Talent Management, Development, and Retention of Generation Y Employees in New Zealand Clinical Laboratory

Kin Ming (Oscar) Lau

A thesis submitted to Auckland University of Technology in partial fulfilment of the requirements for the degree of Master of Medical Laboratory Science

2024

School of Science

Faculty of Health and Environmental Sciences

Abstract

Laboratory science is an integral component of the healthcare system and relies on a skilled workforce to prevent, diagnose, and treat diseases. In New Zealand, the medical laboratory profession comprises various professionals regulated under the Health Practitioners Competence Assurance Act 2003. The industry has witnessed a transformative shift, reflecting changing ideologies and values across generational groups, notably with the influx of Generation Y employees. Despite anecdotal evidence pointing to retention challenges, systematic research on talent management's impact on Generation Y employees in New Zealand's clinical laboratory sector is scarce. To address this gap, the study aims to identify factors contributing to Generation Y employee retention and develop a conceptual framework to enhance retention within clinical laboratories.

A total of 143 Generation Y employees from diagnostic laboratories participated in this study. The data were analysed using the Partial Least Squares Structural Equation Modelling (PLS-SEM) method with SmartPLS 4 software. The results showed that talent management practices, including mentoring, strategic leadership, and competency development, positively influence the intention of Generation Y employees to stay in their roles. In contrast, knowledge sharing does not significantly impact their intention to stay. Moreover, the study explored how competency development mediates the relationships between mentoring, strategic leadership, and knowledge sharing concerning participants' intention to stay within the organisation. Results showed that mentoring and strategic leadership indirectly affect the intention to stay through competency development. Although marginally significant, the anticipated mediation effect of knowledge sharing is not fully supported, highlighting the complex relationship between knowledge sharing initiatives and employee retention. These nuanced findings emphasise the need for tailored and innovative retention strategies, acknowledging the multifaceted decision-making processes of Generation Y employees and the necessity for innovative retention strategies.

In addition to the empirical insights, the study presents a conceptual framework grounded in empirical data and theoretical foundations. This framework serves as a foundation for organisations aiming to create a supportive work environment that fosters the commitment and longevity of their Generation Y workforce. By delving into the distinctive dynamics of New Zealand's clinical laboratory sector, this study contributes valuable knowledge to the broader field of workforce management, paving the way for enhanced talent retention strategies in allied health professions.

Table of Contents

List of Figures

List of Tables

List of Abbreviations and Symbols

AMOS	Analysis of moment structures
APC	Annual practising certificate
AUT	Auckland University of Technology
AUTEC	Auckland University of Technology Ethics Committee
AVE	Average variance expected
Boomers	Baby boomers
CB-SEM	Covariance-based structural equation modelling
CD	Competency development. Note: There are 6 competence development components, denoted as CD1 – CD6 listed in the thesis
CFI	Comparative fit index
CMB	Common method bias
CR	Composite reliability
CSR	Corporate social responsibility
Gen X	Generation X
Gen Y	Generation Y
Gen Z	Generation Z
H	Hypothesis. Note: There are 7 hypotheses, denoted as H1 – H7 listed in the thesis
HPCAA	Health Practitioners Competence Assurance Act
HRM	Human resource management
KS	Knowledge sharing. Note: There are 6 knowledge sharing components, denoted as KS1 – KS6 listed in the thesis
IANZ	International Accreditation New Zealand
IS	Intention to stay. Note: There are 6 intentions to stay components, denoted as IS1 – IS6 listed in the thesis
LISREL	Linear structural relations
M	Mentoring. Note: There are 6 mentoring components, denoted as M1 – M6 listed in the thesis
MLPAT	Medical Laboratory Pre-Analytical Technician
MLS	Medical Laboratory Scientist
MLT	Medical Laboratory Technician
MSCNZ	Medical Sciences Council of New Zealand
NZIMLS	New Zealand Institute of Medical Laboratory Science
p-value	Probability values

PLS	Partial least squares
Q^2	Predict value
QR	Quick Response code
R^2	Coefficient of determination, or R squared
RMSEA	Root mean square error of approximation
SEM	Structural equation modelling
SET	Social exchange theory
SL	Strategic leadership. Note: There are 6 strategic leadership components, denoted as SL1 – SL6 listed in the thesis
SRMR	Standardised root mean squared residual
t-value	t-statistic
TM	Talent management
VIF	Variance inflation factor
β	Beta, a symbol used to represent path coefficients in structural equation modelling (SEM)

Attestation of Authorship

“I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.”

Kin Ming (Oscar) Lau

Date: 24/11/2023

Acknowledgements

I want to convey my deepest appreciation to my primary supervisor, Wee Leong (Joe) Chang, for his commendable support, guidance, and countless suggestions throughout this academic journey.

My sincere thanks to all those who generously contributed to the completion of this thesis. Special appreciation goes to the research participants: the Generation Y employees working in healthcare laboratories in New Zealand. These unsung healthcare heroes devoted their time during the data collection phase.

I am indebted to Luke McClean and Jessica McLay for their support and guidance in this study's methodology and statistical analysis.

My appreciation also goes to my friends and colleagues at LabPLUS, Auckland City Hospital, who supported me throughout this journey.

Lastly, I want to express my heartfelt thanks to my mother, Ada, and my late father, whose influence shaped the person I am today. Above all, my profound gratitude goes to my partner, Simon, for his unwavering encouragement throughout this journey. This achievement would not have been possible without their continuous support.

Ethics Approval

This study received ethical approval from the Auckland University of Technology Ethics Committee (AUTEC) on 12 April 2022, valid until 12 April 2025. The approval reference number is 21/320 (refer to Appendix A for the AUTEC Ethics Application Approval Letter).

Chapter 1
Preamble

Laboratory medicine is an integral part of the allied health professions within the healthcare system. Laboratory professionals are qualified practitioners with specialised expertise in preventing, diagnosing, and treating diseases. In New Zealand, the medical laboratory profession consists of medical laboratory scientists (MLS), medical laboratory technicians (MLT), medical laboratory pre-analytical technicians (MLPAT), and other health professionals, including pathologists, clinical scientists, and clerical staff.

The medical laboratory workforce is regulated under the Health Practitioners Competence Assurance Act (HPCAA) 2003 (Ministry of Health, 2018). The HPCAA aims to protect the health and safety of members of the public by providing mechanisms to ensure that health practitioners are competent and fit to practise their professions. According to the annual reports (2020, 2021, 2022) published by the Medical Sciences Council of New Zealand (MSCNZ), the total number of registered medical laboratory professionals practising in New Zealand during the 2019-2020 period was 3800. Subsequently, the number of registered practitioners increased to 3856 and 3889 in 2020-21 and 2021-22, respectively. These practitioners include MLS, MLT, and MLPAT.

The current laboratory workforce, like other industries, can be categorised into four generational groups: baby boomers (born between 1946 and 1964), Generation X (born between 1965 and 1979), Generation Y (born between 1980 and 1999), and Generation Z (born between 2000 and 2012). Over recent decades, this workforce has undergone a significant ideological transformation, driven by factors such as the growing presence of the Generation Y cohort and the retirement of baby boomers, mirroring changes observed in various healthcare professions.

This ideological shift signifies a departure from traditional principles, beliefs, and values, particularly with the increasing influence of Generation Y. Their emphasis on work-life balance, career development, and a supportive work environment has reshaped the perception and pursuit of work. Recognising that job satisfaction, personal development, and work-life integration are crucial for attracting and retaining talent, especially among the younger generation, is a pivotal aspect of this transformation.

Consequently, the industry now embraces a multigenerational workforce (Mohammed, 2015), with each generation bringing unique perspectives and experiences to the workplace. However, the distinct characteristics and values associated with Generation Y employees give rise to generational tension and conflict regarding work expectations (Piper, 2012). Job satisfaction emerges as a critical factor influencing work motivation and employee behaviour.

Job satisfaction is an extensively researched topic in human resource management and organisational behaviours. It plays a vital role in work motivation and organisational employee behaviours. Described as a positive emotional state arising from individuals' assessments of their job or work experience (Locke, 1976, as cited in Rodrigues & Rebelo, 2022), it significantly influences an individual's organisational behaviours. For Generation Y employees, job satisfaction is particularly crucial, given their high self-esteem, creativity, ambition, and goal orientation. Prioritising continuous learning and career progression, they value clear direction from leaders and superiors (Cahill & Sedrak, 2012; Naim & Lenka, 2018). The absence of training and career development frameworks poses challenges in retaining staff and building depth in expertise (Ministry of Health, 2016). Therefore, focusing on talent management and retention strategies tailored to Generation Y employees becomes paramount.

Despite the evolving workforce dynamics, human resource management practices have seen little change, resulting in higher attrition rates among Generation Y employees. Intense competition across sectors, attractive offers from competitors, and the pressure to outperform with inadequate resources compound retention challenges. Lack of engagement and job satisfaction is pervasive across all generations, but Generation Y employees are especially vulnerable due to their high ambition and preference for instant success (Naim & Lenka, 2018). With their increasing workforce representation and baby boomers' imminent retirement, organisations must adopt appropriate developmental strategies to retain Generation Y employees.

Although demographic composition details of the New Zealand medical laboratory workforce are lacking, staff retention, particularly among Generation Y employees, has been a known issue anecdotally to many organisations within the laboratory sector. Similar challenges with staff retention have been observed in the Australian counterparts. The Medical Laboratory Science Workforce Report (2018) highlights this concern, stating that:

> *"The lack of career progression opportunities was sighted as the most prevalent reason why staff were not retained; this was followed by lack of professional development opportunities… lack of career development and*

progression opportunities was also the third most commonly identified issue in the question relating to the most important issue needing to be addressed by the profession" (State Government of Victoria, 2018, p. 37).

Existing research within the business industry has demonstrated a positive correlation between robust talent management practices and heightened levels of employee engagement and retention (Christensen Hughes & Rog, 2008; Ismail et al., 2021; Kumar, 2022; Marinakou & Giousmpasoglou, 2019; Pandita & Ray, 2018). However, a discernible research gap persists, specifically in investigating talent management practices among Generation Y employees within the clinical laboratory sector. Moreover, the exploration of the relationship between talent management and the retention of Generation Y employees in the laboratory profession in New Zealand remains largely unexplored. This study aims to fill this research gap by proposing a conceptual framework to enhance Generation Y employees' retention in New Zealand's laboratory sector.

To guide this study, the following research questions have been formulated:

i. What factors contribute to the retention of Generation Y employees?

ii. Can a conceptual framework be developed to improve the retention of Generation Y employees in the clinical laboratory?

This thesis comprises six chapters, each detailed as follows:

Chapter 1: Preamble

This introductory chapter furnishes background information on the medical laboratory profession in New Zealand. It commences with an overview of laboratory medicine, delineating the current landscape of healthcare laboratories in the country. By scrutinising distinction in the characteristics, work ethics, and values among different generations in the workforce, this chapter illuminates challenges related to staff retention, particularly among Generation Y. Identifying gaps in existing research pertaining to talent management practices specific to Generation Y employees within the clinical laboratory sector, the chapter concludes by introducing research questions guiding the study. The central focus is on factors contributing to the retention of Generation Y employees and the development of a conceptual framework to enhance their retention in clinical laboratories.

Chapter 2: Literature Review

This chapter presents a comprehensive literature review, placing the study within the context of existing knowledge on talent management practices and the characteristics of each of the four generations, with a specific emphasis on Generation Y—the target cohort for this study. Additionally, the chapter explores job embeddedness and social exchange theories, establishing theoretical frameworks for understanding employee retention and highlighting the interrelationship between talent management and employee retention. By reviewing the literature, this chapter provides the context for understanding the research topic. It lays the foundation for developing the conceptual framework, including research objectives and hypotheses about the enablers influencing Generation Y employees' retention within clinical laboratories.

Chapter 3: Research Methodology

Exploring the methodology, design, and analytical techniques employed in the study, this chapter covers the development of the study tool - an online questionnaire – while defining the origin of variables and measures. The chapter concludes with a discussion of post-data collection data treatment processes, encompassing assessments of the measurement and structural models. Ethical considerations pertinent to the study are also examined.

Chapter 4: Data Analysis and Findings

This chapter delves into the empirical study process and findings. Study findings are examined, incorporating various statistical analyses conducted using SmartPLS 4 software. A summary of the structural model is presented, and the chapter concludes by addressing the final two questions from the online questionnaire, designed to provide valuable insights guiding future research initiatives.

Chapter 5: Discussion

Chapter 5 comprehensively discusses the study’s findings against the hypothesised paths and research questions. It articulates theoretical and practical contributions, highlights study limitations and offers recommendations and suggestions for future study directions.

Chapter 6: Conclusion

The final chapter concludes the study, emphasising the pressing need for organisations to implement focused and innovative retention strategies to create supportive work environments.

Chapter 2
Literature Review

2.1 Introduction

Talent management plays a vital role in effective human capital management practices, encompassing various strategic activities such as attraction, identification, development, engagement, and retention of talented employees within an organisation.

In the past decade, the workforce dynamic has undergone significant changes, with the emergence of Generation Y employees and the retirement of baby boomers observed across various industries. Additionally, the challenge of high turnover and a shortage of skilled employees has intensified the need for talent development and retention, making it a fast-growing concern for organisations worldwide, including the healthcare sector.

This chapter aims to provide an extensive literature review, focusing on talent management, talent management practices, and the conception of generation and generational differences in the workplace. Specifically, the author will emphasise the characteristics of Generation Y, given their increasing presence in the workplace. By examining existing knowledge and research, this chapter seeks to enhance our understanding of the complex relationship between talent management strategies, generational dynamics, and workplace characteristics.

By consolidating existing literature on talent management, generational differences, and workplace characteristics, this chapter sets the foundation for the subsequent research and the development of a conceptual framework. This comprehensive review will gain valuable insights, leading to a deeper understanding of talent management practices, particularly concerning Gen Y employees. These insights will be instrumental in guiding organisations to optimise their talent development and retention strategies in the dynamic and constantly evolving workforce landscape.

2.2 Definitions of Talent Management

There are many views on how talent management (TM) is defined. Traditionally, TM is defined as finding and ensuring ‘the right person for the right job at the right time’ (Jackson & Schuler, 1990, as cited in Lewis & Heckman, 2006). TM is often linked to human resource management (HRM), which focuses on the practices of recruitment, leadership development, and succession planning and is often described as ‘a sequence of rational steps to do with defining talent, recruiting talent, deploying talent,

and developing talent' (Powell & Lubitsh, 2007). The terms 'talent management,' 'talent strategy,' 'succession planning,' and 'human resource management' are often used interchangeably.

The majority of scholars defined TM as a systematic approach to discovering, attracting, developing, and retaining skilled and high-potential employees in an organisation (Barkhuizen & Gumede, 2021; Davies & Davies, 2010; Rothwell, 1994, as cited in Lewis & Heckman, 2006; Rothwell, 2011). Others suggest talent management is best regarded as a 'mindset' (Creelman, 2004, as cited in McDonnell et al., 2010), an 'additional management processes and opportunities that are made available to people in the organisation who are considered to be talent' (Blass, 2007); and involves 'managing the supply, demand, and flow of talent through the human capital engine' (Pascal, 2004, as cited in Lewis & Heckman, 2006). Despite the disturbing lack of clarity regarding the definition, Lewis and Heckman (2006) uncovered three distinct perspectives regarding talent management:

The first perspective considers TM as a set of functions or activities of typical human resources management practices, which includes recruiting, selection, development, training, succession planning, etc.

The second perspective on TM focuses on the concept of designing talent pools of employees within an organisation. These employees are individuals who have the specific skills, experience, or qualifications which make them potential candidates for employment within an organisation. They are often identified as high-performing and high-potential individuals. Rothwell (2011) referred to these individuals as the 'exclusive people, people who can make a vital change into the future and current performance of the firms.' The concept of talent pools is closely related to succession management and workforce planning. Advocates of this perspective state that to combat the ever-increasing issues related to growth, competition and retention, senior leadership needs to strategically focus on the development of future leaders (Henderson, 2007), 'combining proactive assignments monitoring rigorous succession planning, and experiential educational programs that will help make companies more competitive, with a talented pipeline of leaders ready to take charge' (Mercer, 2005, as cited in Henderson, 2007). Nonetheless, it is a practice to ensure an adequate flow of employees into positions and ensure the right talents flow through the organisation.

The third perspective on TM focuses on talent itself, regardless of specific roles or positions of employees. There are two viewpoints on TM that have emerged from this perspective. The first defines talent as 'high performance' and 'high potential' and a resource to be managed based on performance levels. Advocates of this approach

differentiate individuals by performance levels (i.e., level A = high performers, level B = competent performers, and level C = poor performers) and suggest exclusively hiring and keeping level A and B performers while encouraging expelling level C performers (Smart, 1999, as cited in Lewis & Heckman, 2006). This viewpoint, however, is in contrast with the second perspective mentioned above, where organisations are encouraged to manage talent based on the performance of employees rather than succession pools for specific roles. The second viewpoint defines talent as 'an undifferentiated good and emerges from both the humanistic and demographic perspectives' (Lewis & Heckman, 2006).

Based on the above literature review, the definition of talent management can be considered as a crucial aspect of human resource management practices that involve a systematic approach to attraction, identification, development, engagement, retention and deployment of employees (or individuals) who are of particular value to an organisation, either in giving of their fulfilment to the organisation's strategic objectives, or their high potential for the future development of the organisation.

2.3 Talent Management Practices

Talent management practices encompass a wide range of activities intended to maximise employees' potential and ensure that employees can contribute to the organisation's goals.

Talent management practices include the following:

2.3.1 Talent Planning

Talent planning involves identifying skills, knowledge, and competencies that an organisation requires to achieve its strategic goals and business objectives. An essential aspect of talent planning is for an organisation to clearly understand its vision, analyse its strategic objectives, and identify the competencies and skills needed to achieve these objectives. Talent planning focuses on several key factors: (i) cost – comparing the cost of developing existing staff with the cost of hiring skilled employees externally; (ii) demographics – by analysing the demographic makeup of the existing workforce, an organisation can create a strategic plan to reskill, upskill, or provide targeted training to its employees in alignment with the organisation's objectives; (iii) effective talent management – by establishing career succession paths for existing employees and providing the necessary training to prepare them for more senior roles; and (iv) flexibility – encouraging flexible working arrangements, such as allowing employees to

choose how, when, and where they work. Whilst this may not always be feasible in healthcare settings, it can be achieved in other areas that do not involve direct patient care.

2.3.2 Talent Acquisition

Talent acquisition involves identifying, attracting, and selecting talented individuals for specific roles within the organisation. The goal of talent acquisition is to ensure that an organisation has the right talent to achieve its business objectives. A key element of a successful talent acquisition approach is establishing a well-defined process for identifying job requirements, developing position descriptions, and assessing, screening, and selecting the right candidates (Dawn & Biswas, 2013).

2.3.3 Onboarding and Integration

Onboarding entails a series of events designed to assist new employees in acquiring the necessary knowledge, skills, and behaviours to become effective contributors to the organisation. Its goal is to facilitate the transition of new employees into their roles within the organisation and foster relationship-building between new and existing employees. Integration, on the other hand, refers to the process of assimilating new employees into the organisation's culture, processes, and systems. Effective onboarding and integration processes can increase employee engagement, team performance, and retention (Barkhuizen & Gumede, 2021).

2.3.4 Performance Management

Performance management involves assessing an employee's performance through competency assessments, performance conversations, providing feedback, and setting objectives, aligning the employee's development with the organisation's goals. Armstrong (2006, p. 211) states, "Performance management processes can be used to identify development needs (skills and behaviours) and motivate people to make the most effective use of their abilities." An effective performance management process can lead to increased employee engagement, productivity, and job satisfaction.

2.3.5 Talent Development and Retention

There is no doubt that both talent development and retention are crucial components of talent management practices. Successful organisations invest significant time and money in developing their employees' skills and capabilities

to ensure they remain competitive in their respective fields. Effective talent development can be achieved through regular performance conversations, training, mentoring, and coaching, all of which provide employees with opportunities to grow and advance their skills within the organisation, enhancing employees' engagement and retention (Armstrong, 2006, p. 267). Talent retention is defined as the organisation's ability to keep its talents, in other words, to reduce employee turnover (Kumar, 2022). Effective talent retention policies ensure employees remain engaged and committed members of the organisation, allowing the organisation to maintain a skilled workforce to achieve long-term organisational goals (Kumar, 2022).

2.3.6 Talent Deployment and Transition

Talent deployment refers to the strategic placement of employees in roles that align with their skills, abilities, and interests. It involves placing talented individuals in either short-term roles, such as critical task forces or long-term positions (Australian Public Service Commission, 2015, p. 19). The transition of talent can be seen as upward (promotion), horizontal (lateral move), and outward (exiting the organisation through resignation, termination of employment, or retirement). The former two (upward and horizontal transitions) mark the beginning of a new talent management cycle for employees, while the latter denotes the departure of talent. An effective talent transition process ensures that those transitioning within the organisation receive the support required to succeed in their new roles, positively affecting the organisation's performance. Regarding the departure of talent, offboarding activities such as exit interviews, knowledge transfer, and transition planning should be included.

Figure 1 illustrates the lifecycle of talent management practices. The life cycle of talent management practices involves the systematic progression from talent planning and talent acquisition to onboarding, performance management, talent development, and retention, ultimately culminating in strategic talent deployment and transitions, ensuring the continual alignment of employee skills with organisational objectives throughout their professional journey.

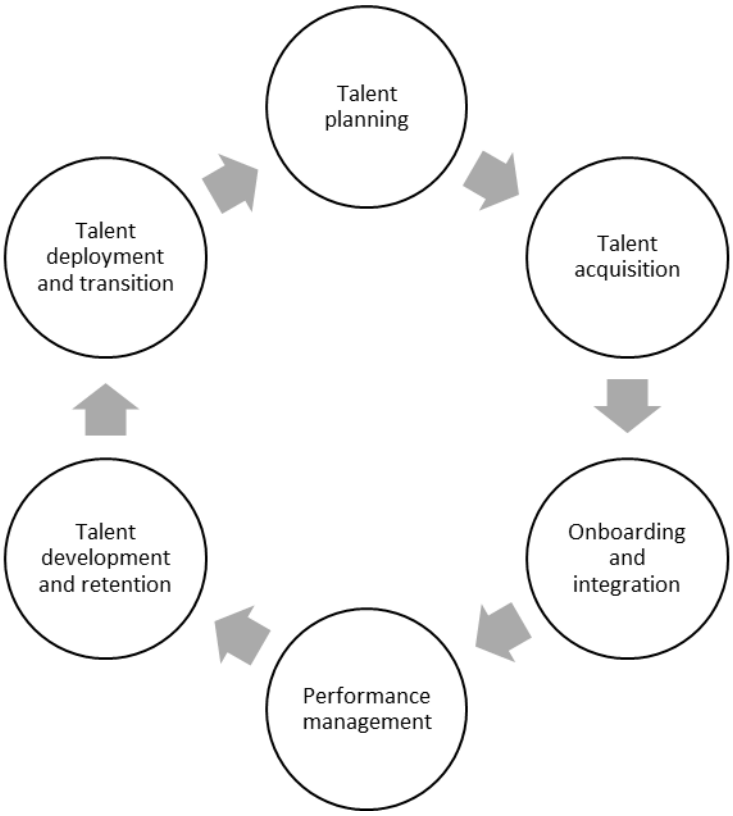

Figure 1 Lifecycle of Talent Management Practices

2.4 The Importance of Talent Management

Talent management is increasingly seen as a critical factor in developing successful organisations and is a strategic priority. Strong and effective talent management practices not only help organisations achieve their objectives and strategies but also enable them to use their resources efficiently, foster a culture of innovation and continuous improvement, increase productivity (Collings & Mellahi, 2009), and improve employee engagement and retention.

Surprisingly, talent retention becomes a concern for many organisations only when managers fear that employees may be seriously considering leaving the organisation. However, this mindset condemns an organisation to failure, as it ignores opportunities to prevent employees from even contemplating leaving. The talent retention battle begins at the recruitment stage when organisations hire and match employees according to their needs (Ross, 2008). Luna-Arocas & Morley (2015) explain that an organisation's position within its industry is contingent upon its ability to retain, engage, and develop talent, thereby emphasising the pivotal role of talent management in determining the success or failure of an organisation.

In conclusion, implementing effective talent management practices can offer numerous benefits to an organisation, including improving organisational performance, increasing

productivity, fostering a strong organisational culture, enhancing employee engagement, and, most importantly, retaining talented employees.

2.5 Definition of Generation

A generation is the average period from the birth of parents to that of their offspring. In a social context, a generation is referred to as “contemporaries in the same cohort strata who have lived through shared historical experiences at approximately the same age” (Kingstone, 2021).

There is no universally agreed-upon formula for the length of a generation. However, most studies suggest that a generation spans between 20 to 25 years. Children born in a particular era are influenced not only by the values and attitudes of their parents, friends, and communities, such as schools, but also by significant world events, social trends, and environmental factors occurring at that time (Cahill & Sedrak, 2012). Growing up simultaneously and being exposed to similar stimuli, a group of children tends to develop similar beliefs, attitudes, values, and behaviours (Naim & Lenka, 2018).

Moreover, our life expectancy has significantly improved due to medical and technological advancements. People now live longer than at any other time in history and expect to work longer and retire later than in past decades. Consequently, for the first time in human history, four distinct generations are actively engaged in the workplace, namely baby boomers, Generation X, Y, and Z. This has created a multigenerational workforce in many organisations, with each generation bringing its own set of beliefs, values, behaviours, and experiences (Cahill & Sedrak, 2012; Kapoor & Solomon, 2011).

2.6 Generational Differences

Generational differences impact every aspect of the workplace, including communication styles, professional development preferences, preferred leadership styles, and technology requirements, among others. These differences have also led to variations in employees’ work ethics and working styles, potentially resulting in increased generational tension and conflict among employees (Glass, 2007; Kapoor & Solomon, 2011).

While unique challenges are inevitable in a multigenerational workplace, there are also distinct opportunities to create a diverse and productive work environment (Kapoor & Solomon, 2011). To effectively manage generational differences and mitigate potential

tensions among employees, it is crucial to have a comprehensive understanding of the distinct characteristics and work perspectives of each of the four generations currently comprising the workforce.

The following sections explore the presence of four generations in today's workplace: baby boomers, Generation X, Y, and Z. These sections provide an overview of the workplace characteristics associated with each generation, with a particular emphasis on Gen Y. Although there is a consensus among social scientists regarding the approximate time frames for each generation, there is no definitive boundary that marks the transition from one generation to the next (Cahill & Sedrak, 2012). For this study, the following birth years are used to categorise each generation:

- **Baby Boomers:** individuals born between 1946 and 1964.
- **Generation X:** individuals born between 1965 and 1979.
- **Generation Y:** individuals born between 1980 and 1999.
- **Generation Z:** individuals born between 2000 and 2012.

2.6.1 Baby Boomers and Their Workplace Characteristics

Baby boomers ("boomers") are those born between 1946 and 1964, a period characterised by high fertility and birth rates in New Zealand, with a total fertility rate of at least 3.5 births per woman during 1946-1964 (Stats NZ, 2022).

Boomers grew up in the post-Cold War economy and inherited their parents' strong work ethics. They are known for their long work hours and are driven by goals for success. For boomers, their career equals their identity; they are willing to sacrifice personal and family matters for their careers(Cahill & Sedrak, 2012; Kapoor & Solomon, 2011).

They emphasise relationship building and expect loyalty from co-workers, yet they also value individuality, earning them the moniker 'the 'me' generation (Berkup, 2014). Loyal to their careers and employers, they were brought up in an environment where authority and hierarchies were respected, leading them to uphold these values in the workplace (Gursoy et al., 2008).

Gursoy et al. (2008) found that baby boomers consider it honourable to patiently progress through the organisational hierarchy, valuing seniority over merit. They are willing to wait for promotions and rewards, believing their loyalty to the organisation should be recognised through seniority-based advancements.

With the disappearance of traditionalists (or the so-called silent generation, born between 1925 and 1945), boomers are considered the last generation of mono-taskers in the workplace. They are meticulous, adhere to rules, and prefer routine; they are most comfortable when tasks are completed predictably (Gursoy et al., 2008).

When faced with change, a common sentiment among this generation is *"Why change? We have always done it this way,"* echoing the idea *"If it ain't broke, don't fix it."* This cautious approach to change stems, in part, from the experiences of many boomers who lost their jobs during the recessions in the early 1980s and 1990s (Ludviga & Sennikova, 2016).

Consequently, job security is of paramount importance to them. Buahene & Kovary (2003) found that boomers may not resist change outright but are typically less enthusiastic about it than younger generations. Therefore, providing them with detailed proposals and instructions before implementing changes is crucial. They are more likely and willing to support change if it aligns with their vision.

2.6.2 Generation X and Their Workplace Characteristics

Generation X ("Gen X") refers to those born between 1965 and 1979. Gen X, the children of boomers, are also known as the 'latchkey' generation, a term reflecting their independence as they were often left alone at home after school due to their parents' work commitments (Kapoor & Solomon, 2011).

Gen X grew up during an unstable economy and social recession marked by increasing divorce rates, high crime rates, and stagflation (a combination of high inflation and economic stagnation). Family hardships and organisational downsizing were common, fostering scepticism and self-reliance in Gen X.

This cohort highly values education, prioritises production over tenure and seeks work-life balance. They advocate for leaving work-related matters at the workplace and are focused on self-care development. Gen X individuals prefer workplaces offering flexible schedules, professional growth opportunities, mentors, independence, engaging work, and time off. Access to professional development activities within their remuneration package enhances their loyalty to an organisation. They prioritise open communication and invest their loyalty in individuals rather than institutions, readily embracing change and questioning authority when necessary. If their expectations are not met, they are unhesitant to explore new job opportunities (Cahill & Sedrak, 2012; Gursoy et al., 2008).

2.6.3 Generation Y and Their Workplace Characteristics

Generation Y (“Gen Y” or “Gen Yers”) comprises individuals born between 1980 and 1999. Often referred to as millennials, 'nexters,' or trophy kids, they are also known as 'Echo Boomers' due to their connection with their baby boomer parents. Gen Y is the most populous cohort, accounting for over 40 per cent of the total workforce (Cahill & Sedrak, 2012; Piper, 2012).

Being children of ‘helicopter parents’ (a term coined for parents with a hovering approach to parenting, characterised by a hyper-focus on protecting, over-controlling, and perfecting their children), Gen Y grew up with hectic schedules filled with extracurricular activities after school, weekend classes and sports tournaments where every child receives a trophy for participating, regardless of achievement (Cahill & Sedrak, 2012). Juggling multiple extracurricular activities from a very young age, Gen Y has developed exceptional multitasking skills. Therefore, a challenging work environment often motivates them (Sharma, 2012). Moreover, Gen Y recognises the role knowledge plays in career advancement; with that in mind, they are constantly seeking opportunities to learn and advance their skills from their managers and older generations (BSC Concours, 2007, as cited in Sharma, 2012). Therefore, knowledge sharing and mentoring activities are important aspects for this generation.

Sheltered by their overprotective parents, Gen Yers have been constantly praised throughout their growing years. Helicopter parenting does not stop after Gen Yers’ developmental years; instead, it carries through from the prospective admissions stage at a higher institution (i.e., university) to graduation, continues into adulthood, and even the job market beyond. It is not uncommon to see reports of helicopter parents of Gen Yers scheduling meetings with teachers and principals disputing their child’s grade, attending career expos, and even attending job interviews with their child. Such upbringing has resulted in their constant need for recognition on the job, demands for frequent direction from managers, and the need for frequent feedback on their performance (Gozukara, 2022).

Growing up in an environment where most assignments and projects at school were completed collaboratively in teams, Gen Y has developed excellent teamwork and collaboration skills (Cahill & Sedrak, 2012; Sharma, 2012). They understand that strong teamwork can lead to better decision-making, foster creativity, and increase innovation and productivity. Such skills should be

considered a valuable contribution to organisations, especially those that require excellent teamwork, such as the healthcare sector.

Cole et al. (2002) explained that while Gen Y values teamwork and collaboration, they possess a distinct mindset compared to previous generations. They perceive teamwork as a means to achieve personal goals and to succeed in independent tasks (Kårefalk et al., 2008). In fact, literature reviews suggest that the team-orientated nature of Gen Y refers to their desire to cooperate and share information with other team members, while their individualism refers to their desire to be mentored and coached as an individual (Spiro, 2006, as cited in Gozukara, 2022). This individualism can be seen as both a strength and a weakness. On one hand, it can foster creativity and innovation by enabling each team member to bring their unique perspective to the team. On the other hand, it may result in conflicts, as team members may prioritise their individual goals over those of the team (Sharma, 2012). Therefore, managers must provide guidance and mentorship to aid in developing the skills of Gen Y employees, helping them to achieve their personal goals while simultaneously contributing to the overall organisational objectives.

Work-life balance is a high priority for Gen Y employees. These individuals tend to prioritise leisure time and value vacations and time off over income (Twenge, 2010, as cited in Valenti, 2019). According to Schawbel (2011), over one-third (37%) of Gen Y employees would be willing to take a pay cut if it meant having more flexibility in their work schedules. Such flexibility not only results in a more motivated and productive workplace but also fosters a sense of loyalty towards the organisation as it engenders feelings of respect among Gen Y employees. Furthermore, personal fulfilment is as important as income for Gen Y employees. They expect meaningful work and opportunities to advance in an organisation and value professional growth that entails challenging tasks and promotions (Valenti, 2019).

As mentioned previously, Gen Y values teamwork and collaboration. Therefore, the formation of friendships and positive working relationships with colleagues and managers is of immense importance in this cohort. They also want to learn from their colleagues and managers and expect strong relationships with their supervisors and/or mentors with frequent feedback and encouragement (Myers & Sadaghiani, 2010, as cited in Valenti, 2019). Empirical studies have found that Gen Y views strong relationships with their supervisors and managers to be

their long-term job satisfaction in the organisation (Chen & Choi, 2008; Jokisaari & Nurmi, 2009; Martin, 2005). That is to say, the greater the supervisor and managerial support, directions, and role models, the greater the job satisfaction.

Furthermore, previous studies have observed that the work values of the Gen Y cohort differ from those of Gen X and Boomers, particularly their strong desire for work-life balance, job satisfaction, and propensity to change jobs/ organisations and exhibit lower loyalty towards their employers (Anderson et al., 2017; Putriastuti & Stasi, 2019). Workplace characteristics of Gen Y employees, which include a preference for freedom, flexibility, open communication with peers and managers, and the extensive use of technology, pose challenges in cultivating loyalty and commitment towards their organisations. Most importantly, the association between job satisfaction, organisation commitment, and turnover intentions of Gen Y employees differs vastly from those of Gen X and Boomers (Lu & Gursoy, 2016). Stewart et al. (2017, p. 49) found that Gen Y is the only cohort that does not conceptually link workplace culture with organisational commitment.

Despite the limited availability of published information regarding the current demographic composition of the medical laboratory workforce in New Zealand, anecdotal evidence suggests that staff retention, particularly among Gen Y employees, has consistently been a recognised concern within the laboratory sector.

2.6.4 Generation Z and Their Workplace Characteristics

Generation Z (“Gen Z”) refers to individuals born between 2000 and 2012. Born after Gen Y or millennials, they are also known as “iGen” or “centennials.” Raised in the era of smartphones and social media, Gen Z is the first generation of true digital natives (Lanier, 2017). Kastenholz (2021) explains that Gen Z has never known a time when online ordering, sending WhatsApp messages, or FaceTiming their friends and family wasn’t possible. With the oldest of this generation now finishing university and entering the workforce, employers must understand the common traits of Gen Z and their workplace characteristics.

Unsurprisingly, Gen Z is the most racially and ethnically diverse generation. They value individuality and are passionate about making a difference (Francis & Hoefel, 2018). Growing up in the world of social media has given Gen Z a way to connect with others from diverse cultural backgrounds and circumstances; thus, they are more likely to be driven by a cultural ethos of

social justice (Meehan, 2016, as cited in Lanier, 2017). It is believed that they are the first generation to overwhelmingly expect diversity at work. When applying for jobs, Gen Z prefers to work with organisations that value diversity, equity, and inclusion. A survey conducted by Monster Worldwide, Inc. (a global employment website) has revealed that 83% of Gen Z candidates believe a company's commitment to diversity and inclusion is important (Monster Worldwide, 2023, as cited in Galarza, 2023).

In addition, Gen Z shares a great interest and social consciousness related to environmental conservation and sustainability matters, such as climate change, waste production, and carbon footprint, to name a few. Therefore, Gen Z is more aligned with, and likely to work for organisations that demonstrate their commitment to environmental responsibility. They are also more likely to prioritise both mental and physical well-being over work (Galarza, 2023).

Living through the global financial crisis and a time of political uncertainty has made Gen Z more pragmatic than other generations and more conscious of financial stability, job security, as well as safety and privacy (Benítez-Márquez et al., 2021; Lanier, 2017). Gen Z prefers flexible work arrangements and values work-life balance. With advancements in technology such as Microsoft Teams and Zoom videoconferencing being offered in many workplaces, Gen Z expects the flexibility to work when and where they feel most productive, as long as the work is completed (Randstad Canada, 2014, as cited in Benítez-Márquez et al., 2021). For Gen Z, the traditional 9 to 5 working day is an outdated concept. Although the nature of the healthcare industry can present barriers to the implementation of flexible working arrangements, organisations can offer accommodations to those whose work is less physical and could, in many cases, be carried out offsite (Mercer et al., 2014).

Regarding employee engagement and retention, research has found that Gen Z values honest and open conversations with their managers, and they welcome a mentoring approach to assist their development. Showing them how their work contributes to the organisation's strategies and brings value to the team will keep them engaged in the workplace (Benítez-Márquez et al., 2021; Lanier, 2017). In addition, Gen Z is more committed and willing to stay with organisations that exhibit strong and effective corporate social responsibility (CSR), such as community volunteering, participation in fair trade, and corporate policies that benefit the environment, to name a few (Benítez-Márquez et al., 2021).

Table 1 outlines the four different generations currently seen in the workplace and a summary of the workplace characteristics of each generation.

Table 1 Workplace Characteristics Across Four Generations in the Workplace

Generation				
	Baby Boomer	**Generation X**	**Generation Y/ Millennial**	**Generation Z**
Birth year	1946-1964	1965-1979	1980-1999	2000-2012
Significant world events	• Cold war • Post-war boom • Apollo Mission – moon landing	• End of Cold War • Fall of the Berlin Wall	• 9/11 terrorist attacks • Invasion of Iraq	• Economic downturn • Global warming
Current cohort size (%)	~18%	~21%	~42%	~19%
Workplace characteristics	• Live to work • Career equals identity • Expect loyalty from co-workers. • Seniority is more important than merit	• Self-reliant • Prefer open communication. • Respect production over tenure • Invests loyalty in a person, not in an organisation.	• Idealist • Need for feedback and reinforcement. • Work ‘with’ not ‘for’ organisations • Team-oriented yet value individualism • Want jobs that are personal fulfilment. • Work to live.	• Tech gurus and social media experts • Align with organisations that demonstrate their commitment to environmental responsibility. • Expect immediate responses to questions. • Value remote work options

2.7 Theoretical Background

Recognising the pivotal role of talent management in employee retention, various theories have emerged to support this relationship. In this section, we will explore two prominent theories: job embeddedness and social exchange. These theories highlight the strong connection between talent management and employee retention and emphasise the interrelationship between these concepts.

2.7.1 Job Embeddedness Theory

Mitchell et al. (2001) developed and introduced the job embeddedness theory after conducting extensive research spanning several decades in the banking, healthcare, and retail industries. Job embeddedness represents a broad spectrum of influences on employees' intention to stay in an organisation. These influences include both (i) on-the-job factors such as bonds with co-workers, the fits between an individual's skills and the demands of their role, as well as (ii) off-the-job factors such as personal and community commitments. Moreover, Holtom et al. (2006, p. 319) identified three critical aspects of job embeddedness that indicate the level of connection an individual may develop within the organisation, namely fit, links and sacrifice.

Fit is defined as an employee's perceived compatibility or comfort with the organisation and the environment. The theory explains that an employee's personal values and career objectives must fit with the organisation's culture and the community, as well as the employee's abilities and knowledge required to perform their job. It is assumed that the better the fit, the more likelihood an employee will feel connected to the organisation.

Links are defined as the formal or informal connections between employees, their organisation, and their community. Job embeddedness theory suggests the higher the links between an employee and their organisation (i.e., interaction between management and employees; collaboration and interaction with co-workers), the more an employee is bound to the organisation.

Sacrifice is "the perceived cost of material or psychological benefits that are forfeited by organisational departure" (Holtom et al., 2006, p. 320). Benefits may be formal, such as income, job security, and opportunities for future career advancement, or informal, such as relationships with co-workers, personal reputation, and personal significant tasks. The theory suggests that the more an employee has to sacrifice upon leaving an organisation, the more difficult it becomes to terminate their employment. In other words, organisations that aim

to enhance employee retention could contemplate increasing the perceived value of formal and informal organisational benefits.

Fuchs (2022, p. 162) stated that studying job embeddedness among young professionals, especially the Gen Y cohort, is crucial since they are often perceived as having minimal loyalty to their employers. Job embeddedness theory has the potential to significantly aid in comprehending the importance of retaining the Gen Y demographic.

2.7.2 Social Exchange Theory

Originating as early as the 1920s, Social exchange theory (SET) holds a prominent position as one of the most influential conceptual frameworks for understanding the behaviours of employees in the workplace (Cropanzano & Mitchell, 2005). While diverse perspectives on SET have developed, theorists concur that SET entails a sequence of interactions that give rise to obligations. According to SET, these interactions are viewed as interdependent, contingent upon the actions of individuals (Cropanzano & Mitchell, 2005). Furthermore, these interdependent transactions possess the capacity to foster relationships of exceptional quality. However, such outcomes are contingent upon specific circumstances.

In their study, Xuecheng et al. (2022, p. 2) provided an explanation of the widespread application of SET in understanding the relationship between employers and employees, particularly in the context of employee turnover and retention. According to SET, when employees perceive a positive exchange of resources between themselves and their organisation, they feel more inclined to stay with that organisation. Such exchange encompasses not only financial (monetary) incentives but also non-monetary benefits such as career advancement opportunities, work-life balance, and a supportive work environment, as well as non-tangible benefits such as feelings of honour and respect (Homans, 1958, as cited in Haley, 2018).

As discussed previously, the Gen Y cohort values opportunities for growth, meaningful work, work-life balance, and a flexible and supportive work environment (Smith & Nichols, 2015; Valenti, 2019). They seek not only financial incentives but also non-monetary incentives such as job satisfaction and recognition. SET highlights the importance of meeting these expectations to retain Gen Y employees. By applying SET to employee retention among the Gen Y cohort, organisations can develop strategies that foster a positive exchange of rewards.

Organisations can implement various practices to meet the expectations of Gen Y employees to improve and enhance employee retention. These practices may include providing career pathways, offering training and development opportunities, providing mentorship and coaching opportunities, fostering an inclusive workplace and positive relationships between leaders and employers, and promoting work-life balance (Lee et al., 2022; Twenge et al., 2010). By meeting these expectations, organisations can cultivate stronger relationships with Gen Y employees, leading to increased job satisfaction and organisational commitment and ultimately improving employee retention.

2.8 Enablers Pertaining to the Retention of Gen Y Employees

As discussed in Chapter 1, the purpose of this research was to survey the effect of talent management practices on employee retention among Gen Y employees in the clinical laboratory sector. This research aims to examine the relationship between perceptions of talent management practices and employees' intention to stay.

Empirical studies (Jena & Nayak, 2023; Ngotngamwong, 2020; Pasko et al., 2021) have identified several key factors that profoundly relate to Gen Y employee retention. These factors are known as 'enablers' – elements that help an organisation retain its Gen Y employees. These enablers include, but are not limited to, mentoring, strategic leadership, competency development, and knowledge sharing. Employers must comprehend these enablers to understand what Gen Y employees expect, and organisations can focus on these enablers to improve the retention of Gen Y employees. The following section explores previous research to better understand these variables.

The researcher has chosen the following enablers because these are closely related to the clinical laboratory sector.

2.8.1 Mentoring and Intention to Stay

Mentoring is a formative relationship between a skilled or more experienced individual, known as the mentor, who provides guidance, advice, and encouragement to a less experienced individual, known as the mentee (Naim & Lenka, 2017). Mentoring can be formal or informal. It provides various forms of career and psychosocial support to younger employees. Career support from a mentor may include challenging assignments or tasks, fostering competency and career development, or providing coaching, sponsorship, exposure, visibility, and protection to the mentee. Psychosocial support from a mentor may

include counselling, role modelling or providing positive regard and acceptance to the mentee (Dreher & Ash, 1990).

Effective mentoring programmes can lead to many positive outcomes, including increased self-confidence, career satisfaction, promotion, interpersonal competence, higher organisational performance, reduced stress, as well as a lower intention to leave. (Dreher & Ash, 1990; Naim & Lenka, 2017). Mentoring also promotes knowledge sharing and the exchange of experience between mentor and mentee, which further strengthens and improves the working relationship between employees and leads to a reduction in conflicts in the workplace. Weng et al. (2010, pp. 5-7), in their research on the impact of mentoring on new hospital staff nurses, have found that effective mentoring will reinforce employees' job satisfaction and commitment to the organisation. In addition, the role modelling function provided by the mentors positively influences job satisfaction and employees' willingness to remain with the organisation.

Mentoring is a developmental initiative that fulfils Gen Y's expectations to continuously learn, obtain knowledge, and receive feedback and guidance from their superiors. Moreover, exposure to influential members and imitation of behaviours through role modelling allows Gen Y employees to learn and discover effective ways of achieving career goals (Dow, 2014, as cited in Naim & Lenka, 2017). Payne & Huffman (2005) found that mentoring programme is positively related to affective and continuance commitment and has a negative effect on turnover intention. Therefore, the author assumes that mentoring has a positive relationship with Gen Y employees' intention to stay. Hence, this study proposes the following hypothesis:

H1: There is a positive correlation between mentoring and the intention to stay among Gen Y employees.

2.8.2 Strategic Leadership and Intention to Stay

Strategic leadership is defined as a person's ability to envision, think strategically, direct, inspire and work with and motivate others to initiate changes that will create a feasible future for the organisation (Ireland & Hitt, 1999). The concept of strategic leadership originated from the Upper Echelon Theory, which argues that individual experience, personal values, and traits, as well as cognitive styles of a leader, have a strong influence on the strategic decisions, vision, and future direction of an organisation (Hambrick & Mason, 1984, as cited in Naim & Lenka, 2018).

Workplace characteristics of the Gen Y cohort are significantly different than those of the previous generations. This suggests the need for adaptation and adjustment of leadership practices in the workplace. Ireland & Hitt (1999, p. 54) proposed that effective strategic leadership practices for the 21st century are: (1) develop human capital, (2) seek to release and nurture people's creativity, (3) seek to acquire and leverage knowledge (4) workflows influenced by relationships, (5) seek diversity, (6) view organisational citizens as a critical resource, (7) invest significantly in citizens' continuous development and (8) communicate a vision. It is believed that leaders who demonstrate practices associated with 21st-century strategic leadership can achieve a competitive advantage for their organisations (Ireland & Hitt, 1999).

Gen Y employees perceive high expectations, innovative ideas, shared values, and well-defined visions from their leaders. Additionally, a significant number of Gen Y employees are stepping into leadership positions. Consequently, the cultivation of leadership abilities becomes imperative for Gen Y employees to attain a competitive advantage. Leaders who strategically enhance their employees' capabilities, effectively communicate their vision, motivate employees, and prioritise career development, advancement, and relationship-building foster a positive influence on employee retention. This echoes the principles of the social exchange theory, which suggests that employees are more inclined to remain with organisations that prioritise their needs and expectations. Therefore, it is hypothesised that:

H2: There is a positive correlation between strategic leadership and the intention to stay among Gen Y employees.

2.8.3 Training, Competency Development, and Intention to Stay

Competencies encompass an individual's ability to effectively utilise their knowledge, skills, attitudes, and aptitude to accomplish a given task (Luna-Arocas & Morley, 2015). Training and competency development involves the collaborative efforts of both the employee and the organisation to maintain and enhance the employee's functional, learning, and career-related competencies. It entails an integrated approach to developmental activities that involve the mutual involvement of both the organisation and its employees (Forrier & Sels, 2003, as cited in Vos et al., 2011). These activities play a crucial role in equipping employees with the necessary knowledge and capability to effectively navigate and positively respond to various challenges encountered in the workplace. In addition, these activities allow employees to acquire new skills

such as communication, problem-solving, teamwork, and leadership, which are essential for effectively managing challenges and achieving organisational objectives.

Gen Y employees acknowledge the significance of knowledge in terms of career development and progression. They actively pursue opportunities to enhance their skills and often seek guidance from their managers and older generations. Gen Y employees demonstrate a strong desire for personal growth and have a goal-oriented mindset focused on continuous improvement and learning. As a result, they are drawn to organisations that demonstrate care and provide training opportunities for professional development for their employees.

Furthermore, previous studies have established a positive correlation between training and development and several key factors, such as job performance, satisfaction, and employee commitment (Bibi et al., 2018; Marzec & Austen, 2021; Xuecheng et al., 2022). In addition, these initiatives have also been linked to employee retention, heightened commitment, and a strong intention among employees to remain with the organisation (Chew & Chan, 2008; Oakland & Oakland, 2001). According to the principles of social exchange theory, the provision of training and competency development opportunities by employers can serve as a catalyst for employee retention. This is because such initiatives foster a sense of mutual benefit and establish reciprocal obligations as employees and organisations engage in exchange relationships (Raihan, 2012; Xuecheng et al., 2022). Therefore, it is hypothesised that:

H3: There is a positive correlation between training and competency development and the intention to stay among Gen Y employees.

2.8.4 Knowledge Sharing and Intention to Stay

Knowledge is defined as the facts, information, and skills acquired through experience or education. It is the understanding or information about a subject that one gains through experience or learning (Cambridge University Press; HarperCollins Publishers). Knowledge exists in two forms: explicit and implicit. Explicit knowledge refers to information that can be easily documented, codified, and stored, allowing for its dissemination in physical or electronic formats. Examples of explicit knowledge include tangible items such as procedures and documents. Implicit knowledge, in contrast, is a type of knowledge that is not easily expressed or articulated, often acquired through personal experience. Implicit knowledge is subjective, cognitive, and experiential in nature. Implicit knowledge can be difficult to transfer, as it is

acquired through real-life situations, mentoring, and hands-on learning experiences, such as on-the-job training (Naim & Lenka, 2018).

In a workplace, knowledge sharing activities involve the exchange of knowledge, skills, and experiences among colleagues and peers. This practice ensures that the organisation's knowledge is accessible to employees whenever required. Its advantages encompass the retention of intellectual resources and the enhancement of productivity (Nazim & Mukherjee, 2016; Yeo & Dopson, 2017). According to Hooff and Weenen (2004), knowledge sharing can be categorised into two forms: knowledge donating and knowledge collecting. They further describe that knowledge donating involves individuals communicating their intellectual capital to others, whereas knowledge collecting involves consulting colleagues and encouraging them to share their intellectual capital. Brčić & Mihelic (2015, p. 855) explained the process of knowledge sharing can occur in two ways: either spontaneously or through formal facilitation. The success of this process is significantly impacted by the behaviours exhibited by senior management and leaders, who play a crucial role in providing support and encouragement.

The significance of knowledge sharing has emerged as a pivotal aspect for organisations, especially given the diverse generational compositions present in the workplace. With the coexistence of multigenerational employees, it is vital to acknowledge the distinct role that knowledge sharing plays, particularly in light of the emergence of the Gen Y cohort, characterised by their relatively limited work experience compared to previous generations. Engaging in knowledge sharing activities holds the potential to bridge the experience gap between generations and harness the unique perspectives and insights each generation brings (Naim & Lenkla, 2016).

Naim & Lenka (2018) argue that the existing body of literature emphasises the facilitators of knowledge sharing, including organisational culture, technological capabilities, and their influence on individual and organisational commitments. However, these studies often overlook the fundamental mechanisms that mediate the direct impacts of knowledge sharing on outcome variables. Furthermore, there is a noticeable dearth of research exploring knowledge sharing specifically within the context of Gen Y employees. Gen Y employees actively seek out learning opportunities. If these opportunities are not provided, they are more inclined to consider leaving the organisation. Engaging in knowledge sharing activities has a notable impact on Gen Y employees by

fostering a culture of learning and ultimately increasing their intention to stay. Hence, this study proposes the following hypothesis:

H4: There is a positive correlation between knowledge sharing activities and the intention to stay among Gen Y employees.

2.8.5 The Mediating Role of Competency Development

In this study, not only are the direct effects explored in Hypotheses 1 to 4, but an investigation into the mediating role of competency development is also undertaken. In the context of this study, a mediating effect refers to the process through which the variable competency development intervenes in the relationship between other independent variables (in this case, mentoring, strategic leadership, and knowledge sharing) and influences the dependent variable (Generation Y employees' intention to stay).

Building upon Social Exchange Theory, the study posits that when employees perceive a positive exchange of resources with their organisation, encompassing both monetary and non-monetary benefits such as career advancement, work-life balance, and a supportive work environment, they are more likely to stay within the organisation (Homans, 1959, as cited in Haley, 2018). Competency development, a collaborative effort involving employees and organisations to enhance functional, learning, and career-related skills, stands as a pivotal factor.

Mentoring relationships are identified as instrumental in employees' learning and development, with mentors serving as role models who provide feedback and share experiences (Lankau & Scandura, 2002). Effective mentoring programmes, both formal and informal, contribute significantly to Generation Y employees' competency development, aligning personal and organisational goals (Mullen, 1994). Therefore, it is hypothesised that:

H5: Competency development mediates the relationship between mentoring and intention to stay among Gen Y employees.

Strategic leaders play a crucial role in augmenting employees' capabilities, communicating a compelling vision, and prioritising career development, thereby positively influencing retention. This resonates with the principles of Social Exchange Theory, suggesting that employees are more likely to remain in organisations that meet their needs (Vera & Crossan, 2004). Strategic leaders, by aligning Generation Y objectives with organisational strategies, facilitate continuous learning and development within the organisation, thereby

enhancing competency development (Chami-Malaeb & Garavan, 2013). Therefore, it is hypothesised that:

H6: Competency development mediates the relationship between strategic leadership and intention to stay among Gen Y employees.

Furthermore, knowledge sharing activities between different generations within the workplace are integral for an organisation's competitive advantage, fostering organisational effectiveness and individual learning (Jacobs & Roodt, 2011). Such activities contribute significantly to competency development, ultimately influencing Generation Y employees' intention to stay. Thus, it is hypothesised that:

H7: Competency development mediates the relationship between knowledge sharing and intention to stay among Gen Y employees.

2.9 Proposed Conceptual Framework

Following an extensive review of the literature concerning retention enablers for Gen Y employees, a proposed conceptual framework (Figure 2) has been developed, which forms the foundation of this research. The primary objective of this research is to investigate the relationship between specific independent variables encapsulated within talent management practices (referred to as 'enablers') and the retention of Gen Y employees within clinical laboratories in New Zealand. These enablers include mentoring, strategic leadership, competency development, and knowledge sharing. This study delves into not only the direct effects of these enablers on Gen Y employees' intention to stay but also considers the mediating role of competency development in shaping this relationship.

Figure 2 illustrates the proposed conceptual framework, outlining the talent management practices that exert influence on employees' intention to stay.

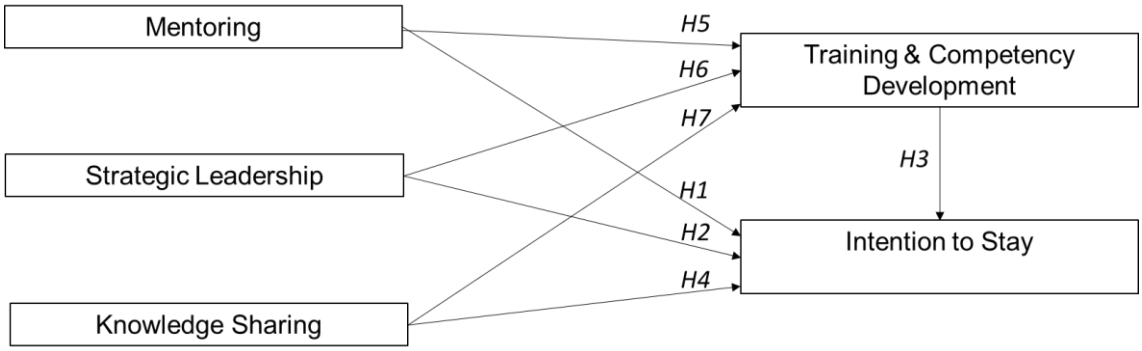

Figure 2 Proposed Conceptual Framework of Talent Management Practices that Influence Employees' Intention to Stay

In summary, this study aims to investigate the impact of talent management practices on employee retention within the clinical laboratory sector in New Zealand, with a specific focus on Gen Y employees. The study is underpinned by the following objectives:

i. Examine the concept of talent management concerning Gen Y employees in the healthcare laboratory sector.
ii. Explore the relationship between perceptions of talent management and the retention of Generation Y employees, particularly concerning competency development.
iii. Develop a conceptual framework that can effectively improve the retention of Gen Y employees in the clinical laboratory.

To address these objectives, the study proposes seven hypotheses (H) rooted in the enablers that influence Gen Y employees' retention within clinical laboratories:

i. H1: There is a positive correlation between mentoring and the intention to stay among Gen Y employees.
ii. H2: There is a positive correlation between strategic leadership and the intention to stay among Gen Y employees.
iii. H3: There is a positive correlation between training and competency development and the intention to stay among Gen Y employees.
iv. H4: There is a positive correlation between knowledge sharing activities and the intention to stay among Gen Y employees.
v. H5: Competency development mediates the relationship between mentoring and intention to stay among Gen Y employees.
vi. H6: Competency development mediates the relationship between strategic leadership and intention to stay among Gen Y employees.

vii. H7: Competency development mediates the relationship between knowledge sharing and intention to stay among Gen Y employees.

By examining these hypotheses, the study aims to shed light on the factors that influence employee retention among Gen Y professionals in the clinical laboratory context. The findings will not only enrich our understanding of talent management strategies but also offer invaluable insights into the development of targeted retention initiatives tailored specifically for this unique generation.

2.10 Chapter Summary

This chapter explores the complexities of talent management practices, generational differences, and their impact on employee retention within the clinical laboratory sector. It examines the multifaceted nature of talent management, emphasising its pivotal role in attracting, developing, and retaining skilled employees. Generational differences, spanning from baby boomers to Generation Z, are dissected, highlighting the diverse work ethics and preferences that influence workplace dynamics.

The chapter also introduces two prominent theories, namely job embeddedness theory and social exchange theory, establishing theoretical frameworks to understand employee retention. It identifies key enablers crucial for retaining Generation Y employees in the clinical laboratory sector, including mentoring, strategic leadership, competency development, and knowledge sharing. Furthermore, it examines the mediating role of competency development in shaping employees' intention to stay. These elements are synthesised into a proposed conceptual framework, forming the basis for the empirical investigation into the relationship between talent management practices and Generation Y employee retention. This in-depth exploration provides a strong foundation for the subsequent chapters, laying the groundwork for the study in the clinical laboratory sector in New Zealand.

Chapter 3
Research Methodology

3.1 Introduction

This chapter explores the design employed in this study to achieve the aims and objectives outlined in Chapters 1 and 2. Section 3.2 examines the methodology employed, providing a detailed insight into its design and application. Section 3.3 offers an overview of the sampling design and framework, explaining the rationale and methodology underpinning the selection process. Meanwhile, section 3.4 outlines the development of the online questionnaire and the origin of variables and measures. The subsequent section, 3.5, focuses on the questionnaire administration and data collection. Section 3.6 presents an in-depth exploration of the data analysis technique, focusing on the analytical methodology of structural equation modelling (SEM). Section 3.7 describes the assessment of measurement models and structural models in SEM. Finally, section 3.8 addresses the ethical considerations underpinning this study.

3.2 Methodology

This study is conducted by utilising a quantitative research method.

Quantitative research employs various methods to systematically examine social phenomena using statistical or numerical data. It relies on deductive reasoning, which involves formulating hypotheses, collecting data, analysing the collected data, and drawing conclusions to either validate or nullify the hypotheses. Quantitative research assumes that the phenomena being studied can be measured, and its primary objective is to analyse data to identify trends and correlations and validate the measurements made (Barroga & Matanguihan, 2022; Creswell, 2009).

Additionally, the data collection method employed in this study involves the use of a self-administered questionnaire. Participants voluntarily complete the survey independently using the online survey platform SurveyMonkey®. Respondents completed the online questionnaire without any involvement or guidance from the researcher. This approach promotes participation by ensuring the anonymity of the respondent's identities.

3.3 Sampling Design

Turner (2020) explains sampling is the process of selecting a smaller subset from the larger population of interest in a research study. Since it is typically impractical to

involve the entire population of interest, the researcher relies on a representative group for data collection. Sampling from the population offers practical advantages, enabling faster and more cost-effective data collection than attempting to reach every individual.

The process of sampling design encompasses the following key stages: 1) defining the target population, 2) establishing the sample frame, 3) selecting a suitable sampling technique, 4) determining the appropriate sample size, and 5) developing the instrument and collecting the required data. The subsequent sections provide a detailed explanation of each stage involved in the sampling design for this study.

3.3.1 Target Population

The target population in this study refers to a distinct group of individuals that the researcher intends to examine. This study aims to investigate the effects of talent management practices on employee retention within the clinical laboratory sector in New Zealand, with a specific focus on Gen Y employees. Therefore, the target population for this study consists of Gen Y employees (those born between 1980 and 1999) currently employed in a diagnostic laboratory in New Zealand.

3.3.2 Sample Frame

According to Taherdoost (2016), a sampling frame is described as a collection of actual cases from which a sample is chosen. It is imperative for the sampling frame to accurately represent the population of interest. To address the specific objectives of this study, the following criteria have been established:

1. The participant must have been born between 1980 and 1999.
2. The participant must be a registered laboratory professional with the Medical Sciences Council of New Zealand (MSCNZ).
3. The participant must be employed in an International Accreditation New Zealand (IANZ) accredited diagnostic laboratory.
4. The participant must be a member of the New Zealand Institute of Medical Laboratory Science (NZIMLS).

Participants who did not meet the above criteria were excluded from the study.

3.3.3 Sampling Technique

Sampling techniques can be categorised into two main types: probability sampling and non-probability sampling.

Probability sampling involves selecting a sample from a population based on randomisation or chance (Zikmund, 2002, as cited in Taherdoost, 2016). There are various methods of probability sampling, including:

1. Simple random sampling: Each case in the population has an equal chance of being included in the sample (Taherdoost, 2016).
2. Systematic sampling: Units are selected at a fixed interval from the population (Taherdoost, 2016).
3. Stratified random sampling: The population is divided into sub-groups (strata) based on certain criteria, such as location, income, or age. Random samples are then taken from each stratum (Ackoff, 1953, as cited in Taherdoost, 2016).
4. Cluster sampling: Natural groups (clusters) within the population are randomly selected, such as classrooms of students (Taherdoost, 2016).
5. Multi-stage sampling: This complex form of cluster sampling involves using different sampling methods at various stages.

In contrast, non-probability sampling does not rely on probability theory and is subjectively determined by the research. Samples obtained through non-probability sampling are more likely to be biased. Different types of non-probability sampling include:

1. Convenience sampling: Participants are chosen based on their accessibility to the researcher (Taherdoost, 2016).
2. Judgement sampling (also known as purposive or selective sampling): The research selects participants based on their suitability for the study (Taherdoost, 2016).
3. Quota sampling: The researcher focuses on specific strata within the population (Davis, 2005, as cited in Taherdoost, 2016).
4. Snowball sampling: Existing study participants recruit future participants from their acquaintances (Brewerton & Millward, 2001).

This study employed the purposive or judgement sampling technique to evaluate the designated target population. The rationale for selecting the purposive sampling method lies in the distinct nature of the study's focus, which centres on Gen Y employees (individuals born between 1980 and 1999) currently employed in a healthcare laboratory setting in New Zealand. This sampling strategy ensures a precise examination of the defined cohort, aligning with the research objectives and enhancing the study's accuracy and relevance.

3.3.4 Sample Size

Obtaining the appropriate sample size for this study has presented a challenge due to the lack of published demographic data or suggestions regarding the number of Generation Y registered medical laboratory practitioners in New Zealand. As a result, a minimum of 100 complete responses from Gen Y participants is necessary to ensure the representation of New Zealand laboratory professionals.

3.3.5 Instrument Development

In this study, data collection was executed through a self-administered online questionnaire deployed on the SurveyMonkey® platform. The process began with the distribution of invitations, along with the research participant recruitment sheet and participant information sheet, to all members of the New Zealand Institute of Medical Laboratory Science (NZIMLS). These materials, facilitated by the NZIMLS Executive Officer, included a unique link and QR code granting access to the online questionnaire. Participants were guaranteed the confidentiality of their information, and an electronic consent page within the questionnaire ensured their voluntary participation. Stringent measures were taken to maintain anonymity; no identifying data such as names, addresses, laboratory affiliations, or IP addresses were collected. Participants retained the right to withdraw from the questionnaire at any point until submission.

The decision to employ an online questionnaire in this study is grounded in several considerations:

1. Online questionnaires serve as an efficient means of reaching participants, ensuring widespread accessibility and ease of distribution.
2. Their digital nature allows for rapid and cost-effective implementation, significantly reducing the time and resources associated with traditional survey methods.
3. Online questionnaires expedite the data analysis process by eliminating the delays inherent in handling paper surveys, enabling researchers to promptly access and interpret the collected data.
4. The online format provides a level of anonymity that encourages participants to provide open and candid responses, enhancing the authenticity of the data gathered.
5. Responses obtained through online questionnaires are automatically stored in databases, minimising the risk of transcription errors. Furthermore, researchers can effortlessly export the data into various

formats, such as Excel spreadsheets, facilitating seamless data analysis procedures.

These advantages underscore the strategic choice of utilising online questionnaires as the primary data collection method for this research endeavour.

The invitation email is available in Appendix B, and detailed documents about the recruitment of research participants and the participant information sheet can be referenced in Appendices C and D, respectively.

3.4 Development of the Online Questionnaire and Origin of Variables and Measures

The core of this study lies in understanding the relationship between talent management practices and the intention to stay among Gen Y employees in New Zealand's clinical laboratory setting. To gauge these variables accurately, a questionnaire was developed, drawing inspiration from various research and literature sources. The questionnaire encompassed the measurement of five variables: Mentoring, Strategic Leadership, Competency Development, Knowledge Sharing, and Intention to Stay. These variables were carefully adapted to fit the unique context and objectives of this research endeavour.

The conceptual explanation of each variable and the corresponding measurement are presented in Table 2.

Table 2 Definition of Variables/Constructs and Its Measurement

Variables/ constructs	**Definition**	**Measurement**
Mentoring	A formative relationship in which a skilled or more experienced individual, referred to as the mentor, offers guidance, advice, and encouragement to a less experienced individual, known as the mentee.	Six items were adapted from Dreher and Ash (1990).
Strategic Leadership	The capacity of an individual to visualise, think strategically, guide, inspire, collaborate with, and motivate others to instigate transformative changes that will establish a practical and promising future for the organisation.	Six items were adapted from Duursema (2013)

Competency Development	Initiatives aimed at enhancing employees' skills and knowledge while aligning them with the strategic objectives of the organisation.	Six items were adapted from Vos et al. (2011).
Knowledge Sharing	Activities that entail the interchange of knowledge, skills, and experiences among colleagues and peers.	Six items were adapted from Hooff & Weenen (2004) and Fattah et al. (2022).
Intention to Stay	Denotes an individual's commitment or willingness to stay with an organisation for a specific duration.	Six items were adapted from Mayfield & Mayfield (2007).

The initial questionnaire was developed to address seven hypotheses and consisted of 47 questions. Following rigorous revision, modification of terminologies and collaboration with the research supervisor, a refined version containing 43 questions was developed. During the refinement process, four questions were omitted due to their incongruity with the specific focus of measuring the variable ‘Intention to Stay.’ The excluded questions were as follows:

1. I intend to leave my current organisation within the next three years.
2. I intend to leave my current organisation if I can find a better opportunity at another organisation (within the laboratory profession).
3. I intend to leave the laboratory profession.
4. Staff retention is a known issue in my department/organisation.

These questions were removed based on their negative phrasing and the potential requirement for reverse scoring, introducing complexities in data analysis.

To ensure the questionnaire’s clarity and user-friendliness, a pilot study was conducted involving five randomly selected laboratory staff members at LabPLUS, Auckland City Hospital. This phase rigorously assessed the precision of wording, comprehensibility of instructions, and the functionality of the online questionnaire platform. Following the methodology advocated by Gaddis (1998, as cited in Evans & Mathur, 2005) and Fowler (2009), this pre-testing phase was crucial in evaluating the reliability of survey instruments and data collection protocols under realistic conditions. Notably, this process led to the incorporation of explicit definitions for terms like “mentoring” and

“mentor” in questions 12 and 13, addressing participant ambiguity. Additionally, a disqualification page expressing gratitude was introduced for participants who either did not provide consent or did not meet the specified sample frame criteria, such as those born outside the years 1980 to 1999.

Subsequently, the refined questionnaire, accompanied by the invitation email, research participant recruitment sheet, and participant information sheet, underwent thorough review and approval by the Auckland University of Technology Ethics Committee (AUTEC). This process ensured ethical compliance and maintained the standards of research integrity before the questionnaire was disseminated to the target population.

The refined questionnaire was structured into two sections: Section 1 began with an electronic consent question, followed by 10 demographic questions. Section 2 consisted of 30 questions dedicated to measuring the five variables outlined in Table 2. All variables were measured by using the five-point Likert scale ranging from “strongly disagree” (1) to “strongly agree” (5). Concluding the questionnaire were two questions aimed at understanding participants’ perspectives on retaining younger staff within their department and organisation and the primary factors influencing their consideration of leaving their organisations. These final questions were designed to offer valuable insights for guiding future research initiatives.

Table 3 below outlines the questions employed to measure the five variables related to talent management practices, corresponding to the questions in Section 2 of the online questionnaire. Additionally, the coding for each question is provided for reference. The complete version of the online questionnaire is available in Appendix E.

Table 3 Questions and Coding for Talent Management Practices in Online Questionnaire (Section 2)

Variables	**Question coding**	**Questions**	**Reflected in Questionnaire**
Mentoring	M1	My current employer has a clear mentoring structure for staff.	Questions 12-17
	M2	I have regular one-on-one time with my mentor.	
	M3	My mentor shares his/her knowledge and experience with me.	
	M4	My mentor gives me assignments/ tasks that present opportunities to learn new skills.	
	M5	My mentor provides guidance and strategies for accomplishing career objectives.	
	M6	My mentor conveys feelings of respect for me as an individual.	

Strategic Leadership	SL1	My leader and I maintain a good working relationship.	Questions 18-23
	SL2	My leader listens attentively to me.	
	SL3	My leader understands my needs and provides adequate resources for me to complete my tasks.	
	SL4	My leader formulates objectives clearly.	
	SL5	My leader shares his/her experiences as an alternative perspective on my problems.	
	SL6	My leader demonstrates a clear vision for the organisation's strategic direction.	
Competency Development	CD1	I am provided with all the training necessary for me to perform my role.	Questions 24-29
	CD2	I am provided with adequate opportunities to develop my professional skills.	
	CD3	I am provided with adequate time and opportunities to attend conferences, seminars, or workshops.	
	CD4	I receive regular feedback on my performance from my superior (e.g., supervisor, leader, manager).	
	CD5	I can make use of career development plans to know what competencies I need to develop.	
	CD6	I have been assigned tasks that would develop my competencies for the future.	
Knowledge Sharing	KS1	Colleagues in my department share their knowledge and skills when I ask them.	Questions 30-35
	KS2	Colleagues in my department share any new skills they learned with me.	
	KS3	I share my work experience and know-how knowledge (tips and tricks) with my colleagues.	
	KS4	Colleagues outside of my department share their knowledge and skills when I ask them.	
	KS5	Knowledge-sharing activities (e.g., in-house seminars, grand rounds, training courses, etc.) within my organisation are sufficient.	
	KS6	Employees in my organisation take the initiative to help other employees when the need arises.	
Intention to Stay	IS1	I intend to stay at my current organisation.	Questions 36-41
	IS2	I expect to be working for my current organisation in the near future.	
	IS3	I can’t see myself working for another organisation.	
	IS4	I intend to stay in the laboratory profession because it offers ample career progression opportunities.	
	IS5	Colleagues in my department intend to stay within the organisation.	
	IS6	My department/organisation experiences low staff turnover.	

3.5 Questionnaire Administration and Data Collection

The commencement of the online questionnaire involved the distribution of official invitations to participate. An invitation email, accompanied by the research participant recruitment sheet and the participant information sheet containing a unique link and QR code, was disseminated to the members of the NZIMLS on June 27, 2022, facilitated by the NZIMLS Executive Office.

The online questionnaire was accessible on the SurveyMonkey® platform from June 27, 2022, until its closure on December 31, 2022. Throughout this period, a total of 143 valid and completed responses were collected. These responses constitute the fundamental dataset for the study. The collected data is analysed and presented in the next chapter, offering a comprehensive exploration of the study's findings.

3.6 Data Analysis

The analysis technique employed in this study is referred to as structural equation modelling (SEM).

SEM is also known as the second-generation multivariate data analysis technique. Unlike first-generation techniques such as logistic regression, multiple regression, and analysis of variance, which aim at predicting or explaining a single outcome using predictor variables, SEM offers the capability to examine complex theoretical frameworks encompassing numerous variables and their fundamental structures (J. F. Hair et al., 2021b). In addition, SEM allows researchers to construct intricate networks of interconnected variables, enabling them to investigate not solely direct associations but also the indirect and mediating relationships that exist among variables.

The following sections provide a more in-depth discussion of the practical application and sequential stages of SEM analysis, providing a comprehensive understanding of its implementation. Furthermore, the discussion expands to cover the two main categories of SEM methods, shedding light on the distinct approaches adopted within this adaptable analytical framework.

3.6.1 Structural Equation Modelling

Structural equation modelling (SEM) is commonly used in research focused on behavioural, observational, and quantitative aspects of the social sciences. It can also be used in epidemiology and the business field, such as in marketing, operations management, and strategic management (Hair Jr et al., 2013; Peng & Lai, 2012). SEM is of great value when it comes to analysing complex theoretical relationships among multiple variables (Hair & Alamer, 2022). The

primary purpose of such research is to validly explain or predict specific behaviours exhibited by individuals, groups, or organisations. By understanding the contextual conditions encompassing individuals or organisations, it becomes possible for researchers to identify and recognise observable patterns or trends and offer intricate perspectives into their realms of existence. Subsequently, researchers can pinpoint the crucial factors and relationships that drive trends within a given environment.

In general, there are two main categories of SEM*:* ***Covariance-Based SEM (CB-SEM),*** which can be analysed by using the software package of AMOS and LISREL, and ***Partial Least Squares SEM (PLS-SEM, also known as PLS path modelling or Variance-Based SEM)*** which can be analysed using software package such as SmartPLS and PLS Graph (Henseler et al., 2016).

CB-SEM is primarily used to confirm or reject theories and their underlying hypotheses (J. F. Hair et al., 2021b). It does so by determining how closely a proposed theoretical model can reproduce the covariance matrix for an observed sample dataset.

In contrast, PLS-SEM aims to explain the variance in the dependent variables by identifying and modelling the latent constructs or factors that explain the relationships among variables (Henseler et al., 2016). This is known as a 'casual-predictive' approach. Table 4 outlines the differences between the two approaches.

Table 4 Comparison Between CB-SEM and PLS-SEM (Chin & Newsted, 1999; Codita, 2011)

	CB-SEM	**PLS-SEM**
Software package	AMOS, LISREL	SmartPLS
Approach	Covariance-based	Variance-based
Objective	Parameter oriented	Prediction oriented
Model evaluation	Statistical 'fit' measures	Heuristic method
Measurement model	Mainly reflective	Reflective and formative
Sample size	Requires large sample size to obtain reliable results, especially when the model is complex	Small sample size

Model complexity	Used for more complex models with many observed variables and relationships. It is well-suited for confirmatory research	Used for exploratory research and complex models with latent constructs. More flexible when the relationships among variables are not well-established
Assumption of normality	Assumes the data follows a multivariate normal distribution	Can handle non-normally distributed data
Output	Provides fit indices such as comparative fit index (CFI) and root mean error of approximation (RMSEA) to assess model fit and the quality of the structural model	Focuses on assessing the predictive relevance and effect sizes of the latent constructs rather than model fit indices

The present study selected the PLS-SEM method for two key reasons. Firstly, the research context is characterised by its novelty, with relationships among variables not well-established. Secondly, the study employs a relatively small sample size. As highlighted by Hair et al. (2021b), PLS-SEM is efficient at handling small sample sizes and complex model structures. Additionally, PLS-SEM offers the advantage of not requiring normally distributed data and is versatile in handling both reflective and formative measurement models.

3.6.2 Path Model

A path model is a graphical representation employed to visually display the hypotheses and relationships among variables explored in SEM. Figure 3 provides an illustration of a path model.

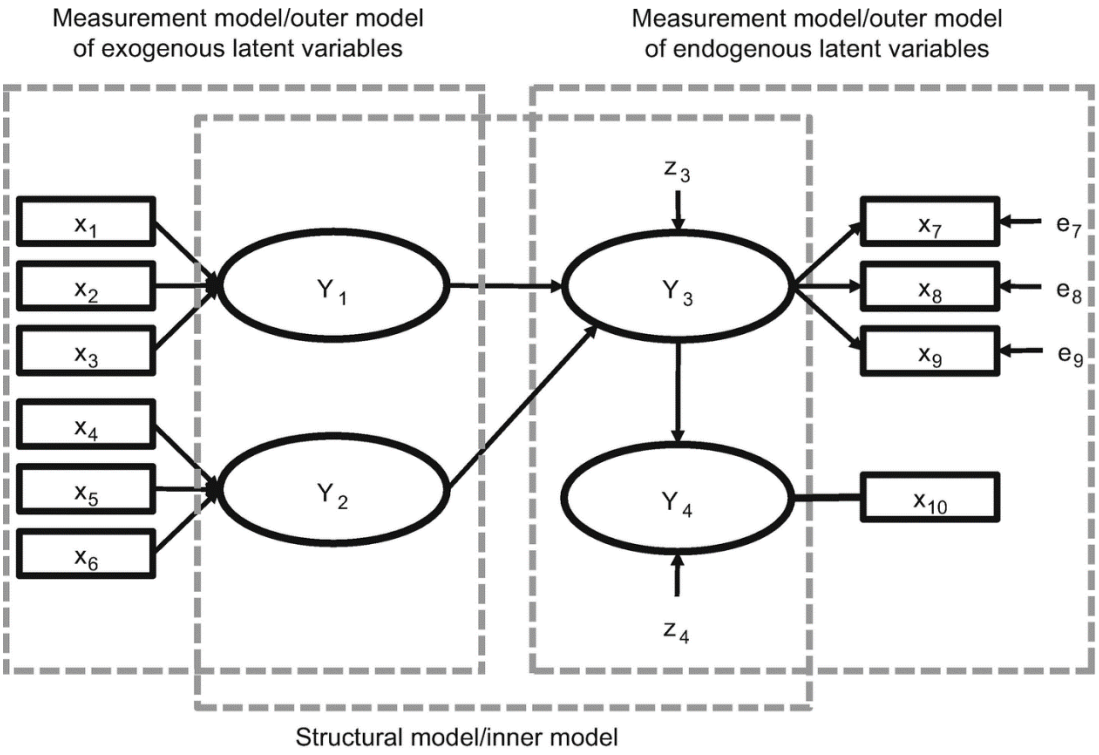

Figure 3 Example of path model (J. F. Hair et al., 2021b)

As illustrated in Figure 3, a path model comprises two primary components: the structural model (or inner model) and the measurement model (or outer model).

The structural model holds particular significance in theory development and evaluation of hypotheses. In the figure above, constructs are denoted by ovals, where hypotheses are represented by singled-headed arrows. The structural model represents the relationships (paths) connecting these constructs.

Conversely, the measurement model illustrates the association between constructs and their corresponding indicators, with indicators represented as rectangles. In the above figure, two distinct measurement models are evident: one for the exogenous latent variables (those explaining other constructs in the model) and another for the endogenous latent variables (those being explained within the model).

It is worth noting that error terms (e7, e8 and e9) are linked to the endogenous constructs and reflectively measured variables through single-headed arrows. These error terms represent the unexplained variance when path models are estimated. In other words, they signify the discrepancy between the model's in-sample prediction of a value and the observed value of the latent variable (J. F. Hair et al., 2021b).

3.6.3 Stages of SEM Analysis

SEM encompasses two key stages of analysis. The initial stage centres on validating the measurement model and ensuring the reliability of the instrument measures employed in the study. This initial stage is to ensure that the measures are appropriate for the intended target of measurement. Furthermore, this stage confirms the factor loadings associated with the measurement items. Upon fulfilling the criteria of this initial stage, the analysis progresses to the subsequent stage of SEM analysis (Hair et al., 2022).

The subsequent stage of analysis involves fitting the structural model. (Hair et al., 2022) There are two key results of testing a structural model: (i) the R-squared (R^2) estimate, which measures the proportion of variance in the dependent variable that can be explained by the independent variable; in other words, R^2 indicates how much a latent variable in the model explains the variance; and (ii) the path coefficient estimates, which explains the relationships between endogenous and exogenous variables in the model, and can also examine relationships among different endogenous variables (J. F. Hair et al., 2021b).

3.6.4 Specification of Measurement Model

In SEM, constructing the measurement model requires a systematic and logically structured description of how latent variables relate to their respective indicators for each construct within the structural model. Two distinct approaches for constructing a measurement model in SEM are ***formative*** and ***reflective*** measurement models. Each of these approaches is discussed below.

- **Formative Measurement Model:**
  A formative measurement model assumes that the emergent construct is formed by its observed indicators. Indicators represent different elements of the construct, and they are not highly correlated with each other. A formative measurement model is used when the observed variables collectively define the latent construct. Examples of formative measurement models include socioeconomic status defined by income, education, and occupation or a composite index of economic development (Hair et al., 2022).

- **Reflective Measurement Model:**
  A reflective measurement model assumes the observed indicators are caused by an underlying latent construct. Indicators are seen as multiple

measures of the same underlying concept, and they are expected to be highly correlated with each other. A reflective measurement model is used when the latent construct is believed to be a common cause of the observed variables. Examples of reflective measurement models include intelligence tests measuring overall intelligence or survey questions measuring job satisfaction (Hair et al., 2022).

Figure 4 illustrates the relationship between formative and reflective indicators and their constructs.

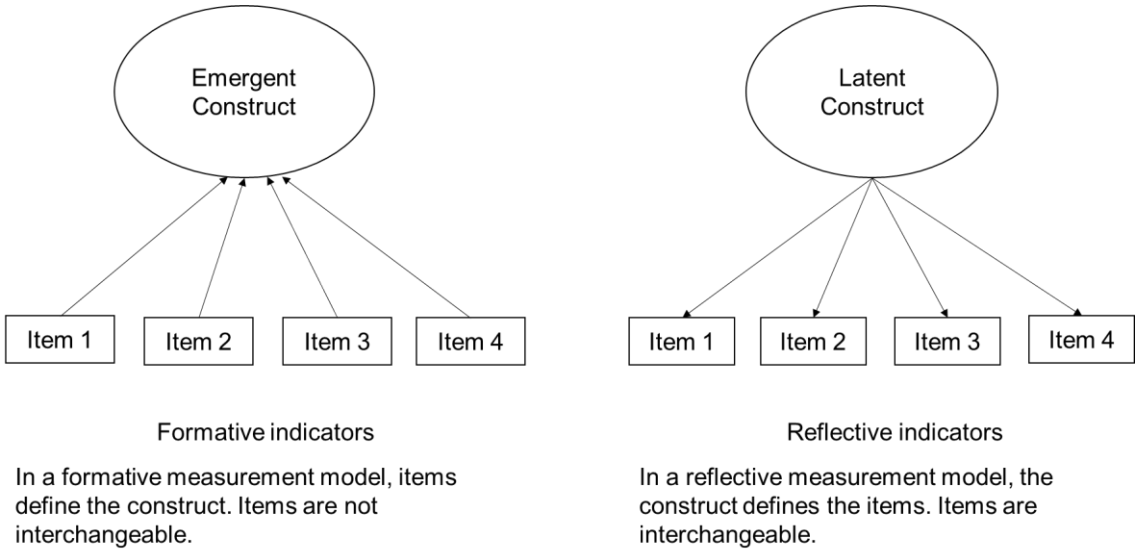

Figure 4 Formative and Reflective Indicators (Chin, 2010).

Accurately determining and specifying the chosen measurement model is crucial in SEM because it plays a vital role in establishing the relationships between variables within the structural model. Furthermore, the selection of the appropriate measurement model holds paramount importance, as an erroneous choice can jeopardise the content validity of constructs, misrepresent the structural relationships between them, and yield an inaccurate analysis with misleading outcomes. Such inaccuracies can, in turn, lead to an incorrect interpretation of the research theory (Coltman et al., 2008).

The present study opted for the reflective measurement model as the preferred approach for constructing the measurement model within SEM.

3.7 Measurement Model and Structural Model Assessment

3.7.1 Measurement Model Assessment

The primary objective of the measurement model or outer model assessment is to evaluate the reliability of individual indicators in terms of internal consistency and convergent and discriminant validity (Hair et al., 2022).

Reliability refers to the consistency of measurement. In the context of a PLS model, it ensures that the indicators used to measure latent variables provide consistent and dependable results over time. Reliability is assessed using metrics such as Cronbach's alpha (α) and composite reliability (CR). A high Cronbach's alpha value (>0.70) indicates good internal consistency among the items on a scale. CR assesses the consistency of indicators and should be >0.60 for reliable measurement (Hair et al., 2022).

Validity refers to the accuracy of measurement. Validity assesses whether the indicators used to measure a latent variable are truly measuring what they are intended to measure. In a PLS model, validity is assessed through both convergent validity and discriminant validity. Convergent validity is established when different indicators that are supposed to measure the same latent variable produce similar results. Convergent validity is assessed using metrics such as the average variance extracted (AVE), where an AVE value >0.50 indicates good convergent validity. On the other hand, discriminant validity ensures that indicators do not measure other latent variables too closely. This is assessed using the Fornell-Larcker criterion, which compares the square root of the AVE of each latent variable with the correlation between those variables and other latent variables. Discriminant validity is established if the square root of the AVE for a latent variable is greater than its correlations with other variables (Hair et al., 2022). In the current study, assessments for both reliability and validity were performed, and the results are detailed in the next chapter.

3.7.2 Structural Model Assessment

The primary objective of the structural model or inner model assessment is to examine the relationships between latent variables and assess the overall validity and predictive power of the proposed structural model. In PLS, the structural model represents the relationships between latent variables, indicating how one latent variable influences another. The structural model is assessed through the coefficient of determination (R^2) and path coefficients.

In the structural model, the coefficient of determination (R^2) signifies the proportion of variance in the endogenous or dependent variable explained by the exogenous or independent variables. In PLS, R^2 is calculated for each endogenous latent variable to indicate how well the model accounts for the variance in that variable. A higher R^2 value suggests that a larger proportion of the variance in the dependent variable is explained by the independent variables in the model. (Wong, 2013) recommended the R^2 value should be >0.2.

Path coefficients, denoted as β or path loadings, represent the strength and direction of the relationship between latent variables in the structural model. In other words, they indicate how much a change in the independent variable influences the dependent variable. Path coefficients are crucial for understanding the relationships hypothesised in the research model. A positive coefficient indicates a positive relationship (i.e., an increase in one variable leads to an increase in the other), while a negative coefficient indicates a negative relationship (i.e., an increase in one variable leads to a decrease in the other). The symbol beta (β) is commonly used to represent path coefficients, also known as beta coefficients in a PLS model, representing the standardised measure of such relationships (Hair et al., 2011b). In PLS, the path coefficients, p-values, and t-value statistics are reported. A path coefficient threshold of 0.20 or higher is recommended (Chin, 1998).

P-values, also known as probability values, indicate the statistical significance of a particular path coefficient. P-values are used in hypothesis testing to assist researchers in determining whether the observed data provides enough evidence to reject the null hypothesis. A p-value of <.05 suggests that the observed relationship between variables is statistically significant.

The t-value or t-statistic is another measure used to assess the significance of a path coefficient. The t-value represents the number of standard deviations a sample estimate is from the population parameter. A higher absolute t-value indicates a more significant result. In PLS path modelling, a larger t-value in conjunction with a low p-value suggests a stronger and more statistically significant relationship between variables. Hair et al. (2011a) recommended the threshold for a t-value of 1.64 and above.

In PLS analysis, the significance of path relationship estimates is assessed through a bootstrapping technique. Bootstrapping is a resampling technique used in statistics to estimate the distribution of a statistic by repeatedly resampling with replacement from the observed data. Bootstrapping involves creating multiple new

samples, known as bootstrap samples, from the original dataset by randomly selecting data points with replacements. This means that each data point can be selected more than once in a single bootstrap sample, while some data points might not be selected at all. For each bootstrap sample, the PLS algorithm is applied to estimate the path coefficients in the structural model. This process is repeated numerous times to create a distribution of path coefficients. From that, confidence intervals are calculated. Confidence intervals provide a range within which the true population parameter (in this case, the path coefficient) is likely to fall. Researchers can conduct hypothesis testing to assess the significance of path coefficients. If the confidence interval does not include zero, it indicates that the corresponding path is statistically significant at a certain confidence level (e.g., 95%). Bootstrapping provides more robust and accurate estimates of the standard errors and confidence intervals, especially when the underlying data distribution is not normal (Chin, 1998; Hair et al., 2011a). Moreover, it does not rely on assumptions about the shape of the data distribution and is particularly useful in cases where traditional parametric methods might not be applicable. In the present study, the bootstrapping technique was applied with 5000 samples randomly drawn with replacement and a 95% confidence level was used.

In summary, the present study adopts a cross-sectional approach, utilising an online questionnaire for data collection. The validation of research questions and hypotheses was performed using the partial least squares structural equation modelling (PLS-SEM) technique. The data analyses encompassed all the techniques described above, which are critical for a thorough and effective PLS analysis. The results will be presented in the following chapter.

3.8 Ethical Considerations

In research methodology, ethical principles carry significant importance as they reflect the researcher's professional conduct during the research process. The aim of considering ethics is to safeguard all parties involved in data collection and the utilisation of information derived from the study. This includes protecting the rights of the researcher, participants, and the researcher's institution (Creswell, 2009).

In addition, it is a prerequisite that any research carried out at AUT University receives approval from the Auckland University of Technology Ethics Committee (AUTEC). This step ensures that research conducted under this approval adheres to the stipulations outlined in the human ethics application. These provisions encompass principles such

as obtaining informed consent, preserving privacy, practising truthfulness, preventing conflicts of interest, and showing respect for cultural values.

Ethical approval for this study was granted by AUTEC on 12 April 2022 for three years until 12 April 2025 (reference number: 21/320).

The utilisation of the online questionnaire method enabled participants to complete the survey at their convenience, mitigating potential pressure or psychological stress. To address any potential risks, participants were made aware that: (a) participation was voluntary, and they could decline to answer at any point before submission; (b) their responses remained completely anonymous; (c) the data shared would exclusively be used for this study; and (d) participants held the right to withdraw at any point until their responses have been submitted, but withdrawal was not possible post-submission. Furthermore, participants' confidentiality and privacy were diligently upheld, and electronic data were stored following AUT's data management guidelines in a secure file within the I: drive. This secure storage is maintained for a minimum of six (6) years, after which data will be permanently removed.

3.9 Chapter Summary

In this chapter, a detailed exploration of the methodological framework and analytical techniques employed in this study was presented. The development of the research instrument, from its conceptualisation to refinement and pre-testing, was outlined. The chapter concluded with a discussion of the post-data collection data treatment processes, including assessments of measurement and structural models. Additionally, ethical considerations pertinent to this study were examined, providing a comprehensive overview of the research methodology and its ethical underpinnings.

Chapter 4
Data Analysis and Findings

4.1 Introduction

This chapter provides a comprehensive analysis of data collected through the online questionnaire employed in this study. The research findings are examined, incorporating various statistical analyses conducted using the SmartPLS 4 software. Section 4.2 provides a detailed overview of the demographic landscape of the research participants - Gen Y employees currently employed in diagnostic laboratories in New Zealand. This section explores crucial aspects such as their training, experience, geographic distribution, and diverse professional roles within the workforce. In Section 4.3, preliminary data analysis is undertaken, addressing missing data, multicollinearity, the normality of the dataset, and common method bias. Following this, Section 4.4 presents the validation of the measurement model, including assessments of reliability and validity. Section 4.5 delves into the validation of the structural model. Sections 4.6 and 4.7 explore further the validation of both the direct and mediation effects among latent variables. Lastly, Sections 4.8 and 4.9 explore the factors influencing Gen Y employees' considerations to leave their respective organisations, offering valuable insights for guiding future research endeavours.

4.2 Descriptive Statistics

The participants of this study were Gen Y employees (those born between 1980 and 1999) who are currently employed in a healthcare laboratory in New Zealand. As noted in Chapter 3, 143 complete questionnaire responses were obtained for analysis.

Tables 5 – 7 present the overall questionnaire information. Tables 8 – 16 present the descriptive statistics for the complete responses.

Table 5 provides a breakdown of survey responses based on participants' consent status. Out of the total 166 responses, 160 participants provided their consent and were included in the data analysis. 6 participants were excluded from the study due to a lack of consent.

Table 5 Summary of Survey Responses

Total responses	166	**Remarks**
Consent given	**160**	Included in data analysis
Consent not given	6	Excluded from data analysis

Table 6 displays the distribution of participants based on their birth years, categorised into different generations. Participants falling within Generation Y (born between 1980 and 1999) were included in the analysis, while individuals from other generations were excluded from the study.

Table 6 Demographic Distribution of Participants

Birth year of participants	**Frequency**	**Remarks**
Between 1946 and 1964 (Baby Boomers)	2	Excluded from data analysis
Between 1965 and 1979 (Generation X)	8	Excluded from data analysis
Between 1980 and 1999 (Generation Y)	**147**	Included in data analysis
Between 2000 and 2012 (Generation Z)	3	Excluded from data analysis
Total	160	

Table 7 presents an overview of survey responses, distinguishing between complete and incomplete responses. A total of 147 responses were received from the Gen Y cohort, of which 143 complete responses were considered for data analysis. The study excluded four incomplete responses, which were scrutinised and found to be partially filled out (e.g., respondents completed Section 1 but did not finish the entire questionnaire) before exiting the online platform. Consequently, these incomplete responses were omitted from the data analysis.

Table 7 Summary of Survey Responses from Generation Y Cohort

	Frequency	**Remarks**
Complete responses	**143**	Included in data analysis
Incomplete responses	4	Excluded from data analysis
Total	147	

Table 8 illustrates the distribution of participants based on their training origin. Among the 143 participants, 105 were trained in New Zealand, and 38 received their training outside of New Zealand.

Table 8 Training Origin of Participants

	Frequency	Percentage (%)
Participants trained in New Zealand	105	73
Participants trained outside of New Zealand	38	27
Total	143	100

Table 9 provides an overview of participants' Annual Practising Certificate (APC) status with the Medical Sciences Council of New Zealand (MSCNZ). Among the total 143 participants, 142 currently hold an APC, while 1 participant does not hold a current APC.

Table 9 Current APC Status of Participants

	Frequency	Percentage (%)
Participants hold a current APC	142	99
Participants do not hold a current APC	1	1
Total	143	100

Table 10 presents the distribution of participants based on their current scope of practice. Of the total 143 participants, 16 were Medical Laboratory Pre-Analytical Technicians, 24 were Medical Laboratory Technicians, and 103 were Medical Laboratory Scientists.

Table 10 Participants' Current Scope of Practice in Medical Laboratory Science

Scope of Practice participants currently hold	Frequency	Percentage (%)
Medical Laboratory Pre-Analytical Technician (MLPAT)	16	11
Medical Laboratory Technician (MLT)	24	17
Medical Laboratory Scientist (MLS)	103	72
Total	143	100

Table 11 illustrates the distribution of participants based on their years of experience as registered laboratory professionals. Among the total of 143 participants, 3 individuals have less than 1 year of experience, 44 participants have worked between 1 to 5 years, 57 participants have 6 to 10 years of experience, and 39 participants have worked over 10 years in the profession.

Table 11 Years of Experience as Registered Lab Professionals

Years of Experience as a Registered Lab Professional	Frequency	Percentage (%)
Less than 1 year	3	2
1 to 5 years	44	31
6 to 10 years	57	40
Over 10 years	39	27
Total	143	100

Table 12 provides an overview of participants' workplace locations. Among the 143 respondents, 95 participants worked in metropolitan or large urban areas, 36 participants worked in secondary urban areas, and 12 participants were based in minor urban areas. Notably, no respondents indicated employment in rural areas.

Table 12 Geographical Distribution of Participants' Workplaces

Geographical distribution of the participants' workplace	Frequency	Percentage (%)
Metropolitan/ large urban areas (population of 30,000+)	95	66
Secondary urban areas (population between 10,000 to 29,999)	36	25
Minor urban areas (population between 1,000 to 9,999)	12	8
Rural area (population up to 999)	0	0
Total	143	100

Table 13 provides an overview of the primary employers of the participants. Seventy-two participants were employed in public hospital laboratories, while 71 participants were employed in community or private laboratories.

Table 13 Primary Employers of Participants

	Frequency	Percentage (%)
Public hospital laboratories	72	50
Community/ private laboratories	71	50
Other (please specify)	0	0
Total	143	100

Table 14 provides an overview of the job titles held by the participants. Of the 143 respondents, 16 were MLPATs, and 25 were MLTs. The majority of participants, 58 in total, held the position of MLS. Additionally, there were 15 Senior MLTs/MLSs, 13 Technical Specialists/Second in-Charge, 10 Section Leaders/Charge Scientists, and 3 individuals in the role of Head of Department/Unit Manager or a relevant position. There were also 3 participants in other management roles.

Table 14 Job Titles of Participants

Job titles	**Frequency**	**Percentage (%)**
Medical Laboratory Pre-Analytical Technician (MLPAT)	16	11.19
Medical Laboratory Technician (MLT)	25	17.48
Medical Laboratory Scientist (MLS)	58	40.56
Senior MLT/ Senior MLS	15	10.49
Technical Specialist/ Second in-charge	13	9.09
Section Leader/ Charge Scientist	10	6.99
Head of Department/ Unit Manager or relevance	3	2.10
Other management role	3	2.10
Total	143	100

Table 15 presents data regarding the participants' experience of working overseas as registered laboratory professionals. Among the respondents, 51 individuals have worked overseas, while 92 participants have not worked overseas.

Table 15 Experience of Working Overseas

	Frequency	**Percentage (%)**
Have worked overseas	51	36
Have not worked overseas	92	64
Total	143	100

Table 16 displays participants' intentions regarding working overseas again. Among the respondents, 16 individuals expressed their intention to work abroad in the future, while 64 participants did not plan to pursue overseas opportunities. Additionally, 63 respondents remained unsure.

Table 16 Intention to Work Overseas Again

	Frequency	**Percentage (%)**
Intend to work overseas again	16	11
Not intend to work overseas again	64	45
Unsure	63	44
Total	143	100

The descriptive information was captured in Section 1 of the online questionnaire. As previously discussed, only Generation Y participants were included in this study. The data revealed that a significant majority of participants (73%) received their training within New Zealand, indicating a profound understanding of the local workplace culture. Additionally, 72% of the participants held the Medical Laboratory Scientist scope of practice.

Examining the participants' work experience, the study portrayed a diverse range, spanning from less than 1 year to over a decade, with a well-distributed representation across these categories. Notably, a substantial portion (67%) possessed six or more years of experience, suggesting a cohort of knowledgeable professionals. Geographically, participants were dispersed across various workplace locations, with a significant majority (66%) situated in metropolitan areas. Interestingly, an equitable distribution was observed between those employed in public hospital laboratories (50%) and community/private laboratories (50%), indicating a balanced representation in both sectors.

In terms of job titles, participants demonstrated a broad spectrum of positions within the profession, including MLPATs, MLTs, MLSs, Senior MLTs/MLSs, Technical Specialists/Second in-Charge, Section Leaders/Charge Scientists, as well as managerial positions such as Head of Department/Unit Manager and other management roles. This diverse distribution of roles highlights the comprehensive nature of the profession, encompassing individuals engaged in various aspects of laboratory work. From pre-analytical technicians to scientists and managerial personnel, the study's participant pool displays varying levels of expertise and responsibilities, highlighting the diverse and comprehensive nature of the workforce in this study.

4.3 Preliminary Data Analysis

To ensure the integrity of the dataset, several data simplification procedures were implemented before data analysis. Preliminary data screening is a fundamental step in empirical research as it unveils the intrinsic characteristics of the dataset. Potential challenges in empirical research, such as issues related to missing data, multicollinearity, skewness, and non-normality, among others, can impact the quality of the collected data. Therefore, a systematic assessment was conducted to address these concerns, specifically focusing on the identification of missing data, assessment of multicollinearity, examination of skewness, and evaluation of normality. These assessments preceded the subsequent phases of measurement and structural model analyses, and the details of these procedures are explained in the subsequent sections.

4.3.1 Missing Data Analysis

Missing data in questionnaire responses can arise due to respondents' inability or reluctance to answer specific questionnaire sections or due to administrative mishaps such as transcription errors during data processing. In this study, any incomplete questionnaires were excluded, significantly reducing the likelihood of missing data. Moreover, a mandatory response rule was implemented in the online questionnaire, ensuring that participants provided answers to all questions. If a question was left unanswered, a warning message would appear, prompting respondents to complete the question before advancing to the next section or submitting the questionnaire. Furthermore, the data collected from online questionnaires were directly exported in Excel format and imported into SmartPLS 4, eliminating the need for manual transcription and thereby minimising the risk of missing data. In addition, SmartPLS 4 can identify missing data within the dataset, as outlined in Table 4. It can be affirmed that the dataset analysed in this study was free from any missing data.

4.3.2 Multicollinearity

Multicollinearity occurs when strong correlations are present between two or more predictors within a model (Field, 2018). Although correlations among items within and across constructs are anticipated, excessively high correlations can complicate multivariate analysis. According to Field (2018), assessing multicollinearity involves examining the correlation matrix of predictor variables to identify multicollinearity, focusing on correlations of 0.80 or higher. In this study, potential multicollinearity was evaluated through the analysis of bivariate correlations among all measurement scale items on the research constructs.

Correlations equal to or above 0.80 between items within constructs indicate the presence of multicollinearity. The results of the bivariate correlations analysis presented in Appendix F revealed no evidence of multicollinearity within the dataset.

4.3.3 Normality

In statistics, normality refers to the distribution of data points within a dataset. A dataset is considered normal or normally distributed when its distribution follows a symmetrical, bell-shaped curve in a histogram (Hair et al., 2013). Normality constitutes a crucial assumption in various statistical methods, ensuring the validity of the obtained results. Deviations from this normality assumption can significantly impact the reliability of the analysis (Hair et al., 2022).

In SmartPLS 4, the assessment of data normality can be conducted through the output of descriptive statistics. SmartPLS 4 computes descriptive statistics of each variable, encompassing measures such as mean, standard deviation, skewness, and excess kurtosis. In this study, skewness and excess kurtosis are used to assess the normality of the dataset. Excess kurtosis measures the sharpness of the peak of a probability distribution, indicating whether the data are heavy-tailed or light-tailed compared to a normal distribution. Negative excess kurtosis values signify a distribution with lighter tails than normal, indicating a lower prevalence of extreme values. Skewness, on the other hand, measures the asymmetry in the data distribution. A skewness value of zero signifies perfect symmetry, while negative skewness indicates a leftward skew, and positive skewness indicates a rightward skew (Hair et al., 2022).

Table 17 below presents a descriptive analysis of each variable.

Table 17 Descriptive Statistics and Normality Assessment of Study Variables

	N	Mean	Median	Observed min	Observed max	Std. dev	**Excess kurtosis**	**Skewness**
M1	143	3.119	4	1	5	1.371	-1.342	-0.168
M2	143	3.217	4	1	5	1.189	-1.192	-0.202
M3	143	2.587	2	1	5	1.026	-0.511	0.389
M4	143	2.930	3	1	5	1.042	-0.770	0.404
M5	143	2.881	3	1	5	1.119	-1.079	-0.005
M6	143	2.343	2	1	5	1.052	-0.448	0.441
SL1	143	2.615	2	1	5	1.017	-0.501	0.348
SL2	143	2.664	3	1	5	1.017	-0.216	0.473
SL3	143	2.797	3	1	5	1.007	-0.241	0.294
SL4	143	2.874	3	1	5	1.030	-0.513	0.372
SL5	143	2.881	3	1	5	0.972	-0.547	-0.128

SL6	143	2.825	3	1	5	0.934	-0.720	0.097
CD1	143	2.832	3	1	5	1.017	-0.675	0.223
CD2	143	2.776	3	1	5	0.934	-0.158	0.307
CD3	143	2.692	3	1	5	0.910	-0.352	-0.080
CD4	143	2.860	3	1	5	0.850	-0.333	0.135
CD5	143	3.168	3	1	5	0.996	-0.639	-0.044
CD6	143	2.748	3	1	5	0.927	-0.241	0.311
KS1	143	2.671	3	1	5	0.826	-0.320	0.079
KS2	143	2.650	3	1	5	0.822	-0.467	0.349
KS3	143	2.266	2	1	5	0.844	-0.012	0.377
KS4	143	2.699	3	1	5	0.690	0.237	0.222
KS5	143	2.699	3	1	4	0.916	-1.082	0.140
KS6	143	2.783	3	1	5	1.011	-0.717	-0.003
IS1	143	3.147	3	1	5	1.122	-1.239	0.006
IS2	143	2.944	3	1	5	1.029	-1.080	0.074
IS3	143	2.615	2	1	5	0.982	-0.306	0.390
IS4	143	2.895	3	1	5	0.944	-0.600	0.111
IS5	143	2.685	3	1	5	1.067	-1.197	-0.040
IS6	143	2.692	3	1	5	0.977	-0.370	0.244

In the dataset obtained for this study, all excess kurtosis values were below 1.5, and all skewness values were less than 0.5. Consequently, there are no issues concerning normality.

It is also worth noting that in studies utilising the PLS analytic method,c deviations from normality are not concerning. This is due to the robustness of the PLS software's bootstrapping feature, which is capable of effectively managing issues related to non-normality (Hair et al., 2022).

4.3.4 Common Method Bias

In PLS-SEM, common method bias (CMB) refers to a systemic error that arises when respondents consistently provide similar responses to survey questions due to the measurement method rather than accurately reflecting the underlying constructs. This uniformity in responses has the potential to inflate relationships between variables, possibly compromising the accuracy and validity of study findings (Podsakoff et al., 2003).

CMB commonly occurs in research utilising self-report questionnaires. It is caused by the measurement method itself, not the inherent relationships within the model. Factors such as questionnaire instructions or implicit social desirability can induce respondents to share common variations in their answers, introducing bias into the collected data. Therefore, addressing CMB in PLS-SEM is crucial to ensure the reliability of the results (Kock, 2015).

The statistical approach used to assess CMB involved measuring the Variance Inflation Factor (VIF) values. VIF measures how much the variance of an estimated regression coefficient increases when the predictors are correlated. In the context of CMB, high correlations between variables may indicate potential bias. Kock (2015) suggests that the VIF values of the inner model should be equal to or less than 3.3 to be considered free of common method bias.

In the current study, VIF values of the inner model, obtained through SmartPLS 4, are lower than 3.3 (refer to Table 18). Consequently, the model can be deemed free from common method bias.

Table 18 VIF values of the inner model

	VIF
Mentoring -> Intention to Stay	2.680
Strategic Leadership -> Intention to Stay	3.184
Competency Development -> Intention to Stay	2.855
Knowledge Sharing -> Intention to Stay	2.757
Mentoring -> Competency Development	2.523
Strategic Leadership -> Competency Development	2.638
Knowledge Sharing -> Competency Development	2.628

4.4 Validation of the Measurement Model

This section examines the reliability and validity of the proposed model. The results obtained from this phase facilitate a comparison between the theoretical framework, the structural model, and the collected data. The model's reliability is assessed using internal consistency reliability techniques, and its validity is determined through measures of convergent and discriminate validity.

4.4.1 Internal Consistency Reliability

Reliability ensures that items employed to measure a construct are interrelated and can be treated as a coherent set. The reliability of a construct is evaluated independently based on internal consistency. Two commonly used methods to assess internal consistency reliability are Cronbach's alpha and Composite Reliability (CR) (Hair et al., 2011b).

In this study, both Cronbach's alpha and CR were used to evaluate the scales' reliability. A Cronbach's alpha value above 0.70 signifies good internal consistency among the items within a scale. CR evaluates the consistency of indicators and should exceed 0.60 to ensure reliable measurement (Hair et al., 2011b). As demonstrated in Table 19, the Cronbach's alpha values for each

construct in this study exceed the recommended threshold of 0.70. Likewise, the CR values for each construct exceed the suggested threshold of 0.60. The results from the internal consistency reliability assessment validated the subsequent structural model analysis.

Table 19 Internal Consistency Reliability

Construct	N of items	Cronbach's alpha	Composite reliability (CR)
Mentoring	6	0.906	0.928
Strategic Leadership	6	0.919	0.937
Competency Development	6	0.895	0.920
Knowledge Sharing	6	0.905	0.926
Intention to Stay	6	0.909	0.929

4.4.2 Reliability Assessment of Indicators

The reliability of measurement items was evaluated by examining their outer loadings, also referred to as factor loadings. These outer loadings indicate the strength and direction of the relationship between observed indicators (manifest variables) and their corresponding latent constructs (factors) within the measurement model. In essence, outer loadings quantify the extent to which each indicator contributes to the measurement of the underlying construct. An outer loading value exceeding 0.70 is considered strong, signifying a substantial relationship between the indicator and the latent construct. Outer loadings between 0.50 and 0.70 are considered moderate, whereas loadings below 0.50 are considered weak.

In this study, all measurement items exceeded the recommended threshold of 0.70, with outer loadings ranging from 0.750 to 0.878. The specifics of the measurement model assessment, encompassing the outer loadings for each indicator and the CR values for each construct, are presented in Table 20. These results confirm the internal consistency reliability of the measurement instruments employed in this study.

Table 20 Outer Loadings and CR Values for Each Indicator and Construct

Constructs	Items	Outer Loadings	CR
Mentoring	M1	0.870	0.928
	M2	0.753	
	M3	0.833	
	M4	0.822	

	M5	0.861	
	M6	0.808	
Strategic Leadership	SL1	0.834	0.937
	SL2	0.849	
	SL3	0.848	
	SL4	0.878	
	SL5	0.844	
	SL6	0.806	
Competency Development	CD1	0.851	0.920
	CD2	0.845	
	CD3	0.762	
	CD4	0.810	
	CD5	0.842	
	CD6	0.750	
Knowledge Sharing	KS1	0.854	0.926
	KS2	0.832	
	KS3	0.787	
	KS4	0.775	
	KS5	0.840	
	KS6	0.846	
Intention to Stay	IS1	0.782	0.929
	IS2	0.834	
	IS3	0.865	
	IS4	0.786	
	IS5	0.863	
	IS6	0.839	

4.4.3 Convergent Validity

Convergent validity evaluates the positive correlation among various indicators within the same construct (Cheung et al., 2023). This assessment also accounts for item reliability and construct reliability. Convergent validity can be determined by examining either the outer loading of the indicators or the Average Variance Extracted (AVE), the latter being a crucial measure for estimating construct validity. AVE quantifies the extent to which items within a construct converge or are correlated with one another. According to Hair et al. (2011a), an AVE value of at least 0.50 signifies satisfactory convergent validity. As demonstrated in Table 21, the AVE values for the constructs in this study range from 0.658 to 0.711. All AVE values exceed the recommended threshold of 0.50, indicating that the constructs used in this study exhibit convergent validity. This confirms the relationships between the indicators within each construct.

Table 21 Assessment of Convergent Validity

Construct	Average variance extracted (AVE)
Mentoring	0.681
Strategic Leadership	0.711
Competency Development	0.658
Knowledge Sharing	0.677
Intention to Stay	0.687

4.4.4 Discriminant Validity

Discriminant validity analysis is crucial in establishing the independence of constructs within an SEM, ensuring that measures designed to measure distinct concepts are indeed unrelated. Two commonly used methods for assessing discriminant validity in SEM are the Fornell-Larcker criterion and the cross-loadings technique (J. Hair et al., 2021).

The Fornell-Larcker criterion compares the square root of the AVE of each construct with the correlations between that construct and other constructs in the model. According to Hair et al. (2022), the square root of the AVE should exceed the correlations among latent constructs. In this study, Table 22 presents the results of this analysis. Bold values in Table 22 represent the square roots of AVEs, while the intercorrelation values between constructs are provided. The diagonal values, representing the square root of AVE, are notably higher than the off-diagonal correlations, meeting the criterion for discriminant validity.

Additionally, the cross-loading technique involves assessing whether items load more substantially on their intended constructs than on other constructs. In Table 23, the cross-loading values of each item are presented. These values confirm that each item predominantly loads on its respective construct, substantiating the discriminant validity of the measurement model.

Table 22 Discriminant Validity – Fornell-Larcker Criterion

	Competency Development	Intention to Stay	Knowledge Sharing	Mentoring	Strategic Leadership
Competency Development	**0.811**				
Intention to Stay	0.775	**0.829**			
Knowledge Sharing	0.705	0.692	**0.823**		
Mentoring	0.705	0.749	0.724	**0.825**	
Strategic Leadership	0.764	0.764	0.738	0.725	**0.843**

Table 23 Discriminant Validity – Cross Loadings

	Competency Development	Intention to Stay	Knowledge Sharing	Mentoring	Strategic Leadership
CD1	**0.851**	0.691	0.608	0.623	0.679
CD2	**0.845**	0.672	0.623	0.650	0.703
CD3	**0.762**	0.497	0.458	0.431	0.526
CD4	**0.810**	0.677	0.502	0.476	0.611
CD5	**0.842**	0.637	0.674	0.720	0.620
CD6	**0.750**	0.572	0.537	0.488	0.555
IS1	0.717	**0.782**	0.691	0.759	0.663
IS2	0.601	**0.834**	0.512	0.580	0.637
IS3	0.667	**0.865**	0.543	0.589	0.674
IS4	0.569	**0.786**	0.468	0.501	0.578
IS5	0.581	**0.863**	0.587	0.613	0.602
IS6	0.688	**0.839**	0.605	0.641	0.627
KS1	0.576	0.610	**0.854**	0.623	0.652
KS2	0.658	0.656	**0.832**	0.589	0.642
KS3	0.491	0.492	**0.787**	0.620	0.578
KS4	0.562	0.371	**0.775**	0.448	0.519
KS5	0.590	0.644	**0.840**	0.613	0.605
KS6	0.586	0.586	**0.846**	0.663	0.630
M1	0.740	0.758	0.737	**0.870**	0.720
M2	0.595	0.646	0.531	**0.753**	0.498
M3	0.504	0.494	0.521	**0.833**	0.546
M4	0.554	0.575	0.592	**0.822**	0.582
M5	0.485	0.562	0.556	**0.861**	0.576
M6	0.548	0.609	0.596	**0.808**	0.629
SL1	0.593	0.629	0.590	0.591	**0.834**
SL2	0.593	0.639	0.687	0.663	**0.849**
SL3	0.717	0.579	0.592	0.610	**0.848**
SL4	0.688	0.668	0.617	0.622	**0.878**
SL5	0.670	0.613	0.615	0.570	**0.844**
SL6	0.600	0.730	0.633	0.612	**0.806**

4.4.5 Model Fitness Assessment

In SmartPLS 4, the evaluation of model fitness can be accomplished using the Standardised Root Mean Squared Residual (SRMR) (Henseler et al., 2016). SRMR plays a pivotal role in determining how effectively the model replicates the observed correlations among variables, essentially quantifying the disparity between the correlations observed in the sample data and those predicted by the model. Henseler et al. (2016) suggest that an SRMR value below 0.082 is indicative of an acceptable fit. In the current study (refer to Table 24), the computed SRMR value stands at 0.079. This result validates the appropriateness of the model, affirming its adequacy to suitably capture the interrelationships among the variables.

Table 24 Model Fitness Assessment using SRMR

	Estimated model
SRMR	0.079

4.5 Validation of the Structural Model

The validation of the structural model aims to assess the hypothesised relationships between the exogenous and endogenous variables. This process uses the coefficient of determination (R^2) and path coefficients to evaluate the explanatory power of the model (J. F. Hair et al., 2021a).

4.5.1 Coefficient of Determination (R^2)

The coefficient of determination, or R^2, quantifies the proportion of variance in the endogenous latent variables (dependent constructs) that can be explained by the exogenous latent variables (independent constructs) in SEM. The R^2 value signifies the explanatory capacity of the structural model, indicating how effectively the independent variables in the model predict the variation in the dependent variables. Ranging from 0 to 1, an R^2 value of 0 denotes that the independent variables explain none of the variance in the dependent variables (J. F. Hair et al., 2021a). Chin (1998) suggests that an R^2 value of 0.67 indicates substantial explanatory power, whereas 0.33 indicates average explanatory power, and 0.19 indicates weak explanatory power. Alternatively, Hair et al. (2014) argue that R^2 ranges of 0.75, 0.50, and 0.25 are considered substantial, moderate, and weak, respectively. In this study, the R^2 values of competency development and intention to stay are 0.65 and 0.71, respectively, as presented in Table 25. These values signify a significant explanatory influence, underlining

the effectiveness of the model in explaining the variations observed in the studied constructs.

In addition to the R^2 value, the Q^2 predict value is employed to assess the predictive relevance of the model. The Q^2 predict value indicates the proportion of variance in the endogenous latent variable that is predicted by the model. As suggested by Hair et al. (2022), a Q^2 predict value greater than zero indicates the model's predictive accuracy for endogenous variables, with a value >0.50 indicating strong predictive relevance. In the present study, the Q^2 predict values for competency development and intention to stay are 0.634 and 0.651, respectively (see Table 25), indicating strong predictive relevance.

Table 25 Coefficient of Determination (R-square) and Q-square Predict Values

	R-square	**Q^2predict**
Competency Development	0.650	0.634
Intention to Stay	0.711	0.651

4.5.2 Path Coefficients

Path coefficients serve as vital indicators of the extent to which a change in the independent variable influences the dependent variable, providing crucial insights into the hypothesised relationships within the research model. As detailed in Chapter 3, the significance of these path relationship estimates is evaluated through the application of the bootstrapping technique in SmartPLS 4. In the current study, the bootstrapping procedure involves generating 5000 samples (n=5000) drawn randomly with replacement at a confidence level of 95%. This approach entailed the generation of 5000 re-samples, from which t-statistics were derived based on the 143 responses collected. Table 26 below presents the results of the analysis, including the hypothesised paths and the associated path coefficients, along with their corresponding t-statistics and p-values.

Table 26 Structural Model Analysis Results: Hypothesised Paths, Path Coefficients, t-statistics, and p-values

Hypothesised Paths	Path Coefficients	t-statistics	p-values
Mentoring -> Intention to Stay	**0.280**	3.187	0.001
Strategic Leadership -> Intention to Stay	**0.257**	2.894	0.004
Competency Development -> Intention to Stay	**0.338**	4.073	0.000
Knowledge Sharing -> Intention to Stay	**0.061**	0.820	0.412
Mentoring -> Competency Development	**0.235**	3.271	0.001
Strategic Leadership -> Competency Development	**0.437**	5.455	0.000
Knowledge Sharing -> Competency Development	**0.213**	2.254	0.024

4.6 Hypotheses Validation (Direct Effect)

The evaluation of a structural model in PLS analysis involves validating the relationships among latent variables. According to Hair et al. (2011a), a path coefficient value around 0.10 is considered indicative of a reasonable relationship. However, it is crucial to note that path coefficient values alone do not quantify the strength of the relationship. The significance of path coefficients in PLS analysis is determined by the t-statistic values, which are generated through the bootstrapping technique in SmartPLS 4.

In PLS path modelling, a higher absolute t-value indicates a more significant result. Specifically, a larger t-statistic coupled with a low p-value suggests a stronger and more statistically significant relationship between variables. Hair et al. (2011a) have suggested a threshold for t-statistics of 1.64 and above as appropriate values for assessing the significance of path coefficients in PLS structural models. This criterion helps researchers evaluate the strength and significance of relationships between latent variables in PLS analysis. The validation of hypotheses, relying on the results derived from the path coefficient estimate, t-statistics, and p-values presented in Table 26, is interpreted as follows:

- **H1: There is a positive correlation between mentoring and the intention to stay among Gen Y employees.**

  Validation: **Supported**. Mentoring has a positive effect on the Intention to Stay (path coefficient = 0.280, t-statistic = 3.187, p = .001).

- **H2: There is a positive correlation between strategic leadership and the intention to stay among Gen Y employees.**

  Validation: **Supported**. Strategic Leadership also positively influences Intention to Stay (path coefficient = 0.257, t-statistic = 2.894, p= .004).

- **H3: There is a positive correlation between training and competency development and the intention to stay among Gen Y employees.**

  Validation: **Supported**. Competency Development has a substantial positive impact on Intention to Stay (path coefficient = 0.338, t-statistic = 4.073, p < .001).

- **H4: There is a positive correlation between knowledge sharing activities and the intention to stay among Gen Y employees.**

  Validation: **Not Supported**. Knowledge Sharing does not significantly affect the Intention to Stay (path coefficient = 0.061, t-statistic = 0.820, p = .412).

In summary, hypotheses H1, H2, and H3 are supported by the analysis, while hypothesis H4 is not supported. These findings underscore the importance of mentoring, strategic leadership, and competency development in influencing Gen Y employees' intention to stay with the clinical laboratories in New Zealand.

It is important to highlight that this study did not explicitly investigate the direct effects of the last three paths presented in Table 26 - Mentoring -> Competency Development, Strategic Leadership -> Competency Development, and Knowledge Sharing -> Competency Development. The intentional decision to exclude these direct effects was in alignment with the study's objectives. The primary emphasis was on investigating the direct effect of mentoring, strategic leadership, and competency development on employees' intention to stay. Consequently, although the observed positive relationships with statistical significance within these paths are notable, the study did not explore the direct effects on competency development itself.

4.7 Hypotheses Validation (Mediation Effect)

In the current study, the mediation effects of competency development were examined in the relationship between mentoring, strategic leadership, and knowledge sharing with intention to stay among participants (see Table 27). The results of the analysis provide evidence for the mediation effects as proposed in the hypotheses:

- **H5: Competency development mediates the relationship between mentoring and intention to stay among Gen Y employees.**

  Validation: **Supported**. Competency development significantly mediates the relationship between mentoring and intention to stay among Gen Y employees (β = 0.079, t = 2.351, p = 0.019).

- **H6: Competency development mediates the relationship between strategic leadership and intention to stay among Gen Y employees.**

  Validation: **Supported**. Competency development significantly mediates the relationship between strategic leadership and intention to stay among Gen Y employees (β = 0.148, t = 3.599, p = 0.000).

- **H7: Competency development mediates the relationship between knowledge sharing and intention to stay among Gen Y employees.**

  Validation: **Not Supported**. Competency development does not significantly mediate the relationship between knowledge sharing and intention to stay among Gen Y employees (β = 0.072, t = 1.847, p = 0.065).

Table 27 Mediation Effects Results: Coefficient, t-Statistics, and p-Values

	Path Coefficients (β)	t-statistics	p-values
Mentoring -> Competency Development -> Intention to Stay	0.079	2.351	0.019
Strategic Leadership -> Competency Development -> Intention to Stay	0.148	3.599	0.000
Knowledge Sharing -> Competency Development -> Intention to Stay	0.072	1.847	0.065

These findings suggest that competency development acts as a significant mediator in the relationships between mentoring and intention to stay, as well as between strategic leadership and intention to stay among Gen Y employees. However, the mediation effect of competency development was not supported in the relationship between knowledge sharing and intention to stay as denoted in Table 27. Figure 5 illustrates the summary of the structural model generated from SmartPLS 4. In the structural model diagram, each of the five constructs (e.g., mentoring, competency development, intention to stay, etc.) is depicted by a circle, while each item (e.g., M1, M2, M3, etc.)

within its respective construct is illustrated as a rectangle. The outer loading and t-value for each item are provided, accompanied by arrows extending from the construct to the items, indicating a reflective measurement model. In addition, the diagram displays path coefficients values (β) between constructs (e.g., Mentoring -> Intention to Stay = 0.280, Competency Development -> Intention to Stay = 0.338), with the corresponding t-value enclosed in brackets.

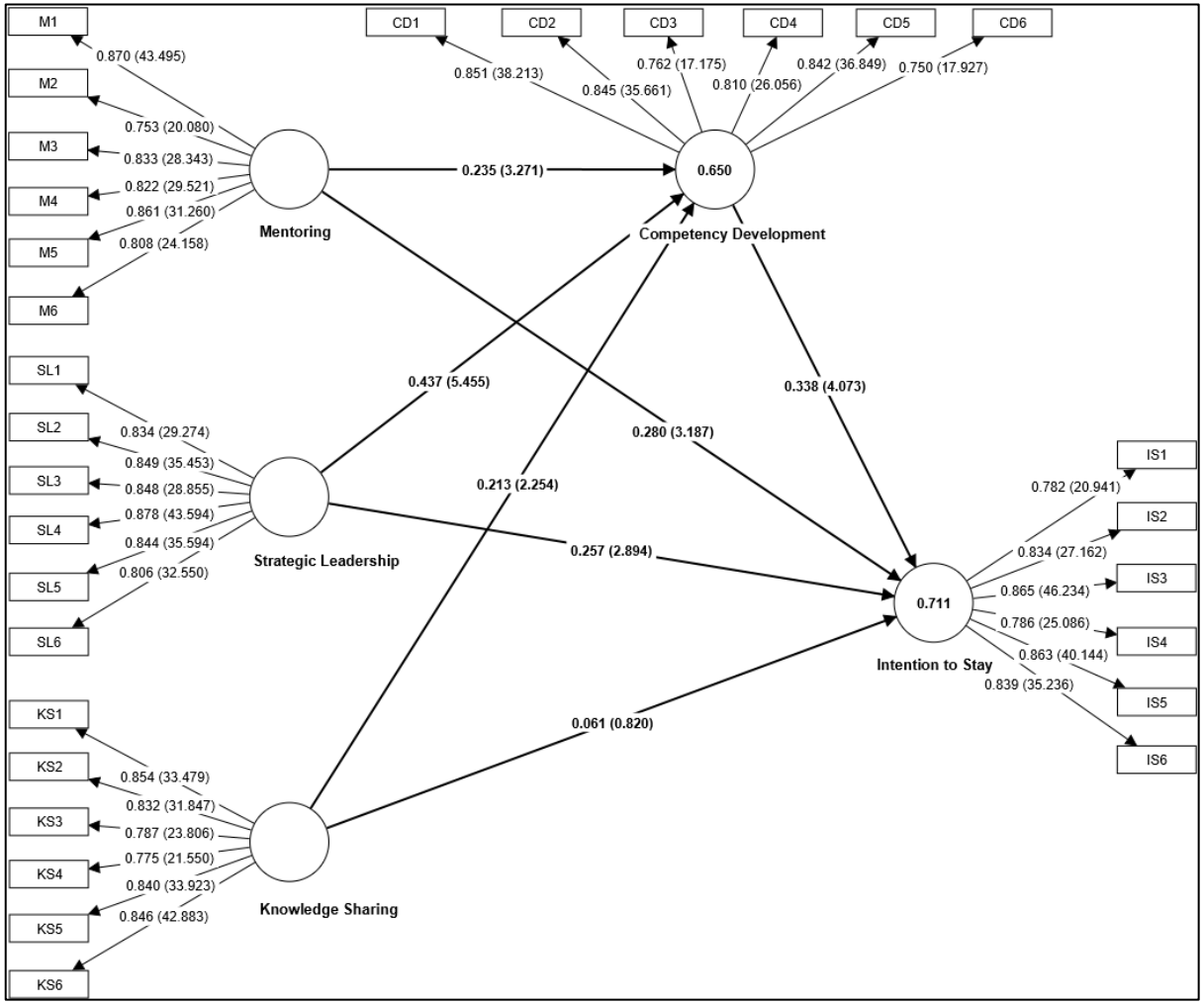

Figure 5 Summary of the Structural Model (Outer model: outer loadings and t values in the bracket; inner model: path coefficients and t values in the bracket; Construct: R-square values)

4.8 Analysis of Participant Perspectives on Retaining Younger Staff in the Department/Organisation

In the final part of the online questionnaire, participants were presented with the statement ***"It is difficult to retain younger staff in my department/organisation"*** and asked to rate it on a five-point Likert scale, ranging from "strongly disagree" (1) to "strongly agree" (5).

The results outlined in Table 28 below reveal a significant proportion of respondents either agreed (42%) or strongly agreed (20%) with the statement, indicating a widely held perception among employees that retaining younger staff poses challenges in the department/organisation.

Conversely, a notable portion of participants expressed a neutral stance ("Neither agree nor disagree"), constituting 22% of the responses. This suggests a segment of employees who might not perceive the issue as significant or may lack a strong opinion on the matter.

Furthermore, a minority of respondents (15%) disagreed with the statement, while an exceptionally small proportion (1%) strongly disagreed, indicating a belief among these employees that retaining younger staff is not a significant challenge in their department/organisation.

The study participants were asked two concluding questions at the end of the online questionnaire. These two questions aimed at understanding participants' perspectives on whether it is difficult to retain younger staff within their department and organisation, as well as the primary factors influencing their consideration of leaving their organisations. The results are presented below.

Table 28 Participants' Perspective on Difficulty in Retaining Younger Staff in the Department/Organisation

Rating	**Frequency**	**Percentage (%)**
Strongly agree (5)	28	20%
Agree (4)	60	42%
Neither agree nor disagree (3)	32	22%
Disagree (2)	21	15%
Strongly disagree (1)	2	1%
Total	143	100%

4.9 Factors Influencing Consideration to Leave an Organisation

The present study delved into participants' perspectives regarding the primary reasons or factors influencing their consideration of leaving their respective organisations. In the final question of the online questionnaire, participants were presented with a question: ***"What would be the main reasons(s) or factor(s) if you are to consider leaving your organisation?"*** and were given multiple options to choose from. Participants could also provide their responses under the category "Others (please specify)." The results, presented in Table 29, provide insights into the prevalent factors influencing participants' decisions to consider leaving their organisation.

Table 29 Reasons for Considering Leaving the Organisation: Participant Perspectives

What would be the main reason(s)or factor(s) if you were to consider leaving your organisation?	**Frequency**	**Percentage (%)**
Lack of training and career development opportunities.	75	52%
Lack of career progression and opportunities.	100	70%
Poor relationship with supervisor/ mentor/ manager.	38	27%
Poor relationship with my co-workers/ colleagues.	27	19%
Poor work-life balance.	64	45%
Better pay elsewhere.	101	71%
Permanently leaving the profession.	26	18%
Others (please specify)	31	22%

The results indicate that lack of training and career development opportunities was a significant concern for 52% of the participants. Additionally, 70% cited the lack of career progression and opportunities as a major factor influencing their decision. A considerable proportion of the participants (45%) expressed concerns about poor work-life balance. The relationship with supervisors, mentors, or managers was noted as an issue by 27% of participants, and 19% cited poor relationships with co-workers or colleagues. Furthermore, 18% expressed the possibility of permanently leaving the profession as a reason for leaving their current organisation. Moreover, 22% of the participants provided specific comments under the category "Others (please specify)". These findings underscore the multifaceted nature of factors influencing employees' decisions to consider leaving their organisations, highlighting the need for organisations to address these concerns comprehensively to enhance retention strategies and foster a positive work environment. The detailed responses from participants in the "Others (please specify)" category are available in Appendix G.

In addition, the results revealed a predominant concern among participants regarding the factor of "Better pay elsewhere," with 71% of participants indicating its significance.

While this emphasises the substantial influence of competitive remuneration on employees' considerations to leave the organisation, it is important to note that addressing compensation issues falls beyond the scope of this study. The findings underline the necessity for organisations to evaluate their salary structures, yet this study primarily focuses on other factors impacting Gen Y employee retention within the organisation.

4.10 Chapter Summary

In this chapter, quantitative analyses are conducted for the present study, using a variance-based approach with PLS-SEM on a dataset comprising 143 valid responses. The research model explores intricate relationships between talent management practices, namely mentoring, strategic leadership, competency development, and knowledge sharing, and the intention to stay among Gen Y employees employed in clinical laboratories in New Zealand. A key objective involves validating the mediating role of competency development in the connections between mentoring, strategic leadership, and knowledge sharing with the intention to stay among the participants.

The proposed conceptual framework is assessed for validity and reliability. The measurement items meet the criteria of acceptable outer loadings (>0.70) and demonstrated internal consistency with CR values exceeding the recommended threshold of 0.60. Furthermore, the model exhibits construct, convergent, and discriminant validity. The AVE values for the constructs exceed 0.50, and the Fornell-Larcker criterion for discriminant validity is met, as indicated by the square roots of the constructs' AVE values being greater than the off-diagonal correlations (see Table 22). Additionally, the cross-loading results (Table 23) affirm that each item predominantly loads on its designated construct.

The substantial R^2 values underscore the model's effectiveness in explaining the observed variances within the studied constructs. Moreover, five out of the seven hypotheses are validated based on the t-statistic and corresponding p-values.

The chapter concludes by addressing the final two questions designed to provide valuable insights guiding future research initiatives. The following chapter provides a comprehensive discussion of the research findings, emphasising their implications for both theoretical frameworks and practical applications.

Chapter 5
Discussion

5.1 Overview

Nestled within the complex tapestry of New Zealand's healthcare system, laboratory professionals play an essential role as foundational pillars, encompassing medical laboratory scientists, technicians, and pre-analytical technicians. Governed by the Health Practitioners Competence Assurance Act 2023, this workforce operates within a framework designed to ensure competence, uphold public health standards, and enhance the safety of New Zealand's public.

The sector has experienced a significant transformation, catalysed by the rise of Generation Y employees and the retirement of baby boomers, leading to a fundamental shift in values and professional ethics. Generation Y, born between 1980 and 1999, has redefined work as a platform for personal growth, emphasising the importance of balancing professional pursuits with personal life, all underscored by a need for supportive work environments. Within the intricate landscape of generational dynamics and shifting values, the laboratory sector confronts a critical challenge: retaining talent, particularly among Generation Y employees. Despite industry awareness, concerns about staff retention persist, echoing through organisational anecdotes and mirroring challenges observed in Australia, as documented in the Medical Laboratory Science Workforce Report (2018). These challenges underscore the urgent need for nuanced talent management strategies tailored to the unique demands of the laboratory profession.

In response to these challenges, the present study undertakes a transformative journey, exploring the unexplored territory of talent management practices specific to Generation Y employees within New Zealand's clinical laboratory sector. The study seeks not only to explain the nuanced interplay of generational dynamics but also to propose a conceptual framework. This framework aims to refine retention strategies tailored to the distinctive needs of Generation Y professionals. This empirical study focuses on talent management practices, including mentoring, strategic leadership, competency development, and knowledge sharing, evaluating their impact on the retention of Generation Y employees. In addition, the study explores the mediating role of competency development in the relationships between these talent management practices and the intention to stay within the healthcare laboratory industry.

5.2 Summary of Findings

The present study examined the relationship between various talent management practices and employees' intention to stay within the organisation. Firstly, Hypothesis 1 suggested that mentoring significantly influences the intention to stay among employees. The results supported this hypothesis, revealing a substantial positive relationship between mentoring and intention to stay *(β = 0.280, t = 3.187, p = 0.001)*. Similarly, Hypothesis 2 proposed a positive association between strategic leadership and employee's intention to stay. The analysis confirmed this hypothesis, indicating a significant positive relationship between strategic leadership and intention to stay *(β = 0.257, t = 2.894, p = 0.004)*. Hypothesis 3 examined the impact of competency development on employees' intention to stay. The findings provided strong support for this hypothesis, demonstrating a significant positive relationship between competency development and intention to stay *(β = 0.338, t = 4.073, p = 0.000)*. Lastly, Hypothesis 4 explored the relationship between knowledge sharing and intention to stay. Unexpectedly, the data revealed a non-significant relationship, suggesting that knowledge sharing may not directly influence employees' intention to stay *(β = 0.061, t = 0.820, p = 0.412)*. These findings validate a strong link between talent management practices, including mentoring, strategic leadership, and competency development, and the intention to stay among Generation Y employees, except the concept of knowledge sharing. These outcomes are consistent with existing literature (Allen et al., 2004; Chami-Malaeb & Garavan, 2013; Chang et al., 2021; Chiang et al., 2005; Firzly et al., 2022; Naim & Lenka, 2017; Yusandra & Diana, 2022), reinforcing the industry's understanding of the significance of these practices in retaining Generation Y employees within the healthcare laboratory sector.

In examining the existing literature on talent management practices, scholars have presented diverse perspectives regarding knowledge sharing. Interestingly, in the present study, no significant association was found between knowledge sharing and Generation Y employees' intention to stay in the laboratory profession. Previous research conducted by Naim & Lenkla (2016) highlighted the crucial role of a knowledge sharing culture, emphasising its facilitation of organisational learning and development. Implicit knowledge derived from employees' experiences, skills, values, and competencies was identified as a source of sustainable competitive advantage. The perception of continuous learning and competency development not only instilled employees with confidence in a profitable future but also generated positive psychological responses, fostering their intention to stay within the organisation.

However, the lack of correlation between knowledge sharing and Generation Y employees' intention to stay raises intriguing questions in the context of this study. The

researcher identifies several key factors contributing to this phenomenon. First, Generation Y individuals prioritise learning opportunities, personal growth, and meaningful work experiences over long-term job stability (Valenti, 2019). Consequently, if knowledge sharing initiatives fail to align with these priorities, their impact on the intention to stay may be limited. Second, Generation Y values inclusive and innovative workplace cultures (Berkup, 2014). A lack of organisational support for knowledge sharing or inclusivity might hinder the effectiveness of such initiatives. Third, considering Generation Y's affinity for advanced technologies, outdated or user-unfriendly platforms for knowledge sharing could deter their active participation (Widen et al., 2020). Therefore, tailoring knowledge sharing initiatives to cater to Generation Y's specific preferences and communication styles is crucial, as a one-size-fits-all approach may not effectively engage this generation. Moreover, Generation Y employees prefer open and transparent communication channels (Lowe et al., 2011). A lack of clear communication regarding the purpose and impact of knowledge sharing activities could impede their engagement, necessitating innovative approaches to inspire and involve Generation Y employees in the learning process.

Notably, Generation Y's inclination toward frequent job changes for diverse experiences and skills (Berkup, 2014) implies that their intention to stay is influenced significantly by career advancement prospects and overall job satisfaction rather than solely by knowledge sharing initiatives. External factors such as remuneration, work-life balance, economic conditions, and external job opportunities play pivotal roles in Generation Y's decisions to stay or leave an organisation. Consequently, while knowledge sharing initiatives are valuable, their impact may be overshadowed when these external factors exert a dominant influence on Generation Y's choices, highlighting the multifaceted nature of their decision-making process regarding organisational commitment.

Subsequently, the study explored mediation effects. Hypothesis 5 proposed that mentoring indirectly affects the intention to stay through competency development. The data supported this indirect relationship, indicating a significant effect *($\beta = 0.079$, $t = 2.351$, $p = 0.019$)*. Similarly, Hypothesis 6 suggested that strategic leadership influences the intention to stay medicated by competency development. The findings confirmed this mediation effect *($\beta = 0.148$, $t = 3.599$, $p = 0.000$)*, revealing the significance of competency development in translating strategic leadership into employee retention. However, Hypothesis 7, which posited an indirect impact of knowledge sharing on intention to stay through competency development, was not supported *($\beta = 0.072$, $t = 1.847$, $p = 0.065$)*. This result suggests that the influence of knowledge sharing on employees' intention to stay is not mediated by competency

development, emphasising the complexity of the relationship between knowledge sharing initiatives and employee retention. These findings highlight the complex factors influencing Generation Y employees' intentions to stay within clinical laboratories in New Zealand, offering valuable insights for developing customised retention strategies in this specific professional setting.

In summary, the study explores the complexities surrounding the retention of Generation Y employees within New Zealand's clinical laboratories, addressing two fundamental research questions. Firstly, the study investigates various talent management practices influencing Generation Y employees' intention to stay in this sector. The findings confirm the significant impact of mentoring, strategic leadership, and competency development on their retention. Surprisingly, the study reveals a lack of direct correlation between knowledge sharing and Generation Y employees' intention to stay, challenging existing literature in this area. The absence of a direct relationship prompts a deeper analysis, indicating that Generation Y individuals prioritise learning opportunities, inclusive workplace cultures, and advanced technological platforms for knowledge sharing. Additionally, external factors such as remuneration and work-life balance influence their commitment to the organisation.

Secondly, the study uncovers mediation effects, demonstrating that mentoring indirectly affects intention to stay through competency development and strategic leadership's impact on intention to stay is mediated by competency development. However, the anticipated mediation effect of knowledge sharing, although marginally significant, is not fully supported, highlighting the complex relationship between knowledge sharing initiatives and employee retention. These nuanced findings emphasise the need for tailored and innovative retention strategies, acknowledging the multifaceted decision-making processes of Generation Y employees. In addition to the empirical insights, the study presents a conceptual framework grounded in both empirical data and theoretical foundations. This framework serves as a foundation for organisations aiming to create a supportive work environment that fosters the commitment and longevity of their Generation Y workforce. By exploring the unique dynamics of New Zealand's clinical laboratory sector, this study significantly advances our understanding of talent management practices and retention strategies, contributing valuable knowledge to the broader field of workforce management.

5.3 Theoretical Implications

This study makes significant contributions to the existing body of knowledge in several key aspects. Firstly, within the specific context of the clinical laboratory sector in New

Zealand, a noticeable research gap exists concerning the relationship between talent management practices and employee retention, especially among Generation Y professionals. While prior studies in the business industry have emphasised the importance of robust talent management practices for enhancing employee engagement and retention (Christensen Hughes & Rog, 2008; Ismail et al., 2021; Kumar, 2022; Marinakou & Giousmpasoglou, 2019; Pandita & Ray, 2018), this study uniquely bridges the gap in the clinical laboratory landscape. By focusing on the specific needs and expectations of Generation Y professionals, this study pioneers an exploration of the connection between talent management strategies and the intention to stay within New Zealand's clinical laboratory sector.

Secondly, this study enriches the existing literature by clarifying the direct correlation between talent management practices, notably mentoring, strategic leadership, and knowledge sharing, and the intention to stay among Generation Y employees. These identified talent management practices emerge as pivotal factors directly influencing the retention of Generation Y professionals within the clinical laboratory sector. The findings underscore the indispensable role of these practices in shaping the commitment and tenure of Generation Y employees within their respective organisations.

Furthermore, this study advances our understanding of the mechanisms driving Generation Y competency development. It highlights the role of mentoring, strategic leadership, and knowledge sharing as catalysts for enhancing the competencies of Generation Y employees. Importantly, this study establishes that competency development serves as a mediating variable between talent management practices and the intention to stay among Generation Y professionals working in the clinical laboratory sector. This nuanced insight sheds light on the intricate interplay between talent management initiatives, skill enhancement, and employee retention among Generation Y professionals.

Additionally, this study extends the theoretical foundations of job embeddedness theory and social exchange theory, as discussed in Chapter 2. By clarifying the complex relationship between talent management practices, competency development, and the intention to stay among Generation Y employees, this study offers empirical evidence that enriches these theoretical frameworks. The findings contribute valuable insights into the intricate dynamics of employee retention, aligning them with established theoretical perspectives in organisational behaviour and human resource management.

Lastly, this study goes beyond empirical findings and theoretical exploration; it presents a conceptual framework designed to enhance and optimise retention strategies

specifically tailored for Generation Y professionals within the laboratory sector in New Zealand. This framework, grounded in empirical data and theoretical underpinnings, offers a comprehensive guide for organisations seeking to create a supportive and engaging work environment, fostering the longevity and commitment of their Generation Y workforce. Through these multifaceted contributions, this study significantly advances our understanding of talent management practices and retention dynamics, particularly within the unique context of the clinical laboratory sector in New Zealand.

5.4 Practical Implications

The findings of the present study yield practical insights crucial for human resource management, offering valuable information about the needs and expectations of Generation Y employees in the healthcare laboratory sector in New Zealand.

First and foremost, this study assists employees from various generations, managers, and leaders in comprehending the intricate psychological profile of the Generation Y cohort. By gaining insights into the unique needs and motivators of Generation Y, managers can effectively bridge the generational gap. The study highlights the disparities between Generation Y and their more experienced counterparts, thereby facilitating the development of tailored talent management practices. It is imperative to recognise that generational tensions, if left unaddressed, do not naturally resolve themselves over time. Contrary to the wait-and-see approach adopted by some senior healthcare leaders, evidence suggests that proactive measures are essential (Cahill & Sedrak, 2012). As noted by Festing & Schäfer (2014), organisations must acknowledge and adapt to the distinct characteristics of Generation Y, moving away from the one-sizes-fits-all approach to formulating targeted strategies in talent management.

Secondly, the study's findings provide concrete strategies for leaders and managers to implement talent management practices that resonate with Generation Y employees. Integration of practices such as mentoring, strategic leadership, and knowledge sharing is paramount. These talent management initiatives serve as avenues for learning and development, enhancing the competencies of Generation Y professionals. Consequently, organisations must prioritise competency development as a key strategy. Strengthening competencies not only fosters engagement and commitment but also bolsters the retention of Generation Y employees.

Lastly, in the dynamic landscape of healthcare, the continuous development of young employees is pivotal for organisations striving to maintain a competitive edge. By focusing on learning, aptitude, and skills acquisition, organisations can ensure the

persistent growth of their workforce. This study advocates for a strategic approach that centres on talent management practices. By nurturing and retaining young and talented Generation Y laboratory professionals, organisations can secure their position in the ever-changing healthcare arena.

In summary, this study furnishes organisations and managers with a comprehensive strategy tailored to the specific needs of Generation Y employees in the healthcare laboratory in New Zealand. By concentrating on targeted talent management practices, organisations can foster a supportive environment that nurtures the potential of their young professionals, ensuring both individual and organisational growth in the healthcare sector.

5.5 Limitations

The present study faced several challenges that warrant consideration.

Firstly, the study encountered difficulties in obtaining an optimal sample size due to the absence of published demographic data on the medical laboratory workforce, particularly concerning Generation Y practitioners in New Zealand. The absence of this crucial information resulted in a relatively small sample, impacting the study's ability to comprehensively assess the influence of talent management practices on the intention to stay within the Generation Y cohort. Access to such data would have facilitated a more nuanced understanding of the dynamics and ensured a more accurate representation of Generation Y employees within the broader population.

Secondly, the data for the present study was gathered using a self-administered online questionnaire, representing a form of subjective data. The reliance on subjective responses poses limitations, indicating the potential for bias or varied interpretations. The inclusion of objective data sources could enhance the study's rigour, providing a more comprehensive and nuanced perspective on the factors influencing Generation Y employees' intention to stay. Incorporating objective metrics could advance the study by offering a more robust foundation for understanding the complexities of talent retention within the healthcare laboratory sector.

Lastly, the research design adopted for this study was cross-sectional, confining the investigation to a single point in time. Consequently, the study was unable to track turnover behaviours over an extended period or identify long-term trends within the cohort. Additionally, the timing of data collection, commencing in June 2022 amidst the ongoing COVID-19 pandemic, introduced additional complexities. Laboratory professionals, already under immense strain due to the pandemic, faced challenges

such as burnout and adverse working conditions exacerbated by the influx of testing machinery. Furthermore, the study coincided with a nationwide strike by allied health workers, including laboratory professionals, highlighting widespread dissatisfaction with remuneration and working conditions. These external factors potentially influenced respondents' perceptions and responses to the online questionnaire, notably evident in the prevalence of concerns related to compensation issues. Notably, 71% of participants expressed the significant factor of "Better pay elsewhere" in response to the question about potential reasons for leaving their organisation. While this study did not delve into compensation-related matters, the findings underscore the urgency for organisations to evaluate and address their salary structures.

5.6 Recommendations and Suggestions for Future Study Directions

In response to the limitations outlined in the previous section, several recommendations and suggestions are proposed to enhance the scope and depth of future research in this area.

First, it is advisable to diversify the research methodologies employed. While the current study predominantly utilised quantitative methods among Generation Y employees, future studies could benefit from incorporating qualitative research techniques. This could involve incorporating open-ended questions in surveys, enabling respondents to provide context-specific responses. Additionally, semi-structured interviews or focus group discussions with Generation Y employees could offer valuable qualitative insights. These qualitative approaches can capture the intricacies of employees' experiences, shedding light on subtle factors influencing their intention to stay within the laboratory sector.

Second, adopting a longitudinal study approach can yield valuable insights into the evolving dynamics of Generation Y employees' intention to stay. A longitudinal study would enable researchers to track changes in employees' perceptions and turnover intentions over multiple points in time. Given the dynamic nature of the workforce influenced by various factors, including changes in retention strategies and alterations in salary structures, a longitudinal study can provide a more comprehensive understanding of the long-term impact of talent management practices.

Third, expanding the scope of the investigation is crucial. While the current study focused on specific talent management practices such as mentoring, strategic leadership, competency development, and knowledge sharing, future research can explore a broader array of determinants affecting employee retention. Exploring factors such as job satisfaction, work environment, leadership styles, organisational

innovation, and organisational culture among Generation Y employees can provide a comprehensive understanding of the multifaceted nature of retention dynamics.

Lastly, in the context of managing generational differences and mitigating tensions among employees, it is imperative to adopt a holistic perspective. Understanding the unique needs and expectations of various generations, including not only Generation Y but also Generation X and Z, is crucial. Future research should compare and contrast the work perspectives of these different generations. Investigating how specific talent management practices influence diverse generational cohorts can illuminate effective strategies that resonate with each group, fostering a harmonious work environment and promoting talent retention across generations.

Chapter 6
Conclusion

The findings from both the empirical study and the analysis of participant perspectives underscore the critical importance of addressing the retention challenges faced by Generation Y employees in the healthcare laboratory sector in New Zealand. This research highlights the significant impact of mentoring, strategic leadership, and competency development on Generation Y employees' intention to stay, offering valuable insights for tailored retention strategies.

The proposed conceptual framework, emphasising strategic leadership styles and integrated mentoring strategies for competency development, lays the foundation for organisations seeking to enhance their retention initiatives for younger laboratory professionals.

The overwhelming consensus among participants regarding the challenges in retaining younger employees emphasises the urgency of targeted interventions. While a minority expresses dissenting views, further investigation into their reasons can offer deeper insights. These collective findings emphasise the pressing need for organisations to implement focused and innovative retention strategies to create supportive work environments, ensuring the commitment and longevity of their Generation Y workforce within healthcare laboratories in New Zealand.

References

Allen, T. D., Eby, L. T., Poteet, M. L., Lentz, E., & Lima, L. (2004). Career Benefits Associated With Mentoring for Proteges: A Meta-Analysis. *Journal of Applied Psychology*, *89*(1), 127-136. https://doi.org/10.1037/0021-9010.89.1.127

Anderson, H. J., Baur, J. E., Griffith, J. A., & Buckley, M. R. (2017). What works for you may not work for (Gen)Me: Limitations of present leadership theories for the new generation. *The Leadership Quarterly*, *28*(1), 245-260. https://doi.org/https://doi.org/10.1016/j.leaqua.2016.08.001

Armstrong, M. (2006). *Performance Management: Key Strategies and Practical Guidelines* (3 ed.). Kogan Page. https://books.google.co.nz/books?id=nI0xvgAACAAJ

Australian Public Service Commission. (2015). *APS Talent Management Guide*. Commonwealth of Australia. https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.apsc.gov.au%2Fsites%2Fdefault%2Ffiles%2F2021-06%2Ftalent-management-guide_0.docx&wdOrigin=BROWSELINK

Barkhuizen, N., & Gumede, B. (2021). The relationship between talent management, job satisfaction and voluntary turnover intentions of employees in a selected government institution. *SA Journal of Human Resource Management*, *19*. https://doi.org/10.4102/sajhrm.v19i0.1396

Barroga, E., & Matanguihan, G. J. (2022). A Practical Guide to Writing Quantitative and Qualitative Research Questions and Hypotheses in Scholarly Articles. *J Korean Med Sci*, *37*(16), e121. https://doi.org/10.3346/jkms.2022.37.e121

Benítez-Márquez, M. D., Sánchez-Teba, E. M., Bermúdez-González, G., & Núñez-Rydman, E. S. (2021). Generation Z Within the Workforce and in the Workplace: A Bibliometric Analysis. *Front Psychol*, *12*, 736820. https://doi.org/10.3389/fpsyg.2021.736820

Berkup, S. (2014). Working With Generations X And Y In Generation Z Period: Management Of Different Generations In Business Life. *Mediterranean Journal of Social Sciences*, *5*(19), 218-229. https://doi.org/10.5901/mjss.2014.v5n19p218

Bibi, P., Ahmad, A., & Majid, A. (2018). The Impact of Training and Development and Supervisor Support on Employees Retention in Academic Institutions: The Moderating Role of Work Environment. *Gadjah Mada International Journal of Business*, *20*, 113. https://doi.org/10.22146/gamaijb.24020

Blass, E. (2007). *Talent Management: Maximising talent for business performance: Executive Summary*. Chartered Management Institute.

Brčić, Ž. J., & Mihelic, K. (2015). Knowledge sharing between different generations of employees: An example from Slovenia. *28*, 853-867. https://doi.org/10.1080/1331677X.2015.109230

Brewerton, P., & Millward, L. (2001). *Organizational Research Methods* https://doi.org/10.4135/9781849209533

Buahene, A. K., & Kovary, G. (2003). *The Road to Performance Success: Understanding and Managing the Generational Divide*. https://www.ngenperformance.com/pdf/ManagingGenDivideOverview.pdf

Cahill, T. F., & Sedrak, M. (2012). Leading a multigenerational workforce: strategies for attracting and retaining millennials [Article]. *Frontiers of health services management*, *29*(1), 3-15. https://doi.org/10.1097/01974520-201207000-00002

Cambridge University Press. Knowledge. In *Cambridge Dictionary*. https://dictionary.cambridge.org/dictionary/english/knowledge

Chami-Malaeb, R., & Garavan, T. (2013). Talent and leadership development practices as drivers of intention to stay in Lebanese organisations: the mediating role of affective commitment. *The International Journal of Human Resource Management*, *24*(21), 4046-4062. https://doi.org/10.1080/09585192.2013.789445

Chang, Y. C., Yeh, T. F., Lai, I. J., & Yang, C. C. (2021). Job competency and intention to stay among nursing assistants: The mediating effects of intrinsic and extrinsic job satisfaction. *Int J Environ Res Public Health*, *18*(12). https://doi.org/10.3390/ijerph18126436

Chen, P. J., & Choi, Y. (2008). Generational differences in work values: a study of hospitality management. *International Journal of Contemporary Hospitality Management*, *20*(6), 595-615. https://doi.org/10.1108/09596110810892182

Cheung, G. W., Cooper-Thomas, H. D., Lau, R. S., & Wang, L. C. (2023). Reporting reliability, convergent and discriminant validity with structural equation modeling: A review and best-practice recommendations. *Asia Pacific Journal of Management*. https://doi.org/10.1007/s10490-023-09871-y

Chew, J., & Chan, C. (2008). Human Resource Practices, Organizational Commitment and Intention to Stay. *International Journal of Manpower*, *29*, 503 - 522. https://doi.org/s://doi.org/10.1108/01437720810904194

Chiang, C.-F., Back, K.-J., & Canter, D. D. (2005). The impact of employee training on job satisfaction and intention to stay in the hotel industry. *Journal of Human Resources in Hospitality & Tourism*, *4*(2), 99-118. https://doi.org/10.1300/J171v04n02_06

Chin, W., & Newsted, P. (1999). Structural Equation Modeling Analysis with Small Samples Using Partial Least Square. *Statistical Strategies for Small Sample Research*. https://www.researchgate.net/publication/242370645_Structural_Equation_Modeling_Analysis_with_Small_Samples_Using_Partial_Least_Square

Chin, W. W. (1998). The partial least squares approach for structural equation modeling. In *Modern methods for business research.* (pp. 295-336). Lawrence Erlbaum Associates Publishers.

Chin, W. W. (2010). How to Write Up and Report PLS Analyses. In V. Esposito Vinzi, W. W. Chin, J. Henseler, & H. Wang (Eds.), *Handbook of Partial Least Squares: Concepts, Methods and Applications* (pp. 655-690). Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-540-32827-8_29

Christensen Hughes, J., & Rog, E. (2008). Talent management. *International Journal of Contemporary Hospitality Management*, *20*(7), 743-757. https://doi.org/10.1108/09596110810899086

Codita, R. (2011). *Contingency factors of marketing-mix standardization: German consumer goods companies in Central and Eastern Europe*. https://doi.org/10.1007/978-3-8349-6169-3

Cole, G., Smith, R., & Lucas, L. (2002). The debut of Generation Y in the American workforce. *Journal of Business Administration Online*, *1*(2). https://www.atu.edu/business/jbao/fall2002/cole_smith_lucas.pdf

Collings, D. G., & Mellahi, K. (2009). Strategic talent management: A review and research agenda. *Human Resource Management Review*, *19*(4), 304-313. https://doi.org/https://doi.org/10.1016/j.hrmr.2009.04.001

Coltman, T., Devinney, T. M., Midgley, D. F., & Venaik, S. (2008). Formative versus reflective measurement models: Two applications of formative measurement. *Journal of Business Research*, *61*(12), 1250-1262. https://doi.org/https://doi.org/10.1016/j.jbusres.2008.01.013

Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches, 3rd ed*. Sage Publications, Inc.

Cropanzano, R., & Mitchell, M. (2005). Social Exchange Theory: An Interdisciplinary Review. *Journal of Management*, *31*, 874-900. https://doi.org/10.1177/0149206305279602

Davies, B., & Davies, B. J. (2010). Talent management in academies. *International Journal of Educational Management*, *24*(5), 418-426. https://doi.org/10.1108/09513541011055983

Dawn, S. K., & Biswas, S. (2013). Talent Management : Designing Strategies [Article]. *ASBM Journal of Management*, *6*(2), 41-51. https://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=90253777&site=ehost-live&scope=site

Dreher, G. F., & Ash, R. A. (1990). A comparative study of mentoring among men and women in managerial, professional, and technical positions. *Journal of Applied Psychology*, *75*(5), 539-546. https://doi.org/10.1037/0021-9010.75.5.539

Duursema, H. (2013). *Strategic Leadership: Moving Beyond the Leader-Follower Dyad* [Doctoral Dissertation, Erasmus University]. http://hdl.handle.net/1765/39129

Evans, J. R., & Mathur, A. (2005). The value of online surveys. *Internet Research*, *15*(2), 195-219. https://doi.org/10.1108/10662240510590360

Fattah, J., Yesiltas, M., & Atan, T. (2022). The Impact of Knowledge Sharing and Participative Decision-Making on Employee Turnover Intention: The Mediating Role of Perceived Organizational Support. *SAGE Open*, *12*(4), 21582440221130294. https://doi.org/10.1177/21582440221130294

Festing, M., & Schäfer, L. (2014). Generational challenges to talent management: A framework for talent retention based on the psychological-contract perspective. *Journal of World Business*, *49*(2), 262-271. https://doi.org/https://doi.org/10.1016/j.jwb.2013.11.010

Field, A. P. (2018). *Discovering statistics using IBM SPSS statistics* (5th edition. ed.). SAGE.

Firzly, N., Chamandy, M., Pelletier, L., & Lagacé, M. (2022). An Examination of Mentors' Interpersonal Behaviors and Mentees' Motivation, Turnover Intentions, Engagement, and Well-Being. *J Career Dev*, *49*(6), 1317-1336. https://doi.org/10.1177/08948453211039286

Fowler, F. (2009). *Survey Research Methods* (4th ed.) https://doi.org/10.4135/9781452230184

Francis, T., & Hoefel, F. (2018). *'True Gen': Generation Z and its implications for companies*. McKinsey & Company. https://www.mckinsey.com/industries/consumer-packaged-goods/our-insights/true-gen-generation-z-and-its-implications-for-companies

Fuchs, R. M. (2022). Links, fit or sacrifice: job embeddedness and intention to quit among Generation Y. *European Journal of Management and Business Economics*, *31*(2), 160-175. https://doi.org/10.1108/EJMBE-05-2021-0156

Galarza, A. (2023). *How To Engage Generation-Z In The Workplace*. Forbes Retrieved March 22 from https://www.forbes.com/sites/forbeshumanresourcescouncil/2023/02/15/how-to-engage-generation-z-in-the-workplace/?sh=53dbb76d7408

Glass, A. (2007). Understanding generational differences for competitive success. *Industrial and Commercial Training*, *39*(2), 98-103. https://doi.org/10.1108/00197850710732424

Gozukara, I. (2022). A Theoretical Paper on Generation Y as a Workforce. *Business Management and Strategy*, *13*, 88. https://doi.org/10.5296/bms.v13i1.19432

Gursoy, D., Maier, T. A., & Chi, C. G. (2008). Generational differences: An examination of work values and generational gaps in the hospitality workforce. *International Journal of Hospitality Management*, *27*(3), 448-458. https://doi.org/https://doi.org/10.1016/j.ijhm.2007.11.002

Hair, J., & Alamer, A. (2022). Partial Least Squares Structural Equation Modeling (PLS-SEM) in second language and education research: Guidelines using an applied example. *Research Methods in Applied Linguistics*, *1*(3), 100027. https://doi.org/https://doi.org/10.1016/j.rmal.2022.100027

Hair, J., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2022). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. https://doi.org/10.1007/978-3-030-80519-7

Hair, J., Hult, G. T. M., Ringle, C., Sarstedt, M., Danks, N., & Ray, S. (2021). *Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R: A workbook*.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2013). *Multivariate Data Analysis*. Pearson Education Limited. https://books.google.co.nz/books?id=VvXZnQEACAAJ

Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021a). Evaluation of the Structural Model. In J. F. Hair Jr, G. T. M. Hult, C. M. Ringle, M. Sarstedt, N. P. Danks, & S. Ray (Eds.), *Partial Least Squares Structural*

Equation Modeling (PLS-SEM) Using R: A Workbook (pp. 115-138). Springer International Publishing. https://doi.org/10.1007/978-3-030-80519-7_6

Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021b). An Introduction to Structural Equation Modeling. In J. F. Hair Jr, G. T. M. Hult, C. M. Ringle, M. Sarstedt, N. P. Danks, & S. Ray (Eds.), *Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R: A Workbook* (pp. 1-29). Springer International Publishing. https://doi.org/10.1007/978-3-030-80519-7_1

Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011a). PLS-SEM: INDEED A SILVER BULLET. *Journal of Marketing Theory and Practice*, *19*(2), 139-151. http://www.jstor.org/stable/23033534

Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011b). PLS-SEM: Indeed a Silver Bullet. *Journal of Marketing Theory and Practice*, *19*(2), 139-152. https://doi.org/10.2753/MTP1069-6679190202

Hair Jr, J. F., Ringle, C. M., & Sarstedt, M. (2013). Partial least squares structural equation modeling: Rigorous applications, better results and higher acceptance. *Long Range Planning: International Journal of Strategic Management*, *46*(1-2), 1-12. https://doi.org/10.1016/j.lrp.2013.01.001

Hair Jr, J. F., Sarstedt, M., Hopkins, L., & G. Kuppelwieser, V. (2014). Partial least squares structural equation modeling (PLS-SEM). *European Business Review*, *26*(2), 106-121. https://doi.org/10.1108/EBR-10-2013-0128

Haley, L. (2018). *What Makes Employees Stay? Examining Social Exchange Relationships, Organizational Commitment, and Intent to Leave Among Casino Employees* University of Southern Mississippi]. https://aquila.usm.edu/cgi/viewcontent.cgi?article=2665&context=dissertations

HarperCollins Publishers. Knowledge. In *Collins Online Dictionary*. https://www.collinsdictionary.com/dictionary/english/knowledge

Henderson, J. (2007). The Value of Succession Planning. *Leadership Advance Online*(7). https://www.regent.edu/journal/leadership-advance-online/importance-of-succession-planning/

Henseler, J., Hubona, G., & Ray, P. A. (2016). Using PLS path modeling in new technology research: updated guidelines. *Industrial Management & Data Systems*, *116*(1), 2-20. https://doi.org/10.1108/IMDS-09-2015-0382

Holtom, B., Mitchell, T., & Lee, T. (2006). Increasing human and social capital by applying job embeddedness theory. *Organizational Dynamics*, *35*, 316-331. https://doi.org/10.1016/j.orgdyn.2006.08.007

Hooff, B., & Weenen, F. (2004). Committed to share: Commitment and CMC use as antecedents of knowledge sharing. *Knowledge and Process Management*, *11*, 13-24. https://doi.org/10.1002/kpm.187

Ireland, R., & Hitt, M. (1999). Achieving and maintaining strategic competitiveness in the 21 st century: The role of trategic leadership. *Academy of Management Perspectives*, *13*. https://doi.org/10.5465/AME.1999.1567311

Ismail, F., Ka, H., Fern, N., & Imran, M. (2021). Talent Management Practices, Employee Engagement, Employee Retention; Empirical Evidence from

Malaysian SMEs. *Studies of Applied Economics*, *39*. https://doi.org/10.25115/eea.v39i10.5572

Jacobs, E., & Roodt, G. (2011). The mediating effect of knowledge sharing between organisational culture and turnover intentions of professional nurses. *SA Journal of Information Management*, *13*. https://doi.org/10.4102/sajim.v13i1.425

Jena, L., & Nayak, U. (2023). Organizational career development and retention of millennial employees: the role of job engagement and organizational engagement. *Asia-Pacific Journal of Business Administration*, Advance online publication. https://doi.org/10.1108/APJBA-07-2022-0323

Jokisaari, M., & Nurmi, J.-E. (2009). Change in Newcomers' Supervisor Support and Socialization Outcomes after Organizational Entry. *The Academy of Management Journal*, *52*(3), 527-544. http://www.jstor.org/stable/40390302

Kapoor, C., & Solomon, N. (2011). Understanding and managing generational differences in the workplace. *Worldwide Hospitality and Tourism Themes*, *3*(4), 308-318. https://doi.org/10.1108/17554211111162435

Kårefalk, A., Pettersson, M., & Zhu, Y. (2008). *How to Motivate Generation Y with Different Cultural Backgrounds - A Cross-Cultural Comparison between China and Sweden* Kristianstad University]. https://researchportal.hkr.se/ws/portalfiles/portal/35095659/FULLTEXT01.pdf

Kastenholz, C. (2021). *Gen Z and the rise of social commerce*. Forbes Media LLC. Retrieved January 12 from https://www.forbes.com/sites/forbesagencycouncil/2021/05/17/gen-z-and-the-rise-of-social-commerce/?sh=4d53825251d0

Kingstone, H. (2021). Generational identities: Historical and literary perspectives. *Social and Personality Psychology Compass*, *15*(10), e12641. https://doi.org/https://doi.org/10.1111/spc3.12641

Kock, N. (2015). Common method bias in PLS-SEM: A full collinearity assessment approach. *International Journal of e-Collaboration*, *11*, 1-10. https://doi.org/10.4018/ijec.2015100101

Kumar, S. (2022). The impact of talent management practices on employee turnover and retention intentions. *Global Business and Organizational Excellence*, *41*(2), 21-34. https://doi.org/https://doi.org/10.1002/joe.22130

Lanier, K. (2017). 5 things HR professionals need to know about Generation Z. *Strategic HR Review*, *16*(6), 288-290. https://doi.org/10.1108/SHR-08-2017-0051

Lankau, M. J., & Scandura, T. A. (2002). An investigation of personal learning in mentoring relationships: Content, antecedents, and consequences. *Academy of Management Journal*, *45*(4), 779-790. https://doi.org/10.2307/3069311

Lee, C. C., Lim, H. S., Seo, D., & Kwak, D.-H. A. (2022). Examining employee retention and motivation: the moderating effect of employee generation. *Evidence-based HRM: a Global Forum for Empirical Scholarship*, *10*(4), 385-402. https://doi.org/10.1108/EBHRM-05-2021-0101

Lewis, R. E., & Heckman, R. J. (2006). Talent management: A critical review. *Human Resource Management Review*, *16*(2), 139-154. https://doi.org/https://doi.org/10.1016/j.hrmr.2006.03.001

Lowe, D., Levitt, K., & Wilson, T. (2011). Solutions for retaining generation Y employees in the workplace. *IEEE Engineering Management Review*, *39*, 46-52. https://doi.org/10.1109/EMR.2011.5876174

Lu, A. C. C., & Gursoy, D. (2016). Impact of Job Burnout on Satisfaction and Turnover Intention:Do Generational Differences Matter? *Journal of Hospitality & Tourism Research*, *40*(2), 210-235. https://doi.org/10.1177/1096348013495696

Ludviga, I., & Sennikova, I. (2016). *Organisational change: generational differences in reaction and commitment* 9th International Scientific Conference, Vilnius, Lithuania.

Luna-Arocas, R., & Morley, M. (2015). Talent management, talent mindset competency and job performance: The mediating role of job satisfaction. *European Journal of International Management*, *9*, 28-51. https://doi.org/10.1504/EJIM.2015.066670

Marinakou, E., & Giousmpasoglou, C. (2019). Talent management and retention strategies in luxury hotels: evidence from four countries. *International Journal of Contemporary Hospitality Management*, *31*(10), 3855-3878. https://doi.org/10.1108/IJCHM-10-2018-0862

Martin, C. A. (2005). From high maintenance to high productivity. *Industrial and Commercial Training*, *37*(1), 39-44. https://doi.org/10.1108/00197850510699965

Marzec, I., & Austen, A. (2021). The role of training in improving employability, job satisfaction and the career success of public sector employees. *Argumenta Oeconomica*.

Mayfield, J., & Mayfield, M. (2007). The Effects of Leader Communication on a Worker's Intent to Stay: An Investigation Using Structural Equation Modeling. *Human Performance*, *20*(2), 85-102. https://doi.org/10.1080/08959280701332018

McDonnell, A., Lamare, R., Gunnigle, P., & Lavelle, J. (2010). Developing tomorrow's leaders—Evidence of global talent management in multinational enterprises. *Journal of World Business*, *45*(2), 150-160. https://doi.org/https://doi.org/10.1016/j.jwb.2009.09.015

Medical Sciences Council of New Zealand. (2020). *Annual Report 2020*. Medical Sciences Secretariat. https://www.mscouncil.org.nz/assets_mlsb/Uploads/2020-MSC-Annual-Report.pdf

Medical Sciences Council of New Zealand. (2021). *Annual Report 2021*. Medical Sciences Secretariat. https://www.mscouncil.org.nz/assets_mlsb/Uploads/MSC-Annual-Report-2021-website-version.pdf

Medical Sciences Council of New Zealand. (2022). *Annual Report 2022*. Medical Sciences Secretariat. https://www.mscouncil.org.nz/assets_mlsb/Uploads/MSC-Annual-Report-2022.pdf

Mercer, D., Russell, E., & Arnold, K. A. (2014). Flexible working arrangements in healthcare: a comparison between managers of shift workers and 9-to-5 employees. *J Nurs Adm*, *44*(7/8), 411-416. https://doi.org/10.1097/nna.0000000000000091

Ministry of Health. (2016). *Health of the Health Workforce 2015*. https://www.health.govt.nz/system/files/documents/publications/health-of-health-workforce-2015-feb16_0.pdf

Ministry of Health. (2018). *Health Practitioners Competence Assurance Act*. Ministry of Health. Retrieved April 28 from https://www.health.govt.nz/our-work/regulation-health-and-disability-system/health-practitioners-competence-assurance-act

Mitchell, T. R., Holtom, B. C., Lee, T. W., Sablynski, C. J., & Erez, M. (2001). Why People Stay: Using Job Embeddedness to Predict Voluntary Turnover. *The Academy of Management Journal*, *44*(6), 1102-1121. https://doi.org/10.2307/3069391

Mohammed, A. (2015). The Impact of Talent Management on Employee Engagement, Retention and Value Addition in achieving Organizational Performance. *International Journal of Core Engineering & Management*, *1*(12), 142-152.

Mullen, E. J. (1994). Framing the mentoring relationship as an information exchange. *Human Resource Management Review*, *4*(3), 257-281. https://doi.org/https://doi.org/10.1016/1053-4822(94)90015-9

Naim, M. F., & Lenka, U. (2017). How Does Mentoring Contribute to Gen Y Employees' Intention to Stay? An Indian Perspective. *Eur J Psychol*, *13*(2), 314-335. https://doi.org/10.5964/ejop.v13i2.1304

Naim, M. F., & Lenka, U. (2018). Development and retention of Generation Y employees: a conceptual framework. *Employee Relations*, *40*(2), 433-455. https://doi.org/10.1108/ER-09-2016-0172

Naim, M. F., & Lenkla, U. (2016). Knowledge sharing as an intervention for Gen Y employees' intention to stay. *Industrial and Commercial Training*, *48*(3), 142-148. https://doi.org/10.1108/ICT-01-2015-0011

Nazim, M., & Mukherjee, B. (2016). Chapter 11 - Factors Critical to the Success of Knowledge Management. In M. Nazim & B. Mukherjee (Eds.), *Knowledge Management in Libraries* (pp. 263-286). Chandos Publishing. https://doi.org/https://doi.org/10.1016/B978-0-08-100564-4.00011-9

Ngotngamwong, R. (2020). A Study of Millennial Job Satisfaction and Retention. *Human Behavior, Development and Society*, *21*(3), 47-58. https://so01.tci-thaijo.org/index.php/hbds/issue/view/16616

Oakland, S., & Oakland, J. S. (2001). Current people management activities in world-class organizations. *Total Quality Management*, *12*(6), 773-788. https://doi.org/10.1080/09544120120075370

Pandita, D., & Ray, S. (2018). Talent management and employee engagement – a meta-analysis of their impact on talent retention. *Industrial and Commercial Training*, *50*(4), 185-199. https://doi.org/10.1108/ICT-09-2017-0073

Pasko, R., Maellaro, R., & Stodnick, M. (2021). A study of millennials' preferred work-related attributes and retention. *Employee Relations: The International Journal*, *43*(3), 774-787. https://doi.org/10.1108/ER-05-2020-0224

Payne, S. C., & Huffman, A. H. (2005). A Longitudinal Examination of the Influence of Mentoring on Organizational Commitment and Turnover. *Academy of Management Journal*, *48*(1), 158-168. https://doi.org/10.5465/AMJ.2005.15993166

Peng, X., & Lai, F. (2012). Using Partial Least Squares in Operations Management Research: A Practical Guideline and Summary of Past Research. *Journal of Operations Management*, *30*. https://doi.org/10.1016/j.jom.2012.06.002

Piper, L. E. (2012). Generation Y in healthcare: leading millennials in an era of reform [Article]. *Frontiers of health services management*, *29*(1), 16-28. https://doi.org/10.1097/01974520-201207000-00003

Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *J Appl Psychol*, *88*(5), 879-903. https://doi.org/10.1037/0021-9010.88.5.879

Powell, M., & Lubitsh, G. (2007). Courage in the face of extraordinary talent: Why talent management has become a leadership issue. *Strategic HR Review*, *6*(5), 24-27. https://doi.org/10.1108/14754390980000998

Putriastuti, B. C. K., & Stasi, A. (2019). How to lead the millennials: a review of 5 major leadership theory groups. *Journal of Leadership in Organizations*, *1*(2), 96-111. https://doi.org/https://doi.org/10.22146/jlo.46562

Raihan, J. M. H. (2012). Mediating Effects of Organizational Commitment and Perceived Organizational Support on HRM Practices and Turnover Intention: A Study of Private Universities in Bangladesh.

Rodrigues, N., & Rebelo, T. M. (2022). Linking trait-emotional intelligence and citizenship performance in a high-complexity job: Examining its predictive validity and the mediating effect of job satisfaction. *Revista Psicologia Organizações e Trabalho*, *22*(2), 1952-1960. https://doi.org/10.5935/rpot/2022.2.22480

Ross, J. A. (2008). *Dealing with the Real Reasons People Leave*. Harvard Management Update. Retrieved May 10 from https://hbr.org/2008/02/dealing-with-the-real-reasons

Rothwell, W. J. (2011). Replacement planning: a starting point for succession planning and talent management. *International Journal of Training and Development*, *15*(1), 87-99. https://doi.org/https://doi.org/10.1111/j.1468-2419.2010.00370.x

Schawbel, D. (2011). *The Beginning of the End of the 9-to-5 Workday?* TIME. https://business.time.com/2011/12/21/the-beginning-of-the-end-of-the-9-to-5-workday/

Sharma, L. (2012). Generation Y at Workplace. *International Journal of Management V*, 74-78. https://samvad.sibmpune.edu.in/index.php/samvad/article/view/98269/71406

Smith, T., & Nichols, T. (2015). Understanding the Millennial Generation. *Journal of Business Diversity*, *15*(1), 39-47.

State Government of Victoria. (2018). *Medical Laboratory Science Workforce Report*. Victorian Government. https://www.health.vic.gov.au/sites/default/files/migrated/files/collections/research-and-reports/v/victorian-allied-health-workforce-project-2016/medical-laboratory-science-workforce-report.pdf

Stats NZ. (2022). *Baby boomer*. Stats NZ DataInfor+. Retrieved January 12 from https://datainfoplus.stats.govt.nz/Item/nz.govt.stats/272b6b97-671e-4d8d-a6e1-0b9218cc4fe6

Stewart, J. S., Oliver, E. G., Cravens, K. S., & Oishi, S. (2017). Managing millennials: Embracing generational differences. *Business Horizons*, *60*(1), 45-54. https://doi.org/https://doi.org/10.1016/j.bushor.2016.08.011

Taherdoost, H. (2016). Sampling Methods in Research Methodology; How to Choose a Sampling Technique for Research. *International Journal of Academic Research in Management*, *5*, 18-27. https://doi.org/10.2139/ssrn.3205035

Turner, D. P. (2020). Sampling Methods in Research Design. *Headache: The Journal of Head and Face Pain*, *60*(1), 8-12. https://doi.org/https://doi.org/10.1111/head.13707

Twenge, J. M., Campbell, S. M., Hoffman, B. J., & Lance, C. E. (2010). Generational Differences in Work Values: Leisure and Extrinsic Values Increasing, Social and Intrinsic Values Decreasing. *Journal of Management*, *36*(5), 1117-1142. https://doi.org/10.1177/0149206309352246

Valenti, A. (2019). Leadership Preferences of the Millennial Generation. *Journal of Business Diversity*, *19*(1). https://doi.org/10.33423/jbd.v19i1.1357

Vera, D., & Crossan, M. (2004). Strategic Leadership and Organizational Learning. *Academy of Management Review*, *29*, 222-240. https://doi.org/10.5465/AMR.2004.12736080

Vos, A. d., Hauw, S. D., & Heijden, B. v. d. (2011). Competency development and career success: The mediating role of employability. *Journal of Vocational Behavior*, *79*, 438-447.

Weng, R. H., Huang, C. Y., Tsai, W. C., Chang, L. Y., Lin, S. E., & Lee, M. Y. (2010). Exploring the impact of mentoring functions on job satisfaction and organizational commitment of new staff nurses. *BMC Health Serv Res*, *10*, 240. https://doi.org/10.1186/1472-6963-10-240

Widen, G., Ahmad, F., Siven, T., & Ivantsova, E. (2020). *Understanding generational differences in knowledge sharing*. https://doi.org/10.34190/EKM.20.209

Wong, K. (2013). Partial least square structural equation modeling (PLS-SEM) techniques using SmartPLS. *Marketing Bulletin*, *24*, 1-32.

Xuecheng, W., Iqbal, Q., & Saina, B. (2022). Factors Affecting Employee's Retention: Integration of Situational Leadership With Social Exchange Theory. *Front Psychol*, *13*, 872105. https://doi.org/10.3389/fpsyg.2022.872105

Yeo, R., & Dopson, S. (2017). Chapter 3 - Lose it to Gain it! Unlearning by Individuals and Relearning as a Team. In J. Hong, R. S. Snell, & C. Rowley (Eds.), *Organizational Learning in Asia* (pp. 41-84). Elsevier. https://doi.org/https://doi.org/10.1016/B978-0-08-100983-3.00003-4

Yusandra, E., & Diana, H. A. H. (2022). Effectiveness of Mentorship Program for Nurses Retention, Job Satisfaction, and Intention to Stay. *The Malaysian Journal of Nursing (MJN)*, *14*(2), 38-45. https://doi.org/10.31674/mjn.2022.v14i02.007

Appendix A: AUTEC Ethics Application Approval Letter

Auckland University of Technology Ethics Committee (AUTEC)

Auckland University of Technology
D-88, Private Bag 92006, Auckland 1142, NZ
T: +64 9 921 9999 ext. 8316
E: ethics@aut.ac.nz
www.aut.ac.nz/researchethics

12 April 2022

Joe Chang Wee Leong
Faculty of Health and Environmental Sciences

Dear Joe Chang Wee

Re Ethics Application: **21/320 Talent management, development, and retention of Gen 'Y' employees in New Zealand clinical laboratory.**

Thank you for providing evidence as requested, which satisfies the points raised by the Auckland University of Technology Ethics Committee (AUTEC).

Your ethics application has been approved for three years until 12 April 2025.

Standard Conditions of Approval

1. The research is to be undertaken in accordance with the Auckland University of Technology Code of Conduct for Research and as approved by AUTEC in this application.
2. A progress report is due annually on the anniversary of the approval date, using the EA2 form.
3. A final report is due at the expiration of the approval period, or, upon completion of project, using the EA3 form.
4. Any amendments to the project must be approved by AUTEC prior to being implemented. Amendments can be requested using the EA2 form.
5. Any serious or unexpected adverse events must be reported to AUTEC Secretariat as a matter of priority.
6. Any unforeseen events that might affect continued ethical acceptability of the project should also be reported to the AUTEC Secretariat as a matter of priority.
7. It is your responsibility to ensure that the spelling and grammar of documents being provided to participants or external organisations is of a high standard and that all the dates on the documents are updated.
8. AUTEC grants ethical approval only. You are responsible for obtaining management approval for access for your research from any institution or organisation at which your research is being conducted and you need to meet all ethical, legal, public health, and locality obligations or requirements for the jurisdictions in which the research is being undertaken.

Please quote the application number and title on all future correspondence related to this project.

For any enquiries please contact ethics@aut.ac.nz. The forms mentioned above are available online through http://www.aut.ac.nz/research/researchethics

(This is a computer-generated letter for which no signature is required)

The AUTEC Secretariat
Auckland University of Technology Ethics Committee

Cc: oscarl@adhb.govt.nz; Jill Meyer

Appendix B: Invitation Email from NZIMLS

From: Sharon <sharon@nzimls.org.nz>
Sent: Monday, 27 June 2022 11:04 AM
To: [redacted]
Subject: Research Study

CAUTION: This email originated from outside of our organisation. Do not click links or open attachments unless you recognise the sender and know the content is safe.

NZIMLS

Kia ora

One of our members, Oscar Lau (ADHB) is conducting a research study as below. If you are eligible, Oscar would greatly appreciate you taking part in his study.

We invite NZIMLS members born between 1980 and 1999 to participate in a research study about talent management, development, and retention of Generation Y employees in New Zealand clinical laboratory.

The online survey can be accessed here (access via Google Chrome browser) or via the QR code below.

Your contribution to this study will help us understand the effect of talent management practices on employee retention among Gen Y employees in NZ clinical laboratories, and will help us develop a conceptual framework to improve the retention of Gen Y employees in clinical laboratories.

For further information, please refer to the participant information sheet or contact Oscar Lau via email, oscarl@adhb.govt.nz.

Survey link: https://www.surveymonkey.com/r/talentmanagementnzlabs

Ngā mihi nui

Oscar Lau (He/Him)

View In Browser | Unsubscribe | Forward to a Friend

NZIMLS

Appendix C: Recruitment of Research Participants Sheets

Recruitment of research participants

Talent management, development, and retention of Generation Y employees in New Zealand clinical laboratory.

What is this study about?

Research in the business industry suggested strong talent management practices led to a high level of employee engagement and improved employee retention. However, little to no research is done to examine the concept of talent management in Generation Y employees (born between 1980 and 1999) in the clinical laboratory sector in New Zealand.

This research surveys the effect of talent management practices on employee retention among Gen Y employees in clinical laboratory and examines the relationship between talent management and retention of Gen Y employees in the New Zealand clinical laboratory profession.

What is involved?

You will be asked to complete an online survey which will take approximately 20-30 minutes. The survey will be advertised and can be accessed on the New Zealand Institute of Medical Laboratory Science (NZIMLS) website (www.nzimls.org.nz) or via the survey link/ QR code on the next page.

The survey questions are about talent management strategies, competency development, your attitudes towards the laboratory profession, and your intention to stay in the industry.

Your participation in this survey is voluntary. When you click on the link you are indicating your consent to take part in this study.

The information you provide is anonymous. We do not collect identifying information such as your name, address, the laboratory you are working at, or IP address.

Why participate?

Your contribution to this study will help us understand the effect of talent management practices on employee retention among Gen Y employees in clinical laboratories in New Zealand. Your contribution will help us develop a conceptual framework to improve the retention of Gen Y employees in clinical laboratories.

The findings and knowledge obtained from this study have the potential to provide long-term application in which it can be applied to other generation groups and other healthcare professions.

Who can participate?

You can participate if

- You were born between 1980 and 1999.
- You are a registered laboratory professional with the Medical Sciences Council New Zealand.
- You are a member of the New Zealand Institute of Medical Laboratory Science (NZIMLS).

How can I participate?

You can access the link to the online survey via the NZIMLS website, www.nzimls.org.nz, or via the survey link/ QR code in below.

Who is undertaking the research?

This research is being undertaken by myself, Oscar Lau and my supervisor, Joe Chang at AUT University.

How can I find out more about this research?

If you are interested in taking part in this research or would like more information, please contact Oscar Lau (Section Leader, Department of Automation and Laboratory Support Services, LabPLUS, Auckland Hospital) via email: oscarl@adhb.govt.nz

Survey link and QR code to the online survey:

https://www.surveymonkey.com/r/talentmanagementnzlabs

Appendix D: Participant Information Sheet

Participant Information Sheet

Date Information Sheet Produced: 30 March 2022 (Reviewed: 26 June 2022)

Project Title

Talent management, development, and retention of Generation Y (Gen Y) employees in New Zealand clinical laboratory.

Introduction:

My name is Oscar Lau. I am conducting research as a part of the Master of Medical Laboratory Science programme under the supervision of Joe Chang at AUT University. You are being invited to participate in a research study about talent management, development, and retention of Gen Y employees in New Zealand clinical laboratory.

What is the purpose of this research?

The purpose of this research is to survey the effect of talent management practices on employee retention among Gen Y employees in clinical laboratories, and to examine the relationship between talent management and retention of Gen Y employees in the New Zealand clinical laboratory profession.

This is a quantitative study which uses the survey method to collect data. This is one of the first studies to propose a conceptual framework to improve the retention of Gen Y employees in the laboratory profession. The findings of this research may be used for academic publications and presentations.

How was I identified and why am I being invited to participate in this research?

You are invited to participate in this research study because you have been identified as a registered laboratory practitioner and a member of the New Zealand Institute of Medical Laboratory Science (NZMLS). You can participate if you were born between 1980 and 1999.

How do I agree to participate in this research?

Your participation in this research is voluntary (it is your choice) and whether or not you choose to participate will neither advantage nor disadvantage you. If you decide to participate in this survey, you may withdraw at any point until your responses have been submitted. Once you have submitted your responses, your data cannot be withdrawn.

Approved by the Auckland University of Technology Ethics Committee on *12 April 2022*, AUTEC Reference number *21/320*.

What will happen in this research?

You will be asked to complete an online survey which will take approximately 20-30 minutes. The survey questions are about talent management strategies, competency development, your attitudes towards the laboratory profession, and your intention to stay in the industry.

What are the benefits?

Your contribution to this study will help us understand the effect of talent management practices on employee retention among Gen Y employees in clinical laboratories in New Zealand. Your contribution will help us develop a conceptual framework to improve the retention of Gen Y employees in clinical laboratories.

The findings and knowledge obtained from this study have the potential to provide long-term applications which can be applied to other generation groups and other healthcare professions.

How will my privacy be protected?

Your participation is voluntary and the information you provide is anonymous. We do not collect identifying information such as your name, address, the laboratory you work at, or IP address. No findings which could identify any individual participant will be published, and your privacy will be protected at all stages of the research.

Will I receive feedback on the results of this research?

Upon completion of this study, a summary of findings will be made available on the NZIMLS website, www.nzimls.org.nz. The findings and the proposed conceptual framework will be made available in the form of a journal article and/ or a conference paper as well as conference and seminar presentations.

What do I do if I have concerns about this research?

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor, Joe Chang (wchang@aut.ac.nz).

Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTEC, ethics@aut.ac.nz , (+649) 921 9999 ext 6038.

Whom do I contact for further information about this research?

Please keep this information sheet and a copy of the electronic consent form for your future reference. You are also able to contact the research team as follows:

Researcher Contact Details: Oscar Lau – oscarl@adhb.govt.nz

Project Supervisor Contact Details: Joe Chang - wchang@aut.ac.nz

Approved by the Auckland University of Technology Ethics Committee on *12 April 2022*, AUTEC Reference number *21/320*.

Appendix E: Online Questionnaire
Information and electronic consent page:

Talent management, development, and retention of Gen Y employees in New Zealand clinical laboratory.

Information and Consent

Project title: Talent management, development, and retention of Generation Y (Gen Y) employees in New Zealand clinical laboratory.

My name is Oscar Lau. I am conducting research as a part of the Master of Medical Laboratory Science programme under the supervision of Joe Chang at AUT University. You are being invited to participate in a research study about talent management, development, and retention of Gen Y employees in New Zealand clinical laboratory.

The purpose of this research is to survey the effect of talent management practices on employee retention among Gen Y employees in clinical laboratories and to examine the relationship between talent management and retention of Gen Y employees in the New Zealand clinical laboratory profession.

This is a quantitative study which uses the survey method to collect data. This is one of the first studies to propose a conceptual framework to improve the retention of Gen Y employees in the laboratory profession. The findings of this research may be used for academic publications and presentations.

You are invited to participate in this research study because you have been identified as a registered laboratory practitioner and a member of the New Zealand Institute of Medical Laboratory Science (NZIMLS). You can participate if you were born between 1980 and 1999.

You will be asked to complete an online survey which will take approximately 20-30 minutes. The survey questions are about talent management strategies, competency development, your attitudes towards the laboratory profession, and your intention to stay in the industry.

Your participation in this research is voluntary (it is your choice) and whether or not you choose to participate will neither advantage nor disadvantage you. If you decide to participate in this survey, you may withdraw at any time. The information you provide is anonymous. We do not collect identifying information such as your name, address, the laboratory you work at, or IP address. No findings which could identify any individual participant will be published, and your privacy will be protected at all stages of the research.

Your contribution to this study will help us understand the effect of talent management practices on employee retention among Gen Y employees in clinical laboratories in New Zealand; and will help us develop a conceptual framework to improve the retention of Gen Y employees in clinical laboratories.

The findings and knowledge obtained from this study have the potential to provide long-term applications which can be applied to other generation groups and other healthcare professions.

Upon completion of this study, a summary of findings will be made available on the NZIMLS website. The findings and the proposed conceptual framework will be made available in the form of a journal article and/ or a conference paper as well as conference and seminar presentations.

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor, Joe Chang (wchang@aut.ac.nz).

Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTEC, ethics@aut.ac.nz, (+649) 921 9999 ext 6038.

Please keep this information sheet and a copy of the electronic Consent Form for your future reference. You are also able to contact the research team as follows:

Researcher Contact Details: Oscar Lau – oscarl@adhb.govt.nz
Project Supervisor Contact Details: Joe Chang - wchang@aut.ac.nz

* 1. Electronic consent: Please select your choice below.

- ◯ Agree
- ◯ Disagree

Next

Demographic question:

Talent management, development, and retention of Gen Y employees in New Zealand clinical laboratory.

Demographic question

To ensure we capture the right demographic, please answer the following question.

* 2. What year were you born?

- ◯ Between 1946 to 1964
- ◯ Between 1965 to 1979
- ◯ Between 1980 to 1999
- ◯ Between 2000 to 2012

Prev Next

Powered by SurveyMonkey
See how easy it is to create a survey.

Section 1:

Talent management, development, and retention of Gen Y employees in New Zealand clinical laboratory.

Section 1

Demographic Questions

* 3. Were you trained in New Zealand?

- ◯ Yes
- ◯ No

* 4. Do you hold a current annual practicing certificate (APC) issued by the Medical Sciences Council of New Zealand?

- ◯ Yes
- ◯ No

* 5. Which scope of practice do you currently hold?

- ◯ Medical Laboratory Pre-Analytical Technician (MLPAT)
- ◯ Medical Laboratory Technician (MLT)
- ◯ Medical Laboratory Scientist (MLS)

* 6. How long have you been working as a registered laboratory professional?

- ◯ Less than 1 year
- ◯ 1 to 5 years
- ◯ 6 to 10 years
- ◯ Over 10 years

* 7. Which of the following best describes the geographical location where you work?

- ◯ Metropolitan/ large urban areas (population of 30,000+)
- ◯ Secondary urban areas (population between 10,000 to 29,999)
- ◯ Minor urban areas (population between 1,000 to 9,999)
- ◯ Rural area (population up to 999)

* 8. Please indicate who your main employer is:

- ◯ Public hospital laboratory (DHBs)
- ◯ Community/ private laboratories

Other (please specify)

* 9. What is your current job title?

- ◯ Medical Laboratory Pre-Analytical Technician (MLPAT)
- ◯ Medical Laboratory Technician (MLT)
- ◯ Medical Laboratory Scientist (MLS)
- ◯ Senior MLT/ Senior MLS
- ◯ Technical Specialist/ Second in-charge
- ◯ Section Leader/ Charge Scientist
- ◯ Head of Department/ Unit Manager or relevance
- ◯ Other management role

* 10. Have you worked overseas as a registered laboratory professional?

- ◯ Yes
- ◯ No

* 11. Do you intend to work overseas again?

- ◯ Yes
- ◯ No
- ◯ Unsure

Prev Next

Section 2:

Talent management, development, and retention of Gen Y employees in New Zealand clinical laboratory.

Section 2

In the following section, you will be presented with a statement.

Using the scale provided, please select one answer that is best reflects your opinion about the statement.

* 12. My current employer has a clear mentoring structure for staff.

(*Note: mentoring referred to the act or process of helping and giving advice to a younger or less experienced person. A mentor is a person who can support, advise and guide you. This could be your supervisor, training, or manager).

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

* 13. I have regular one-on-one time with my mentor.

(*Note: A mentor is a person who can support, advise and guide you. This could be your supervisor, trainer, or manager).

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

* 14. My mentor shares his/her knowledge and experience with me.

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

* 15. My mentor gives me assignments/ tasks that present opportunities to learn new skills.

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

* 16. My mentor provides guidance and strategies for accomplishing career objectives.

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

* 17. My mentor conveys feelings of respect for me as an individual.

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

* 18. My leader and I maintain a good working relationship.

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

* 19. My leader listens attentively to me.

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

* 20. My leader understands my needs and provides adequate resources for me to complete my tasks.

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

* 21. My leader formulates objectives clearly.

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

* 22. My leader shares his/her experiences as an alternative perspective on my problems.

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

* 23. My leader demonstrates a clear vision for the organization's strategic direction.

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

* 24. I am provided with all training necessary for me to perform my role.

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

* 25. I am provided with adequate opportunities to develop my professional skills.

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

* 26. I am provided with adequate time and opportunities to attend conferences, seminars, or workshops.

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

* 27. I receive regular feedback on my performance from my superior (e.g., supervisor, leader, manager).

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

* 28. I can make use of career development plans to know what competencies I need to develop.

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

* 29. I have been assigned tasks that would develop my competencies for the future.

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

* 30. Colleagues in my department share their knowledge and skills when I ask them.

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

* 31. Colleagues in my department share any new skills they learned with me.

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

* 32. I share my work experience and know-how knowledge (tips and tricks) with my colleagues.

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

* 33. Colleagues outside of my department share their knowledge and skills when I ask them.

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

* 34. Knowledge-sharing activities (e.g., in-house seminars, grand rounds, training courses, etc.) within my organization are sufficient.

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

* 35. Employees in my organization take the initiative to help other employees when the need arises.

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

* 36. I intend to stay at my current organization.

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

* 37. I expect to be working for my current organization in the near future.

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

* 38. I can’t see myself working for another organization.

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

* 39. I intend to stay in the laboratory profession because it offers ample career progression opportunities.

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

* 40. Colleagues in my department intend to stay within the organization.

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

* 41. My department/organization experience low staff turnover.

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

* 42. It is difficult to retain younger staff in my department/ organization.

- ◯ Strongly agree
- ◯ Agree
- ◯ Neither agree nor disagree
- ◯ Disagree
- ◯ Strongly disagree

* 43. What would be the main reason(s)or factor(s) if you are to consider leaving your organization?

- ☐ Lack of training and career development opportunities.
- ☐ Lack of career progression and opportunities.
- ☐ Poor relationship with supervisor/ mentor/ manager.
- ☐ Poor relationship with my co-workers/ colleagues.
- ☐ Poor work-life balance.
- ☐ Better pay elsewhere.
- ☐ Permanently leaving the profession.
- ☐ Other (please specify)

Prev Done

Thank you message for participants who completed the online questionnaire:

Talent management, development, and retention of Gen Y employees in New Zealand clinical laboratory.

Thank you for completing our survey.
Your feedback is really important to us and we really appreciate the time you have taken to participate in this research project.

Done

Disqualification message for participants who did not meet the eligibility criteria:

Talent management, development, and retention of Gen Y employees in New Zealand clinical laboratory.

Thank you for your interest in participating in our survey.
Unfortunately, you do not meet the eligibility criteria for participation.
We appreciate your time.

Done

Appendix F: Assessment of Multicollinearity

	M1	M2	M3	M4	M5	M6	SL1	SL2	SL3	SL4	SL5	SL6	CD1	CD2	CD3	CD4	CD5	CD6	KS1	KS2	KS3	KS4	KS5	KS6	IS1	IS2	IS3	IS4	IS5	IS6
M1	1																													
M2	0.653	1																												
M3	0.606	0.48	1																											
M4	0.686	0.492	0.718	1																										
M5	0.684	0.555	0.694	0.647	1																									
M6	0.583	0.483	0.707	0.551	0.724	1																								
SL1	0.579	0.416	0.471	0.456	0.452	0.522	1																							
SL2	0.63	0.43	0.51	0.552	0.518	0.617	0.707	1																						
SL3	0.605	0.387	0.46	0.506	0.531	0.508	0.627	0.684	1																					
SL4	0.644	0.445	0.434	0.526	0.442	0.537	0.675	0.681	0.703	1																				
SL5	0.546	0.398	0.477	0.427	0.457	0.498	0.676	0.618	0.676	0.691	1																			
SL6	0.633	0.444	0.414	0.476	0.516	0.503	0.555	0.623	0.594	0.675	0.609	1																		
CD1	0.701	0.527	0.463	0.477	0.413	0.433	0.553	0.567	0.615	0.58	0.546	0.573	1																	
CD2	0.665	0.497	0.414	0.558	0.47	0.555	0.55	0.583	0.71	0.654	0.548	0.508	0.667	1																
CD3	0.556	0.365	0.283	0.353	0.266	0.234	0.446	0.387	0.496	0.481	0.457	0.389	0.669	0.536	1															
CD4	0.476	0.397	0.343	0.305	0.336	0.461	0.472	0.423	0.555	0.563	0.573	0.498	0.572	0.595	0.596	1														
CD5	0.722	0.666	0.546	0.577	0.501	0.492	0.443	0.497	0.584	0.566	0.534	0.505	0.663	0.671	0.543	0.631	1													
CD6	0.447	0.405	0.368	0.387	0.335	0.447	0.409	0.392	0.499	0.479	0.603	0.418	0.541	0.589	0.447	0.559	0.545	1												
KS1	0.646	0.436	0.459	0.534	0.45	0.516	0.582	0.668	0.475	0.527	0.57	0.488	0.517	0.539	0.331	0.383	0.534	0.467	1											
KS2	0.571	0.421	0.409	0.502	0.48	0.503	0.509	0.579	0.54	0.51	0.526	0.586	0.516	0.581	0.389	0.571	0.516	0.619	0.665	1										
KS3	0.601	0.444	0.498	0.506	0.456	0.535	0.478	0.552	0.425	0.561	0.439	0.467	0.475	0.439	0.261	0.266	0.496	0.416	0.687	0.618	1									
KS4	0.481	0.267	0.407	0.37	0.334	0.335	0.373	0.454	0.446	0.37	0.52	0.461	0.466	0.427	0.443	0.394	0.602	0.395	0.563	0.555	0.473	1								
KS5	0.602	0.547	0.366	0.461	0.518	0.491	0.484	0.552	0.479	0.508	0.486	0.552	0.471	0.542	0.409	0.449	0.561	0.421	0.627	0.65	0.501	0.653	1							
KS6	0.724	0.475	0.453	0.536	0.484	0.543	0.47	0.568	0.54	0.558	0.493	0.552	0.556	0.518	0.429	0.372	0.633	0.307	0.66	0.557	0.649	0.648	0.677	1						
IS1	0.68	0.595	0.532	0.619	0.66	0.651	0.54	0.558	0.596	0.567	0.504	0.585	0.561	0.692	0.496	0.565	0.697	0.446	0.535	0.526	0.468	0.5	0.73	0.626	1					
IS2	0.599	0.49	0.435	0.407	0.407	0.483	0.547	0.536	0.454	0.567	0.497	0.616	0.605	0.532	0.31	0.527	0.432	0.483	0.505	0.514	0.403	0.222	0.442	0.391	0.546	1				
IS3	0.621	0.574	0.356	0.445	0.366	0.48	0.566	0.585	0.522	0.602	0.575	0.56	0.601	0.6	0.431	0.581	0.531	0.477	0.508	0.518	0.385	0.242	0.478	0.493	0.566	0.677	1			
IS4	0.474	0.487	0.323	0.376	0.352	0.424	0.534	0.444	0.382	0.49	0.497	0.574	0.586	0.449	0.296	0.531	0.383	0.497	0.458	0.53	0.325	0.188	0.424	0.32	0.464	0.663	0.658	1		
IS5	0.695	0.489	0.367	0.446	0.467	0.495	0.488	0.534	0.389	0.498	0.47	0.661	0.544	0.462	0.419	0.515	0.49	0.379	0.533	0.553	0.411	0.27	0.525	0.546	0.617	0.633	0.699	0.696	1	
IS6	0.669	0.551	0.41	0.522	0.498	0.463	0.451	0.501	0.498	0.58	0.499	0.631	0.539	0.56	0.483	0.631	0.578	0.555	0.481	0.615	0.43	0.371	0.553	0.492	0.616	0.65	0.701	0.503	0.665	1

Appendix G: Qualitative Responses on Factors Affecting Organisational Departure Consideration

	Others (please specify)
1	*The retention of laboratory staff in current times is very poor. This is a side effect of COVID, but it has been a long time coming, and now we are at a breaking point. Medical laboratory science as a profession is the unknown health profession that has not been acknowledged in the past to the point that we are seeing no new members coming through. On the whole, it is a profession that is misunderstood in terms of its importance in the health system of NZ, both in terms of salary and clinical significance. We are underpaid for a 4-year degree in comparison with other health professionals and are somehow grouped in with Allied Health (no offense to these professions at all), even though we are clearly a clinical profession. Clinical staff rely on our profession to be able to diagnose and treat patients, yet we seem to be pushed into the background regarding our importance.*
2	*Passed over for development opportunities without sufficient chance to develop the skills I am lacking. Frustrated with the organization's resistance to change.*
3	*Lack of resources/money for us to implement quality improvement ideas.*
4	*Becoming a stay-at-home parent.*
5	*Absolutely no recognition for good work, one-sidedness, and lack of privacy. If you complain, everyone knows about it. Lack of respect due to my age.*
6	*Ethical grounds.*
7	*Toxic systemic bullying in the industry.*
8	*I have doubts about the competency of the Medical Sciences Council of New Zealand as the regulatory body for this career.*
9	*Not leaving.*
10	*The development and continued emergence of computers in medical laboratory science and the reduction of available positions for scientists who use the skills they learned at university.*
11	*Moving cities to be closer to family and buy a house.*
12	*The job is stressful and comes with a lot of extra responsibilities and tasks for which I don't feel provided with adequate time and resources. I also lack support from my manager and colleagues, and I don't foresee it improving over time.*
13	*Workplace politics.*
14	*Management in the company is not effective.*
15	*As a highly educated profession, we are undervalued and underpaid. It is challenging to live in Auckland on the salaries provided. We are now paid less than teachers and nurses, despite requiring an arguably higher level of education and training. Why not go somewhere else and get paid more? In Australia, Medical Science Council members are paid 150% of what we are paid here, and the cost of living is comparable. Additionally, there aren't enough resources within our teams to allow sufficient time for supported study, etc., to enable us to progress in our careers unless we dedicate all our own time to it.*
16	*General lack of support and nepotism within the organization.*
17	*Poor relationship with colleagues in other departments.*

18	*Not enough staff. Workload is too heavy. Tired of not getting breaks. Working 10 1/2-hour weekend shifts with no breaks at all! Working on a tight budget, and the company won't allow more staff or part-time staff to pick up extra work to relieve pressure on full-time staff. We need more staff to engage in Continuous Professional Development (CPD), surveys, and training opportunities. Also, we need enough staff to be able to take annual leave without worrying it will get cancelled due to staffing levels. I would love to leave and retrain in another profession. If I didn't have a mortgage and family to support, I would have already left, like the majority of the people I work with.*
19	*Undervalued as a healthcare professional. District Health Boards (DHBs) do not understand the level of skills and knowledge required for our job.*
20	*Distrust and bullying from older staff members. For example, at the start of your career, you are told you need at least 10 years of experience to be considered for a role. After 10 years, you are now told you need 20 years of experience.*
21	*Issues with the structure and bureaucracy of the organization.*
22	*Get bored of the lifestyle and environment in the town.*
23	*Job insecurity/redundancy - there are frequent mergers and redundancies in laboratories when contracts come up, which adds additional stress while waiting for outcomes. When there are no other medical labs in the area, you then have to consider moving cities to stay in the profession, which is disruptive to families and partners (who may earn more and be treated better in their industries). The way COVID-19 was managed within labs (not the testing itself, but the support for staff). Poor workplace culture, e.g., negative attitude of other older staff members. If a manager changed and workplace bullying started (common in the industry). I know multiple people who have left medical lab jobs/industry due to bullying in the workplace.*
24	*Currently work at Grafton, purchased a property in South Auckland as it is much more affordable, so I am looking for a job closer to home. The long commute makes it a struggle to maintain a good work-life balance.*
25	*Major life changes (e.g., having to move to care for a family member, etc.).*
26	*Looking for work close to home (within 15 minutes).*
27	*The lack of career progression opportunities is the main reason why I went back to university a few years ago to retrain in a different career path with more opportunities. I have almost completed my education and will probably leave the medical laboratory soon (some job opportunities have already come up).*
28	*Job security - The existence of laboratory work in private companies depends on whether contracts are renewed and the length of the contract (in years) by the DHB/government. There is uncertainty if the contract for my current organization will be renewed after next year.*
29	*Planning to move to a different country.*
30	*Better temperature living.*
31	*Becoming a stay-at-home parent.*