regression, experienced meaningfulness, experienced responsibility and knowledge of results were entered in conjunction with moderator variables. In step two of the regression, nine product terms comprising the three examined psychological states and three moderator variables were entered. The beta weightings, R<sup>2</sup> change values, F change values and significance levels for equation four are displayed in Table 3.9.

Step one of the analysis yielded a statistic of  $R^2 = .42$  ( $p < .01$ ), significant beta weightings were noted in this step for experienced meaningfulness and locus of control. Step two of the analysis yielded a significant  $R^2$  change value of  $.05$  ( $p < .05$ ). Significant beta weightings were noted in step two for the growth need strength x experienced meaningfulness product term, indicating a potential moderation effect for growth need strength.

Table 3.9

*Job Satisfaction Regression*

Target Variable	Step 1	$\beta$	Step 2	$\beta$	
Job Satisfaction	Experienced	.57**	LOC x	-.11	
	Meaningfulness	.04	EXM	.09	
	Experienced Responsibility	.06	LOC x EXR	.03	
	Knowledge of Results	.12*	LOC x	.03	
	Locus of Control	-.06	KNW	.04	
	Openness to Experience	.00	OTE x	-.09	
	Growth Need Strength			EXM	.24**
				OTE x EXR	-.07
				OTE x	-.03
				KNW	
		GNS x			
		EXM			
		GNS x EXR			
		GNS x			
		KNW			
$\Delta R^2$	.42**		.05*		
$\Delta F$	22.90**		1.94*		

*Note.* ; EXM = experienced meaningfulness; EXR = experienced responsibility; KNW = knowledge of results; OTE = openness to experience; GNS = growth need strength; LOC = locus of control. N = 199. \* $p < .05$ . \*\* $p < .01$

A group comparison investigated the moderation effects of GNS on the relationship between experienced meaningfulness and job satisfaction. The strongest relationship was observed for the high GNS group (.81), followed by the medium GNS group (.62). The weakest relationship between experienced meaningfulness and job satisfaction was observed for the low GNS group (.42). These results fully support

hypothesis 3f – that the relationship between experienced meaningfulness and job satisfaction is moderated in a positive direction by GNS. These results indicate that salespeople with higher levels of GNS have a stronger relationship between experienced meaningfulness and job satisfaction. The correlations between experienced meaningfulness and job satisfaction for each GNS group are presented in Table 3.10. The plots for these relationships are presented in Figure H.4 in Appendix H

Table 3.10

*Correlations between experienced meaningfulness and job satisfaction by GNS Group*

Group	EM:JS Correlation
High GNS	.81
Medium GNS	.62
Low GNS	.42

*Note.* EM = experienced meaningfulness; JS = job satisfaction; GNS = growth need strength. N = 199

**Summary of Results**

Following factor analysis changes were made to the item composition of a number of measures prior to further statistical analysis. This study’s correlational data supported all the hypotheses concerning the direct relationships between role dimensions, psychological states and job satisfaction. Limited support was found for the moderation hypotheses proposed in this study. Hierarchical regression analysis highlighted four potential moderation effects. However, group comparisons indicated that moderation occurred in only three of the twenty-four examined instances. LOC moderated between skill variety and experienced meaningfulness, as well as between feedback and knowledge of results. GNS moderated between experienced meaningfulness and job satisfaction. No moderation effects were observed for OTE.

## CHAPTER 4 - DISCUSSION

This chapter will discuss the findings obtained in the data analysis. Following this, the practical and theoretical implications of these findings will be examined along with this study's strengths and limitations, as well as the implications the findings hold for further JCM and sales research.

Two objectives were developed for this study;

- a) To provide further information about the relationships between role characteristics, psychological states and levels of job satisfaction, with specific reference to salespeople in a New Zealand context.
- b) To build upon the theoretical framework of the job characteristics model (JCM) by exploring potential moderators between role characteristics, psychological states and levels of job satisfaction.

### **Findings**

This section discusses the findings related to the role characteristics, psychological states, and job satisfaction of salespeople. The results related to growth need strength (GNS) are discussed in conjunction with the other moderator variables later in this chapter.

### **Role Characteristics, Psychological States and Job Satisfaction**

Generally, the relationships predicted by the JCM framework in relation to role characteristics, psychological states, and job satisfaction were supported by the findings of the present study. Specifically, positive relationships were observed between each of the role characteristics and their specified psychological states, while all three of the psychological states correlated positively with job satisfaction. This offers support to

application of the JCM framework to New Zealand sales environments. However, closer examination of the findings reveals potential nuances associated with its application in this area. Questions are also raised regarding whether or not the JCM's categorization of role characteristics is appropriate and accurate within a sales context.

The findings indicate that task significance was the characteristic most strongly related to experienced meaningfulness, followed by skill variety and lastly task identity. The relationships with experienced meaningfulness were strong for both task significance and skill variety ( $r >.4$ ), while the task identity – experienced meaningfulness relationship was moderate ( $r =.23$ ). A moderate relationship was also observed for feedback – knowledge of results, while autonomy was strongly correlated with experienced responsibility. In terms of each psychological state's relationship with job satisfaction, experienced meaningfulness appeared to be considerably more strongly related ( $r =.63$ ) than either experienced responsibility ( $r =.19$ ) or knowledge of results ( $r =.19$ ).

These results indicate that the most important psychological state in relation New Zealand salespeople's job satisfaction is experienced meaningfulness. In other words, high levels of job satisfaction appear to be especially present in salespeople who find their work meaningful. The findings also indicate that experienced responsibility and knowledge of results are of moderate importance. However, they are less salient to job satisfaction. Related to this, these findings also suggest that the most important role characteristics within a JCM context in understanding salespeople's' levels of experienced meaningfulness are skill variety and task significance, while task identity appeared to be of a lesser importance. This indicates that salespeople who perceive high levels of skill variety and task significance in their roles will have higher levels of experienced meaningfulness. Feedback and autonomy appeared to be of moderate

importance in relation to their specified psychological states. However, because these states (knowledge of results, experienced responsibility) were also only moderately related to job satisfaction, these are considered of a lesser importance.

There are several reasons that could underlie the differences in correlation strength observed in this study between JCM variables. Task identity may feature less prominently than skill variety and task significance in relation to experienced meaningfulness because it is a more inherent characteristic of sales work. Many sales roles require individuals to perform the entire selling process, which in turn promotes high levels of task identity. By comparison, skill variety and task significance may be more elusive goals for salespeople, meaning that when they are attained, their effects on experienced meaningfulness are more pronounced.

A similar pattern may also underlie psychological states. Experienced responsibility and knowledge of results may not feature as prominently as experienced meaningfulness because they also are inherent features of sales roles. Many salespeople likely have high experienced responsibility because their actions are directly represented through sales results. The close proximity between the actions of salespeople and their work results likely heightens the responsibility felt. Similarly, this proximity also means that most salespeople have a fairly complete knowledge of their work results. On the other hand, meaningfulness appears less inherent to sales work, and as a result the opportunities to find meaningful sales work may be less easily procured. Because of this, when sales work is meaningful, the effect on an individual's job satisfaction is stronger than experienced responsibility or knowledge of results.

Another related possibility is that the nature of sales work heightens the role of experienced meaningfulness. Selling behaviour is not intuitively attained for many

people. Behaviours and social perceptions often require adjustments in order to obtain sales success. In addition, when compared to other role types, sales positions put individuals in a position of greater power and trust in relation to their customers. Because of this, sales work that is not meaningful may disenfranchise salespeople, while conversely sales work that is meaningful can be particularly uplifting to an individual.

The results of this study also raised questions regarding the theoretical separation between some facets of the JCM. Factor analysis indicated that each of the psychological states were unique constructs, but that there was some overlap between several role characteristics. Specifically, shared factor loadings were noted for the items measuring skill variety and task significance as well as task identity and autonomy. While combining each respective set of items from four into two scales was investigated, weak inter-correlations ( $r < .20$ ) between items in originally different scales, as well as reduced reliability in the combined scales, indicated that there was still a degree of separation. However, the factor analysis results along with moderately strong correlations between the skill variety and task significance ( $r = .42$ ), and task identity and autonomy ( $r = .39$ ) raised the question of whether combining the JCM's role characteristics may benefit its application to salespeople.

The results of this study provided mixed support regarding whether these role dimensions might be more applicable to salespeople if combined. One possibility is that items lacked validity within this study's context. That is, that the theoretical underpinnings of the JCM are correct, but the constructs measured by the survey were not entirely representative of those intended. The other possibility is that combination of role dimensions is the appropriate way forward regarding JCM research on New Zealand salespeople.

Though it was not suitable for the analysis in this study, combining skill variety and task significance to a degree makes theoretical sense. As well as contributing to the same psychological state, skill variety and task significance appeared to have some interconnectivity for salespeople. Sales roles with tasks that require a varied skillset are likely to be perceived as being of significance, and vice versa. Determining the specific degree of separation between skill variety and task significance falls beyond the scope of the present study, however it appears unlikely that these two role characteristics have completely unique relationships with experienced meaningfulness.

Task identity and autonomy appear to be tied together in a similar fashion. Furthermore, the items measuring task identity correlated just as strongly with autonomy's specified state of experienced responsibility as they did with their own specified state of experienced meaningfulness. This can be reconciled from a theoretical perspective. Task identity is primarily concerned with the completion of an entire piece of work by an individual. Similarly, roles high in autonomy require individuals to work on their own, leading to the tasks often being completed in their entirety by one person. Thus, a role where individuals perceive high levels of autonomy is also likely to have high levels of perceived task identity.

The combination of task identity and autonomy is a more complex proposition theoretically than for skill variety and task significance. Because task identity is theorised to contribute to experienced meaningfulness, and autonomy to experienced responsibility, a major shift in the JCM's theoretical underpinnings would be required. The chief issue with this scenario is whether task identity and autonomy contribute to multiple psychological states, and if so, how such contributions should be mapped theoretically. Ultimately, information beyond that provided in this study is required in

order to ascertain what adjustments might be appropriate, however further research could seek information in this area.

### **Moderator Effects**

This section discusses the results related to the moderator variables examined: growth need strength (GNS), openness to experience (OTE), and locus of control (LOC). The number of observed moderation effects for these variables was lower than expected. Only one of the eight moderation hypotheses concerning GNS was supported. For LOC one hypothesis received partial support and another was fully supported. No support was found for the hypotheses related to OTE.

#### ***Growth Need Strength***

The findings regarding the role of GNS as a moderator were mixed. Only partial agreement was found between this study and others who have investigated GNS within a JCM framework. Traditionally GNS has been proposed to moderate all of the relationships between role characteristics, psychological states and work outcomes (Hackman & Oldham, 1975). The results of this study do not completely reject GNS as a moderator within the JCM. However, they do indicate that GNS operates in a narrower fashion than originally theorised, only acting as a moderator between experienced meaningfulness and job satisfaction. This largely disagrees with the work of Hackman and Oldham (1979), and a number of other authors who have reported GNS as a moderator within the JCM e.g. (de Jong, van der Velde, & Jansen, 2001; Huang & Iun, 2006).

One explanation for these results is that the moderation effects of GNS are more isolated for salespeople, particularly where the relationships between role characteristics and psychological states are concerned. One reason for this could be that salespeople are

fairly accepting of role characteristics. Because the characteristics of sales work are similar across different industries and roles types, they are not an important focal point for salespeople high in GNS. Instead, such individuals may be more concerned with using work outcomes, such as job satisfaction, as a vehicle for their desire to grow and develop. Alternatively the results may be indicative of more general generational or demographic differences in the way New Zealanders approach work in comparison to those normally targeted in JCM research. One possibility is that the recent recession and the associated tightening of the job market has led New Zealanders high in GNS to be more accepting of role circumstances. Rather than be dissatisfied with the characteristics of work, there may be a prevailing attitude that it is best to “make the most” of a role by focusing on outcomes rather than its content or characteristics.

While GNS appeared to operate narrowly in this study, it still presented a crucially important consideration. Rather than discount GNS, this study re-specifies the areas in which it is applicable to salespeople in New Zealand. As highlighted earlier, of the three psychological states, experienced meaningfulness had a considerably stronger relationship with job satisfaction than either experienced responsibility or knowledge of results. Additionally, experienced meaningfulness was the mediating factor in the two role characteristic pathways (inclusive of skill variety and task significance) most closely related to job satisfaction in salespeople. While GNS did not moderate as broadly as expected, it demonstrated a particularly powerful influence in relation to experienced meaningfulness and job satisfaction. Thus, although GNS appeared to possess only an isolated moderation effect, this moderation occurred between the two most pivotal aspects of the theoretical model.

The moderation effects observed for GNS between experienced meaningfulness and job satisfaction are in agreement with the hypothesis that such an effect would be

positive. For individuals high in GNS the relationship between experienced meaningfulness and job satisfaction was particularly strong ( $r=.81$ ). While still positive, this relationship was considerably less pronounced for salespeople with medium ( $r=.62$ ) or low ( $r=.42$ ) GNS. Experienced meaningfulness appeared to be positively related to job satisfaction for all the salespeople participating in this study. However, the results of moderation analysis indicated that for salespeople high in GNS experienced meaningfulness is one of the most important factors in determining how satisfied they will be with their role.

### ***Openness to Experience***

Contrary to expectations, OTE did not emerge as a moderating variable in relation to any of the JCM relationships. This failed to replicate the findings of de Jong et al (2001). All the hypotheses formed regarding OTE suggested that it would positively moderate between role characteristics, psychological states and job satisfaction. Like de Jong et al (2001) the results of this study did support the notion that OTE and GNS are positively related to one another. However, this positive relationship did not translate into observable moderation effects for OTE. It should be noted that while similarities existed in terms of the direction of the relationship between OTE and GNS between the two studies, the strength of this relationship was markedly weaker ( $r=.27$ ) in the present study than that reported by De Jong et al (2001) ( $r=.50$ ) for their study of business and psychology graduates.

This suggests a number of possibilities regarding the role of OTE within the context of the JCM and New Zealand sales environments. The first possibility is that OTE is simply not an important consideration within sales contexts. That is to say, the failure of the present study to replicate previous findings regarding OTE could in part

be due to the exclusive focus on sales professionals and the exclusion of other role types. As discussed in the introduction chapter, some authors have challenged the utility of examining OTE within work contexts (Barrick, Mitchell, & Stewart, 2003). The results of the present study indicate that such assertions are valid where sales environments are concerned.

At face value, the traits of imagination, curiosity and being broad-minded might appear to be useful when applied to work settings. However, for salespeople these traits appear to be of little consequence in determining reactions to perceived role enrichment and the resultant levels of job satisfaction. One explanation for this is that OTE does not relate closely enough to the primary core functions of sales work, which are to attract new customers, provide appropriate consultation, and most importantly, close sales. Instead, OTE may only relate to peripheral concerns, such as generating inventive sales solutions, or remaining open to new ways of doing things.

The other Big Five personality characteristics may be more suitable for investigation as JCM moderators for salespeople. For instance, extraversion (being social, assertive, gregarious, talkative and active) is often linked with successful salespeople. In particular it has been found to correlate positively with job performance and job satisfaction in roles that provide external rewards and recognition (Westerman & Simmons, 2007). Individuals with high levels of agreeableness typically demonstrate higher levels of interpersonal skills, and as a result have been observed to demonstrate better job performance in roles that require large amounts of interpersonal interaction (Nikolaou, 2003). Conscientiousness has consistently been reported to be closely related to motivation (Judge & Ilies, 2002) and job performance (Barrick & Mount, 1991), while individuals with high levels of emotional stability tend to form more stable and longer lasting relationships at work, the result of which can be higher levels of social

cohesion (Van Vianen & De Dreu, 2001), better performance (Salgado, 1997) and lowered turnover intentions (Caligiuri, 2000). These findings suggest that further research into the other big five characteristics within a JCM sales context is warranted.

### *Locus of Control*

Locus of control appeared to act as a moderator between two role dimensions (skill variety, feedback) and their specified psychological states (experienced meaningfulness, knowledge of results). Initially, LOC also appeared to also have potential moderation effects in relation to the task significance – experienced meaningfulness relationship. However, further analysis of this relationship indicated that moderation had not occurred. No moderation effects were observed for LOC regarding the relationships between psychological states and job satisfaction.

The results of this study provided support for the hypothesis that LOC has a positive moderation effect on the relationship between skill variety and experienced meaningfulness for salespeople. This indicates that salespeople with internal LOC orientation are more likely to experience meaningfulness in roles in which they perceive higher levels of skill variety. These findings extend upon, and are comparable with those reported by Blau (1993) regarding the preference of individuals with internal LOC orientations to develop important job skills. Because internals are more likely to seek skill development, they are also more likely to receive the positive reinforcement that occurs as a result of using acquired skills. Furthermore, because internals pursue skill development of their own volition, the results of skill development are likely to be personally attributed. This potentially creates a cyclical system of reinforcement. When internals pursue skill development they may receive positive reinforcement from their

work, and as a result seek further skill development. Additionally, in such scenarios it is likely that work is particularly engaging and meaningful for the individual concerned.

Conversely, individuals with external LOC orientations are less likely to pursue skill development opportunities of their own accord (Blau, 1993). This means that externals often will lack variety in the number of skills they can use in relation to their work, reducing opportunities for positive reinforcement related to skill use. Additionally, the skills that externals do use are more likely to have been attained in involuntary learning situations. This means that the results of using new or improved skills are unlikely to be personally attributed, reducing the influence which reinforcement might have in motivating self-directed skill development. This lack of personal connection with skill development might reduce the engagement that externals feel with their work, in turn weakening the relationship between perceptions of skill variety and experienced meaningfulness.

To my knowledge, the moderation effects of LOC on the relationship between feedback and knowledge of results within a JCM context have received little empirical attention. The results of this study offer only partial support for the hypothesis that internalised LOC would positively moderate the relationship between feedback and knowledge of results. While internal, medium and external LOC groups all demonstrated a positive correlation between feedback and knowledge of results; the strength of the relationship observed for the internal LOC group was contrary to expectations. The strongest relationship was observed for those with medium LOC (.36), followed by externals (.23), while the weakest relationship was found for the internals (.10). Importantly, the items measuring (intrinsic) feedback from the role itself were not included in the statistical analysis because of poor reliability and non-significant factor loadings. The results related to feedback and LOC are likely to have

been influenced by the use of a measure based only on feedback from agents. This is an important consideration as there is some theoretical support for the notion that internals respond more favourably to intrinsic rather than extrinsic feedback forms (Baron, Cowan, Ganz, & McDonald, 1974).

The findings of this study demonstrate some alignment with observations by Baron et al., (1974) that externals respond more favourably to extrinsic feedback forms. Feedback from agents represents extrinsic feedback, which explains why stronger relationships between feedback and knowledge of results were observed for externals than internals. However, the results of this study, while somewhat supportive of Baron et al., (1974), do not demonstrate full alignment. The use of three (internal, medium, external) LOC groups rather than the usual internal-external division has provided additional considerations. Instead of a simple explanation that extrinsic feedback suits externals, and that intrinsic feedback suits internals, this study indicates that there is a LOC “sweet spot” in relation to extrinsic feedback forms. In other words, individuals who are balanced in terms of LOC internalisation and externalisation garner the greatest improvement to their knowledge of results from extrinsic feedback.

One explanation for the observed results is that individuals’ LOC orientation influences the relationship between feedback and knowledge of results through the interaction of two different behavioural mechanisms. For the purposes of this discussion these can be labelled as openness to feedback (OTF), and change efficacy (CE). OTF concerns how likely an individual is to accept feedback as being valid, while CE concerns the extent to which an individual believes they can bring about change in their (work) environment. The proposed mechanisms underlying the relationship between CE and OTF in reference to LOC and extrinsic feedback are discussed below. Importantly, CE and OTF were not measured as part of the present study, and thus represent one

possible theoretical suggestion. To confirm the below suggestions, additional research into the measurement and application of OTF and CE is required.

Extrinsic feedback sits comfortably with the worldview of externals because it aligns with their perception that the world is controlled by forces external to them. As a result externals have high OTF in relation to extrinsic feedback forms. This raises the crucial question, if the concept of feedback is so approachable for externals then why did the medium LOC group demonstrate a stronger relationship between feedback and knowledge of results? One explanation is that externals have low CE. Because externals perceive that they have little control over externalities such as their work they are unable to utilise feedback to its full extent, also reducing their knowledge of results. By comparison, individuals with medium LOC have higher CE than externals, but still retain similar OTF in relation to extrinsic feedback. Because of this, those with a medium LOC take extrinsic feedback seriously, and possess the belief necessary to use it, resulting in the strongest relationship between perceived extrinsic feedback and knowledge of results.

Conversely, because control is perceived to be internally located by internals, extrinsic feedback is less likely to be perceived as a valuable source of information. In other words, internals may have low OTF in relation to extrinsic feedback sources, and instead may relate more strongly to intrinsic feedback forms as has been suggested by Baron et al. (1974). Thus, while internals are likely to possess the highest CE in relation to their work, they are likely to have a preference for their own ideas and structures when it comes to ascertaining their knowledge of results.

## **Practical Implications**

The practical implications of this study lie in two areas, those related to the application of enrichment characteristics in sales role design, and those related to the profiling of individuals performing sales work in enriched roles. In analysing the role of enrichment characteristics in sales, it appears that skill variety and task significance are of considerable importance. These characteristics are key contributors to experienced meaningfulness, the psychological state most closely linked to job satisfaction. It is likely that higher levels of job satisfaction would be possible in sales roles that enable individuals to utilise a wide variety of skills in performing tasks that are also perceived as being significant. It is suggested that the focus of those responsible for sales work design should lie with creating roles in which these two characteristics feature prominently.

However, the degree to which enrichment initiatives are successful is also likely to be determined by the moderating effects of two personality variables. Individuals with internal LOC orientations are more likely to experience meaningfulness in roles that feature skill variety. Additionally employers and managers should also take LOC orientation into account when utilising feedback, insuring that LOC is taken into account when determining what type of feedback is appropriate. Finally, GNS level is an important factor in whether high levels of job satisfaction will coincide with greater levels of experienced meaningfulness, meaning that it is preferable for individuals with high levels of GNS to be developed in sales roles where work has the potential to be meaningful.

## **Strengths and Limitations**

A key strength of this study was its specific focus on sales professionals as an occupational group. Sales work is distinguishably different from many other types of roles, meaning that findings elicited from the investigation of other role types can lack generalizability to sales roles. This study is based on information from only salespeople, thus it is directly applicable to sales based occupations. Because this study examined a broad range of sales occupations, its findings possess a level of applicability to sales across different industries and role types. Also, this study examined sales within a New Zealand context, which has resulted in findings that are located in, and relevant to, New Zealand's sales industries and personnel.

A further strength of this study was its examination of additional moderators within the JCM context. The utility of GNS within the JCM is contestable. Because of this, research into other moderating personality variables represents an area where significant and meaningful steps can be taken to improve the JCM's applicability. By using a research model based on the JCM and personality moderation this study presents two streams of potential useful information. Firstly, it provides insight into the relationships between role enrichment characteristics and sales work, providing information that can be used in designing roles in which higher levels of job satisfaction are possible. Secondly, by examining personality factors this study takes steps towards creating an accurate profile of the type of salespeople likely to find satisfaction in roles that feature enrichment.

One limitation of this study was the level of reliability observed for some role characteristic measures. Specifically, the internal consistency for the items measuring task significance and autonomy respectively were only moderate in strength (.30 -.40),

indicating some lack of uniformity. The role characteristic items presented to respondents were direct representations of those used in Hackman and Oldham's (1975) original study, and have been widely used. As such, it was anticipated that these items would cover the desired content domains.

The relatively low Spearman-Brown correlations between the items designed to measure task significance and autonomy highlight three possibilities. The first is that the survey was inappropriately distributed to respondents. The instructions provided regarding the survey's questions and response format may have been inadequate, leading to inaccurate responses. However, the presence of acceptable levels of reliability in the other scales indicates that this is a remote possibility.

The second possibility is that the methods used in selecting the items used to measure each construct were inadequate. Only a portion of Hackman and Oldham's (1975) role characteristic scales used to measure role characteristics were used in the survey. The selective sampling of JDS items rather than the use of complete scales could potentially have reduced the overall reliability in some instances. However, each section used in this study's survey is a representation of an entire section from the JDS. Only in instances where sections targeted already elicited information were they excluded, thus all questions in the survey were presented to respondents in their intended JDS context. Additionally, even if excluding particular items reduced scale reliability, it would still be expected that the retained items would correlate strongly in instances where they target the same construct.

A final possibility is that the JDS items measuring task significance and autonomy may have been inappropriately worded. The task significance and autonomy items used in the present study may not have been perceived in the intended manner by

respondents, leading to a higher degree of variability in respondent responses. As this was not a focus of the present study, conclusions cannot be reached regarding this issue. However, it is possible that within a demographic made up of NZ salespeople the original form of the JDS requires wording and/or item adjustments in order for it be applied appropriately.

It is worthwhile to note that historically high levels of reliability have often not been associated with the scales utilised in the JDS. The alpha levels reported in Hackman and Oldham's (1979) original study did not exceed .7 for any role characteristics. More recent studies (de Jong et al., 2001; Lonergan & Maher, 2000) have reported slightly better reliability coefficients for the JDS's role characteristic scales. However, both studies still reported alphas below .75, ranging from .69 for autonomy (de Jong et al., 2001) to .74 for task significance (Lonergan & Maher, 2000). This study may simply be highlighting reliability issues already inherent in the JDS.

Another limitation of this study was its use of a cross-sectional research design. Because of this no concrete claims can be made regarding the direction of causality in the relationships examined. Thus, the proposition that perceptions of role characteristics bring about psychological states, which in turn influence job satisfaction, can neither be confirmed nor ruled out. The final limitation of this study is the potential for common method variance (CMV) in the results. As discussed by Lindell and Whitney (2001) "Cross-sectional studies of attitude-behaviour relationships are vulnerable to the inflation of correlations by CMV" (p. 1). However, any CMV effects were likely minor due to the variables used in this study. Generally self-report items show the greatest vulnerability to CMV when targeting variables related to performance and ability (Lindell & Whitney, 2001) and no such variables were targeted in this study.

Furthermore, the influence of CMV of results is often overestimated (Lindell & Whitney, 2001).

### **Future Research**

The combination of role enrichment characteristics, the mechanisms underlying feedback, and the moderation effects of Big Five traits (excluding OTE), have already been suggested as areas for further JCM research into New Zealand salespeople. A number of other areas present additional considerations. One area future research should focus on is the examination of more specific sales role types. This study's general approach to salespeople as one occupational group rather than as a number of separate and distinct role types may limit the specific application of some findings. The key consideration in this area relates to whether this study's findings are applied at a macro or micro level. In considering sales roles from a macro perspective, similarities can be identified that transcend sales role types. However, micro level comparisons between roles illustrate a number of differences.

For example, in comparing the work of retail and real estate salespeople on a macro level, both roles appear similar in their requirement for individuals who can communicate well and effectively identify customer needs. However, on a micro level the respective knowledge required and role content for each role is very different. The primary concern here relates to the specifics of implementing role enrichment. The findings of this study indicate that on a macro level enrichment of sales roles likely benefits both salespeople and their organisations. But, in order to implement enrichment initiatives successfully attention must also be paid to the specifics of a role.

An important consideration raised by this study is the degree to which the results are unique to salespeople in comparison to other role types. Generally, role enrichment,

critical psychological states and job satisfaction appeared to be positively related for sales people, while elements of personality moderated these relationships. It is unlikely that these results are isolated to sales. Rather, previous investigation within a JCM framework indicates, that on a general level, similar patterns are mirrored in a number of other roles. However, more specific investigation illustrates some differentiation. For instance, skill variety, task significance, experienced meaningfulness, GNS and LOC emerged in this study as the most salient considerations in relation to job satisfaction in sales roles.

Using the JCM to create a dichotomous theoretical division between sales and all other role types makes little sense for two reasons. Firstly, sales work varies in its similarity to other role types. Secondly, equal or even greater variation exists between non-sales roles dependant on the type of work entailed. This illustrates that role types exist on a spectrum in relation to JCM, sales work simply occupies a portion of this spectrum. Based on this, it would be expected that for some roles result patterns would be similar to sales, while for other roles there would be few commonalities. In light of this, comparative studies between sales and other role types are suggested in order to understand where sales sits in relation to other types of work.

Further research could also take a longitudinal approach in order to ascertain more information about the causal direction of the JCM's relationships. This study assumed that the relationships operate in the causal direction outlined originally by Hackman and Oldham (1975). However, two alternative mechanisms could be operating within the framework utilised in the present study. The first is that the initiating causal factor is a person's psychological state. Certain individuals may have a predisposition towards higher levels of experienced meaningfulness, experienced responsibility and

knowledge of results, which in turn causes them to perceive greater levels of enrichment in their jobs, and concurrently enjoy higher levels of job satisfaction.

The second mechanism that could possibly be in operation is that the initiating causal factor is job satisfaction. Individuals with higher levels of job satisfaction would hold higher levels in each of the psychological states, resulting in a greater propensity to perceive enrichment in a role. This proposed mechanism operates in the opposite direction to that proposed originally by Hackman and Oldham (1975) and provides an avenue for further debate regarding job satisfaction as a work outcome versus a causal factor. Some authors (Jacobs & Solomon, 1977; et al., 2001; Spector, 2008) have debated the direction of the relationship between job satisfaction and performance. Similarly, job satisfaction may also influence workers' psychological states and perception of work.

## **Conclusions**

Generally, Hackman and Oldham's (1975) JCM appeared to have a high level of applicability within a New Zealand sales context. The relationships between role characteristics, psychological states, and job satisfaction proposed by Hackman and Oldham (1975) all received empirical support in this study. This study also found that skill variety and task significance were the role characteristics most closely linked to their specified psychological state, which was experienced meaningfulness. In turn, experienced meaningfulness was the psychological state most closely linked with salesperson job satisfaction. Two personality variables, LOC and GNS, appeared as moderators within the utilised JCM framework. LOC moderated in two instances, between skill variety and experienced meaningfulness, as well as feedback and knowledge of results. GNS moderated in one instance, between experienced

meaningfulness and job satisfaction. OTE was found to possess negligible utility within the context of this study. These findings indicate that some adjustments and extensions to the JCM framework may improve its applicability to sales roles. However, the results of this study also suggest that the JCM is of considerable use to employers of salespeople in New Zealand, and that, with some modifications, it is a suitable tool for enabling alignment between role design and individual personality characteristics.

## REFERENCES

- Abu Elanain, H. M. (2009). Work locus of control and interactional justice as mediators of the relationship between openness to experience and organizational citizenship behavior. *Cross Cultural Management: An International Journal of Productivity and Performance Management*, 17(2), 170-192.
- Babakus, E., Cravens, D. W., Johnston, M., & Moncrief, W. C. (1996). Examining the role of organizational variables in the salesperson job satisfaction model. *The Journal of Personal Selling & Sales Management*, 16(3), 33-46.
- Baron, R. M., Cowan, G., Ganz, R. L., & McDonald, M. (1974). Interaction of locus of control and type of performance feedback: considerations of external validity. *Journal of Personality and Social Psychology*, 30(2), 285-292.
- Barrick, M. R., Mitchell, T. R., & Stewart, G. L. (2003). Situational and motivational influences on trait-behavior relationships?. In M. R. Barrick & A. M. Ryan (Eds.), *Personality and Work* (pp. 60-82). San Francisco, CA: Jossey-Bass.
- Barrick, M. R., & Mount, M. K. (1991). The Big Five personality dimensions and job performance: A Meta-analysis. *Personnel Psychology*, 44, 1-26.
- Bettencourt, L. A., & Brown, S. W. (1997). Contact Employees: Relationships Among Workplace Fairness, Job Satisfaction and Prosocial Behaviours. *Journal of Retailing*, 73(1), 39-61.
- Bhuiyan, S. N., & Menguc, B. (2002). An extension and evaluation of job characteristics, organizational commitment and job satisfaction in an expatriate, guest worker, sales setting. *The Journal of Personal Selling & Sales Management*, Winter 2002(22), 1-11.

- Blau, G. (1993). Testing the relationship of locus of control to different performance dimensions. *Journal of Occupational and Organizational Psychology*, 66, 125-138.
- Brambor, T., Clark, W. R., & Golder, M. (2006). Understanding interaction models: Improving empirical analyses. *Political Analysis*, 14, 63-82.
- Burke, L. A., & Witt, L. A. (2002). Moderators of the openness to experience-performance relationship. *Journal of Managerial Psychology*, 17, 712-721.
- Caligiuri, P. M. (2000). The Big Five personality characteristics as predictors of expatriate's desire to terminate the assignment and supervisor-rated performance. *Personnel Psychology*, 53, 67-88.
- Costa, P. T. J., & McCrae, R. R. (1992). *Revised NEO Personality Inventory (NEO-PI-R) and NEO Five-Factor Inventory (NEO-FFI) professional manual*. Odessa, Florida: Psychological Assessment Resources, Inc.
- Costello, A. B., & Osborne, J. W. (2005). Best practices in exploratory factor analysis: Four recommendations for getting the most from your analysis. *Practical Assessment, Research & Evaluation*, 10(7), 1-9.
- Cravens, D. W., Ingram, T. N., LaForge, R. W., & Young, C. E. (1993). Behavior-based and outcome-based salesforce control systems. *Journal of Marketing*, 57, 47-59.
- de Jong, R. D., van der Velde, M. E., & Jansen, P. G. (2001). Openness to Experience and Growth Need Strength as Moderators between Job Characteristics and Satisfaction. *International Journal of Selection and Assessment*, 9(4), 350-356.
- Dickter, D. N., Roznowski, M., & Harrison, D. A. (1996). Temporal tempering: An event history analysis of the process of voluntary turnover. *Journal of Applied Psychology*, 81(6), 705-716.

- Dubinsky, J. A., & Hartley, W. S. (1986). A Path Analytic Study of a Model of Salesperson Performance. *Journal of the Academy of Marketing Science*, 14(1), 36-46.
- Dubinsky, A. J., & Skinner, S. J. (1984). Impact of Job Characteristics on Retail Salespeople's Reactions to Their Jobs. *Journal of Retailing*, 60(2), 35-62.
- Dunham, R. B. (1976). Measurement and dimensionality of job characteristics. *Journal of Applied Psychology*, 61, 404-409.
- Dunham, R. B., Aldag, R. J., & Brief, A. P. (1977). Dimensionality of task design as measured by the job diagnostic survey. *Academy of Management Journal*, 20, 209-223.
- Eisinga, R., te Grotenhuis M., & Pelzer B. (2012). The reliability of a two-item scale: Pearson, Cronbach or Spearman-Brown? *International Journal of Public Health* (za2963e q8za5 q8zbf q8zc9 q8zd4 q8zea q8zfe q8zg5 ed.).
- Feldman, D. C., & Arnold, H. J. (1978). Position Choice: Comparing the Importance of Organizational and Job Factors. *Journal of Applied Psychology*, 63(6), 706-710.
- Fok, L. Y., Hartman, S. J., Patti, A. L., & Razek, J. R. (1999). The Relationships Between Equity Sensitivity, Growth Need Strength, Organizational Citizenship Behavior, and Perceived Outcomes in the Quality Environment: A Study of Accounting Professionals. *Journal of Social Behavior and Personality*, 15(1), 99-120.
- Fried, Y. (1991). Meta-Analytic Comparison of the Job Diagnostic Survey and Job Characteristics Inventory as Correlates of Work Satisfaction and Performance. *Journal of Applied Psychology*, 76(5), 690-697.
- Fried, Y., & Ferris, G. R. (1987). The Validity of the Job Characteristics Model: A Review and Meta-analysis. *Personnel Psychology*, 40, 287-322.

- Goldberg, L. R. (2010). International Personality Item Pool: A Scientific Collaboratory for the Development of Advanced Measures of Personality Traits and Other Individual Differences (<http://ipip.ori.org/>) Retrieved 04/06/2012, 2012
- Goldberg, L. R., Johnson, J. A., Eber, H. W., Hogan, R., Ashton, M. C., & Cloninger, C. (2006). The International Personality Item Pool and the future of public-domain personality measures. *Journal of Research in Personality, 40*, 84-96.
- Graen, G. B., Scandura, T. A., & Graen, M. R. (1986). A Field Experimental Test of the Moderating Effects of Growth Need Strength on Productivity. *Journal of Applied Psychology, 71*(3), 484-491.
- Hackman, J. R., & Oldham, G. R. (1975). Development of the Job Diagnostic Survey. *Journal of Applied Psychology, 69*(2), 159-170.
- Hackman, J. R., & Oldham, G. R. (1980). *Work redesign*. Reading, MA: Addison-Wesley.
- Herzberg, F. (1966). *Work and the nature of man*. Cleveland, OH: World Publishing Company.
- Herzberg, F., Mausner, B., & Snyderman, B. (1959). *The motivation to work*. New York: Wiley.
- Hite, R. E., & Bellizzi, J. A. (1985). Differences In the Importance of Selling Techniques Between Consumer and Industrial Salespeople. *Journal of Personal Selling & Sales Management, November 1985*.
- Houkes, I., Janssen, P., de Jong, J., & Bakker, A. B. (2003). Personality, Work Characteristics, and Employee Well-Being: A Longitudinal Analysis of Additive and Moderating Effects. *Journal of Occupational Health Psychology, 8*(1), 20-38.

- Huang, X., & Iun, J. (2006). The impact of subordinate–supervisor similarity in growth-need strength on work outcomes: the mediating role of perceived similarity. *Journal of Organizational Behavior*, 27, 1121-1148.
- Jacobs, R. (1985). Many Roles of the Salesperson. *The American Salesman*, 30(7).
- Jacobs, R., & Solomon, T. (1977). Strategies for enhancing the prediction of job performance from job satisfaction. *Journal of Applied Psychology*, 62, 417-421.
- Johnston, M. W., Parasuraman, A., Futrell, C. M., & Black, W. C. (1990). A Longitudinal Assessment of the Impact of Selected Organizational Influences on Salespeople's Organizational Commitment during Early Employment. *Journal of Marketing Research*, 27(3), 333-344.
- Judge, T. A., & Ilies, R. (2002). Relationship of personality to performance motivation: A meta-analytic review. *Journal of Applied Psychology*, 87(4), 797-807.
- Judge, T. A., Thoresen, C. J., Bono, J. E., & Patton, G. K. (2001). The job satisfaction-job performance relationship: A qualitative and quantitative review. *Psychological Bulletin*, (127), 376-407.
- Kantak, D. M., Futrell, C. M., & Sager, J. K. (1992). Job Satisfaction and Life Satisfaction in a Sales Force. *The Journal of Personal Selling & Sales Management*, Winter 1992; 12(1), 1-7.
- Katsikea, E., Theodosiou, M., Perdikis, N., & Kehagias, J. (2011). The effects of organizational structure and job characteristics on export sales managers' job satisfaction and organizational commitment. *Journal of World Business*, 46, 221-233.
- Kline, R. B. (2005). *Principles and Practice of Structural Equation Modeling*, 2nd edition. . New York, USA: The Guilford Press.

- Knoop, R. (1981). Locus of control as a moderator between job characteristics and job attitudes. *Psychological reports, 48*, 519-525.
- Levenson, H. (1981). Differentiating among internality, powerful others, and chance. In H. Lefcourt (Ed.), *Research with the Locus of Control Construct (Vol. 1)* (pp. 15-63). New York: Academic Press.
- Lindell, M. K., & Whitney, D. J. (2001). Accounting for Common Method Variance in Cross-Sectional Research Designs. *Journal of Applied Psychology, 86*(1), 114-121.
- Livingstone, L. P., Roberts, J. A., & Chonko, L. B. (1995). Perceptions of internal and external equity as predictors of outside salespeople's job satisfaction. *Journal of personal selling & sales management, 15*, 33-46.
- Lonergan, J. M., & Maher, K. J. (2000). The Relationship Between Job Characteristics and Workplace Procrastination as Moderated by Locus of Control. *Journal of Social Behavior and Personality, 15*(5), 213-224.
- Lousig-Nont, G. M. (1998). What does selling mean anyway. *Credit World, 87*, 8-10.
- Marchetti, M. (1997). Whatever it takes. *Sales & Marketing Management, 149*, 28-37.
- McCrae, R. R. (1993). Openness to experience as a basic dimension of personality. *Imagination, Cognition and Personality, 13*, 39-55.
- Moyle, P., & Parkes, K. (1999). The effects of transition stress: a relocation study. *Journal of Organizational Behavior,, 20*, 625-646.
- Nikolaou, I. (2003). Fitting the person to the organisation: examining the personality-job performance relationship from a new perspective. *Journal of Managerial Psychology, 18*, 639-648.

- O'Driscoll, M. P., & Beehr, T. A. (1994). Supervisor behaviors, role stressors and uncertainty as predictors of personal outcomes for subordinates. *Journal of Organizational Behavior, 15*, 141-155.
- Organ, D. W. (1990). The motivational basis of organizational citizenship behavior. In B. M. Staw & L. L. Cummings (Eds.), *Research in Organizational Behavior* (pp. 46). Greenwich, CT: JAI Press.
- Organ, D. W., & Konovsky, M. (1989). Cognitive versus affective determinants of organizational citizenship behavior. *Journal of Applied Psychology, 74*, 157-164.
- Parkes, K. R. (1991). Locus of control as moderator: An explanation for additive versus interactive findings in the demand-discretion model of work stress. *British Journal of Psychology, 82*, 291-312.
- Rain, J. S., Lane, I. M., & Steiner, D. D. (1991). A current look at the job/life satisfaction relationship: Review and future considerations. *Human Relations, 44*, 287-305.
- Renn, R. W., & Vandenberg, R. J. (1995). The Critical Psychological States: An Underrepresented Component in Job Characteristics Model Research. *Journal of Management, 21*(2), 279 - 303.
- Rosengren, B. (1998). What does selling mean anyway? *Pest Control, 66*, 24-26.
- Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs, 80*, 1-28.
- Rynes, S. L., Gerhart, B., & Parks, L. (2005). Personnel psychology: Performance evaluation and pay for performance. *Annual Review of Psychology, 56*, 571-600.

- Salgado, J. F. (1997). The Five Factor Model of personality and job performance in the Europeancommunity. *Journal of Occupational and Organizational Psychology*, 76, 323-346.
- Schleicher, D. J., Watt, J. D., & Greguras, G. J. (2004). Reexamining the job satisfaction-performance relationship: The complexity of attitudes. *Journal of Applied Psychology*, 89, 164-177.
- Shalley, C. E., Gilson, L. L., & Blum, T. C. (2009). Interactive Effects of Growth Need Strength, Work Context, and Job Complexity on Self-reported Creative Performance. *Academy of Management Journal*, 52(3), 489-505.
- Shoemaker, M. E. (1999). Leadership practices in sales managers associated with self-efficacy, role clarity, and job satisfaction of individual industrial salespeople. *Journal of Personal Selling & Sales Management*, 19(4), 1-19.
- Simintiras, A. C., Lancaster, G. A., & Cadogan, J. W. (1994). Perceptions and Attitudes of Salespeople towards the Overall Sales Job and the Work Itself - Some Preliminary Findings. *Journal of Managerial Psychology*, 9(7), 3-10.
- Spector, P. E. (1982). Behavior in organizations as a function of employee's locus of control. *Psychological Bulletin*, 91, 482-497.
- Spector, P. E. (2008). *Industrial and Organizational Psychology: Research and Practice*. Hoboken, NJ.: John Wiley & Sons, Inc.
- Thomas, L. T., & Ganster, D. C. (1995). Impact of family-supportive work variables on work-family conflict and strain: A control perspective. *Journal of Applied Psychology*, 80, 6-15.
- Tiegs, R. B., Tetrick, L. E., & Fried, Y. (1992). Growth Need Strength and Context Satisfaction as Moderators of the Relations of the Job Characteristics Model. *Journal of Management*, 18(3), 575-591.

- Van Vianen, A., & De Dreu, C. (2001). Personality in teams: its relationship to social cohesion, task cohesion, and team performance. *European Journal of Work and Organizational Psychology, 10*, 97-120.
- Walker, C. R., & Guest, R. H. (1952). *The man on the assembly line*. Cambridge: Harvard University Press.
- Westerman, J. W., & Simmons, B. L. (2007). The Effects of Work Environment on the Personality-Performance Relationship: An Exploratory Study. *Journal of Managerial Issues, Summer 2007(19)*, 288-305.
- Westover, J. H., Westover, A. R., & Westover, A. L. (2009). Enhancing long-term worker productivity and performance - The connection of key work domains to job satisfaction and organizational commitment. *International Journal of Productivity and Performance Management, 39(4)*, 372-387.
- Yukl, G. (2010). *Leadership in organizations. 7th Edition*. Englewood Cliffs: Prentice Hall.

## **APPENDIX A – ORGANISATION EMAIL**

Dear...

My name is Christopher Liddell and I am completing a Masters of Applied Psychology at the University of Waikato. I am researching the relationship between the role characteristics, individual personality characteristics and the job satisfaction of sales professionals.

In order to research this topic I wish to distribute a short questionnaire to individuals working in New Zealand who perform a sales role as their primary function within their organisation. As your organisation makes use of sales staff I would like to ask employees in your company if they would be willing to complete the questionnaire. The questionnaire can be administered online and will take roughly 20 minutes to complete. The questions will cover your sales employees' perceptions of current role tasks, their personality and job satisfaction.

Through your participation I hope to understand how the type of work performed can influence the level of job satisfaction experienced by sales professionals, as well as the effect that different personality traits can have on this relationship. The results of the survey will inform organisations about role characteristics that are beneficial in sales environments, and provide profiling information useful in matching individuals with sales roles in which high levels of job satisfaction are possible. The findings of this study will provide a valuable insight for your organisation into some of the factors underpinning sales success in New Zealand.

In exchange for your organisations participation I will provide you with a summary of the research findings. In order to respect the anonymity of respondents, this will be in summary form. No information will be collected in the survey that can be used to identify individual respondents.

If you have any questions about the questionnaire or about being in this study you may contact me by email: [chris\\_liddell@hotmail.com](mailto:chris_liddell@hotmail.com). The Psychology Ethics Committee at the University of Waikato has approved this study. If you have any questions related to the ethics of this study you can contact Dr Nicola Starkey, email: [nstarkey@waikato.ac.nz](mailto:nstarkey@waikato.ac.nz) phone: 07 8384466 ext. 6472.

If you are interested in your organisation taking part in this study I would appreciate it if you register your interest within two weeks of receiving this email. I look forward to hearing from you shortly.

Sincerely,

Christopher Liddell

Phone: 02102652727

Email: [chris\\_liddell@hotmail.com](mailto:chris_liddell@hotmail.com)

## **APPENDIX B – RESPONDENT EMAIL**

Hi there,

This is an invitation to participate in an online questionnaire being undertaken by Christopher Liddell from the University of Waikato. The survey investigates the relationship between role characteristics and levels of job satisfaction experienced by sales professionals. In addition it also examines the influence that different personality traits can have on this relationship.

Through your participation I hope to understand how the type of work performed can influence the level of job satisfaction experienced by sales professionals. I hope that the results of the survey will be useful for informing organisations about role characteristics that are beneficial in sales environments, and provide information useful for matching individuals with sales roles in which high levels of job satisfaction are possible.

It will take approximately 20 minutes to complete and is entirely voluntary and anonymous. A summary of the research findings will be available to you through your organisation. Your participation in this survey has been approved by . . . and your organisation. To complete the questionnaire please follow the link below:

### Survey Link

This link will first take you to an information page about the research. If once you have read this information you no longer wish to participate in this research you may exit the survey.

Thank you for your help in this research

Regards,

Christopher Liddell

Phone: 021874208

Email: [chris\\_liddell@hotmail.com](mailto:chris_liddell@hotmail.com)

## APPENDIX C – MAGAZINE ARTICLE

### Sales role design, personality and job satisfaction – is there a link?

You are invited to contribute to this sales industry research project

By Chris Liddell

*What role characteristics can make work exciting and/or engaging for salespeople?  
How does alignment between role characteristics and salespeople's personality  
influence job satisfaction?*

The University of Waikato's Chris Liddell is seeking to help answer these questions in his Masters Thesis research.

Salespeople lay the financial foundation on which organisations base operations, they are a critical factor in successful organisational function. Chris's research recognises the importance of job satisfaction to the performance of individuals and teams working in sales environments, as well as its links to the health and wellbeing of salespeople. In his research Chris has identified five role characteristics that potentially enhance salespeople's job satisfaction: skill variety, task identity, task significance, autonomy and feedback.

**Skill variety** refers to the degree to which a job requires someone to perform a wide range of tasks; a role with high levels of skill variety requires an individual to utilise many different skills in order to get the job done. **Task Identity** is the extent to which employees do an entire piece of work and can identify with the results of their efforts. **Task Significance** refers to the degree to which a job is perceived to have a substantial impact on the lives or work of other people. **Autonomy** concerns the degree to which individuals have a say in scheduling their work and have freedom to do what they want on the job. **Feedback** concerns the degree to which employees receive information about how well they are performing on the job.

While these role characteristics potentially enhance job satisfaction, the type of person performing the role is an important consideration. Research suggests that some people function markedly better than others when high levels of the aforementioned characteristics are present in their work. To take this into account Chris's study will also examine personality factors in order to provide clarity around the interaction between salespeople's personality and the characteristics of their jobs.

Chris is collecting and analysing survey data to investigate the links between role characteristics, personality characteristics and job satisfaction. The survey report (which will be summarised in NZ Sales Manager) will show which role characteristics are of a particular importance in sales environments, as well as how personality interacts with role characteristics in determining salespeople's levels of job satisfaction.

This will give you an indication of how your sales roles' can be designed to enhance the functioning and wellbeing of your sales force, as well as provide information useful in identifying the types of roles in which particular people are more likely to thrive.

Chris would really appreciate your input into the survey before **July 31st**. The survey is online at

[http://waikatopsych.eu.qualtrics.com/SE/?SID=SV\\_9XZ6ikR9aAtGyyM](http://waikatopsych.eu.qualtrics.com/SE/?SID=SV_9XZ6ikR9aAtGyyM)

It takes under 15 minutes to complete. Instructions and further information are online. Your participation will assist in broadening the knowledge base available to sales professionals in New Zealand. If you have any questions about this research feel free to contact Chris, email: [cjl18@waikato.ac.nz](mailto:cjl18@waikato.ac.nz)

## **APPENDIX D – INFORMATION SHEET**

This survey is being conducted by Christopher Liddell, a Masters student in Organisational Psychology at the University of Waikato, under the supervision of Dr Donald Cable and Professor Michael O’Driscoll in the School of Psychology.

### **What does the survey involve?**

This survey takes about 20 minutes to complete online and asks you a range of questions about some of the characteristics of your current sales role, some of the attitudes you hold about your current role and your level of job satisfaction. You will also be asked questions regarding some personality factors. A few questions are also included to provide some general demographic information.

### **Why is this research important?**

This survey is being undertaken to give employees and organisations a better understanding of how role characteristics and personality can influence the job satisfaction of sales professionals. This are a number of reasons why this important. Understanding the characteristics of sales work will assist organisations in appropriately and effectively designing sales roles, resulting satisfied sales professionals and more productive sales teams. Furthermore, increasing job satisfaction holds a number of potential physical and psychological wellness benefits for sales employees.

### **Who can do the Survey?**

This survey is open to anyone employed in New Zealand who performs a sales role as their primary function within their organisation. I will treat your responses with total confidentiality and assure you of complete anonymity. You may withdraw from the survey at any point, your responses will only be used for the study if you have completed and submitted the survey. Only aggregate data will be presented in my Masters thesis and any other publications arising from this study. A summary of the research findings will be available to you through your organisation.

This research has been approved by the School of Psychology Research and Ethics Committee. If you have any questions related to the ethics of this study you can contact Dr Nicola Starkey. Email: [nstarkey@waikato.ac.nz](mailto:nstarkey@waikato.ac.nz) Phone: 07 8384466 ext. 6472. Thank you very much for your assistance. If you have any other queries please contact:

Researcher:

Christopher Liddell

Phone: 02102652727

Email: [chris\\_liddell@hotmail.com](mailto:chris_liddell@hotmail.com)

Research Supervisors:

Dr Donald Cable

Phone: 07 838 4466 ext. 8296

Email: [dcable@waikato.ac.nz](mailto:dcable@waikato.ac.nz)

Professor Michael O'Driscoll

Phone: 07 838 4466 ext. 8899

Email: [psyc0181@waikato.ac.nz](mailto:psyc0181@waikato.ac.nz)

## APPENDIX E – SURVEY

### Section A.

Listed below are statements which could be used to describe a job. Please indicate whether each statement is an accurate or inaccurate description of your job. Please try to be as objective as you can in deciding how accurately each statement describes your job.

	Disagree Strongly	Disagree	Disagree Slightly	Neutral	Agree Slightly	Agree	Agree Strongly
1. The job requires me to use a number of complex or high-level skills.	<input type="radio"/>						
2. The job requires a lot of cooperative work with other people.	<input type="radio"/>						
3. The job is arranged so that I do not have the chance to do an entire piece of work from beginning to end.	<input type="radio"/>						
4. Just doing the work required by the job provides many chances for me to figure out how well I am doing	<input type="radio"/>						
5. The job is quite simple and repetitive,	<input type="radio"/>						
6. The job can be done adequately by a person working alone without talking or checking with other people.	<input type="radio"/>						

7. The supervisors and co-workers on this job almost never give me any "feedback" about how well I am doing in my work.	<input type="radio"/>						
8. This job is one where a lot of other people can be affected by how well-the work gets done.	<input type="radio"/>						
9. The job denies me any chance to use my personal initiative or judgment in carrying out the work.	<input type="radio"/>						
10. Supervisors often let me know how well they think I am performing the job	<input type="radio"/>						
11. The job provides me the chance to completely finish the pieces of work I begin	<input type="radio"/>						
12. The job itself provides very few clues about whether or not I am performing well.	<input type="radio"/>						
13. The job gives me considerable opportunity for independence and freedom in	<input type="radio"/>						

how I do the work.							
14. The job itself is not very significant or important in the broader scheme of things.	O	O	O	O	O	O	O

**Section B.**

In this section you are asked to indicate how you personally feel about your job. Each of the statements below is something that a person might say about his or her job. Please indicate your own, feelings about your job by marking how much you agree with each of the statements.

	Disagree Strongly	Disagree	Disagree Slightly	Neutral	Agree Slightly	Agree	Agree Strongly
1. Most of the things I have to do on this job seem useless or trivial	○	○	○	○	○	○	○
2. It's hard, on this job, for me to care very much about whether or not the work gets done right.	○	○	○	○	○	○	○
3. Generally speaking, I am very satisfied with this job.	○	○	○	○	○	○	○
4. The work I do on this job is very meaningful to me	○	○	○	○	○	○	○
5. Whether or not the Job gets done right is clearly my responsibility	○	○	○	○	○	○	○
6. I am generally satisfied with the kind of work I do in this job	○	○	○	○	○	○	○
7. I often have trouble figuring out whether I'm doing well or poorly on this job	○	○	○	○	○	○	○
8. I feel I should personally take the credit or blame for the	○	○	○	○	○	○	○

results of my work on this job							
9. I frequently think of quitting this job	<input type="radio"/>						
10. I usually know whether or not my work is satisfactory on this job	<input type="radio"/>						

### Section C.

People differ in the kinds of jobs they would most like to hold. The statements in this section give you a chance to say just what it is about a job that is important to you. For each statement two different kinds of jobs are briefly described. You are to indicate which of the jobs you would personally prefer if you had to make a choice between them. In answering each item assume that everything else about the job is the same, Pay attention only to the characteristics actually listed.

1.

<b>Job A.</b> A job where the pay is very good			<b>Job B.</b> A job where there is considerable opportunity to be creative and innovative	
Strongly Prefer A O	Slightly Prefer A O	No preference for A or B O	Slightly Prefer B O	Strongly Prefer B O

2.

<b>Job A.</b> A job where you are often required to make important decisions			<b>Job B.</b> A job with many pleasant people to work with	
Strongly Prefer A O	Slightly Prefer A O	No preference for A or B O	Slightly Prefer B O	Strongly Prefer B O

3.

<b>Job A.</b> A job in which greater responsibility is given to those who do the best work			<b>Job B.</b> A job in which greater responsibility is given to loyal employees who have the most seniority	
Strongly Prefer A O	Slightly Prefer A O	No preference for A or B O	Slightly Prefer B O	Strongly Prefer B O

4.

<p><b>Job A.</b> A job in an organisation which is in financial trouble and might have to close down within the year</p>			<p><b>Job B.</b> A job in which you are not allowed to have any say in how your work is scheduled, or in the procedures used in carrying it out</p>	
Strongly Prefer A O	Slightly Prefer A O	No preference for A or B O	Slightly Prefer B O	Strongly Prefer B O

5.

<p><b>Job A.</b> A very routine job</p>			<p><b>Job B.</b> A job where your co-workers are not very friendly</p>	
Strongly Prefer A O	Slightly Prefer A O	No preference for A or B O	Slightly Prefer B O	Strongly Prefer B O

6.

<p><b>Job A.</b> A job with a supervisor who is often very critical of you and your work in front of other people</p>			<p><b>Job B.</b> A job which prevents you from using a number of skills that you have worked hard to develop</p>	
Strongly Prefer A O	Slightly Prefer A O	No preference for A or B O	Slightly Prefer B O	Strongly Prefer B O

7.

<p><b>Job A.</b> A job with a supervisor who respects and treats you fairly</p>			<p><b>Job B.</b> A job which provides constant opportunities for you to learn new and interesting things</p>	
Strongly Prefer A O	Slightly Prefer A O	No preference for A or B O	Slightly Prefer B O	Strongly Prefer B O

8.

<p>Job A. A job in which there is a real chance you could be laid off</p>			<p>Job B. A job with very little chance to do challenging work</p>	
Strongly Prefer A O	Slightly Prefer A O	No preference for A or B O	Slightly Prefer B O	Strongly Prefer B O

9.

<p>Job A. A job in which there is a real chance for you to develop new skills and advance in the organisation</p>			<p>Job B. A job which provides lots of vacation time and an excellent fringe benefit package</p>	
Strongly Prefer A O	Slightly Prefer A O	No preference for A or B O	Slightly Prefer B O	Strongly Prefer B O

10.

<p>Job A. A job with little freedom and independence to do your work the way you think best</p>			<p>Job B. A job where the working conditions are poor</p>	
Strongly Prefer A O	Slightly Prefer A O	No preference for A or B O	Slightly Prefer B O	Strongly Prefer B O

11.

<p>Job A. A job with very satisfying team-work</p>			<p>Job B. A job which allows you to use your skills and abilities to the fullest extent</p>	
Strongly Prefer A O	Slightly Prefer A O	No preference for A or B O	Slightly Prefer B O	Strongly Prefer B O

12.

Job A. A job which offers little or no challenge			Job B. A job which requires you to be completely isolated from co-workers	
Strongly Prefer A O	Slightly Prefer A O	No preference for A or B O	Slightly Prefer B O	Strongly Prefer B O

### Section D.

This section includes statements about various life experiences and life choices. Please use the rating scale to describe how accurately each statement describes you

	Very Inaccurate	Moderately Inaccurate	Neither Accurate nor Inaccurate	Moderately Accurate	Very Accurate
1. I believe in the importance of art	○	○	○	○	○
2. I tend to vote for conservative political candidates	○	○	○	○	○
3. I do not enjoy going to art museums	○	○	○	○	○
4. I carry the conversation to a higher level	○	○	○	○	○
5. I enjoy hearing new ideas	○	○	○	○	○
6. I am not interested in abstract ideas	○	○	○	○	○
7. I do not like art	○	○	○	○	○
8. I avoid philosophical discussions	○	○	○	○	○
9. I tend to vote for liberal Political candidates	○	○	○	○	○
10. I have a vivid imagination	○	○	○	○	○

### Section E.

This section includes statements about how perceive yourself, others and the world. Please use the rating scale to describe how accurately each statement describes you

	Very Inaccurate	Moderately Inaccurate	Neither Accurate nor Inaccurate	Moderately Accurate	Very Accurate
1. I see difficulties everywhere	○	○	○	○	○
2. I just know that I will be a success	○	○	○	○	○
3. I dislike myself	○	○	○	○	○
4. I love life	○	○	○	○	○
5. I believe some people are born lucky	○	○	○	○	○
6. I feel up to any task	○	○	○	○	○
7. I like taking responsibility for making decisions	○	○	○	○	○
8. I take the initiative	○	○	○	○	○
9. I make a decision and move on	○	○	○	○	○
10. I believe that unfortunate events occur because of bad luck	○	○	○	○	○
11. I believe the world is controlled by a few powerful people	○	○	○	○	○
12. I feel that my life lacks direction	○	○	○	○	○
13. I believe that my success depends on ability rather than luck.	○	○	○	○	○

14. I habitually blow my chances	<input type="radio"/>				
15. I act comfortably with others	<input type="radio"/>				
16. I dislike taking responsibility for making decisions	<input type="radio"/>				
17. I am less capable than most people	<input type="radio"/>				
18. I come up with good solutions	<input type="radio"/>				
19. I feel that I am unable to deal with things	<input type="radio"/>				
20. I feel comfortable with myself	<input type="radio"/>				

## Section F.

In this section you are asked to provide some general information about yourself and your job. This information will assist in the analysis and categorisation of the data collected in this survey. It will not be used to identify you in anyway.

What is your age?

What is your gender?

- Female
- Male

How would you describe your ethnicity?

- NZ European
- Maori
- Asian
- Pacific Peoples
- Other \_\_\_\_\_

What industry do you work in?

Approximately how long (years) have you worked....

For your organisation? \_\_\_\_\_

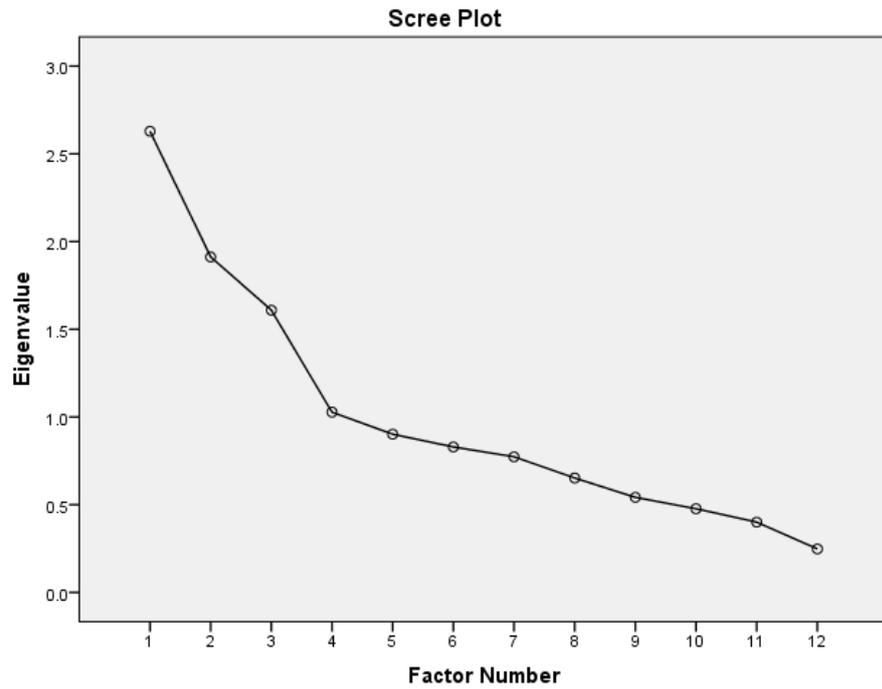
In your current role? \_\_\_\_\_

In your current industry? \_\_\_\_\_

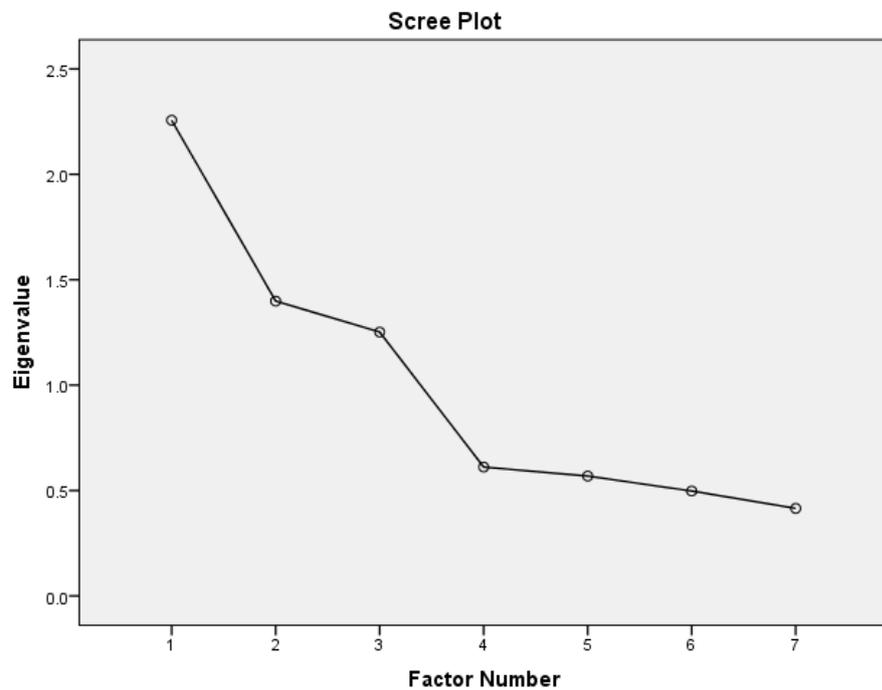
In a sales role? \_\_\_\_\_

Thank you for your participation in this survey. To complete the survey please click the 'submit' tab

## APPENDIX F – SCREE PLOTS



*Figure F.1.* Scree plot for the role dimension scales



*Figure F.2.* Scree plot for psychological states scale

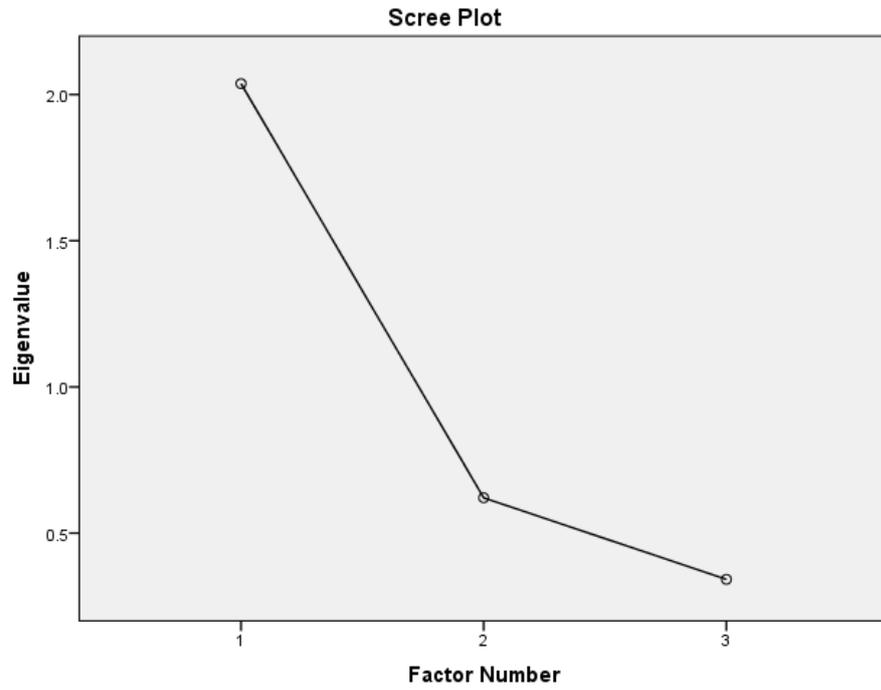


Figure F.3. Scree plot for the job satisfaction scale

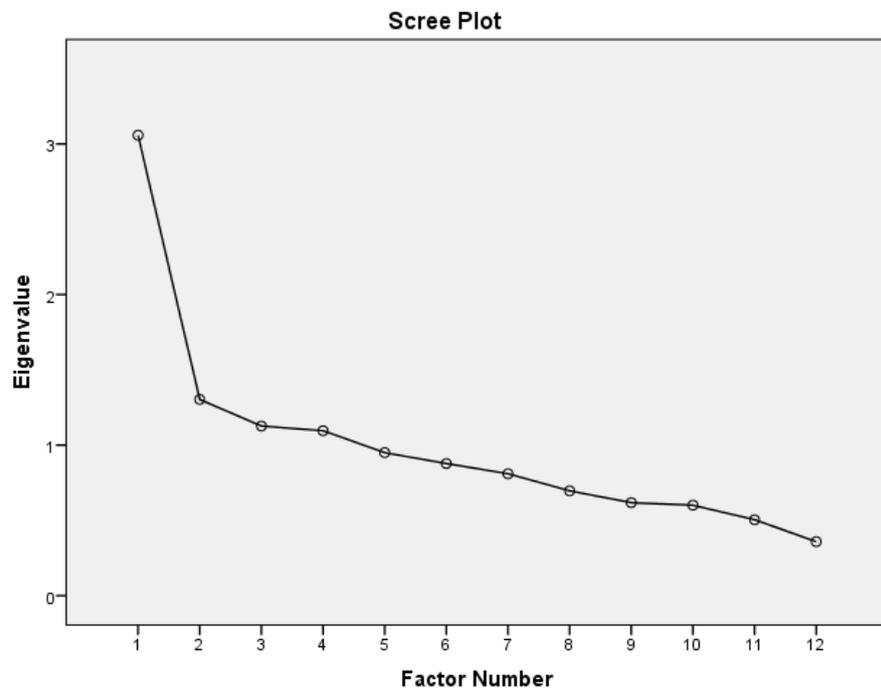


Figure F.4. Scree plot for the growth need strength scale

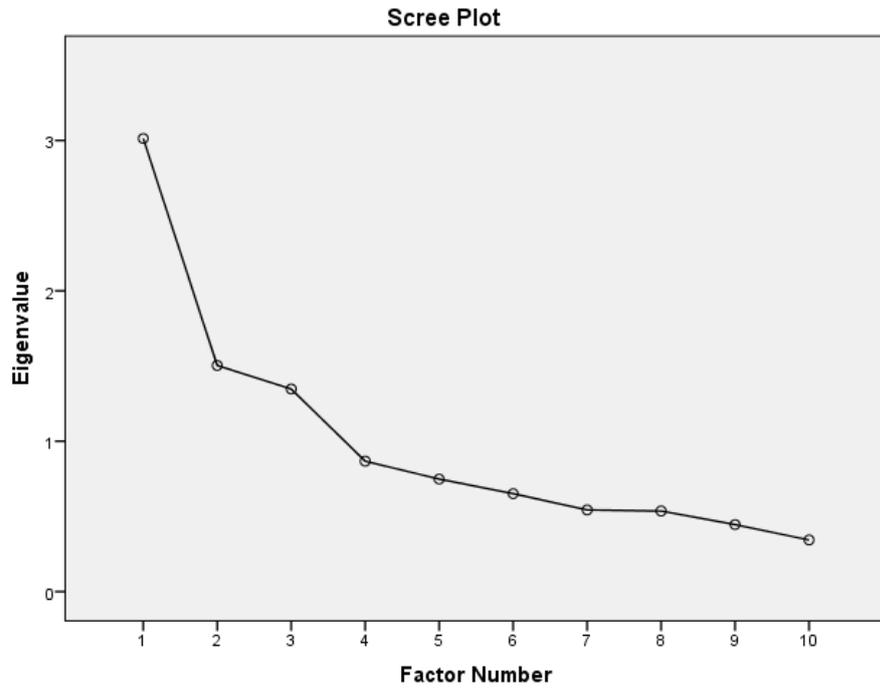


Figure F.5. Scree plot for the openness to experience scale

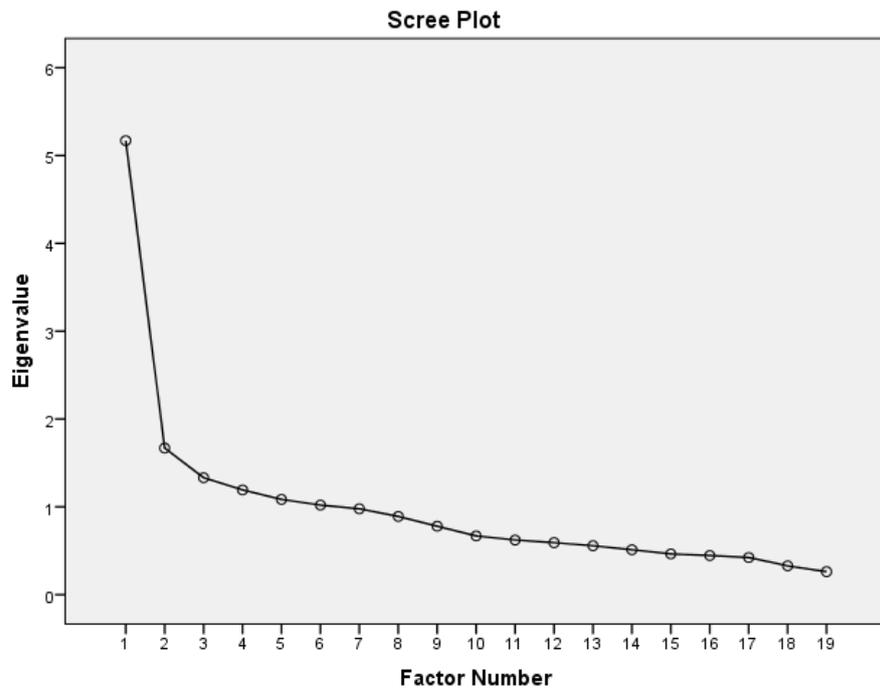


Figure F.6. Scree plot for the locus of control scale

## APPENDIX G – FACTOR LOADING TABLES

Table G.1.

### *Job Dimension Factor Loadings*

	Factor			
	1	2	3	4
A1. The job requires me to use a number of complex or high-level skills.	<b>.763</b>	-.097	-.106	-.136
A5. The job is quite simple and repetitive	<b>.720</b>	.139	-.010	.050
A3. The job is arranged so that I do not have the chance to do an entire piece of work from beginning to end.	-.218	<b>.833</b>	.063	.014
A11. The job provides me the chance to completely finish the pieces of work I begin	-.089	<b>.543</b>	-.091	-.371
A8. This job is one where a lot of other people can be affected by how well-the work gets done.	<b>.601</b>	-.051	-.026	.057
A14. The job itself is not very significant or important in the broader scheme of things.	<b>.619</b>	-.033	.248	-.046
A9. The job denies me any chance to use my personal initiative or judgment in carrying out the work.	.239	<b>.748</b>	.077	.149
A13. The job gives me considerable opportunity for independence and freedom in how I do the work.	.261	<b>.325</b>	-.240	-.375
A7. The supervisors and co-workers on this job almost never give me any "feedback" about how well I am doing in my work	-.044	.121	<b>.912</b>	.044
A10 Supervisors often let me know how well they think I am performing the job	.063	-.042	<b>.830</b>	-.153
A4. Just doing the work required by the job provides many chances for me to Figure out how well I am doing	.073	-.131	-.020	-.830
A12. The job itself provides very few clues about whether or not I am performing well	-.071	.098	.278	-.603

Table G.2.

*Psychological States Factor Loadings*

	Factor		
	1	2	3
B1. Most of the things I have to do on this job seem useless or trivial	<b>.656</b>	.073	-.073
B2. It's hard, on this job, for me to care very much about whether or not the work gets done right.	<b>.701</b>	.058	-.064
B4. The work I do on this job is very meaningful to me	<b>.645</b>	- .110	.286
B5. Whether or not the Job gets done right is clearly my responsibility	.092	- .069	<b>.620</b>
B8. I feel I should personally take the credit or blame for the results of my work on this job	- .063	.107	<b>.629</b>
B7. I often have trouble figuring out whether I'm doing well or poorly on this job	.061	<b>.692</b>	-.121
B10. I usually know whether or not my work is satisfactory on this job	.007	<b>.684</b>	.197

Table G.3.

*Job Satisfaction Factor Loadings*

	Factor
	1
B3. Generally speaking, I am very satisfied with this job.	<b>.946</b>
B6. I am generally satisfied with the kind of work I do in this job	<b>.614</b>
B9. I frequently think of quitting this job	<b>.620</b>

Table G.4. *Growth Need Strength Factor Loadings*

	Factor
	1
C1. A job where the pay is very good “OR” A job where there is considerable opportunity to be creative and innovative	<b>.325</b>
C2. A job where you are often required to make important decisions “OR” A job with many pleasant people to work with	<b>.537</b>
C3. A job in which greater responsibility is given to those who do the best work “OR” A job in which greater responsibility is given to loyal employees who have the most seniority	.170
C4. A job in an organisation which is in financial trouble and might have to close down within the year “OR” A job in which you are not allowed to have any say in how your work is scheduled, or in the procedures used in carrying it out	<b>.522</b>
C5. A very routine job “OR” A job where your co-workers are not very friendly	<b>.686</b>
C6. A job with a supervisor who is often very critical of you and your work in front of other people “OR” A job which prevents you from using a number of skills that you have worked hard to develop	.165
C7. A job with a supervisor who respects and treats you fairly “OR” A job which provides constant opportunities for you to learn new and interesting things	<b>.323</b>
C8. A job in which there is a real chance you could be laid off “OR” A job with very little chance to do challenging work	<b>.630</b>
C9. A job in which there is a real chance for you to develop new skills and advance in the organisation “OR” A job which provides lots of vacation time and an excellent fringe benefit package	<b>.320</b>
C10. A job with little freedom and independence to do your work the way you think best “OR” A job where the working conditions are poor	<b>.472</b>
C11. A job with very satisfying team-work “OR” A job which allows you to use your skills and abilities to the fullest extent	<b>.343</b>
C12. A job which offers little or no challenge “OR” A job which requires you to be completely isolated from co-workers	<b>.473</b>

Table G.5.

*Openness to Experience Factor Loadings*

	Factor	
	1	2
D1. I believe in the importance of art	<b>.714</b>	-.036
D2. I tend to vote for conservative political candidates	-.068	<b>.705</b>
D3. I do not enjoy going to art museums	<b>.645</b>	-.084
D4. I carry the conversation to a higher level	<b>.333</b>	.019
D5. I enjoy hearing new ideas	<b>.341</b>	-.034
D6. I am not interested in abstract ideas	<b>.480</b>	.022
D7. I do not like art	<b>.684</b>	-.090
D8. I avoid philosophical discussions	<b>.508</b>	.153
D9. I tend to vote for liberal political candidates	.085	<b>.702</b>
D10. I have a vivid imagination	<b>.457</b>	.076

Table G.6.

*Locus of Control Factor Loadings*

	Factor
	1
E1. I see difficulties everywhere	<b>.461</b>
E2. I just know that I will be a success	<b>.418</b>
E3. I dislike myself	<b>.373</b>
E4. I love life	<b>.572</b>
E5. I believe some people are born lucky	.288
E6. I feel up to any task	<b>.563</b>
E7. I like taking responsibility for making decisions	<b>.692</b>
E8. I take the initiative	<b>.607</b>
E9. I make a decision and move on	<b>.548</b>
E10. I believe that unfortunate events occur because of bad luck	.251
E11. I believe the world is controlled by a few powerful people	.203
E12. I feel that my life lacks direction	<b>.602</b>
E13. I believe that my success depends on ability rather than luck.	.267
E14. I habitually blow my chances	<b>.475</b>
E15. I act comfortably with others	<b>.411</b>
E16. I dislike taking responsibility for making decisions	<b>.625</b>
E17. I am less capable than most people	<b>.553</b>
E18. I come up with good solutions	<b>.465</b>
E19. I feel that I am unable to deal with things	<b>.465</b>
E20. I feel comfortable with myself	<b>.423</b>

## APPENDIX H – MODERATOR INTERACTION PLOTS

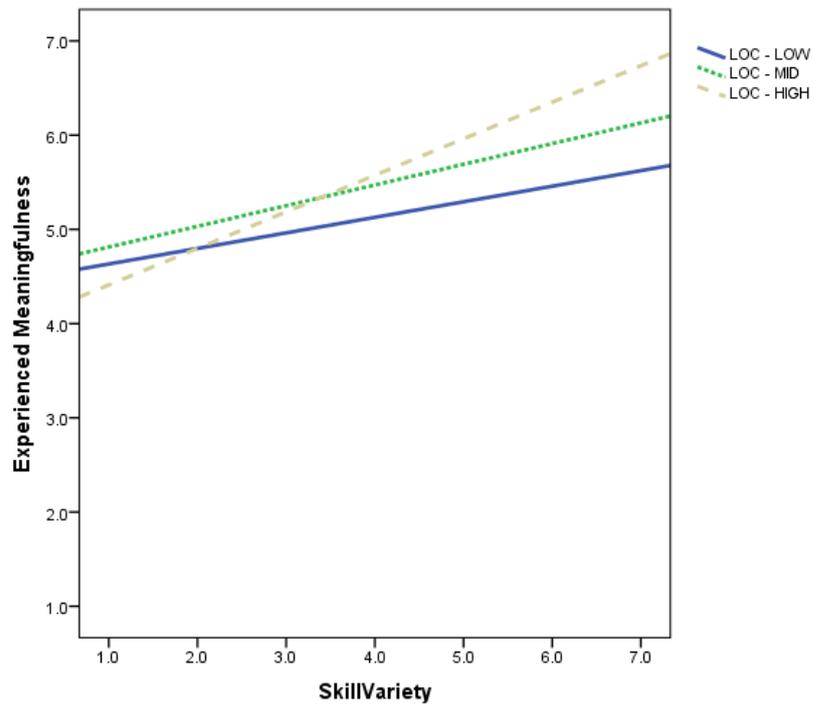


Figure H.1. Plot of LOC's moderation effect on the relationship between skill variety and experienced meaningfulness

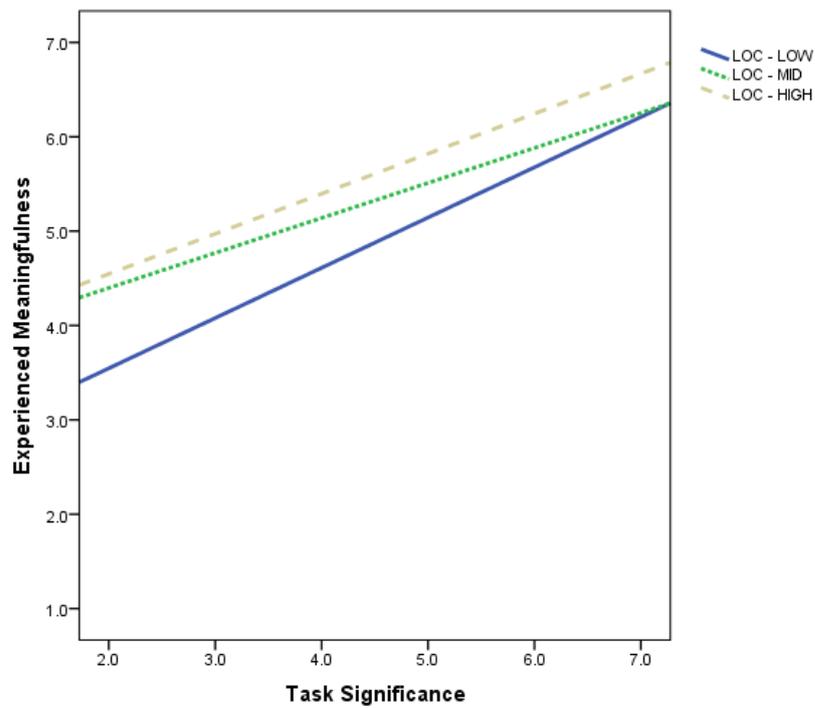


Figure H.2. Plot of LOC's moderation effect on the relationship between task significance and experienced meaningfulness

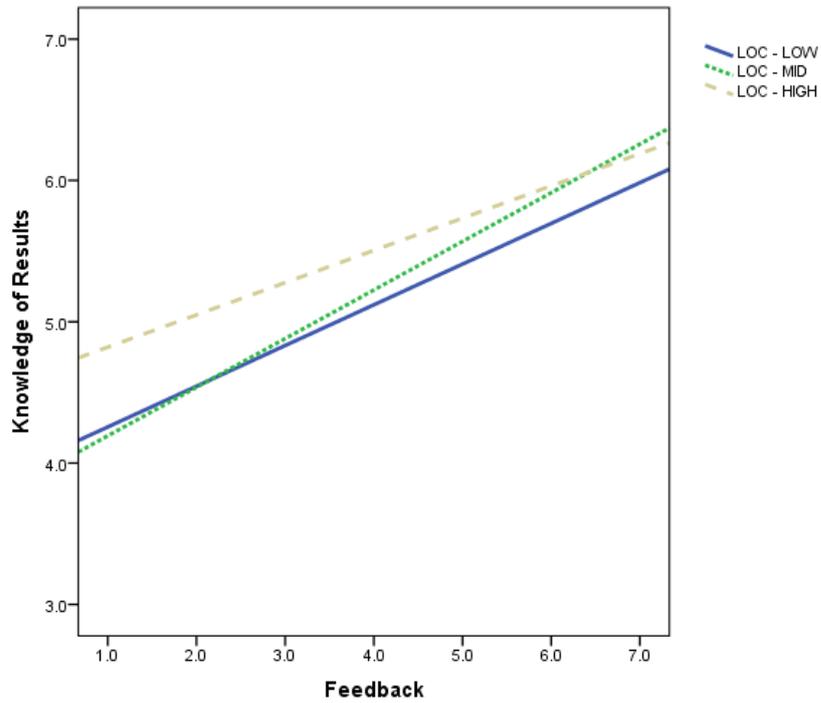


Figure H.3. Plot of LOC's moderation effect on the relationship between feedback and knowledge of results

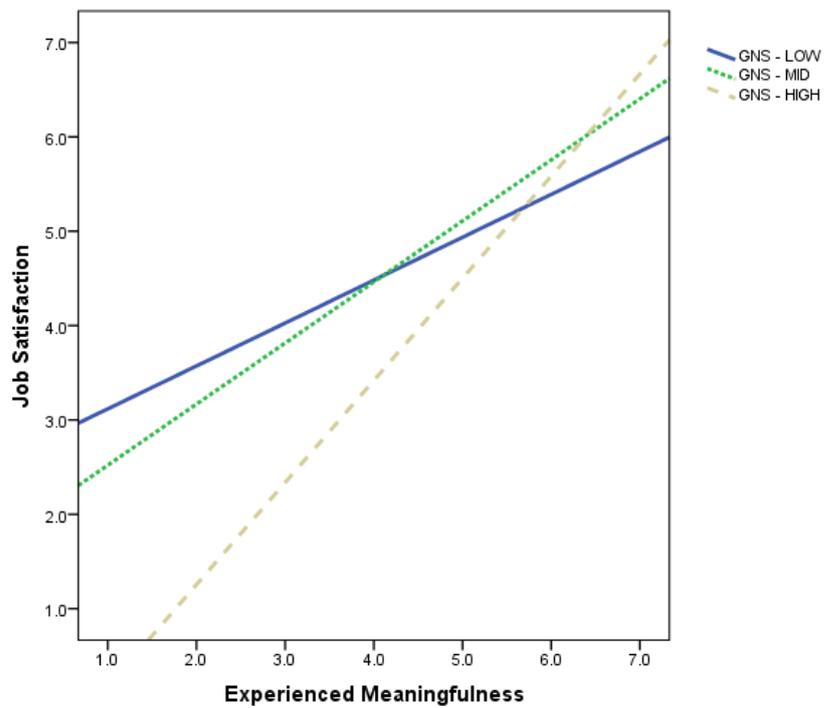


Figure H.4. Plot of GNS's moderation effect on the relationship between experienced meaningfulness and job satisfaction