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Talent retention in South African SMEs in the digital era

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ABSTRACT

This quantitative study investigated the relationship between the influential factors of employees (talent) and their intent to stay. It achieved this by exploring the current approaches and dynamic retention models that Small Enterprises (SMEs) employ and tested the alignment between what SMEs provide and what talent prefer. The study also aimed to test if retention approaches have a mediating effect on intent to stay and if established influential factors that lead to job embeddedness are still relevant in post-pandemic South Africa.

Digital transformation has become imperative for SMEs to broaden their efficiency at a lower cost and expand their footprint in the market as a result of the shift in consumer behaviour. To this effect, the importance of SMEs' contribution to the economy and their ability to navigate the need for talent amid skills gaps and shortages, locally and globally, accentuates the need for this kind of study in South Africa.

The study found that only 34% of the SMEs in the sample have moderate to significant focus and investment in digital transformation. Whilst 96% of digital talent prefer staying in a company with significant to moderate focus and investment in transforming. Emphasizing the important role that digital transformation plays in retaining talent. 84% of the digital talent highlighted that they prefer full-time employment over contract work. Alluding to the current level of readiness for the concept of the gig economy in the South African talent market. The study also revealed that only 17% of the SMEs currently utilise democratized learning and development as a retention approach and only 38% of the SMEs currently employ remuneration programs to align salaries to market and effective leadership. This poses a risk to SMEs to retain talent as the research shows that digital talent is currently looking for market-related salaries, remote working and effective leadership as the main approaches that SMEs can offer to ensure they stay in a post-pandemic landscape.

The findings helped conclude that systematic investment into digitally transforming certain aspects of SME’s business, while investing in developing their employees in modern technologies will ensure that they have the skills when they are ready to

scale. Also, the a need for a holistic approach to people analytics, not just to assess the needs and factors influencing employees or assessing their level of engagement but also to include their levels of embedment.

KEYWORDS

Small and Medium-sized Enterprises (SMEs), Digital Transformation, Motivation, Psychological contracts, Mediation, Job Embeddedness, Skills gap and shortage, Retention, People analytics.

DECLARATION

I, Newayne R. J Dharmaratne, declare that this research report is my own work except as indicated in the references and acknowledgements. It is submitted in partial fulfilment of the requirements for the degree of Master of Management in the field of Digital Business at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in this or any other university.

Name: Newayne. R. J. Dharmaratne **Signature:** .....

Signed at Fourways **On the** 26th **day of** June **20**23.

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TABLE OF CONTENTS

TABLE OF CONTENTS 6

LIST OF FIGURES 12

LIST OF TABLES 16

LIST OF ACRONYMS 20

CHAPTER 1: INTRODUCTION 21

1.1. CHAPTER OUTLINE 21

1.2. STATEMENT OF PURPOSE 21

1.3. BACKGROUND OF THE STUDY 21

1.4. RESEARCH PROBLEM 24

1.5. RESEARCH QUESTIONS 24

1.6. RATIONALE 25

1.7. DELIMITATIONS 25

1.8. ASSUMPTIONS 26

CHAPTER 2: LITERATURE REVIEW AND THEORETICAL FRAMEWORK 27

2.1. INTRODUCTION AND OUTLINE 27

2.2. KEY CONSTRUCTS AND RATIONALE 27

2.3. CONSTRUCT 1: SMALL MEDIUM ENTERPRISES (SME) DIGITAL TRANSFORMATION AND RETENTION. 28

2.3.1. SME DIGITAL TRANSFORMATION 29

2.3.2. CHALLENGES AROUND TALENT AND RETENTION 29

2.3.2.1. SKILLS SHORTAGE 32

2.3.2.2. SKILLS GAP 33

- HYPOTHESIS 1 (H1) 35

2.4. CONSTRUCT 2: RETENTION APPROACHES 35

- HYPOTHESIS 2 (H2) 37
- HYPOTHESIS 3 (H3) 37
- HYPOTHESIS 4 38

- HYPOTHESIS 4.1 (H4.1) 38
- HYPOTHESIS 4.2 (H4.2) 38

2.5. CONSTRUCT 3: MOTIVATION OR INTENT OF TALENT 39

- HYPOTHESIS 5 (H5) 42

2.6. THEORETICAL FRAMEWORK....42

2.6.1. THE THEORETICAL FOUNDATION OF MOTIVATION OR INTENT 43

2.6.2. CONCEPTUAL FRAMEWORK 50

2.7. CONCLUSION OF LITERATURE REVIEW. 52

CHAPTER 3: RESEARCH METHODOLOGY 55

3.1. RESEARCH DESIGN AND APPROACH 55

3.2. POPULATION AND SAMPLE 57

3.2.1. POPULATION AND SAMPLING FRAME....57

3.2.2. SAMPLING METHOD AND SAMPLE SIZE....58

3.3.3. SAMPLE SIZE....58

3.3. RESEARCH INSTRUMENT AND DATA COLLECTION....60

3.4. DATA ANALYSIS STRATEGIES AND INTERPRETATION....61

3.5. LIMITATIONS AND CHALLENGES OF THE STUDY 62

3.6. EXTERNAL VALIDITY 63

3.7. INTERNAL VALIDITY....64

3.8. RELIABILITY 65

3.9. ETHICAL CONSIDERATIONS 65

3.10. CHAPTER SUMMARY....66

CHAPTER 4: RESULTS AND FINDINGS 68

4.1. INTRODUCTION....68

4.2. DEMOGRAPHIC PROFILE OF RESPONDENTS 68

4.2.1. SME OWNER SAMPLE....68

4.2.1.1. SME OWNER DISTRIBUTION BY PROVINCE, INDUSTRY AND STAFF COMPLEMENT....69

4.2.1.2. SME OWNER DISTRIBUTION BY PROVINCE, INDUSTRY, AND YEARS OF SERVICE 70
4.2.1.3. SME AND DIGITAL TRANSFORMATION IN SAMPLE 71
4.2.1.4. SME AND RETENTION APPROACHES 71
4.2.1.5. SME OWNER DESCRIPTIVE ANALYSIS 73
4.2.2. DIGITAL TALENT SAMPLE....74
4.2.2.1. DIGITAL TALENT GENDER, ETHNICITY AND AGE GROUP....74
4.2.2.2. DIGITAL TALENT'S EDUCATION LEVEL AND TECHNOLOGY PROFICIENCY....75
4.2.2.3. DIGITAL TALENT'S INTENT TO STAY. 77
4.2.2.4. DIGITAL TALENT'S EMBEDDEDNESS....78
4.3. REVIEW OF RELIABILITY AND DATA ATTRIBUTES 78
4.4. FINDINGS PERTAINING TO HYPOTHESIS 1: SMES THAT HAVE LITTLE TO NO FOCUS AND INVESTMENT IN DIGITAL TRANSFORMATION WILL HAVE AN EFFECT ON DIGITAL-ORIENTED TALENT'S INTENT TO STAY IN THE COMPANY. 79
4.5. FINDINGS PERTAINING TO HYPOTHESIS 2: SMES THAT PREFER DEVELOPING AND RETAINING TALENT WILL HAVE POSITIVE RELATIONSHIP BETWEEN DIGITAL-ORIENTED TALENT'S INFLUENTIAL FACTORS AND INTENT TO STAY. 81
4.6. FINDINGS PERTAINING TO HYPOTHESIS 3: SMES THAT PREFER SHORT-TERM CONTRACTING WILL HAVE A NEGATIVE RELATIONSHIP BETWEEN DIGITAL-ORIENTED TALENT'S INFLUENTIAL FACTORS AND INTENT TO STAY IN THE AGE GROUP 35 TO 44. 84
4.7. FINDINGS PERTAINING TO HYPOTHESIS 4: THERE IS A MEDIATION EFFECT BETWEEN INFLUENTIAL FACTORS AND INTENT TO STAY WHEN RETENTION APPROACHES ARE INTRODUCED....86
4.7.1. FINDINGS PERTAINING TO HYPOTHESIS 4.1: THERE IS A MEDIATION EFFECT WHEN SMES OFFER REVERSE MENTORING IN RESPONSE TO THE NEED FOR FLEXIBLE WORK AND INTENT TO STAY....87
4.7.2. FINDINGS PERTAINING TO HYPOTHESIS 4.2: THERE IS A MEDIATION EFFECT WHEN SMES OFFER REMOTE WORKING IN RESPONSE TO THE NEED FOR FLEXIBLE WORK AND INTENT TO STAY....89

4.8. Findings pertaining to Hypothesis 5: Digital talent with advanced technology proficiencies that feel embedded to any degree will have a positive relationship with their intent to stay. 91
4.9. Chapter Summary 93
4.9.1. From a SME perspective 94
4.9.2. From a digital talent perspective 94
4.9.3. Reliability and data attributes 95
4.9.4. Testing of hypothesis and results 96
CHAPTER 5: DISCUSSION OF RESULTS AND FINDINGS 99
5.1. Introduction 99
5.2. Profile of respondents 99
5.2.1. Profile of SMEs in the sample 99
5.2.1.1. Demography of SME owner in sample 100
5.2.1.2. SME and digital transformation in sample 101
5.2.1.3. SME and retention approaches 103
5.2.1.4. SMEs and their perception on what digital talent want 105
5.2.2. Profile of Digital talent in the sample 108
5.2.2.1. Digital Talent Gender, Ethnicity and Age Group 108
5.2.2.2. Digital Talent's education level and technology proficiency 109
5.2.2.3. Digital Talent's intent to stay. 109
5.2.2.4. Digital Talent's embeddedness 111
5.3. Discussion pertaining to Hypothesis 1: SMEs that have little to no focus and investment in digital transformation will have an effect on digital-oriented talent's intent to stay in the company. 112
5.4. Discussion pertaining to Hypothesis 2: SMEs that prefer developing and retaining talent will have positive relationship between digital-oriented talent's influential factors and intent to stay. 113
5.5. Discussion pertaining to Hypothesis 3: SMEs that prefer short-term contracting will have a negative relationship between

DIGITAL-ORIENTED TALENT'S INFLUENTIAL FACTORS AND INTENT TO STAY IN THE AGE GROUP 35 TO 44. 114
5.6. DISCUSSION PERTAINING TO HYPOTHESIS 4: THERE IS A MEDIATION EFFECT BETWEEN INFLUENTIAL FACTORS AND INTENT TO STAY WHEN RETENTION APPROACHES ARE INTRODUCED. 115
5.7. DISCUSSION PERTAINING TO HYPOTHESIS 5: DIGITAL TALENT WITH ADVANCED TECHNOLOGY PROFICIENCIES THAT FEEL EMBEDDED TO ANY DEGREE WILL HAVE A POSITIVE RELATIONSHIP WITH THEIR INTENT TO STAY. 116
5.8. CONCLUSION 117
CHAPTER 6: CONCLUSIONS & RECOMMENDATIONS 119
6.1. INTRODUCTION 119
6.2. CONCLUSIONS REGARDING: WHAT IS THE RELATIONSHIP BETWEEN ALIGNED INFLUENTIAL FACTORS AND RETENTION APPROACHES HAVE ON DIGITAL TALENTS' INTENT TO STAY IN AN SME? 119
6.3. CONCLUSIONS REGARDING: TO WHAT EXTENT DOES INFLUENTIAL FACTORS AND RETENTION APPROACHES INFLUENCE/MEDIATE THE DECISION TO STAY IN AN SME? 121
6.4. CONCLUSIONS REGARDING: IS THERE A SIGNIFICANT RELEVANCE OF MODERN WESTERN THEORIES ON TALENTS' INTENT TO STAY IN A POST-PANDEMIC SOUTH AFRICA? 121
6.5. OVERALL VIEW AND RECOMMENDATIONS 122
6.6. SUGGESTIONS FOR FURTHER RESEARCH 123
REFERENCES 124
APPENDIX A CONSISTENCY TABLE 131
APPENDIX B RESEARCH INSTRUMENTS 134
B1: QUESTIONNAIRE COVER LETTER 134
B2: QUESTIONNAIRE COVER LETTER 135
B3: QUESTIONNAIRE FOR SME OWNERS 136
B4: QUESTIONNAIRE FOR DIGITAL TALENT 143
APPENDIX C: ANALYSIS TABLES 151
C.1.1. SME OWNER MISSING DATA ANALYSIS TABLE FROM SPSS 151

C.1.2. Digital Talent Missing Data Analysis table from SPSS 152
C.1.3. Overall Distribution 154
C.1.4. Distribution per variable tested. 155
C.1.5. Reliability of composite measures. 159
C1.5.1 Rule of thumb for interpreting Cronbach results and internal consistency 160
C.1.6 Transformed and recoded question 20 (applicable for question 21 as well). 160
C.1.7 Transformed and recoded to determine embeddedness 162
APPENDIX D: Additional 164
D.1 SME Classification Table 164
D.2 Statista Table: Q3 2022 labour force distribution in South Africa by age group 165
D.3 T-Test Critical value table 165
APPENDIX E: Demography graphs and tables 166
E1: SME by province, industry and number of years of service. 166
E2: SME level of focus and investment into digital transformation by industry 167
E3: Retention approaches currently employed by SMES 168
E4: Retention approaches currently employ by SMES per industry 168
E4: Distribution of duration based on age and gender 169
APPENDIX F: Ethic Clearance Certificate 170

LIST OF FIGURES

FIGURE 1.1: EMPLOYMENT BY INDUSTRY, SOURCE: STATSSA Q1 2023 REPORT ((STATSSA, 2023)) 30

FIGURE 1. 2: BENCHMARKING WORLD TALENT RANKING 2020, SOURCE: INSTITUTE FOR MANAGEMENT DEVELOPMENT WORLD TALENT RANKING 2020 (NACI, 2021, P. 12)) 31

FIGURE 1.3: GLOBAL TALENT SHORTAGE BY COMPANY SIZE, SOURCE: MANPOWER GROUP 2022 TALENT SHORTAGE REPORT (MANPOWER, 2022A, P. 1) 32

FIGURE 1.4: SOUTH AFRICAN TALENT SHORTAGE BY COMPANY SIZE, SOURCE: MANPOWER GROUP 2022 TALENT SHORTAGE REPORT (MANPOWER, 2022B, P. 1) 33

FIGURE 1.5: SOUTH AFRICAN TALENT SHORTAGE OVERTIME, SOURCE: MANPOWER GROUP 2022 TALENT SHORTAGE REPORT (MANPOWER, 2022B, P. 1) 33

FIGURE 1.6: HAD EMPLOYEE ENGAGEMENT MATRIX, SOURCE: HDA JOURNAL (GLEN, 2006, P. 39) 40

FIGURE 1.7: CONCEPTUAL MODEL OF PUSH AND PULL FACTORS FOR TALENT RETENTION, SOURCE: JOURNAL – EXPLORING PUSH AND PULL FACTORS FOR TALENT DEVELOPMENT AND RETENTION: IMPLICATIONS FOR PRACTICE (MUTANGA ET AL., 2021, P. 2) 41

FIGURE 1.8: AN ADAPTED OVERARCHING CONCEPTUAL MODEL TO ASSESS RETENTION RATE BASED ON PSYCHOLOGICAL CONTRACT DERIVED FROM MOTIVATION FACTORS AND EXPECTATIONS AND MEDIATED BY RETENTION APPROACHES, SOURCE: BASED ON THE LITERATURE REVIEWED (GHOSH ET AL., 2012; GLEN, 2006; LEE ET AL., 2014; MUTANGA ET AL., 2021; PARDEE, 1990; RAMLALL, 2004; VAIM, 2021; ZIN ET AL., 2012) ... 50

FIGURE 1.9: DRAWN FROM AN OVERARCHING CONCEPTUAL MODEL THAT FOCUSES ON SPECIFIC ASPECTS AND INDICATES THE HYPOTHESIS THAT WILL BE TESTED TO VALIDATE THE MODEL, SOURCE: BASED ON THE LITERATURE REVIEWED (GLEN, 2006; MUTANGA ET AL., 2021; PARDEE, 1990; RAMLALL, 2004; VAIM, 2021; ZIN ET AL., 2012) ... 52

FIGURE 1.10: ILLUSTRATION OF THE TARGET SAMPLE FOR SME OWNERS AND A POOL OF DIGITAL TALENT IN 3 PROVINCES IN SCOPE OF THE STUDY 59

FIGURE 1.11: SME SAMPLE DISTRIBUTION-BASED PROVINCE (SOURCE: PRIMARY DATA) ... 64

FIGURE 1.12: SME DISTRIBUTION BY INDUSTRY PER PROVINCE (SOURCE: PRIMARY DATA) 64

FIGURE 1.13: FULL DISTRIBUTION OF THE RESPONDENTS PER PROVINCE, INDUSTRY BASED ON EMPLOYEE SIZE. (SOURCE PRIMARY DATA) 69

FIGURE 1.14: DISTRIBUTION OF THE SME BASED ON THEIR PREFERENCE TO ACQUIRE SKILLS. (SOURCE PRIMARY DATA)....72

FIGURE 1.15: DISTRIBUTION OF THE SME BASED RETENTION RATE. (SOURCE PRIMARY DATA)....72

FIGURE 1.16: FULL DISTRIBUTION OF THE DIGITAL TALENT RESPONDENTS PER PROVINCE, GENDER AND ETHNICITY CATEGORISED BY AGE GROUP. (SOURCE: PRIMARY DATA).75

FIGURE 17.17: DISTRIBUTION OF DIGITAL TALENT RESPONDENT'S EDUCATION LEVEL CATEGORISED BY GENDER. (SOURCE PRIMARY DATA) 76

FIGURE 1.18: DISTRIBUTION OF DIGITAL TALENT RESPONDENTS' TECHNOLOGY PROFICIENCIES CATEGORISED BY GENDER. (SOURCE PRIMARY DATA) 76

FIGURE 1.19: MEDIATION MODEL FOR RESERVE MENTORING AS A MEDIATOR DERIVED FROM GÜRBÜZ & BAYIK STUDY IN 2021 (SOURCE: (GÜRBÜZ; & BAYIK, 2021)....88

FIGURE 1.20: OUTPUT OF THE LINEAR REGRESSION ANALYSIS USING SPSS PROCESS MACRO (HAYES, 2015) (SOURCE: SPSS) 88

FIGURE 1.21: OUTPUT OF THE LINEAR REGRESSION ANALYSIS USING SPSS PROCESS MACRO (HAYES, 2015) FOCUSING ON THE DIRECT AND INDIRECT EFFECT (SOURCE: SPSS)....89

FIGURE 1.22: MEDIATION MODEL FOR REMOTE WORKING AS A MEDIATOR DERIVED FROM GÜRBÜZ & BAYIK STUDY IN 2021 (SOURCE: (GÜRBÜZ; & BAYIK, 2021) 90

FIGURE 1.23: OUTPUT OF THE LINEAR REGRESSION ANALYSIS USING SPSS PROCESS MACRO (HAYES, 2015) (SOURCE: SPSS) 91

FIGURE 1.24: OUTPUT OF THE LINEAR REGRESSION ANALYSIS USING SPSS PROCESS MACRO (HAYES, 2015) FOCUSING ON THE DIRECT AND INDIRECT EFFECT (SOURCE: SPSS)....91

FIGURE 1.25: DISTRIBUTION OF SMES PER PROVINCE BASED ON THEIR VIEW OF HOW IMPORTANT IS DIGITAL TRANSFORMATION FOR SURVIVAL POST-PANDEMIC (SOURCE: PRIMARY DATA) 102

FIGURE 1.26: DIGITAL VORTEX (SOURCE: (AMSTRONG, 2020)) 103

FIGURE 1.27: DISTRIBUTION OF DIGITAL TALENT RESPONDENTS BASED ON PROVINCE. (SOURCE PRIMARY DATA)....154

FIGURE 1.28: DISTRIBUTION OF DIGITAL TALENT RESPONDENTS BASED ON ETHNICITY. (SOURCE PRIMARY DATA)....154

FIGURE 1.29: DISTRIBUTION OF DIGITAL TALENT RESPONDENTS BASED ON GENDER. (SOURCE PRIMARY DATA) 154

FIGURE 1.30: DISTRIBUTION OF DIGITAL TALENT RESPONDENTS BASED ON AGE GROUP. (SOURCE PRIMARY DATA) 154

FIGURE 1.31: SAMPLE FRAME DISTRIBUTION OF SME RESPONDENTS BASED ON PROVINCE. (SOURCE PRIMARY DATA) 155

FIGURE 1.32: SAMPLE FRAME DISTRIBUTION OF SME RESPONDENTS BASED ON INDUSTRY. (SOURCE PRIMARY DATA) 155

FIGURE 1.33: DISTRIBUTION OF DIGITAL TALENT RESPONDENTS' INTENT TO STAY BASED THE LEVEL OF THE COMPANY'S FOCUS AND INVESTMENT OF DIGITAL TRANSFORMATION. (SOURCE PRIMARY DATA) 156

FIGURE 1.34: SAMPLE FRAME DISTRIBUTION OF SME RESPONDENTS BASED ON THEIR CURRENT LEVEL OF FOCUS AND INVESTMENT IN DIGITAL TRANSFORMATION. (SOURCE PRIMARY DATA) 156

FIGURE 1.35: DISTRIBUTION OF DIGITAL TALENT BASED THE LIKELIHOOD OF STAYING IF SMES CHOOSE TO DEVELOP TALENT. (SOURCE: PRIMARY DATA THAT WAS TRANSFORMED) 156

FIGURE 1.36: SAMPLE FRAME DISTRIBUTION OF SME RESPONDENTS BASED ON THEIR PREFERENCE ON ACQUIRING SKILLS. (SOURCE PRIMARY DATA) 157

FIGURE 1.37: DISTRIBUTION OF DIGITAL TALENT PREFERENCE TO CONTRACTING BASED ON THE AGE RANGE OF 18 TO 34. (SOURCE: PRIMARY DATA THAT WAS TRANSFORMED) 157

FIGURE 1.38: DISTRIBUTION OF HOW IMPORTANT IS HAVING THE OPPORTUNITY TO INFLUENCE AND CONTRIBUTE TO THE COMPANIES GOALS AS A FACTOR TO STAY(SOURCE PRIMARY DATA) 158

FIGURE 1.39: DISTRIBUTION OF SATISFACTION WHEN REVERSE MENTORING IN INTRODUCED. (SOURCE PRIMARY DATA) 158

FIGURE 1.40: DISTRIBUTION OF HOW IMPORTANT IS FLEXIBLE WORK AS A FACTOR TO STAY IN A COMPANY. (SOURCE PRIMARY DATA) 158

FIGURE 1.41: DISTRIBUTION OF HOW IMPORTANT IS FLEXIBLE WORK AS A FACTOR TO STAY IN A COMPANY. (SOURCE PRIMARY DATA) 158

FIGURE 1.42: DISTRIBUTION OF HOW LONG WOULD DIGITAL TALENT STAY IN A COMPANY. (SOURCE PRIMARY DATA) 159

FIGURE 1.43: DISTRIBUTION OF HOW EMBEDDED THE SAMPLE IS. (SOURCE PRIMARY DATA) 159

FIGURE 1.44: CRONBACH ALPHA TABLE 160

FIGURE 1.45: OUTPUT TABLE OF QUESTION 11: BASED ON YOUR EXPERIENCES IN YOUR COMPANY, TO WHAT EXTENT DO YOU AGREE OR DISAGREE WITH THE FOLLOWING STATEMENT (SOURCE: PRIMARY DATA) 162

LIST OF TABLES

TABLE 1.1: HERTZBERG MOTIVATIONAL SATISFIERS AND DISSATISFIERS, (PARDEE, 1990) 44

TABLE 1.2: FACTORS INFLUENCING EMPLOYEE RETENTION. SOURCE (GHOSH ET AL., 2012) 48

TABLE 1.3: HOW CERTAIN RETENTION PRACTICES CAN BE DERIVED FROM TRADITIONAL AND CONTEMPORARY MOTIVATION THEORIES AND LINKED TO INFLUENTIAL FACTORS. SOURCE: BASED ON THE LITERATURE REVIEWED (GHOSH ET AL., 2012; HOLTOM ET AL., 2020; HOM ET AL., 2017; MERIN, 2021; MITCHELL ET AL., 2001; PARDEE, 1990; PARIJAT & BAGGA, 2014; RAMLALL, 2004; ROBBINS & JUDGE, 2013; VAIM, 2021; ZIN ET AL., 2012) 50

TABLE 1.4: SMES BASED INDUSTRY (SOURCE: PRIMARY DATA).....70

TABLE 1.5: SMES BASED PROVINCE AND EMPLOYEE SIZE (SOURCE: PRIMARY DATA).....70

TABLE 1.7: SMES VIEW ON THE IMPORTANCE OF DIGITAL TRANSFORMATION BY INDUSTRY. (SOURCE: PRIMARY DATA) 71

TABLE 1.11: DESCRIPTIVE ANALYSIS OF DIGITAL TALENT (SOURCE: SPSS) 74

TABLE 1.12: DIGITAL TALENT DISTRIBUTION BY GENDER. (SOURCE: PRIMARY DATA).....74

TABLE 1.13: DIGITAL TALENT DISTRIBUTION BY ETHNICITY. (SOURCE: PRIMARY DATA) 74

TABLE 1.14: DIGITAL TALENT BY GENDER AND AGE GROUP. (SOURCE: PRIMARY DATA).....75

TABLE 1.15: DESCRIPTIVE ANALYSIS OF DIGITAL TALENT (SOURCE: SPSS) 77

TABLE 1.16: DIGITAL TALENT'S IDEAL LENGTH OF EMPLOYMENT IN A COMPANY (SOURCE: PRIMARY DATA) 77

TABLE 1.17: DESCRIPTIVE ANALYSIS OF DIGITAL TALENT'S GROUPED IDEAL LENGTH OF EMPLOYMENT IN A COMPANY (SOURCE: PRIMARY DATA) 78

TABLE 1.19: DESCRIPTIVE ANALYSIS OF DIGITAL TALENT'S LEVEL OF EMBEDDEDNESS IN THEIR CURRENT COMPANY DERIVED FROM TRANSFORMING THE DATA FROM Q11 (SOURCE: PRIMARY DATA).....78

TABLE 1.20: RELIABILITY OF COMPOSITE MEASURES (SOURCE: SPSS).....79

TABLE 1.21: DISTRIBUTION OF SMES BASED ON THE LEVEL OF PURSUIT IN DIGITAL TRANSFORMATION. SOURCE: PRIMARY DATA. 80

TABLE 1.22: DISTRIBUTION OF DIGITAL TALENT BASED ON THEIR PREFERENCE IN COMPANY'S LEVEL OF PURSUIT IN DIGITAL TRANSFORMATION THAT INFLUENCES THEM TO STAY. SOURCE: PRIMARY DATA. 80

TABLE 1.23: DESCRIPTIVE ANALYSIS OUTPUT BASED ON SME AND DIGITAL RESPONSES TO THE LEVEL OF PURSUIT IN DIGITAL TRANSFORMATION. SOURCE: SPSS AND PRIMARY DATA. 80

TABLE 1.24: ONE SAMPLE T-TEST RESULTS. SOURCE: SPSS AND PRIMARY DATA. 81

TABLE 1.25: SME OWNERS PREFERRED METHOD OF ACQUIRING SKILLS. (SOURCE: PRIMARY DATA) 82

TABLE 1.26: DIGITAL TALENT'S LIKELIHOOD OF STAYING IF SMES PREFERRED DEVELOPING SKILLS VERSUS CONTRACTING TO ACQUIRE SKILLS. (SOURCE: PRIMARY DATA) 82

TABLE 1.27: DESCRIPTIVE ANALYSIS FOR SME AND DIGITAL TALENT PREFERENCE. (SOURCE: SPSS) 83

TABLE 1.28: T-TEST OUTPUT FROM TESTING THE DEPENDANT VARIABLE AGAINST THE MEAN OF THE INDEPENDENT VARIABLE TO SEE IF THERE IS A RELATIONSHIP BETWEEN THE TWO. (SOURCE: SPSS) 83

TABLE 1.29: OUTPUT FROM PEARSON'S CORRELATION TEST, TESTING FOR THE STRENGTH OF THE RELATIONSHIP BETWEEN THE DEPENDANT VARIABLE AND INDEPENDENT VARIABLE. (SOURCE: SPSS) 84

TABLE 1.30: DIGITAL TALENT PREFER TO STAY IN A COMPANY THAT OFFERS SHORT-TERM CONTRACTS (SOURCE: PRIMARY DATA) 85

TABLE 1.31: OUTPUT FROM PEARSON'S CORRELATION TEST, TESTING FOR THE STRENGTH OF THE RELATIONSHIP BETWEEN SME THAT OFFER SHORT-TERM CONTRACTS VERSUS DIGITAL TALENT BETWEEN 35 TO 44 PREFERENCE AND INTENT TO STAY (SOURCE: SPSS). 86

TABLE 1.32: GROUPING OF HOW IDEALLY DIGITAL TALENT WOULD STAY IN A COMPANY IN THE TERMS (SOURCE: PRIMARY DATA) 87

TABLE 1.33: DISTRIBUTION OF LENGTH OF STAY BASED ON DIGITAL TALENT RESPONSES (SOURCE: PRIMARY DATA) 87

TABLE 1.34: LEVEL OF EMBEDDEDNESS (SOURCE: PRIMARY DATA) 92

TABLE 1.35: DESCRIPTIVE ANALYSIS FROM T-TEST FOR LEVEL OF EMBEDDEDNESS (SOURCE: SPSS) 92

TABLE 1.36: OUTPUT OF T-TEST ON THE LEVEL OF EMBEDDEDNESS (SOURCE: SPSS) 93

TABLE 1.37: PEARSON CORRELATION RESULTS THAT TESTED THE CORRELATION BETWEEN LENGTH OF STAY AND EMBEDDEDNESS (SOURCE: SPSS) 93

TABLE 1.38: HYPOTHESIS TESTING OUTCOMES AND SIGNIFICANCE (SOURCE: SPSS AND PRIMARY DATA) 98

TABLE 1.39: SME PER PROVINCE (SOURCE: PRIMARY DATA) 100

TABLE 1.40: SME PER PROVINCE AND INDUSTRY ONCE SAMPLE FRAME IS APPLIED (SOURCE: PRIMARY DATA).....101

TABLE 1.41: SME - DO YOU HAVE THE NECESSARY SKILLS TO ACHIEVE YOUR DIGITAL AMBITION (SOURCE: PRIMARY DATA) 104

TABLE 1.42: SME - RETENTION APPROACH DEEMED AS MOST IMPORTANT BY THEIR EMPLOYEES (SOURCE: PRIMARY DATA).....106

TABLE 1.43: SME - RETENTION APPROACH DEEMED AS LEAST IMPORTANT BY THEIR EMPLOYEES (SOURCE: PRIMARY DATA).....106

TABLE 1.44: SME PERSPECTIVE ON WHAT IS MOST IMPORTANT RETENTION APPROACH THAT THEIR EMPLOYEE WOULD CONSIDER (SOURCE: PRIMARY DATA) 107

TABLE 1.45: SME PERSPECTIVE ON WHAT IS LEAST IMPORTANT RETENTION APPROACH THAT THEIR EMPLOYEE WOULD CONSIDER (SOURCE: PRIMARY DATA) 108

TABLE 1.46: DIGITAL TALENT'S PERSPECTIVE ON WHAT IS MOST IMPORTANT RETENTION APPROACH (SOURCE: PRIMARY DATA).....110

TABLE 1.47: DIGITAL TALENT'S PERSPECTIVE ON WHAT IS LEAST IMPORTANT RETENTION APPROACH (SOURCE: PRIMARY DATA).....111

TABLE 1.48: DIGITAL TALENT'S VS SME PERSPECTIVE ON WHAT IS MOST AND LEAST IMPORTANT RETENTION APPROACH (SOURCE: PRIMARY DATA).....111

TABLE 1.49: LEVEL OF EMBEDMENT VS LENGTH OF STAY (SOURCE: PRIMARY DATA) 111

TABLE 1.50: CONSISTENCY TABLE: RESEARCH QUESTIONS, PROPOSITIONS, DATA COLLECTION AND DATA ANALYSIS. (GALAWE, 2017) 131

TABLE 1.51: SPSS OUTPUT FROM MISSING DATA ANALYSIS (SOURCE: SPSS) 152

TABLE 1.52: SPSS OUTPUT FROM MISSING DATA ANALYSIS (SOURCE: SPSS) 154

TABLE 1.53: CRONBACH ALPHA RESULTS FOR EMBEDDEDNESS (SOURCE: SPSS).....159

TABLE 1.54: CRONBACH ALPHA RESULTS FOR INTENT TO STAY (SOURCE: SPSS).....159

TABLE 1.55: CRONBACH ALPHA RESULTS FOR INFLUENTIAL FACTOR & RETENTION APPROACHES (SOURCE: SPSS) 160

TABLE 1.56: TRANSFORMATION OF Q20 (SOURCE: PRIMARY DATA).....160

TABLE 1.57: TRANSFORMATION OF Q12 (SOURCE: PRIMARY DATA).....161

TABLE 1.58: TRANSFORMATION OF Q10 INTO LEVELS OF EMBEDMENT (SOURCE: PRIMARY DATA).....163

TABLE 1.59: REVISED CLASSIFICATION OF SMALL BUSINESSES (NATIONAL SMALL BUSINESS COUNCIL, 2019) 164

TABLE 1.6: SME BY PROVINCE, INDUSTRY AND NUMBER OF YEARS OF SERVICE. (SOURCE: PRIMARY DATA) 167

TABLE 1.8: SME LEVEL OF FOCUS AND INVESTMENT INTO DIGITAL TRANSFORMATION BY INDUSTRY (SOURCE: PRIMARY DATA) 167

TABLE 1.9: RETENTION APPROACHES SMES CURRENTLY EMPLOY (SOURCE: PRIMARY DATA).....168

TABLE 1.10: RETENTION APPROACHES SMES CURRENTLY EMPLOY BY INDUSTRY (SOURCE: PRIMARY DATA) 169

TABLE 1.18: DISTRIBUTION OF DURATION BASED ON AGE AND GENDER (SOURCE: PRIMARY DATA).....169

LIST OF ACRONYMS

GDP	Gross domestic product
SME	Small Enterprises (Micro, Small and Medium)
STEM	Science, technology, engineering, and mathematics
HRM	Human Resource Management
CCRED	The Centre for Competition, Regulation and Economic Development
SPSS	Statistical package for social scientists
GCIS	Government communication and information systems
MaaS	Mobility as a service

CHAPTER 1: INTRODUCTION

1.1. Chapter outline

The beginning of this chapter states the purpose of the study, a brief view of the background to provide context and highlights the research problem and associated questions that direct this study. It is then followed by the rationale and importance of the study and then ends with highlighting the delimitation and assumptions made.

1.2. Statement of purpose

This quantitative study explores the approaches and dynamic retention models that Small Enterprises, also known as SMEs, in South Africa, currently use to retain their current talent in a post-pandemic context. The objective of the study is to examine the phenomena of retention from a Small Enterprises (SMEs) perspective as well as from a Digital talent perspective by assessing the relationship between the influential factors of employees (talent) and their intent to stay. It aims to test if retention approaches have a mediating effect on intent to stay and if established influential factors that lead to job embeddedness are still relevant in post-pandemic South Africa.

1.3. Background of the study

The inclusion of SMEs in most national economic development plans as a key driver for economic growth, increase in employment and the overall stimulation of the development of the economy, demonstrated the significance and importance of this sector (Fatoki, 2014; Viswanathan & Telukdarie, 2021). In 2020, SMEs in South Africa contributed around **40%** of South Africa's GDP and contributed an estimated **87%** of all employment (FinScope, 2020, p. 7). However, SMEs are beset with a high failure rate due to varying internal factors such as limited capital, management experience, functional skills, limited focus on talent development, and human resource practices as well as external factors which include but not limited to are the competition and business landscape, high costs, change in customer needs and the way of doing business which was amplified by the pandemic (Kalidas et al., 2020). From a South African context, it includes unreliable electricity supply, instability of the political climate, and lack of access to or awareness of government support (Fatoki, 2014; Galawe, 2017; Kalidas et al., 2020).

While disrupting many SMEs, where the number of SMEs declined by **11%** in 2021 (SEDA, 2021a, p. 2), the COVID-19 pandemic also presented an opportunity for SMEs to change the way they provided their services or goods by way of accelerating their digital adoption or maturing their digital transformation in an agile manner (Pinzaru et al., 2020). SMEs sought to align their strategy and services by changing their manual processes and advancing their technology landscape by adopting newer technologies and capabilities like Cloud, Artificial Intelligence (AI), Data Science etc (Rangaswam, 2021). The SMEs who were further down their digital transformation journey survive and, in some instances, thrive (Hai et al., 2021). This provides further evidence, that the digital-savvy SMEs will have a superior competitive advantage over their digital laggards (George Westerman, 2014). As well as amplifying the importance of digital talent to establish and enable digital transformation (Kane, 2019).

Looking at retention approaches, in this study, it is defined as the considerations, resources and engagements that businesses leverage to proactively or reactively retain the talent they deem as valuable (Glen, 2006; Monteiro et al., 2020; Sigler, 1999; Zin et al., 2012).

There have been many discussions on the phenomena of the war on talent that focus on the level of skills shortage and skill gaps around the world, pre and post-pandemic. Especially when it comes to digital talent and skills (Bianchini & Kwon, 2021; El-Deeb, 2022; McConnell & Schaninger, 2019; McDonnell, 2011). South Africa is not immune to these global phenomena as the skill crisis worsens (Kerr-Phillips & Thomas, 2009; Khuluvhe et al., 2022). A perceived impact is that SMEs continue to struggle to attract and/or retain digital talent. In South Africa, the demand for digital skills is far greater than the supply (El-Deeb, 2022; Ndaba, 2021). One of the key challenges SMEs face is staying attractive and retaining the digital talent they need to achieve their digital transformation ambitions from the limited pool available. They also compete with large-scale businesses and organizations that have more brand appeal and resources globally and locally, heightened by remote working and globalization (Monteiro et al., 2020). Along with these as well as challenges in the economy, political landscape and power supply etc, South Africa faces a significant loss of qualified and skilled talent due to mass emigration (Khuluvhe et al., 2022). Another argument is that many of these talented individuals use SMEs as a ‘training’ ground and move on, increasing the business owners' perception of development costs as not justifiable against the benefits

(Rabie et al., 2016). In cases where businesses invest in talent and are unable to retain them, the financial impact is not just the development cost but also the hiring cost, which is estimated to be over **30%** of the employee's first-year earnings (El-Deeb, 2022, p. 2). Putting even more strain on the limited budget that SMEs are said to have.

The need for dynamic retention approaches is warranted by the aforementioned factors as well as by the potential change in talent's psychological contracts post-pandemic, which is a change in the subjective and perceived expectation of a business in exchange for citizenship behaviour, engagement, performance and commitment to the business which this study aims to test (Lee, 2001; Rousseau & Parks, 1993; Shore & Coyle-Shapiro, 2003).

Even though there has been much research done on retention approaches, the challenge of retention still lingers to this day. Many of these retention approaches are based on a need, influential factor or motivation driver. Over the years new motivation models and turnover research have expanded knowledge of the topic of retention (Hom et al., 2017)

The study stands on the premise that these factors influence the level of motivation and motivation leads to job satisfaction, increases engagement, in turn, performance and commitment to the organization. (Glen, 2006; Lee et al., 2014; Ramlall, 2004; Sigler, 1999; Vaim, 2021). It aims to validate and further argue that this commitment is due to the embeddedness or feeling part of the organization (Mitchell et al., 2001; Mutanga et al., 2021; Robbins & Judge, 2013; Rousseau & Parks, 1993) which is the result of when their motivation factors and expectations or the broader psychological contract are being met (Parijat & Bagga, 2014; Robbins & Judge, 2013; Shore & Coyle-Shapiro, 2003). The main question is what drivers or factors influence talent locally? Do Western influential factors and drivers apply to South Africa? and does the current environmental factor and landscape shape the factors and in turn the retention approach differently? As an example, do South African's prefer contract work as a factor to stay over job security?

To aid in finding answers, the study focuses on Small and Medium-sized Enterprises (SMEs) need to digitally transform, retention approaches and intent to stay/motivation of talent that form the three core constructs that play a crucial role in this study and will be discussed in more detail in the following chapter. See sections 2.3, 2.4 and 2.5.

1.4. Research problem

Digital transformation has become imperative for SMEs to broaden their efficiency at a lower cost and expand their footprint in the market (Kalidas et al., 2020; Rangaswam, 2021). However, In 2020, Xero's fourth annual SME report stated, "Over two-thirds **(67%)** of small businesses report struggling to hire talent with the right skill and only **14%** plan to upskill" This is based on a report that surveyed **200** accountants and **400** small business owners (Weber, 2020, p. 8). Bearing in mind that the high SME failure rate of **70%** has a knock-on effect on the contribution to employment and contribution to GDP, stifling the growth of the economy (Fatoki, 2014; Galawe, 2017; Kalidas et al., 2020). The need for talent (attracting and retaining) to transform should be at the forefront of every SME owner, scholar and supporting entity to solve for. Therefore, the problem to be addressed through this quantitative study is the recurring challenge of talent retention in SMEs.

The study will focus on the South African context and examine the factors that influence local talent to stay in an organization based on modern global theories and models. The study aims to do so by first examine the current retention models or approaches that SMEs employ to retain scarce and critical digital skills and evaluate their effectiveness. Secondly, the study will test the relevant and alignment of the influential factors for talent to stay in a company. By alignment, the study refers to how well the influential factors and retention approaches are aligned with the perspectives of both SME owners and digital talent. In other words, are the employed approaches and understanding of influential factors aligned with what talent currently want or need? This study aims to leverage existing literature on SMEs and assess the relevance of these models by exploring the psychological motivation of talent within South Africa.

1.5. Research questions

The research aims to answer the following key questions based on SME and talent lens:

1. What is the relationship between aligned influential factors and retention approaches have on digital talents' intent to stay in an SME?
2. To what extent do influential factors and retention approaches influence/mediate the decision to stay in an SME?

3. Is there a significant relevance of modern Western theories on talents' intent to stay in a post-pandemic South Africa?

1.6. Rationale

Irrespective of the economic health of the country, SMEs significant contribution to employment, GDP, development and growth of the economy of its nation (Galawe, 2017; Viswanathan & Telukdarie, 2021). The lifeblood of SMEs survival is linked to having the 'right' talent as core among other factors (El-Deeb, 2022; Frankiewicz & Chamorro-Premuzic, 2020; Kravariti et al., 2021)

As stated in section 1.2, even though some research has been done, the challenge of retention still plagues SMEs to this day (McDonnell, 2011; McKinsey, 2018; Olokundun et al., 2021). Although there is much research on SMEs and retention from either an SME or an employee perspective, the prior research does not focus extensively on SMEs in South Africa and has not explored in-depth the issue specifically related to talent retention through an SME lens as well as from a talent lens to assess alignment.

The importance of this study is accentuated by the importance of SMEs' contribution to the economy and their ability to navigate the war on talent that is found in skills shortage and skills gaps, locally and globally (Buvat et al., 2017; McConnell & Schaninger, 2019; McDonnell, 2011; McKinsey, 2018; Nair, 2019). Having dynamic and appropriate retention approaches that are aligned with the needs of talent will provide them with a competitive advantage to stay relevant and survive (George Westerman, 2014; Kane, 2019). In turn, builds a sustainable business landscape that will aid in boosting the economy and help reduce the escalating unemployment rate (StatsSA, 2021a).

This study also aims to provide an extended base for future studies that want to focus on SMEs and retention in a digital era from a South African context.

1.7. Delimitations

This research study only focuses on SMEs in the formal sector based in the 3 major provinces in South Africa, Gauteng, Kwa-Zulu Natal and the Western Cape as they accounted for **64%** of the countered GDP in 2019 (StatsSA, 2019). The study also did not factor in all the criteria like revenue and gross asset value stipulated by the

Department of Small Enterprises when defining and selecting SMEs. However, these criteria are recorded for future studies.

To enable the researcher to measure the diversity of retention measures employed and their level of success, the study will factor in how long the SMEs have been in business irrespective of industry.

From a talent perspective, the study focuses on human resources that have a minimum of a grade 12 certification and that carry a degree, diploma or certification in the field of STEM.

1.8. Assumptions

The underlying assumption of this study is that all participants have an understanding of motivation factors, digital proficiency and transformation. From an SME perspective, an assumption is made that SMEs understand which industry they in and the constructs of embedded HR practices and talent strategies. From a digital talent perspective, the understanding of influential factors and provide honest feedback on their intention to stay and the duration thereof.

Another key assumption is that SMEs understand and have an urgency for digital transformation.

CHAPTER 2: LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1. Introduction and outline

This chapter introduces and explores pre-existing discussions related to the research questions, in order to understand the research problem's magnitude, persistence, and nuances. To provide detailed background and context for the formulation of hypotheses, the study introduces three key constructs as topical discussions. These constructs are outlined in separate sections (2.3, 2.4 and 2.5) and are supported by relevant literature and arguments. In section 2.6, the researcher discusses the theoretical framework that reviews both older and modern theories to understand how motivation and people's intent to stay have evolved over time. The section also explores how literature has changed to incorporate the dynamic factors that influence people to stay, as well as the significance of these factors. The section then highlights which literature was utilized to determine the appropriate theory for developing the conceptual framework for this study. Finally, it summarizes and emphasizes how the hypotheses can help answer the research questions.

2.2. Key constructs and rationale

As stated in section 1.3, The key constructs that will be examined in this section will be small and medium-sized enterprises (SMEs) with a view of challenges around digital transformation and the need for talent (Talent War, Skills gaps vs Skill shortage), the intent or motivation and expectations of talent that may play an influential role in the attainment of retention, and the retention approaches that SMEs take or adopt. Below briefly describes why these constructs are chosen and important to the study as well as how literature has informed and shaped them.

- **Small and Medium-sized Enterprises (SMEs) digital transformation and retention**

  To understand the importance that SMEs play now and in the future as well as the importance placed on digital transformation in the context of how digital transformation addresses retention and the challenges they currently face around talent and the impact of not focusing on digital transformation.

- **Current retention approaches**

  To identify what retention approaches, strategies and utilisation of existing models that are grounded theoretically and/or empirically**.** It is also important to the study to understand what theories of motivation or intent influenced and evolved these approaches

- **Intent to stay or Motivation of talent**

  To better understand the drivers/factors that influence talent retention in South African SMEs, and how these have been impacted by the pandemic, as well as how literature evolved and has shaped retention approaches..

Subsequently, these constructs serve as the overarching skeleton in which relevant literature is reviewed to explore and expand the view from a South African and post-pandemic context. Through this process, help formulate hypotheses and ultimately provided answers to the research questions..

2.3. Construct 1: Small Medium Enterprises (SME) digital transformation and retention.

Small Medium Enterprise, also known as SMEs, are separate and distinct business entities, including cooperative enterprises, which are defined based on the sector, size of human capital, turnover and total gross asset value (Department of Small Business Development, 2003, 2019). The department proclaimed that Small Enterprises are defined by the level it satisfies the updated criteria stated in the department publication, but also states that it includes cooperative enterprises managed by one or more that predominately serve any sector or its subsectors in the economy (Department of Small Business Development, 2019). See table 1.57 in Appendix D.1.

The importance of this sector is highlighted by the scope and focus as a key driver for economic growth and an increase in the employment rate as stated in the government's National Development Plan 2030 (Viswanathan & Telukdarie, 2021). In 2020, SMEs contributed about **40%** of South Africa's GDP, a **10%** reduction from the **50%** contribution since 2010, and contributed an estimated **87%** of all employment (FinScope, 2010; 2020, p. 7; Galawe, 2017, pp. 3-4). This decrease in GDP contribution is largely a sad echo of the **11%** decline in the number of SMEs due to the added

pressures that the pandemic presented (SEDA, 2021a, p. 2). However, the latest reports indicate positive signs of an increase in SMEs in 2022 (SEDA, 2023, p. 9). **84%** of SMEs (including Microbusiness) still rely on walk-in customers and mobility restrictions imposed by the government through lockdowns disrupted their business model. One of the key barriers is digital transformation, digital skills and education to transform (FinScope, 2020, p. 45). In the following subsections, the researcher aims to breakdown two of the critical challenges SMEs face today, the urgency to digitally transform and the talent needed and retention thereof.

2.3.1. SME digital transformation

Having the ability to Innovate, digital leadership and skills to capture opportunities regardless of the sector or industry will bring a significant competitive advantage to SMEs (Frankiewicz & Chamorro-Premuzic, 2020; Hai et al., 2021; Rashid & Ratten, 2020). However, In the FinScope 2020 survey of SMEs in South Africa, only **24%** have adopted automation and digital payment, **32%** of Business owners shared that they are doing nothing to digitally transform their business and **37%** don't know how (FinScope, 2020, p. 66). Accentuating the gap between having the intention and having the knowledge to be digital-oriented (Digital Literacy) as well as having the right resources (Digital talent) to digitally transform (Karaboga et al., 2020). While the opportunities to move forward or pivot, many businesses are taking a defensive approach to navigate these uncertain times despite having innovation hubs and business incubator programs to support them (SEDA, 2021a). However, the latest SEDA report indicated an increase of **5.9%** in SMEs (formal and informal). Increasing it back to pre-COVID levels (SEDA, 2023). This is due to the recovery of the economy and many of the COVID restrictions being removed on certain industries (SEDA, 2023).

For this study, the urgency to digital transformation is the foundation of the need and demand to retain talent.

2.3.2. Challenges around talent and retention.

While the term 'talent' in business literature varies and is still in evolutionary stages, the definition of talent in this study will be defined as individuals who possess certain competencies, attributes or behaviours along with skills and knowledge that make them

attractive to a particular organization (Ansar & Baloch, 2018; Tansley, 2011) Example, digital technology-oriented skills and capabilities.

Contended with a shrinking economy and lockdown restrictions during the peak of the pandemic put additional pressure on most SMEs' operations and business models. This pressure, however, presents opportunities for new niche service offerings and customer service as vital for survival (Kalidas et al., 2020; SEDA, 2021a). Some SMEs have taken or approached these opportunities by looking for key roles or skills needed to capitalise (SEDA, 2023). There have been positive signs of employment in certain industries. More specifically, finance and business services **(7.4%)**, community & social services **(4.7%)** and agriculture **(3.2%)** in Q1 2023 (StatsSA, 2023). See figure 1.1.

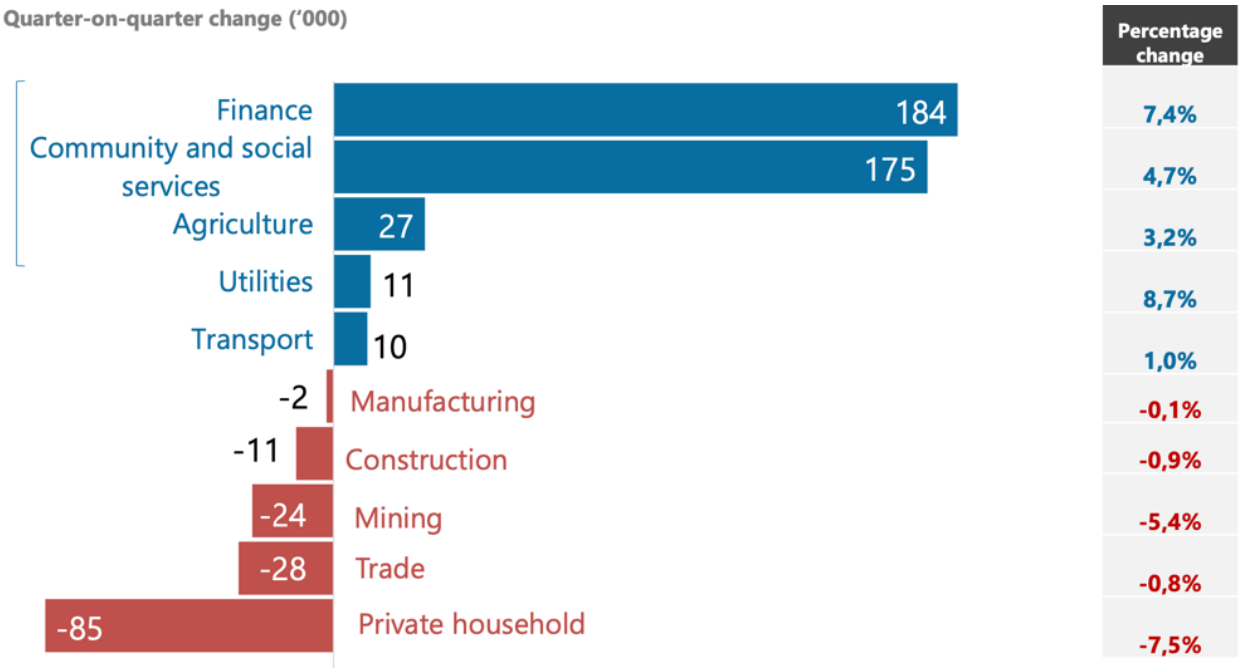


Figure 1.1: Employment by industry, Source: StatsSA Q1 2023 Report ((StatsSA, 2023))

In Xero's fourth annual SME survey, which is based on over **400** SME owner responses, **67%** of them indicated that they are struggling to find the right skills needed (Weber, 2020, p. 8). With the official unemployment increasing to **42.3%** (StatsSA, 2023, p. 7), the graduate unemployment rate of approximately **12% in 2021 and 10.6% in 2022 and Q1 2023** (StatSA, 2022b; StatsSA, 2021a, pp. 12,19; 2023, p. 15) despite the employment increasing in the three industries mentioned above (StatsSA, 2023). Even though there is a slight decrease in the graduate unemployment rate, there is still a significant population of unemployed graduates, **23.5%** are tertiary educated

(StatsSA, 2023). The debate then is why are SMEs still struggling to find the necessary skills.

The phenomena of skills shortage vs skills gap in the market are some of the key talking points in most of the published papers on the issue (El-Deeb, 2022; McConnell & Schaninger, 2019; McDonnell, 2011).

South African SMEs are not just competing for key skills (i.e., Digital skills) with other South African entities, they are also competing with international companies. With many organizations adopting remote working South African talent can be easily 'poached' by other organisations globally, however, the inverse can be argued that it opens a larger talent pool for local SMEs to attract and choose from the international market (Khuluvhe et al., 2022; McConnell & Schaninger, 2019). According to the International Institute for Management Development (IMD)'s world talent ranking, which is based on 1) investment and development of home-grown talent, 2) the appeal to international talent and 3) readiness which is based on availability and competencies within the talent pool, South Africa is ranked 52nd overall but has a strong appeal to international talent (40th) (NACI, 2021). See figure 1.2 for a summary view of rankings. However, a recent report published by the Department of Higher Education and Training (Khuluvhe et al., 2022), stated that the South African talent that emigrated was considerably more educated than the international talent that immigrated to the country (Khuluvhe et al., 2022)

	SOUTH AFRICA	BRAZIL	CHINA	INDIA	MALAYSIA	RUSSIA	SINGAPORE	SOUTH KOREA	UNITED KINGDOM	USA
Overall ranking	52	59	40	62	25	54	9	31	23	15
Investment and development *(home-grown talent)*	57	56	42	63	34	47	21	28	38	17
Appeal *(to overseas talent)*	40	45	52	55	29	62	22	36	20	2
Readiness *(availability of skills and competencies within talent pool)*	52	63	26	25	18	47	1	29	17	27

Figure 2. 2: Benchmarking World Talent Ranking 2020, Source: Institute for Management Development World Talent Ranking 2020 (NACI, 2021, p. 12))

In the case of digital transformation, Many businesses are looking for digital technology-oriented skills and capabilities that will drive their digital vision and ambition (Karaboga et al., 2020). The demand is not just having knowledge and experience in the latest

advanced technologies such as Cloud, AI, Machine learning and Cyber security (Digital Hard Skills) but also having a digital-oriented mindset and business acumen that will enable customer-centricity, collaboration, data-driven decision-making during the time of ambiguity (Digital Soft Skills) (Buvat et al., 2017; El-Deeb, 2022; Nair, 2019). In some cases, the SME owners themselves seek to gain these digital soft skills (Frankiewicz & Chamorro-Premuzic, 2020; Gilch & Sieweke, 2021; Rashid & Ratten, 2020). In the case of retention, some SMEs rather offer short-term contracts to acquire the skills needed to accelerate their transformation agenda (McConnell & Schaninger, 2019), but the argument can be made that this is dependent on the available funding, brand appeal and appetite to do so.

2.3.2.1. Skills shortage

Skills shortage is when the needed skills are in short supply to meet the demand (El-Deeb, 2022; Ndaba, 2021). To quantify the extent of the shortage, Manpower group's global 2022 report on talent shortage, showed that the skills shortage in South Africa is around **78%** in comparison to **74%** worldwide (ManPower, 2022a, p. 1; 2022b, p. 1). Based on the data from the survey and the definition of SME as per the SME Act of 1996 amendment of 2003 and 2019 i.e. SMEs with a staff base between **50-250** (Development, 2019), the number of South African SMEs indicated a shortage of **81%** to fill their available position against the global shortage of **72% (**ManPower, 2022a, p. 1**;** 2022b, p. 1**).** See figures 1.3 and 1.4 below.

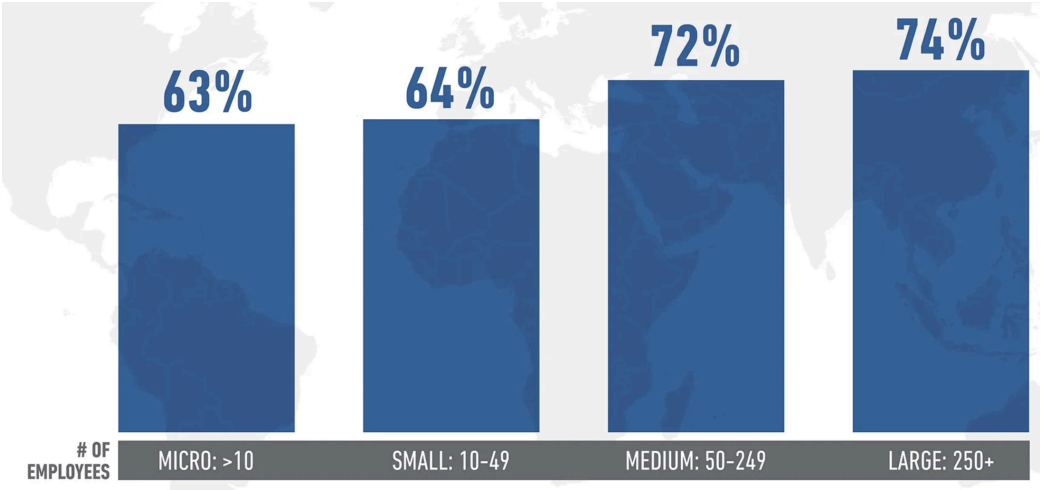


Figure 3.3: Global Talent shortage by Company size, Source: Manpower group 2022 talent shortage report (ManPower, 2022a, p. 1)



Figure 4.4: South African Talent shortage by Company size, Source: Manpower group 2022 talent shortage report (ManPower, 2022b, p. 1)

When looking at an annual trend on the extent of talent shortage, highlighted in figure 1.5, an alarming exponential increase trend can be seen (ManPower, 2022b). This raises three arguments;

1) How do SMEs gain the talent and expertise needed to survive and grow?

2) Seeing that SMEs account for **87%** of all employment (FinScope, 2020, p. 7), how can they play a role in reducing the gap and the shortage through development initiatives?

3) Is the current graduates not acquiring the right knowledge and skill for what is needed in the market?

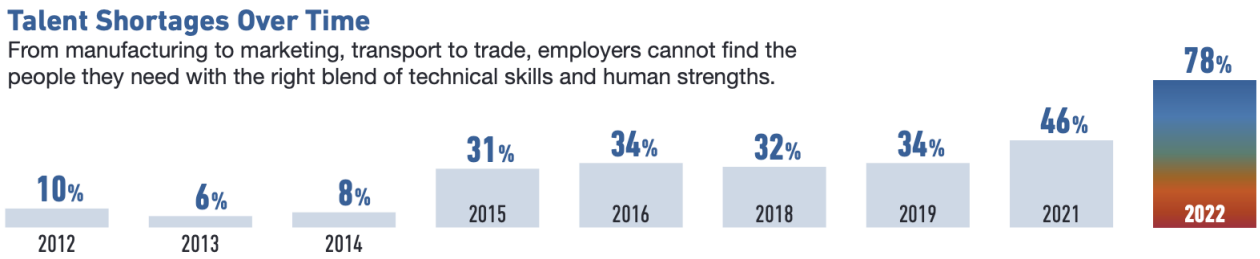


Figure 5.5: South African Talent Shortage Overtime, Source: Manpower group 2022 talent shortage report (ManPower, 2022b, p. 1)

2.3.2.2. Skills Gap

A skills gap can be defined as when a business's current skill pool does not possess the required skill set to achieve its vision, ambition or transformation. (El-Deeb, 2022). It can also be argued that at a macro level, Government intervention and academic curriculums are not up to speed with the latest trends or technologies. (Amstrong, 2020; El-Deeb, 2022). However, a counterargument is that the skills gap is an internal challenge that is best solved by the business itself (Buvat et al., 2017; McKinsey, 2018;

Rabie et al., 2016). A high focus on training and development can reduce the skills gap but this assumes that the SME has the budget, time and appetite to do so (Rabie et al., 2016). Claudette Rabie et al (2016), states that there are two reasons why SMEs don't focus on training and development, "Firstly, it would seem that SME owners generally underestimate the benefits that training can offer to the business, the workforce and managers. Secondly, SME owners generally provide less training and development initiatives to staff as the perception is that the costs are higher and the benefits lower than larger organisations" (Rabie et al., 2016, p. 1010)

In summary, digital transformation is imperative to the survival of an SME (Bianchini & Kwon, 2021; George Westerman, 2014; Hai et al., 2021). Authors Becky Frankiewicz and Thomas Chamorro-Premuzic, argue that "Digital transformation is about talent, Not about technology" (Frankiewicz & Chamorro-Premuzic, 2020, p. 1). Especially now as The electricity crisis necessitates a proactive approaches and looking into green technology (StatsSA, 2023). However as previously discussed, SMEs are struggling to get the right talent to help transform at scale. Monteiro and colleagues argue that companies should prioritise increasing their company appeal by adopting branding strategies which aim at 1st sharing the company vision and ambition I.e. Digital transformation ambitions (Monteiro et al., 2020). The appeal may be a motivation factor for talent to stay in the organisation as the exposure to work in a digital-focused company will lead to achieving personal outcomes like personal development in future digital capabilities, increasing their market appeal and earning potential which is based on expectancy theory postulated by Victor Vroom which will be discussed in section 2.5 (Parijat & Bagga, 2014; Robbins & Judge, 2013).

As previously stated not every SME is looking to digitally transform though, according to the results from the FinScope 2020 survey as well as the quarterly reports produced by SEDA, Many SMEs in South Africa taking defensive approaches rather than transforming digitally (FinScope, 2020; SEDA, 2021b). Some business owners shared that they don't know how to go about digital transformation or have the resources to transform (FinScope, 2020, p. 66). This argument shines a spotlight on the gap between having the intention and having the knowledge to be digital-oriented (Digital Literacy) as well as the need for right resources (Digital talent) to digitally transform (Karaboga et al., 2020). Therefore, there is merit in testing the assumption that there is a relationship

between the level of focus and investment in digital transformation and retention of digital-oriented talent. Therein the following hypothesis is formulated;

- **Hypothesis 1 (H1)**

  The study aims to test the hypothesis that SMEs that have little to no focus and investment in digital transformation will have an effect on digital-oriented talent's intent to stay in the company.

2.4. Construct 2: Retention approaches

Based on the definition highlighted in section 1.3.2, retention approaches are the considerations, resources and engagements that businesses leverage proactively or reactively to retain the talent they deem as valuable (Glen, 2006; Monteiro et al., 2020; Sigler, 1999; Zin et al., 2012), This study acknowledges that while there is a difference in application between the approaches taken to keep employees engaged, committed, performing and embedded, the retention approaches mentioned in this study can be used in both events as a proactive measure, which influences the employee's intention to stay, as well as mitigation to prevent talent loss, where the practices or actions taken to influence the employee to stay during the event of voluntary resignation. SMEs that have a strong focus on proactive retention practices, processes and policies to build a dynamic talent retention strategy have a strong advantage in competing in the war on talent at a global level as well as have a mediating effect between what talent expect and the likelihood of retention when aligned to the psychological contracts/influential factors (Crowley-Henry et al., 2021; McDonnell, 2011; Nayak et al., 2021; Sigler, 1999). However, retaining key critical skills and capabilities is still one of the key challenges SMEs face globally to this day (Glen, 2006; Mutanga et al., 2021; Sigler, 1999). While there is much literature on the topic, there is limited research that expands on aligning the needs of talent to retention strategies or approaches as well as bringing both a business lens and a talent lens assessing the constructs of intent to stay in a post-pandemic South African context (Ghosh et al., 2012; Mitchell et al., 2001; Rousseau & Parks, 1993; Shore & Coyle-Shapiro, 2003)

The case for better retention approaches is promoted by the skills shortage, high cost of hiring, talent mobility due to globalisation and the likelihood of change in talent's motivation factors to stay in a company post-pandemic (El-Deeb, 2022; Khuluvhe et al.,

2022; Mutanga et al., 2021; Vaim, 2021; Zin et al., 2012). These factors form a subjective and perceived expectation that talent may have on a business in exchange for citizenship behaviour, engagement, performance and commitment to the business, also known as a psychological contract (Lee, 2001; Rousseau & Parks, 1993; Shore & Coyle-Shapiro, 2003). The focus over the years has mainly been on Human resource management (HRM) and Talent management practices (Ansar & Baloch, 2018; Gilch & Sieweke, 2021; Kravariti et al., 2021; Vaiman et al., 2012; Yanuardani, 2018), Bhatnagar's (2007) study promoted HR interventions like building positive relationships with employees, embedding stronger psychological contracts, introducing peer partnering and mentorship programs and empowering wealth co-creatorship, that will positively influence retention (Ghosh et al., 2012). However, Beatriz Monteiro and fellow authors (2020) argue that not every business has adequate HR departments or practices. For SMEs that have HR departments, the need to review and innovate current practices is required to navigate the shift in talent views or psychological contracts based on motivating factors or factors that influence retention (Aziz et al.; Ghosh et al., 2012; Lee, 2001; Mutanga et al., 2021; Shore & Coyle-Shapiro, 2003). Beatriz et al (2020) and Monteiro et al (2020), also make a case where traditional approaches such as reward & recognition, remuneration and incentives while once effective, but alone, have little divergence from solving the issue. They argue that the inclusion of efforts to improve the appeal of the organization or reputation can reduce the turnover rate. This is achieved by differentiating itself by being a learning organization and sharing the organization's culture, business strategy, reputation, and reward systems. Alluding to employee engagement, where they state that what employees say, think and communicate about the business contributes to the success of the business (Lee-Kelley et al., 2007; Monteiro et al., 2020). The appeal of a learning organization by knowledge workers was proven in a study done by Lee-Kelley et al (2007) and Mutanga et al (2021) claimed that training and developing talent creates a pull factor to the company. The study by Moncraz et al (2008) provided further evidence of the relationship between non-managerial employee turnover and organizations that shared mission, goals and direction as well as development (Ghosh et al., 2012)

One key element that many researchers agree on is that businesses need to include different benefits aligned to the needs of the employees from different generation lenses (Glen, 2006; Monteiro et al., 2020; Mutanga et al., 2021; Shore & Coyle-Shapiro, 2003).

The statement is further backed by studies from Rose & Gordon (2010) as well as Govaerts et al (2010) which showed a positive relationship between age, different retention strategies and retention (Ghosh et al., 2012). This study aims to identify these factors against the aforementioned variables.

This is all underpinned by the premise that SMEs are looking to retain and develop talent as part of their overall strategy. That is, either for growth or survival. In either case, it comes down to the preference of the SME owner to either go through all the effort to retain, Invest in development or contract/rent talent to accelerate the ambition and bypass all the responsibility. The latter is argued by Gregory Lee (2001), who postulates that businesses and employees look for flexibility and shorter work or contracts that will lead to more "outcome-based contracts and less behaviour-based contracts" founded on agency theory (Lee, 2001). This holds ground on the premise that many SMEs potentially don't have the appetite, the financial resources, processes or practices to retain talent. Therefore, the study aims to test if this argument is still relevant post the pandemic and examine if there is evidence of preference for short-term contracting in older demographics.

- **Hypothesis 2 (H2)**

  SMEs that prefer developing and retaining talent will have positive relationship between digital-oriented talent's influential factors and intent to stay.

- **Hypothesis 3 (H3)**

  SMEs that prefer short-term contracting will have a negative relationship between digital-oriented talent's Influential factors and intent to stay in the age group 35 to 44.

Along with short-term contracting, there has been numerous well-established research in recent times that provide empirical evidence on other retention approaches that influence employees to stay (Bhatnagar, 2007; Ghosh et al., 2012; Mitchell et al., 2001; Mutanga et al., 2021; Rose & Gordon, 2010; Rozsa et al., 2019). Looking at it from a South African context, acknowledging the differences such as economic climate, diversity and culture, needs and motivation factors, resources available to SMEs and talent, to name a few, the study aims to test if some of the other well-known and proven approaches will apply. Especially in a post-pandemic South Africa. Remote working is

one of these approaches. The pandemic forced many organisations to change their strategies, practices and approaches, especially around keeping talent engaged, performing and keeping them in the company (Khuluvhe et al., 2022; Tabor-Blazewicz, 2021; Vaim, 2021; Verma et al., 2021; Viswanathan & Telukdarie, 2021). Practices like remote working were adopted that sparked a shift in the future of work that influenced highly skilled and educated talent needs for flexible work (McKinsey, 2020). To appeal to the digital-savvy generation, practices like democratize learning, reverse mentoring and intrapreneurship were argued to influence the intention to stay (Jayathilake et al., 2021). The elevated focus on mental well-being pushed companies to evaluate current work conditions and well-being programs (Angelis et al., 2020; Peters et al., 2022), further substantiating the shift and the need for new retention approaches. Among these approaches, research by Nayak et al (2021), argued that enabling employees to have a higher degree of internal ambassadorship will likely have them more committed to staying. This is however dependent on the employee's expectations linked to their influential factors and psychological contracts as first met. Once met they will have an obligation to stay longer (Nayak et al., 2021). To test this, the researcher proposed to test if such retention approaches will have a mediating effect if the expectations of digital talent are met and if these retention approaches influence the intent to stay. Therefore;

- **Hypothesis 4**

There is a mediation effect between Influential factors and intent to stay when retention approaches are introduced.

- **Hypothesis 4.1 (H4.1)**

There is a mediation effect when SMEs offer reverse mentoring in response to the need for flexible work and intent to stay.

- **Hypothesis 4.2 (H4.2)**

There is a mediation effect when SMEs offer remote working in response to the need for flexible work and intent to stay.

2.5. Construct 3: Motivation or intent of talent

Derived from Maslow's hierarchy of needs, 'motivation' is defined as human needs or the desire for the basic psychological needs to be met first before the pursuit of higher-level needs such as social, esteem and self-actualizations (Pardee, 1990; Ramlall, 2004; Vaim, 2021). Author Stephen Robbins and colleague (2013), defines motivation as "the processes that account for an individual's intensity, direction, and persistence of effort toward attaining a goal" (Robbins & Judge, 2013, p. 201). Influential factors in this study are defined as on-the-job and off-the-job environmental factors (organization, work and personal) and motivational factors that influence retention in an organization context (Ghosh et al., 2012; Lee et al., 2014; Mitchell et al., 2001).

Author Clayton Glen (2006) emphasises the need for businesses to have a broader focus that incorporates approaches that are better predictors of motivation or commitment (I.e., engagement) to the organization, and in turn improve the probability of retention (Glen, 2006). He proposed nine predictors of employee engagement, See figure 1.6, which have a large alignment to Frederick Herzberg's Motivation-hygiene theory that focuses on job attributes that have intrinsic (satisfiers motivators) and extrinsic motivators (hygiene/dissatisfiers) (Glen, 2006; Pardee, 1990; Ramlall, 2004). They can be used in combination or isolation and focus on business elements that are tangible, easy to measure and manage e.g. effectiveness management vs leadership effectiveness that leads to employee engagement (Glen, 2006).



Figure 6.6: HAD Employee Engagement Matrix, Source: HDA Journal (Glen, 2006, p. 39)

Whereas, Herzberg alludes to the fact that the more motivators are met and hygiene factors are addressed (Pardee, 1990; Vaim, 2021; Zin et al., 2012) the higher the likelihood of job satisfaction. There are also similarities with research that was conducted by Justin Mutanga et al (2021), where they framed a conceptual model that highlights push and pull factors that improve talent retention. See figure 1.7. The pull factors such as “better wages, job security, growth, conducive work environment, work flexibility, work perks and mentally challenging work” (Mutanga et al., 2021, pp. 2-3) aim to create an appeal bringing merit to focusing on the branding as discussed in section 2.4 (Monteiro et al., 2020). However, Clayton Glen (2006) argues that Job security is a secondary motivator and that “highly marketable, extremely well-qualified people leave high earning, relatively secure roles, with excellent benefits and career prospects, to join high opportunity-cost, high-risk, high-workload, but high-potential start-ups” (Glen, 2006, p. 38). The conceptual model also argues that addressing push factors such as low salaries, lack of recognition, no career growth, bad working environment etc will enable an empowering working environment and increase employee engagement (Mutanga et al., 2021).

These theories refer to a psychological process that an employee or talent would take to assess their level of effort, behaviour or commitment to an organization (Lee, 2001; Shore & Coyle-Shapiro, 2003). These psychological processes derived from Vroom’s

expectation theory (Robbins & Judge, 2013) speak to the psychological contracts that are discussed in section 2.4

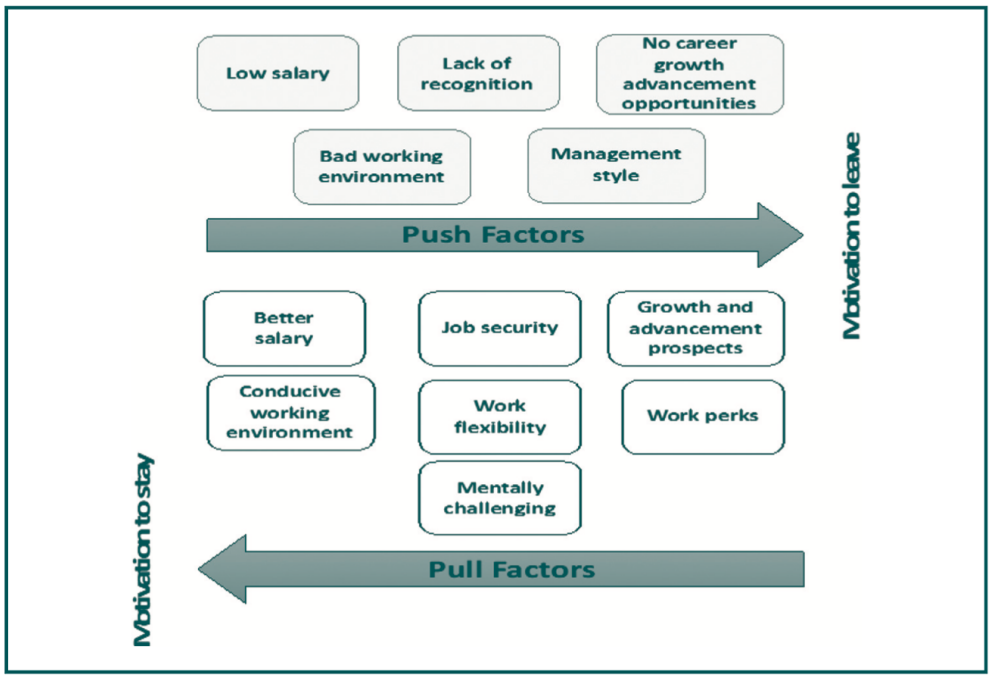


Figure 7.7: Conceptual model of Push and Pull factors for talent retention, Source: Journal – Exploring push and pull factors for talent development and retention: implications for practice (Mutanga et al., 2021, p. 2)

Despite all the research, business leaders are still trying to figure out why their talented employees leave (Mutanga et al., 2021) and this warrants further studies into motivators for talent to stay in the current day, especially in South Africa post-pandemic and factoring the challenges the country faces. However, models and theories like Justine Mutanga's push and pull model and Herzberg's motivation theory focus on needs (content theories) and fail to account for situational variables. As an example, the interpretation individuals have on job satisfaction, effort or performance, organizations reward system etc, (Pardee, 1990; Parijat & Bagga, 2014; Ramlall, 2004). Whereas Victor Vroom's expectancy theory focuses on the outcomes based on expectations and perceptions (process theories) rather than needs (Parijat & Bagga, 2014; Ramlall, 2004). Stephan Robbins (2013, p. 224) contends that the theory argues that "the strength of our tendency to act in a certain way depends on the strength of our expectation that the act will be followed by a given outcome and its attractiveness", which in practice means that the level of motivation is based on the perception or expectation of the reward and results in the level of effort or performance (Parijat & Bagga, 2014; Robbins & Judge, 2013). Expectancy theories focus on three relationships, Effort-performance, performance-reward and reward-personal goal.

Nonetheless, focusing on factors that improve performance alone isn't a great predictor of retention. Mitchell et al (2001) argue that creating a "stickiness" will have a positive effect on retention by asking why employees stay versus why they leave (Ghosh et al., 2012; Holtom et al., 2020; Mitchell et al., 2001; Rozsa et al., 2019). They created the job embeddedness theory, which provided empirical evidence of the relationship between employee's fit, links, and comfort to sacrifice on-the-job and off-the-job factors and the likelihood they will stay (Ghosh et al., 2012; Mitchell et al., 2001; Rozsa et al., 2019). The authors, along with Holtom et all, postulated the importance of understanding employees to capture the domains in which people are embedded and cater for variables like type of occupation or personality, connectedness and family or community influences that play an influential role in decision making. i.e. Link, Fit and Sacrifice (Holtom et al., 2020; Mitchell et al., 2001).

Based on the literature reviewed thus far one can argue that the higher level of performance (Pardee, 1990; Robbins & Judge, 2013) is due to the higher levels of engagement (Glen, 2006) as a result of their motivation factors and expectations being met or the broader psychological contract. (Parijat & Bagga, 2014; Robbins & Judge, 2013; Shore & Coyle-Shapiro, 2003). In turn, higher levels of these psychological contracts being met can result in a high level of commitment to work or "Stickiness" or embeddedness and as a result commitment to the organization (Mitchell et al., 2001; Mutanga et al., 2021; Robbins & Judge, 2013; Rousseau & Parks, 1993). Therefore the study aims to test the;

- **Hypothesis 5 (H5)**

  Digital talent with advanced technology proficiencies that feel embedded to any degree will have a positive relationship with their intent to stay.

2.6. Theoretical Framework

This section aims to further ground the research with established theories and frameworks by evaluating historic as well as modern theories that postulate or validate the influential factors that influence the motivation and intent to stay. It also highlights the most relevant theory that will be used to design the research methodology and interpret the results. Understanding how theories have evolved based on greater understanding and empirical evidence of factors that influence motivation or intent to

stay, unlocks key insights into creating a model that can be tested to reflect the South African context.

This section is curated to expand on the theories stated in section 2.4 and 2.5 and review additional relevant theories with a focus on the shifts in academic viewpoints historically and what factors have been identified globally (Subsection 2.6.1). This so to achieve the fundamental objective of this study, which is to identify what makes talent stay in an organisation and the factors that inform the intent in South Africa post-pandemic. The study then evaluates key factors influencing retention and retention approaches that are postulated and/or empirically proven in the literature. This is to ensure the underpinning theory important and focal to the study is identified in order to formulate a conceptual framework (Subsection 2.6.2) that can be tested.

2.6.1. The theoretical foundation of Motivation or intent

Motivation is defined as “the processes that account for an individual’s intensity, direction, and persistence of effort toward attaining a goal” according to Stephan Robbins (Robbins & Judge, 2013, p. 201). The basis is that it requires a desire, an ability and an objective to pursue (Pardee, 1990; Ramlall, 2004; Robbins & Judge, 2013).

Maslow’s Hierarchy of Needs Theory, Frederick Herzberg’s Two-factor or Motivation-Hygiene Theory and McClelland’s Theory of Needs are some of the foundational research that appeals to this study.

Maslow defines motivation as based on human needs or the desire for basic psychological and safety needs, which need to be met first before higher-level social, esteem and self-actualisation needs can be pursued (Pardee, 1990; Ramlall, 2004; Vaim, 2021). He also stated that “only unsatisfied needs provide the source of motivation” (Pardee, 1990, p. 3). In other words, an unsatisfied need provides the *desire* and the *objective to pursue,* but the theory assumes that the individual has the ability to act. This forms a good base in which SME owners or managers should take into account what motivates people to achieve self-actualization or the need for achievement (Pardee, 1990; Ramlall, 2004). However, one of the key limitations is that it stipulates that the lower needs need to be met first, and more modern research indicates that talent or humans don’t necessarily follow a hierarchy. There are cases

where all of the 5 tiers in Maslow's pyramid need to be met simultaneously and the order in which the needs should be met can vary from person to person based on their context and environment of life (M. A Wahba & Bridwell, 1976; Mcleod, 20203; Ramlall, 2004).

Frederick Herzberg's **Two-factor or Motivation-Hygiene Theory** is similar to Maslow's theory but hone in on the source of motivation in a work or performance context by differentiating needs into two motivation factors, satisfiers (motivators) and dissatisfiers (hygiene), where dissatisfiers are not the opposite of the satisfiers and are mutually inclusive (Mutanga et al., 2021; Pardee, 1990; Vaim, 2021; Zin et al., 2012). He stipulates that satisfiers bring about job satisfaction and the presence of dissatisfiers prevents dissatisfaction in a job (Vaim, 2021). Table 1.1 illustrates these motivator and hygiene factors. The theory implies that in order to retain talent these factors need to contribute to the overall satisfaction in the workplace and provide enriched job conditions (Ngo-Henha, 2017; Ramlall, 2004). This theory provides two concepts that SME owners and leaders can understand and utilise in their company so that they can limit dissatisfiers while also enabling the satisfiers through their processes and company culture (Ramlall, 2004; Vaim, 2021; Zin et al., 2012).

Satisfiers	Dissatisfiers
• Achievement • Recognition • Work itself • Responsibility • Advancement • Growth	• Company policy • Fringe benefits • Interpersonal relations • Job security • Personal life • Salary • Status • Supervision • Working conditions

Table 1.1: Hertzberg motivational satisfiers and dissatisfiers, (Pardee, 1990)

McClelland's Theory of Needs is based on individuals' need to achieve through building interpersonal relationships, influencing, coaching, and teaching, categorizing these as achievement, power and affiliation (Pardee, 1990; Ramlall, 2004; Vaim, 2021). The theory's main theme is about learning and mastering (Pardee, 1990) and

achievement is highlighted as the individual's need to master or do things better to increase their self-esteem as well as the need for powers is defined as the desire to lead or influence people to achieve a specific objective or idea, whereas, Affiliation is the desire to build or have intimate connections or interpersonal relationships for the wanting to be liked or love (Pardee, 1990; Ramlall, 2004; Vaim, 2021). While McClelland's theory is related to Herzberg's Motivation-Hygiene theory, The theory of needs and the satisfier of achievement are not the same (Pardee, 1990). McClelland's theory focuses on how businesses, leaders and individuals can achieve motivation, which would aid in building recommendations post this study but doesn't provide the depth needed to test the hypothesis of which motivators and retention approaches lead to higher retention rates beyond achievement.

The equity theory postulates that employees are not only concerned with the expectation of equity they receive in rewards but also how the reward standards are applied to others based on similar or less effort experience, education, and competence (Merin, 2021; Ramlall, 2004). A sense of equity is twofold, where they feel recognized for their efforts and when the same standards are applied to others. Tension or the desire to act comes when there is a perceived imbalance or inequity when efforts and rewards don't align (Merin, 2021; Ramlall, 2004). This theory mainly focuses on rewards and the motivation for equity which, similar to McClelland's theory, focuses on a subset of the motivators rather than a full set provided by Herzberg. The use of this theory will limit the assessment of the broader construct of retention approaches and digital-oriented talents' intent to stay in an SME.

The theories discussed thus are focused on content and don't include the process of how the decision to stay is formulated. This is where expectancy theory fits in.

The expectancy theory argues that the level of effort an employee exerts is related to the associated perceived reward or outcome and results in the level of performance based on three mental components valence or reward, instrumentality and expectancy (Parijat & Bagga, 2014; Ramlall, 2004; Robbins & Judge, 2013). In the case of retention, the theory postulates that there is a psychological process that takes place that builds a perception or a belief that leads to behaviour or attitude, remaining subjective like other motivation theories (Ramlall, 2004; Robbins & Judge, 2013). While this theory is broadly accepted it is not exempted from the limitation that not all rewards

will lead to performance and that the subjectivity remains if the same rewards are provided to all employees as a blanket approach as an incentive for achieving a specific organization outcome (Parijat & Bagga, 2014; Robbins & Judge, 2013). It is also important to highlight that an increase in performance alone does not necessarily lead to commitment to stay in an organisation or create that "stickiness" to the organisation. (Mitchell et al., 2001; Rousseau & Parks, 1993; Shore & Coyle-Shapiro, 2003; Sutanto, 1999).

Job embeddedness theory postulates that organizations that focus on why people stay rather than why they leave will have a proactive way to reduce the turnover rate (Holtom et al., 2020; Hom et al., 2017; Mitchell et al., 2001; Rozsa et al., 2019). The theory focuses on off-the-job and on-the-job aspects which promotes a broad array of factors that influence employees' decision to stay or leave (Holtom et al., 2020; Mitchell et al., 2001). These on-the-job factors focus on the links employees have with other colleagues, leaders and activities, the level to which an employee's skills and capabilities fit in demand of the role and their level of comfort giving up certain perks or benefits from an organisation (Mitchell et al., 2001). Off-the-job factors include employees' perception of how they fit in a community or a location, the links they have with family and the community they live in and the level of willingness to sacrifice based on family, culture, location and so on (Ghosh et al., 2012; Holtom et al., 2020; Mitchell et al., 2001; Rozsa et al., 2019). The theory provides empirical evidence on the relationship between embeddedness and intent to stay and captures the domains in which the employees are embedded as well as caters to variables like occupation types, personality, and motivation (Holtom et al., 2020; Hom et al., 2017) and in later iterations of the theory, Culture and family influences (Hom et al., 2017).

Taking these theories into account and further expanding, Table 1.2 is derived from the work of Ghosh et al (2012, pp. 291-294). It highlights some of the factors that influence employee retention based on work and research from various authors over the past few years. It is from this table that the independent variable, *influence factors for intent to stay*, is drawn from the conceptual framework in section 2.6.2.

Author	Year	Factors influencing employee retention
Igbaria et al	1994	Job Satisfaction
		Organizational commitment

Magner et al	1996	Level of Involvement in decision making process
Hartman & Yrle	1996	Lack of challenging work
		Promotional opportunity elsewhere
		Peer leaving firm
		Geographical relocation
		Desire to try something new
Herman	1999	Incompatible Corporate culture
		Unsatisfactory Relationships With Co-workers
		Insufficient Support
		Inadequate Opportunity for Growth
		Dissatisfaction with Compensation Offered
Abbasi & Hollman	2000	Hiring Practices
		Managerial Style
		Lack of Recognition
		Lack of competitive compensation system
		Toxic Workplace Environment
Walker	2001	Compensation And Appreciation of Work performed
		Challenging Work
		Opportunities to Learn
		Positive Relationships with colleagues
		Recognition of capabilities and performance contribution
		Good Work-life balance
		Good communication
Ramlall	2003	Not being paid at or above market rate
		Internal and external equity
		Location of the company
		Compensation package
		Lack of challenge and opportunities
		Lack of career development programmes
		Lack of recognition
		Ineffective Leadership
		Inadequate emphasis on team work
		Job Characteristics
		Career advancement
		Reputation of the company
		Job Security
		Organizational culture
Birt et al	2004	Challenging and meaningful work
		Opportunities for advancement
		Empowerment responsibility
		Managerial integrity and quality
		New opportunities or challenges

Mano-Negrin & Tzafrir	2004	Economic reasons
Lee-Kelley et al	2007	Learning Organization
Bhatnagar	2007	HR Practices
		Continuous positive employee relationship
		Building Strong psychological contract
		Peer partners and mentors
		Treating employees as co wealth creators
Calisir et al	2011	Job Satisfaction
		Organizational commitment
		Role ambiguity
		Job Stress

Table 2.2: Factors influencing employee retention. Source (Ghosh et al., 2012)

Since this study aims to explore the effectiveness and relevance of current retention practices and test the relationship and influence motivating factors and retention approaches have on the intent of talent to stay in an SME, Job embeddedness theory is the most relevant to this study as a base. The theory emphasizes the importance of understanding employees to promote job satisfaction and the psychological process involved in building a perception or belief, attitude and behaviour that leads to performance and embeddedness which leads to citizenship, engagement and commitment (Glen, 2006; Lee, 2001; Mitchell et al., 2001; Robbins & Judge, 2013; Shore & Coyle-Shapiro, 2003). The theory provides factors and variables that can be used to test if the current practices that have been incorporated align with the factors that influence digital-oriented talent's decision to stay post-pandemic. While McClellan's and Herzberg's theories have a similar conclusion, certain desires and needs need to be met to achieve satisfaction, but the motivators differ. One can argue that McClellan's theory focuses on more extrinsic (hygiene) factors than both. Even though expectancy theory accounts for the lack that employees have with the organization based on effort-performance, performance-reward, and reward-personal goals it doesn't factor in variables like the perception talent has on how well they fit in a job and community, the strength of the interrelationships and what they willing to sacrifice on-the-job and off-the-job in the manner that job embeddedness does.

Table 1.3 is an adaptation of Sunil Ramlall's review of employee motivation theories and their implications for employee retention within organizations to explain how certain retention practices can be derived from motivation & turnover theories and linked to talent motivation or influential factors (Ramlall, 2004, p. 63). The table is not meant to

be exhaustive but highlights the most common approaches discussed in the literature and some of these approaches have been derived in the conceptual framework in the next section.

Theories	Influential factors	Retention approach
Maslow Needs Theory	Psychological, Safety, Social, Esteem, Self-Actualisation	Reward, Recognition, Remuneration, Remote working, Career advancement/promotion, Training and development
Herzberg Motivation-Hygiene Theory	Satisfiers	Reward, Recognition, Career advancement, Training and development, Benefits or Employee Value Proposition (EVP)
	Dissatisfiers	Remote Working, Reward, Effective supervision/leadership, Agile ways of working, Remuneration, Career Advancement/promotions, Safe and creative working environment
Expectancy Theory	Valance, Instrumentality, Expectancy	Reward, Recognition, career advancement/promotion
Equity Theory	Reward and Recognition	Reward, Recognition, career advancement/promotion, Effective supervision/leadership
McClelland's Theory of Needs	Achievement	Reward, Recognition, career advancement/promotion, Effective supervision/leadership
	Power	Effective supervision/leadership, Career advancement
	Affiliation	Agile ways of working, Effective supervision/Leadership
Job Embeddedness Theory	On the Job Fit	Vision and Goals of the company, style of supervision/leadership, Culture, Work conditions, Reward and promotion programs, Career advancement, Challenging Work
	On the Job Link	Interrelationships with colleagues and leaders, Autonomy, Mobility program, Democratized Training programs, HR practices, Reverse mentoring, Remote working
	On the Job Sacrifice	Agile ways of working, Effective supervision/Leadership, Autonomy, Benefits or Employee Value Proposition (EVP)
	Off the Job Fit	Vision and Goals of the company, Community programs

	Off the Job Link	Community programs, CSI initiatives, Diversity programs
	Off the Job Sacrifice	Remote working, Agile ways of working, Location

Table 3.3: How certain retention practices can be derived from traditional and contemporary motivation theories and linked to influential factors. Source: based on the literature reviewed (Ghosh et al., 2012; Holtom et al., 2020; Hom et al., 2017; Merin, 2021; Mitchell et al., 2001; Pardee, 1990; Parijat & Bagga, 2014; Ramlall, 2004; Robbins & Judge, 2013; Vaim, 2021; Zin et al., 2012)

2.6.2. Conceptual Framework

Based on the literature reviewed and informed by established Job embeddedness theory, which is discussed in the previous sections, this study developed an overarching conceptual framework, see figure 1.8, which proposes that retention approaches have a mediating effect between factors that influence job embeddedness and retention as well as that when retention approaches are aligned to influential factors there is a higher probability of retention (Glen, 2006; Lee et al., 2014; Mutanga et al., 2021; Ramlall, 2004; Shore & Coyle-Shapiro, 2003; Vaim, 2021; Zin et al., 2012). It also supports and adopts the view that the more influential factors are met, the deeper the embeddedness in the company (Holtom et al., 2020; Lee et al., 2014).

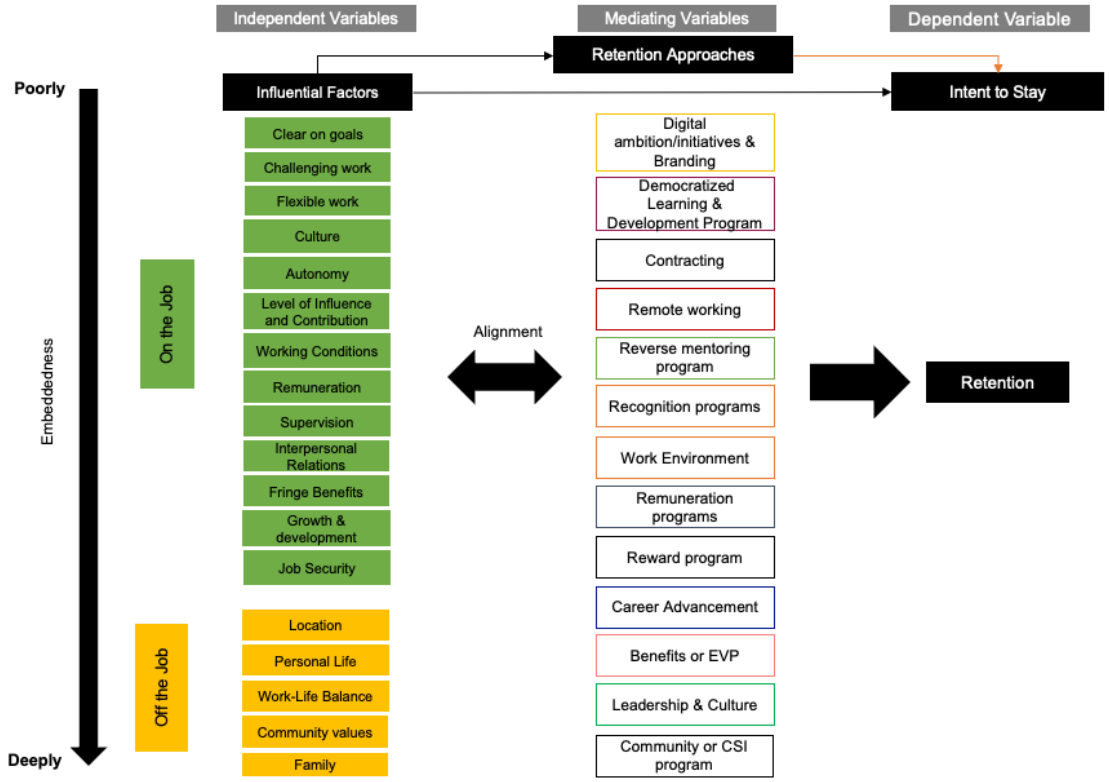


Figure 8.8: An adapted overarching conceptual model to assess retention rate based on psychological contract derived from motivation factors and expectations and mediated by retention approaches, Source: based on the

literature reviewed (Ghosh et al., 2012; Glen, 2006; Lee et al., 2014; Mutanga et al., 2021; Pardee, 1990; Ramlall, 2004; Vaim, 2021; Zin et al., 2012)

However, due to the limited time and ensuring the hypotheses can be adequately tested, the overarching model will be tested and validated in future PhD studies. This study will focus on a few aspects drawn from the overarching framework to test and validate certain components as well as assumptions. See figure 1.9. The focused/ confined conceptual framework proposes that:

1. The level of digital transformation ambition and initiatives has either a negative or positive relationship with digital talents' intent to stay. This is to test that digital talents' expectations of working in a digital organization that aims to remain relevant and take advantage of future digital trends to bring about efficiencies and new value propositions. To be validated by testing hypothesis 1 (H1).
2. There is a positive relationship between SMEs that prefer developing and retaining talent and digital-oriented talent's intent to stay. This is on the premise that digital-oriented talent has a belief and expectation of being allowed to develop and grow their knowledge to advance their careers, remain relevant to future digital trends and increase their marketability as well as remuneration value in the market. To be validated by testing hypothesis 2 (H2).
3. There is a negative relationship between digital-oriented talent's influential factors and intent to stay in the age group 35 to 44 when SMEs prefer short-term contracting. With a lens of agency theory, shorter contractual agreements, and expectancy theory, where a psychological process is involved in building a belief, attitude and behaviour, the model aims to test the belief that when looking a is job security still a significant influential factor for digital talent and will it have a negative impact on the intent to stay is SMEs prefer to contract rather that develop & retain. To be validated by testing hypothesis 3 (H3).
4. The framework proposes that aligned retention approaches to digital talents influential factors will have a mediation effect with intent to stay when retention approaches are introduced. in other words, the study aims to test if remote working and reverse mentoring first satisfies the digital talents expectations to play an active role in an SME and flexible ways of working and then test if the affects these approaches have on the intent to stay. The effect can either be an

indirect and/or direct effect. To be validated by testing hypothesis 4 (H4, H4.1, H4.2).

5. Digital talent with advanced technology proficiencies that feel embedded to any degree will have a positive relationship with their intent to stay. To be validated by testing hypotheses 5 (H5).

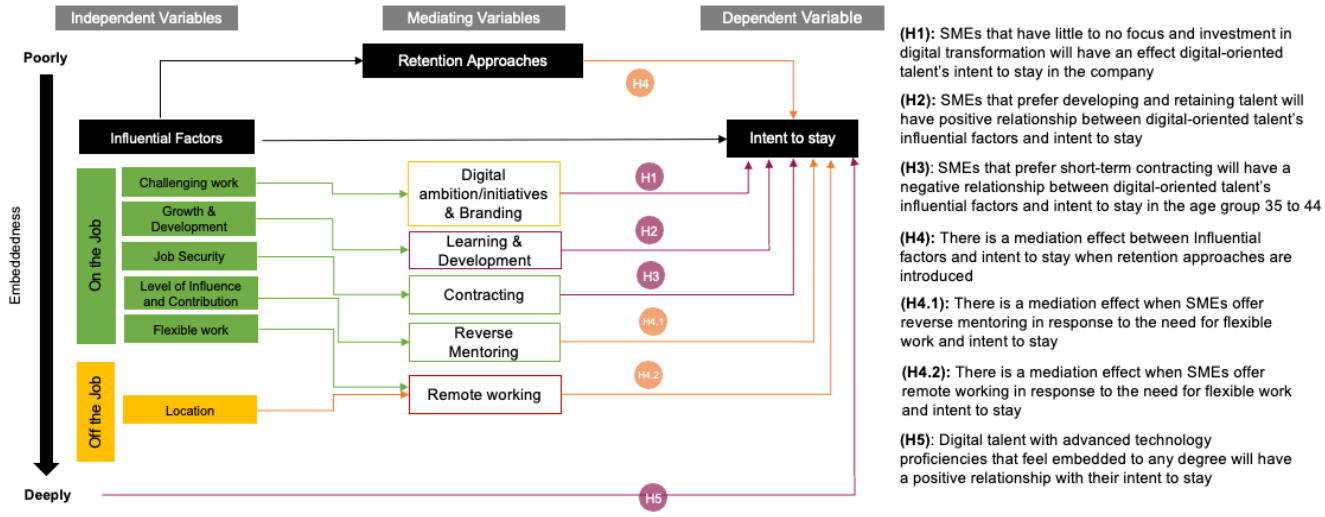


Figure 9.9: Drawn from an overarching conceptual model that focuses on specific aspects and indicates the hypothesis that will be tested to validate the model, Source: based on the literature reviewed (Glen, 2006; Mutanga et al., 2021; Pardee, 1990; Ramlall, 2004; Vaim, 2021; Zin et al., 2012)

2.7. Conclusion of Literature Review.

The literature review substantiated the importance of the 3 main key constructs, expanded on the relevance to better understand these constructs and how literature has shaped them over time. Based on the literature reviewed the study formulated hypotheses to expand the literature that focus on post-pandemic South Africa.

Through the review and gaining a broader understanding of the evolution of the dynamics of motivation and influential factors towards intent to stay, Job embeddedness theory was selected to ground the study.

The factors that have been validated by the theory helped formulate the confined conceptual framework that focused only on specific aspects from the proposed overarching conceptual framework. This visual depiction presents how the hypotheses are related and which factors will be tested in order to test the validity of the framework.

The below summarises and categorises the research hypotheses underneath the research question it aims to answer. Refer to table 1.50 in Appendix A, the consistency

table. The table consolidates the research questions, which hypothesis is used to answer the research question, the survey questions that applies to SME or Talent that will collect the data needed to test the hypotheses and also includes the analysis method which was be used.

- **Research question 1: What is the relationship between aligned influential factors and retention approaches have on digital talents intent to stay in an SME?**

    - **Hypothesis 1 (H1):** SMEs that have little to no focus and investment in digital transformation will have an effect on digital-oriented talent's intent to stay in the company.

    - **Hypothesis 2 (H2):** SMEs that prefer developing and retaining talent will have positive relationship between digital-oriented talent's influential factors and intent to stay.

    - **Hypothesis 3 (H3):** There is a negative relationship between digital-oriented talent's preference and intent to stay between the age group 35 to 44 when the company prefer to offer short-term contracting.

- **Research question 2: To what extent does influential factors and retention approaches influence/mediate the decision to stay in an SME?**

    - **Hypothesis 4.1 (H4.1):** There is a mediation effect when SMEs offer reverse mentoring in response to the need for flexible work and intent to stay.

    - **Hypothesis 4.2 (H4.2):** There is a mediation effect when SMEs offer remote working in response to the need for flexible work and intent to stay.

- **Research question 3: Is there a significant relevance of modern Western theories on talents' intent to stay in a post-pandemic South Africa?**

- **Hypothesis 5 (H5):** Digital talent with advanced technology proficiencies that feel embedded to any degree will have a positive relationship with their intent to stay.

CHAPTER 3: RESEARCH METHODOLOGY

This section covers the key methodological concepts and justification for why the approach and design are relevant to this study. It describes the steps that will be followed to test and address the research question and the hypotheses post the literature review.

The chapter includes the research approach, research design, data collection method, the population and sampling, research instrument, the procedure for collecting data, how the data will be analysed and interpreted, problems and challenges, the validity and reliability of the research instrument used and lastly the ethical considerations.

3.1. Research design and approach

As stated in section 1.1 this non-experimental study will follow a quantitative approach. The approach is best suited to find the best predictors, identify patterns and averages, test causal relationships, and generalize results to broader populations by examining them through the natural setting of the participants' (Creswell, 2014; ODwyer & Bernauer, 2013). In the case of this cross-sectional study, the approach will:

1. Help test the hypothesis stipulated in section 2.7 by testing the relationship between factors that influence digital talent to stay and retention as well as the level of mediation that retention approaches that are currently employed by SMEs play.
2. It will also enable the researcher to test the effectiveness of these retention approaches.
3. Identify if there is a correlation between the independent variable and mediating variables and the effect on intent to stay. It will test if remote working and reverse mentoring are better predictors of retention by validating the effect it has on digital talent's intent to stay in a post-pandemic South Africa based on a generational lens.
4. Validate or confirm if job embeddedness factors are still relevant in the modern South African era and assess if they can or should be used by SMEs when looking at reviewing their current retention approaches.
5. Generalise the results to a South African context.

This is achieved by first using descriptive analytics to help understand the sample distribution i.e. type and shape of the data collected, which will inform what inferential statistics will be used (Creswell, 2014; ODwyer & Bernauer, 2013). Based on the nature of the research questions and the hypothesis, an initial view of using correlation and non-experimental methods would be used to first explore the relationships between factors influencing talent to stay and retention approaches, also to test the relevance of these factors post-pandemic as well as examine whether there is a mediating effect between retention approaches and intentions to stay in the participant's natural work environment at a point in time when data is collected (Creswell, 2014; ODwyer & Bernauer, 2013).

The advantage of using both correlation and non-experiment is that it helped address the hypothesis and identify predictors that SMEs can use when reviewing and building retention approaches or strategies in their environment (Creswell, 2014; ODwyer & Bernauer, 2013; Thomas G. Reio, 2016). However, some of the key disadvantages that this study acknowledges are the structural biases that can lead to the wrong conclusion as a result of choosing the wrong sampling methods, size, unclear measurements and incomplete data (Creswell, 2014; ODwyer & Bernauer, 2013; Thomas G. Reio, 2016). It also acknowledges that the approach doesn't factor in the context within the SMEs and individuals such as background, culture, the performance of the organisation and the current economy (ODwyer & Bernauer, 2013; Thomas G. Reio, 2016).

The data collection method was two online self-administered questionnaires to gather primary data, one designed for SME owners/top management and the other addressed to their employees. This will enable the researcher to test the hypothesis and assess the effect of the independent variable and mediating variable on the intent to stay (dependent variable) by gathering data from the perspectives of both the SME and the employees themselves on the research problem (Thomas G. Reio, 2016). The surveys were initially distributed randomly by posting on social media and snowballed by sharing with an initial network to complete and share. However, due to low responses and limited time, the surveys we distributed using a convenience method that targeted specific businesses and digital talent that was easily accessible (Andrade, 2020) to get more responses to come close to the targeted sample size.

The use of an online survey is a cost-effective way to reach a larger sample size and bring a level of anonymity which will encourage both SME leadership and their employees to answer the questionnaire openly and honestly (James E. Bartlett et al., 2001). It will also help gather primary data within a short space of time (Creswell, 2014; ODwyer & Bernauer, 2013). The downside of using online surveys is that they don't provide enough context and assume the level of understanding of the constructs by the respondents (Thomas G. Reio, 2016).

To ensure data is collected ethically, this study first provided clarification on the intent and importance of this research in the first page of the survey. It also aimed to obtain consent from the SME owners as well as digital talent. The study ensured anonymity by creating the questionnaire so that it does not include questions that require participants' personal data such as name, ID, place of work etc and the data will only be used within the context of this study.

3.2. Population and sample

3.2.1. Population and sampling frame

The research will focus on two populations, South African SMEs and their employees. The number of SMEs is estimated at approximately **2.4 million** (informal and formal) and around 9.7 million employees service the various key sectors across all 9 provinces, according to SEDA's Quarter 3 report (2021b). however, based on limited access, timeframe, and practicality, the sample framework of the study will focus on the following:

From an SME perspective

1. Registered SMEs in the formal sector and based on the definition provided according to the revised National Small Business Act of South Africa of 2019, which states that an SME is classified by the sector it operates in, Its total gross asset value and the number of employees and turnover (Development, 1996, 2003, 2019; Galawe, 2017). Therefore, SMEs with a turnover that does not exceed **R170 million** in the formal sector and employee base of 1 to 250.
2. Located in one of the 3 largest provinces, Gauteng, Western Cape and KwaZulu Natal as they accounted for **64%** of the countered GDP in 2019 (StatsSA, 2019).

3. Service is the most economically active sector that had the largest growth and contribution to overall economic growth. That is according to Stats SA (2021b, 2023) sectors like Manufacturing, Finance & business services, and trade will be the main focus, however, Transport, storage & communications, Catering, accommodation & other trade, Construction, Retail and motor trade, Wholesale and commercial agency & allied services as they form part of the shifts in employment landscape of South Africa in Q1 2023 (StatsSA, 2023). as well as a category named other where the SME wasn't sure of which trade, they fall under will also be included in this study.

From an employee perspective

1. Talent that has been employed by an SME.
2. Employees with technology proficiency ranging from basic to expert.

Based on this sampling framework the total population size is unknown due to the limited published resources however where data is available comparisons will be made.

3.2.2. Sampling method and Sample size

Probability and nonprobability sampling are two types of sampling methods in a quantitative research (James E. Bartlett et al., 2001; ODwyer & Bernauer, 2013; Thomas G. Reio, 2016). Since the aim of the study is to make statistical inferences and generalisations about SMEs in a South African context, probability sampling is preferred (Creswell, 2014; James E. Bartlett et al., 2001; ODwyer & Bernauer, 2013). However, due to the limitations stated in the previous section (time, access, practicality), a non-probability sampling technique, snowballing and convenience sampling was used to first recruit SME owners and digital talent based on the initial network and through referral reach the targeted sample size (James E. Bartlett et al., 2001; ODwyer & Bernauer, 2013).

3.3.3. Sample size

Getting the right sample size is very important for accurate, and statistically significant results as well as dealing with nonresponse bias to make a true generalization to the larger population. Since there is not much data to support the exact total populations

based on the sampling frame, calculating the optimal sample size proved to be quite challenging. The study, therefore, drew up a design to illustrate the two samples and the minimum sample size that the study would need to draw statistical inferences to test the hypotheses and lead to answering the research questions stated in Section 2.7 (Alshibly, 2018). See figure 1.10. Considering the design of the study (non-experimental), nature of the data analysis and estimated response rate due limitations of time and access to SME owners and the market of Digital talent, the study therefore, aims for a sample size of **50** SME owners/top management across the 3 provinces. When looking at the sampling size for digital talent employed in an SME, the initial study proposed to target a sample size of **500** which was deemed as ambitious by the panel given the timing**.** This proved to be true. Due to delays in receiving ethics clearance and the end of year holidays going into the new year, getting 500 responses was very challenging and unrealistic with the time left. Therefore with the extension granted by the faculty, mindfulness of the time remained and the estimated response rate, the study targeted a revised target sample size of a 100 (Alshibly, 2018). The sample size of 100 is the minimum size for the study to be statistically significant, taking into consideration the time available, primary outcome measurement, homogeneity and the risk of error (Alshibly, 2018; Andrade, 2020; Burmeister; & Aitken, 2012; Research Advisor, 2006)

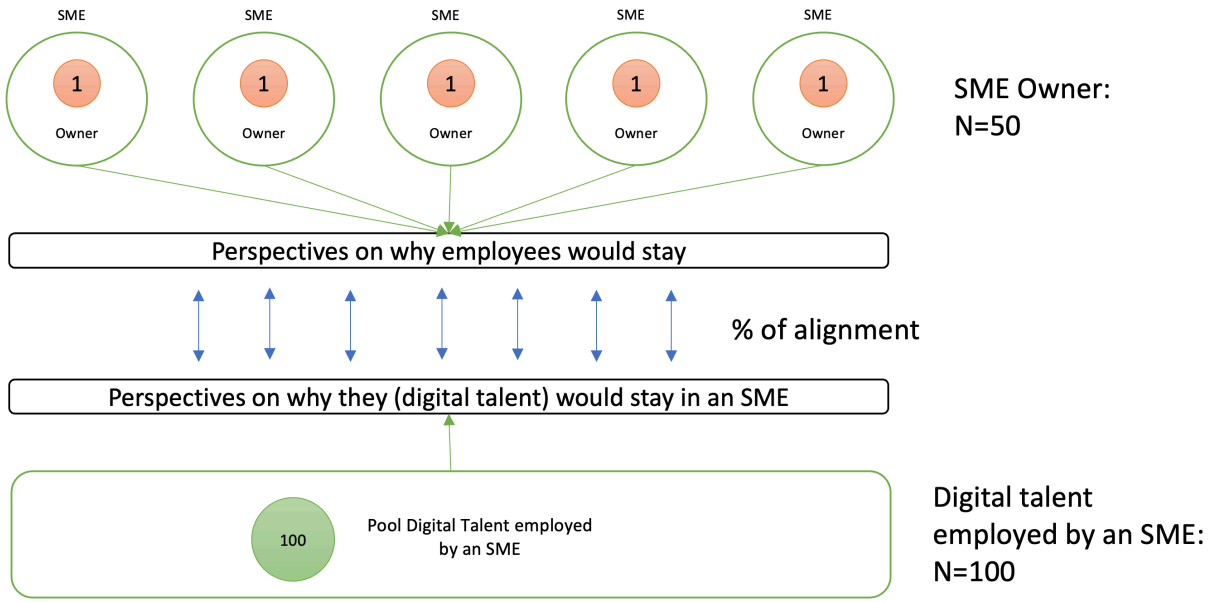


Figure 10.10: Illustration of the target Sample for SME owners and a Pool of Digital talent in 3 provinces in scope of the study

3.3. Research instrument and Data collection

The research instrument and data collection method that this study used were two online self-administered questionnaires designed through Qualtrics. These questionnaires were based on literature reviewed in Chapter 2 like (Ghosh et al., 2012; Govaerts et al., 2010; Rozsa et al., 2019) and derived from the conceptual framework as the guide to ensure the questions in the survey reflected the framework and were able to gather the data needed. See figure 1.9 in section 2.6.2. The key variables or composite measures stated in the framework (*Influential factors & retention approaches, embeddedness and intent to stay*) formed the composite measure where the survey questions were grouped to further ensure the survey was gathering the right data for analysis.

The SME Owner Survey inputs will be used as a baseline or reference point in which the researcher aimed to test against the inputs shared by the digital talent. The responses of the two surveys will be used to test how aligned the views are.

The landing page was designed to obtain consent from participants and once obtained, the participant will be guided to the actual survey. The participants who decided not to take part, the survey guided them straight to the end of the survey.

The data from the surveys help examine the relationships and test the hypothesis stated in previous sections as well as identify better predictors of retention in a post-pandemic South Africa. The data also helped test if there is a relationship between specific factors and approaches based on age, race, gender, and tenure that will increase their likelihood of staying in that SME.

Ethics clearance was received on the 19th of January and the surveys were distributed and data collection began from the 20th of January 2023 to 10th of May 2023. The survey was initially distributed through snowballing due to the challenges of getting access to SMEs via SEDA. Due to the low response rate the survey was also posted on LinkedIn and Facebook to generate more random participants. This however still yields only a few responses from both SME owners and digital talent. Through convenience sampling the remaining responses we gathered until the survey was closed on the 11th of May 2023.

3.4. Data analysis strategies and interpretation

From a data analysis perspective, the data is reported in Chapter 4 with the aid of descriptive statistics and inferential statistics. Descriptive analysis will first help provide the distribution, and shape, of the sample which will then help identify if the data is normal or parametric or not. This will aid in selecting the right inferential statistic methods to ensure the research questions can be answered and the hypothesis can be tested (Delice, 2018; ODwyer & Bernauer, 2013). The study looked to test how different the viewpoints on what influential factors and approaches influence intent to stay by finding the level or the extent of the relationship, positive or negative (ODwyer & Bernauer, 2013). It also aimed at testing if retention approaches have a mediating effect on digital talents' intent to stay. With reference to the confined conceptual framework, figure 1.9, focuses only on specific aspect drawn from the overarching conceptual model. See figure 1.8. The grouping, and transforming of data as well as the data analysis methods will help interpret the data to respond to the research questions and provide evidence to either reject or support the hypothesis.

The validation of the data quality captured via Qualtrics was the first step. The data was exported to Excel where text was converted to numeric values by using coding techniques (Creswell, 2014; Delice, 2018; ODwyer & Bernauer, 2013). The data was further cleaned to ensure that responses with NO consent were not included as well and incomplete responses with missing data greater than **35%** were removed. The data quality check process helped screen for errors and completeness of the responses as well as identify if there is any data transformation required.

A statistical package for social scientists (SPSS) software was used to assist with the analysis of data, descriptive and inferential statistical analysis and also tested the reliability of the composite measure identified for the study. These are.

- Influential factors & retention approaches
- Embeddedness
- Intent to stay.

The cleaned data was exported to SPSS, where applicable, a missing data analysis was done to identify patterns and if any an imputation method was used to input the values. Thereafter, validity assessment and reliability testing on the composite

measures was run. Descriptive analysis was run to test the distribution or shape of the data. Based on the output and the type of data the inferential statistical techniques were identified that aided the testing of the hypothesis which is summarised in table 1.50 in Appendix A (Galawe, 2017). The table acted as the reference and guide to which data is used to answer the research questions and test the hypothesis, the variables, and method of analysis.

The study tested the hypothesis against a significance level of α=0.05 due to the small sample size and the fact that a larger error rate assist more in rejecting or supporting the hypothesis made in this study (Labovitz, 1968). In other words, this significance level will inform if there is enough evidence to support the claims made in the study from the two samples.

The outputs and results are then interpreted in chapter 4 and discussed in chapter 5 linking it to the literature reviewed as well as narrating other insights that were extrapolated from the data.

3.5. Limitations and challenges of the study

Based on the design, one of the key challenges is getting adequate responses and representation across the provinces, industry and demography to estimate the true relationships between the variables (ODwyer & Bernauer, 2013). i.e., influential factors, retention approaches and intent to stay. This would make it difficult to get statistically significant results and identify patterns or relationships between SME retention approaches and the influential factors and digital talent to stay in an SME by province, gender, race, age, and tenure. As a result of the low response rate, which is likely to skew the generalisation to the larger population, the researcher also acknowledges the likelihood of response bias, where a participant might complete the survey based on certain contexts, situations or circumstances at the point of time the survey is administered, whereas would respond differently if administered at a different timeframe.

Another challenge is tracking how many unique SMEs and their employees responded to the online survey. This would have provided an accurate view per SME.

During the data collection phase, low responses on the employee survey and incomplete responses by SME owners posed a threat to a statistically sound study. A change in

approach, from random to conventional sampling enabled the collection of additional responses that helped adequately make partial statistical inferences. Looking into the causes of the low response rate, based on a few informal conversations with a few digital talents who were part of the researcher's network, it was stated that they felt uncomfortable when an SME owner requested them to input the survey due to the fear that the response would be traced back to them. The distribution of the digital survey was then sent to respondent in a wider set of SMEs. Specifically, SME employees where their SME owners were not part necessarily part of the study and inputting the SME owner survey. This "fear" poses a great opportunity for future studies to hypothesise and test to find out why there is a reluctance to share their views, negative or positive, despite it being in their best interest.

On the other hand, it posed the biggest challenge of getting access to SMEs and digital talent that was in scope. While SEDA was the main avenue to gain access, due to legislation and leadership changes other avenues of snowballing needed to be employed.

3.6. External validity

As previously stated, a key challenge in this study was acquiring adequate representation across provinces, industries, and demography to make a true generalization to the larger population, I.e. SMEs in South Africa (Creswell, 2014; ODwyer & Bernauer, 2013) that would overcome sample bias as well as Hawthorne effect. Especially when studying workplace behaviour (Levitt; & List, 2011; Sedgwick; & Greenwood, 2015). The study was mindful that SME owners might portray their ideal versus sharing their current processes and approaches in place. The same for digital talent.

The study targeted a bigger sample size to cater for the low response rate, unusable and missing data (Galawe, 2017) and collected data for the 3 main provinces as well as a few other provinces to supplement in a case of low representation. See figure 1.11, the figure provides evidence that the data collected can be used to generalise to the larger population as it has the same characteristics or proportions as that of the current overall distribution of these 3 provinces. However, due to the very low response in Western Cape, it will be excluded when generalising to the larger SME population for that province.

Similarly, the study collected data from other industries even though it aimed to focus on trade, manufacturing and financial and business services. The key objective was to design

a study that can be generalized to the industries that play a significant role or contribution to the GDP (SEDA, 2023; StatsSA, 2023). See figure 1.12. Based on the figure Financial services, Transport, Storage & communication and manufacturing are closely aligned to the population. This distribution of digital talent will be discussed in Section 4.2.

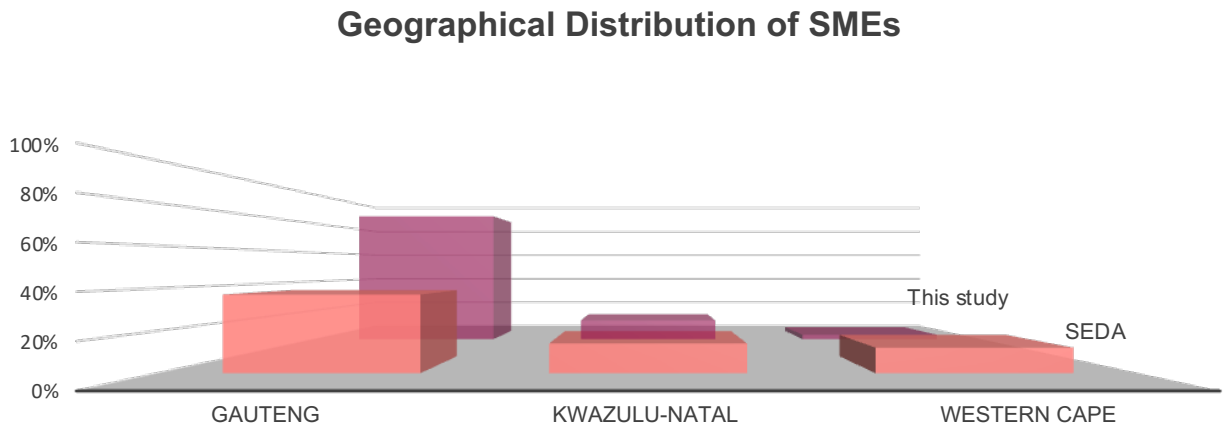


Figure 11.11: SME sample distribution-based province (Source: primary data)

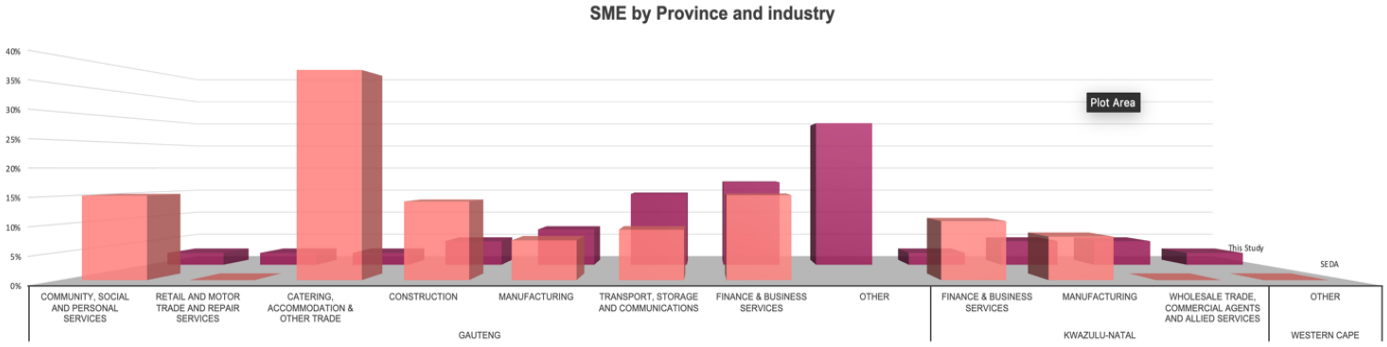


Figure 12.12: SME distribution by industry per province (Source: primary data)

3.7. Internal validity

In a non-experimental study, according to Laura M. Odwyer and James A. Bernauer (2013), “the most common threats to the internal validity of non-experimental designs are subject characteristics threats, location threats, instrumentation threats, as well as testing and attrition threats” (ODwyer & Bernauer, 2013, p. 162). They highlight that these threats make it difficult to estimate the true relationships or differences between groups as these threats may operate simultaneously in the same or opposite directions (ODwyer & Bernauer, 2013). In this study, the internal validity threat is the instrument threat which refers to the need to have a consistent and repeatable measure through the self-

administered online survey. Doing so lowers the misperception and interpretation of the survey questions that will skew the results. The mixed sampling method also posed a threat to internal validity as not all responders were randomly selected.

To ensure there is repeatability the same two online questionnaires will be used for SME owners and their employees respectively throughout the sample for the duration of the research study.

The researcher also acknowledges the likelihood of location threats, where one province's response rate is higher than the other, and attrition threats, where participants don't complete the survey (ODwyer & Bernauer, 2013; Thomas G. Reio, 2016). These threats will be addressed by focusing on a bigger sample size to mitigate them as much as possible and also ensure that the questionnaires are designed, distributed and analysed in a manner that helps answer the 3 research questions of this study with the least amount of bias.

3.8. Reliability

The researcher acknowledges the importance of the research instrument to be able to produce precise, consistent results that are reproducible (ODwyer & Bernauer, 2013) As such the two research instruments, online surveys, are created based on existing surveys and literature to provide the researcher with the ability to measure the internal consistency of the composite measures. The questions in both surveys are similar in nature and refer to influential factors, retention approaches and intent to stay. This will enable the researcher to examine the correlation between these factors, retention approaches and the likelihood or effect It has on the intent to stay as well as measure the same variables from two different perspectives. i.e. SME owners and employees (ODwyer & Bernauer, 2013). The reliability of the composite measures will be presented and discussed in Section 4.3.

3.9. Ethical considerations

This study is guided by set principles that ensure that informed consent and voluntary participation are obtained first from the SME owners to access their employees and then consent from employees themselves to participate in the online survey.

The study ensures anonymity and confidentiality by not collecting personal data or data that can lead to identifying an individual or an SME.

The research also declares that all content and body of work in this study are represented accurately based on the researcher's understanding and referenced using Endnote (20.3).

3.10. Chapter Summary

This chapter highlighted the research process and methodology. It noted that the study is non-experimental and followed a quantitative process with the utilization of SPSS to provide means to analyse the data. The study focused on two populations, SME owners and Digital talent. Due to delays in obtaining ethics clearance, the initial sample size for digital talent was revised from 500 to 100. This was a more feasible sample size to gather data from within the timeframe left. The sample for SME owners remained the same at 50. To gather the perspectives of both of these samples, two online surveys were designed using Qualtrics and distributed via snowballing. Another adaptation that was made from the initial design of the study was the shift to conventional sampling from random sampling. This enabled the collection of additional responses that helped reach an adequate amount of responses.

The data was initially screened and cleaned where responses with NO consent were excluded as well as incomplete responses with missing data greater than **35%**.

A statistical package for social scientists (SPSS) software assisted with descriptive and inferential statistical analysis. It also tested the reliability of the composite measure identified for the study via the conceptual framework.

The chapter noted that the low response rate on the employee survey and incomplete responses by SME owners was one of the limitations of the study as we as an external threat to a statistically sound study. SEDA was the main avenue to gain access, due to legislation and leadership changes other avenues of snowballing needed to be employed to ensure access to a larger sample.

In this study instrument threat, mixed sampling and location threat were the main three threats highlighted for internal validity. The study developed two self-administering surveys

to ensure consistency and repeatability. Location threats were addressed by focusing on a substantial yet achievable sample size to mitigate the possibility that one location will have a higher response rate than others.

Ethics clearance was received on the 19th of January 2023 and data collection started immediately. The results of the analysis and discussions linked to the literature reviewed as well as narration of other insights are presented in the coming 2 chapters.

CHAPTER 4: RESULTS AND FINDINGS

4.1. Introduction

This chapter systematically and categorically presents statistical data objectively as a foundation which in the next chapter will be substantiated. To meet the objectives of the study, this section is structured to first highlight the demography of the respondents which will aid in understanding the composition and representativeness of the two samples then, reflect on the reliability of the composite measures and present the descriptive statistics that informed if inferential statistics methods was needed, or which methods will be used to test the hypothesis.

To recap, the objective of the study is to assess the relationship between the influential factors of employees (talent) and their intent to stay, test if retention approaches have a mediating effect on intent to stay and if established influential factors that lead to job embeddedness are still relevant in post-pandemic South Africa. It also aims to answer 3 research questions.

1. What is the relationship between aligned influential factors and retention approaches have on digital talents intent to stay in an SME?
2. To what extent does Influential factors and retention approaches influence/mediate the decision to stay in an SME?
3. Is there a significant relevance of modern Western theories on talents' intent to stay in a post-pandemic South Africa?

4.2. Demographic profile of respondents

4.2.1. SME owner sample

The target sample size was **50** SMEs in 3 major provinces and specific industries as highlighted in the sample frame in section 3.2.1. The survey brought **57** responses from SME owners. Consent was received by **54** respondents, however, only **29** responses were fully completed. **13** responses had a few missing inputs due to incomplete responses **(±30%)** which was analysed, and these missing inputs were imputed using a fully conditional specification method called Markov chain Monte Carlo in SPSS. This

was to keep the sample size to increase the significance when making statistical inferences(Labovitz, 1968). The method used probability distribution and approximates to input the desired quantity (Gilks; et al., 1998). See Appendix C1.1, tables for the output of the missing data analysis. After filtering the data based on the SME sample frame the researcher was left with **39** responses which still enabled the study to make fair statistical inferences as the response rate is **>75%** (Alshibly, 2018; Andrade, 2020; Burmeister; & Aitken, 2012; James E. Bartlett et al., 2001)

4.2.1.1. SME owner distribution by province, industry and staff complement.

At a provincial level, from the overall sample, **85%** of responses were from Gauteng, followed by **13%** from KwaZulu-Natal and **3%** from Western Cape. From an industry perspective, Figure 1.13 below highlights the distribution of the data per the size of employee complement per industry and the province it operates in. **33%** was from a category called *"Other"* that was included to cater for SMEs that weren't sure which industry they belonged to. **21%** of the response was from finance & business services, **15%** from Transport, storage and communications, **13%** from Manufacturing, Wholesale trade & construction **5%** and community and catering **3%**. See table 1.4.

From an employee size perspective, the larger portion of the responses are SMEs with a staff complement of 0-5 **(51%)** followed by 5-10 employees **(18%)** and the 10-50, 50-100 & 100 – 250 make up **10%** each respectively. See table 1.5

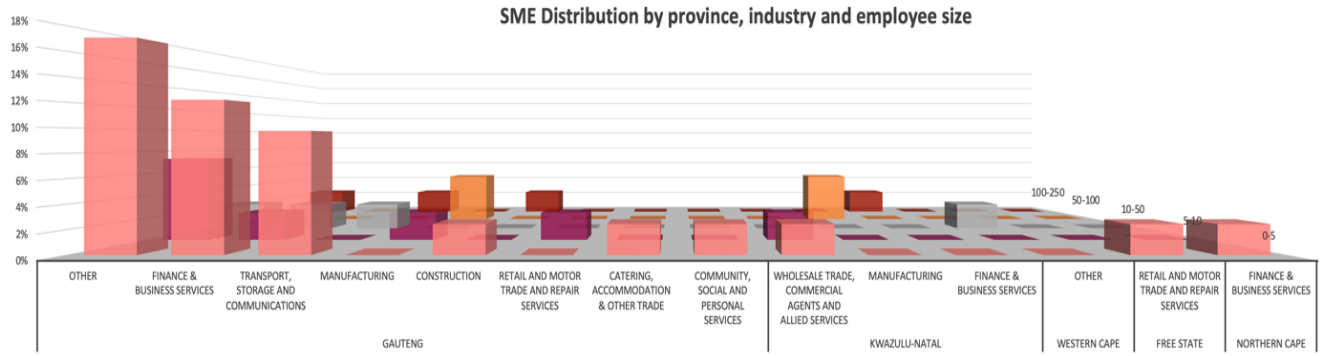


Figure 13.13: Full distribution of the respondents per province, industry based on employee size. (Source primary data)

SME Per industry	***Responses***
Other	33%
Finance & Business services	21%
Transport, storage and communications	15%
Manufacturing	13%
Wholesale Trade, Commercial Agents and Allied Services	5%
Construction	5%
Retail and Motor Trade and Repair Services	3%
Community, Social and personal services	3%
Catering, accommodation & other trade	3%

Table 4.4: SMEs based industry (Source: primary data)

	SME Owners		***Employee Size***			
Per Province and Sector	**0-5**	**5-10**	**10-50**	**50-100**	**100-250**	**Grand Total**
Gauteng	49%	15%	8%	5%	8%	85%
Kwazulu-Natal	3%	3%	0%	5%	3%	13%
Western Cape	0%	0%	3%	0%	0%	3%
Grand total	**51%**	**18%**	**10%**	**10%**	**10%**	**100%**

Table 5.5: SMEs based province and employee size (Source: primary data)

When looking at the distribution of provinces, the larger portion of the sample is from Gauteng and mainly in the financial & business services. Western Cape was too low but was included in the analysis to maintain a sample size of **39**.

4.2.1.2. SME owner distribution by province, industry, and years of service

Overall SMEs that have been in service with more than 4 years brought in **62%** and 0 -1 years, 1-2 years and 2-3 years brought **13%** each respectively. See table 1.6 in Appendix E for the breakdown per industry.

4.2.1.3. SME and digital transformation in sample

From the sample, **68%** SMEs indicated that digital transformation is either extremely or very important for their survival, **21%** indicated that it is slight to moderately important and **11%** indicated that it is not important. See table 1.7.

Industry	Extremely important	Very important	Moderately important	Slightly important	Not at all important	Grand Total
Other	7,9%	18,4%	0,0%	5,3%	0,0%	31,6%
Finance & Business services	10,5%	7,9%	2,6%	0,0%	0,0%	21,1%
Transport, storage and communications	5,3%	5,3%	0,0%	0,0%	5,3%	15,8%
Manufacturing	2,6%	2,6%	0,0%	2,6%	5,3%	13,2%
Wholesale Trade, Commercial Agents and Allied Services	0,0%	0,0%	2,6%	2,6%	0,0%	5,3%
Construction	0,0%	0,0%	0,0%	5,3%	0,0%	5,3%
Retail and Motor Trade and Repair Services	0,0%	2,6%	0,0%	0,0%	0,0%	2,6%
Community, Social and personal services	0,0%	2,6%	0,0%	0,0%	0,0%	2,6%
Catering, accommodation & other trade	2,6%	0,0%	0,0%	0,0%	0,0%	2,6%

Table 6.7: SMEs view on the importance of digital transformation by industry. (Source: primary data)

From an industry perspective, the **11%** who indicated that digital transformation is not important were Transport, storage and communication **(5.3%)** and the manufacturing sector **(5.3%).** The overall sample revealed that **32%** of the SMEs have significant focus and investment in digital transformation, **2%** have moderate focus and investment and **66%** have little to no focus and investment. See table 1.8 in Appendix E.

4.2.1.4. SME and retention approaches

51% of SMEs indicated that they have the necessary skills to meet their digital ambitions. The sentiments were mainly from financial and business services **(10%)**, **T**ransport, storage and communications **(10%)**, **5%** from manufacturing and a large portion of **20%** are from SMEs that flagged their industry as other. **29%** of SMEs

indicated they don't have the skills while **20%** neither agreed nor disagreed to having the right skills.

To acquire skills, **64%** of the SMEs stated that they prefer developing and retaining talent over the **26%** who prefer contracting and **10%** who prefer to hire new capabilities. See figure 1.14.

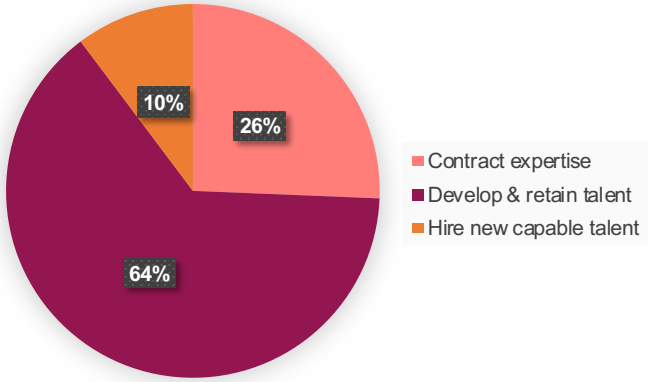


Figure 14.14: Distribution of the SME based on their preference to acquire skills. (Source primary data)

37% of SMEs stated that they have a retention of greater than **50%** and a total of **46%** have retention rates below **50%** across all industries. See figure 1.15

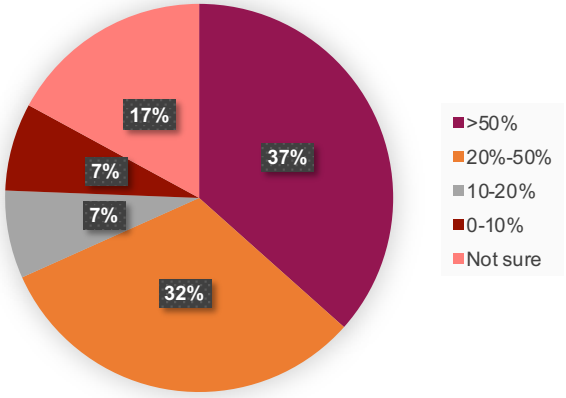


Figure 15.15: Distribution of the SME based retention rate. (Source primary data)

The distribution of SMEs' perceptions and views of what digital talent wants will be highlighted and discussed in the next chapter.

The survey also asked SMEs which retention approaches they currently employ. **69%** of the SMEs said they offered the right company culture, **45%** offered career advancement or promotions and reward programs, and **43%** offered reverse mentoring and remote working. Digital ambition/initiatives & branding, a safe and creative work environment, remuneration programs that align salaries to the market and effective leadership are

offered by only **38% of SMEs**. The retention approaches that are least utilized by SMEs is focus on community or CSI programs **(26%)**, short-term contracting **(13%)**, democratized learning and development programs, and fringe benefits **(17%).** See table 1.9 in Appendix E for a full breakdown.

With an industry lens, **80%** of SMEs in manufacturing offer a safe and creative work environment, **60%** of the SMEs utilise career advancement or promotions, the right company culture, remuneration programs aligned to salaries to market and effective leadership. **40%** leverage short-term contracting and reward program. While only **33%** of finance & business services and Transport, storage & communication as well as **46%** of SMEs marked as other, offer safe and creative environments. Within these 3 industries, an average of **32%** of the SMEs offer remuneration programs that align salaries to market. Sharing of digital ambition/initiative & branding is largely utilised by SMEs in the finance & business services **(56%).** Reverse mentoring is largely employed by the transport, storage and communication industry **(67%)**. Manufacturing **(60%)** and finance & business services **(50%)** have effective supervision/leadership. The least utilised retention across these industries is democratised learning and development. See table 1.10 in Appendix E for the full distribution across 4 of the industry that is most represented in the sample.

4.2.1.5. SME owner Descriptive analysis

Descriptive analysis helps summarise the data and helps, as the name states, help describe what the data is saying. It also helped to assess the type and shape of the data (Sharma, 2019). Table 1.11 shows the output of the descriptive analysis.

Statistics

		Which industry is your business in?	Which province is your business based?	Number of permanent full-time employees in your business	How long have you been in business?
N	Valid	39	39	39	39
	Missing	16	16	16	16
Mean		6.59	1.18	2.10	3.23
Median		5.00	1.00	1.00	4.00
Mode		12	1	1	4
Std. Deviation		4.429	.451	1.410	1.111

Skewness	.109	2.595	.996	-1.091
Std. Error of Skewness	.378	.378	.378	.378
Kurtosis	-1.624	6.608	-.402	-.347
Std. Error of Kurtosis	.741	.741	.741	.741

Table 7.11: Descriptive analysis of Digital Talent (Source: SPSS)

Seeing that sample have mixed shape in the data a mixture of parametric test and non-parametric test was used when testing hypotheses.

4.2.2. Digital Talent Sample

There were **56** responses received out of the revised target of **100.** Out of which only **44** were fully completed. After data sanitizing and cleaning, **1** response was discarded due to the completeness only being **6%. 11** responses had missing inputs **(±16%),** however, through the same imputation model mentioned in section 3.2.1, the missing data was imputed to maintain a decent sample size. See Appendix B for the output of the missing data analysis.

4.2.2.1. Digital Talent Gender, Ethnicity and Age Group

From the overall sample analysis, there were more male respondents **(71%)** than females **(29%).** See table 1.12**.** The ethnicity distribution revealed that **35%** of the respondents were black, **31%** white, **27%** Indian and **7%** coloured. See table 1.13.

Gender	Distribution
Female	29%
Male	71%

Table 8.12: Digital talent distribution by gender. (Source: primary data)

Ethnicity	Distribution
Black	35%
Coloured	7%
Indian/Asian	31%
White	27%

Table 9.13: Digital talent distribution by ethnicity. (Source: primary data)

The age group distribution highlighted that **36%** were between the ages of 25 to 34, **35% were** between 35 and 44, **11%** were 45-54, 18-24 and 45 -54 both had **9%** respondents each. Figure 1.16 depicts the overall distribution of digital talent by province, gender and ethnicity but also grouped by age group. The age group distribution somewhat resembles the latest labour force distribution in South Africa

(Statista, 2023). See table 1.14 for the respondent's distribution and Appendix C2 for a tabular view of the Q3 2022 labour force distribution by age group in South Africa.

Digital Talent	Age Group				
Gender	**18-24**	**25-34**	**35-44**	**45-54**	**55 and Older**
Female	4%	9%	7%	7%	2%
Male	5%	27%	27%	4%	7%
Grand Total	**9%**	**36%**	**35%**	**11%**	**9%**

Table 10.14: Digital talent by Gender and age group. (Source: primary data)

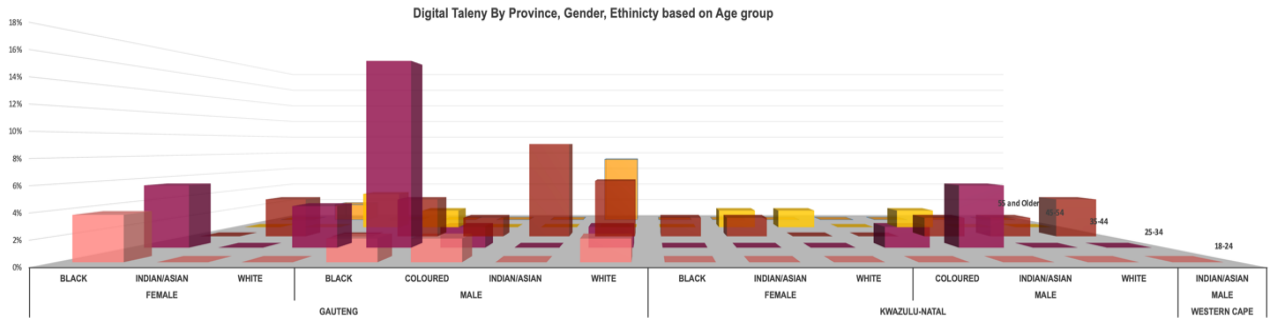


Figure 16.16: Full distribution of the digital talent respondents per province, gender and ethnicity categorised by age group. (Source: primary data)

4.2.2.2. Digital Talent's education level and technology proficiency

The study collected digital talent respondents' education level as well as their technology proficiency. The top two education levels captured in the study are bachelor's degrees **(31%), 13%** female and **18%** male, and diplomas **(22%), 9%** female and **13%** male. High school **(16%),** professional degree **(16%)** and trade or technical certification **(15%)** made up the rest of the sample respondents. See figure1.17.

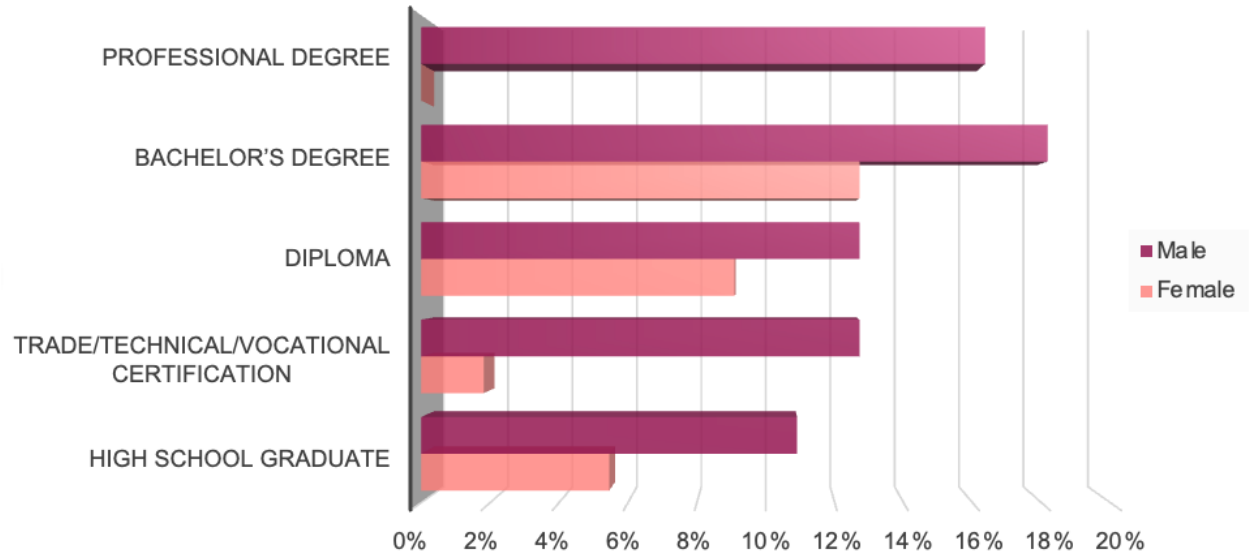


Figure 17.17: Distribution of digital talent respondent's education level categorised by gender. (Source primary data)

When analysing technology proficiency, **47%** displayed advanced proficiency, **20%** were expert, **18%** intermediate, **11%** basic, and **4%** being developed. Figure 1.18 shows the technology proficiency by gender.

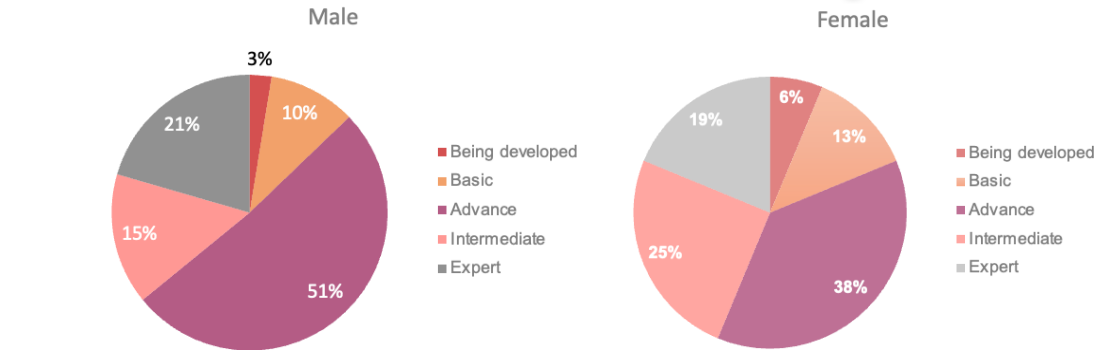


Figure 18.18: Distribution of digital talent respondents' technology proficiencies categorised by gender. (Source primary data)

Table 1.15 reveals the output of the descriptive analysis that helped identify patterns, assess the type and shape of the data (Sharma, 2019).

Statistics

		Which province is the company you are working based?	Please select your gender	Please select your ethnicity	Please select your age group	What is your technology proficiency?
N	*Valid*	55	55	55	55	55
	Missing	0	0	0	0	0
Mean		1.27	1.29	2.51	2.75	4.69
Median		1.00	1.00	3.00	3.00	5.00
Mode		1	1	1	2	5
Std. Deviation		.525	.458	1.230	1.075	1.034
Variance		.276	.210	1.514	1.156	1.069
Skewness		1.813	.947	-.146	.535	-.796
Std. Error of Skewness		.322	.322	.322	.322	.322
Kurtosis		2.558	-1.147	-1.604	-.129	.242
Std. Error of Kurtosis		.634	.634	.634	.634	.634
Minimum		1	1	1	1	2
Maximum		3	2	4	5	6

Table 11.15: Descriptive analysis of Digital Talent (Source: SPSS)

Seeing that the sample has a mixed shape in the data, a mixture of parametric test and non-parametric test were used when testing hypotheses.

4.2.2.3. Digital Talent's intent to stay.

Digital talent was asked via the survey what the ideal duration they would stay in an organization. **45%** of the respondents indicated that they would stay longer than 5 years and **25%** of 1 to 3 years. See table 1.16 for full distribution.

Length of stay	***Distribution***
6 months or less	2%
Over 6 months, up to 1 year	4%
Over 1 year, up to 3 years	25%
Over 3 years, up to 5 years	24%
Over 5 years	45%

Table 12.16: Digital Talent's ideal length of employment in a company (Source: primary data)

This data was grouped into 3 categories, *short-term, mid-term, and long term*, to provide a high-level view of the potential length digital talent is willing to stay in an

organization. See table 1.17 below for the distribution and Appendix C.1.6, table 1.57 for grouping criteria.

Length of stay	Distribution
Long term	69%
Mid term	25%
Short-term	5%

Table 13.17: Descriptive analysis of Digital Talent's grouped ideal length of employment in a company (Source: primary data)

The analysis of duration based on age and gender distribution revealed that both males (**38%**) and females (**13%**) between the ages of 25 to 44 were the most that prefer staying long term. See table 1.18 in Appendix E for full distribution.

4.2.2.4. Digital Talent's embeddedness.

The study asked respondents to state to what extent they agree or disagree with 10 statements which reflect their current company. These 10 statements are underpinned by aspects of embeddedness that was derived from the literature reviewed. See section 2.6.1 and Appendix C.1.7, table 1.58 & figure 1.45 for analysis and recode statements based on the questionnaire. The extent of the agreements was grouped into 3 high-level categories, Deeply embedded, Mildly embedded and poorly embedded.

Embeddedness	*Distribution*
Deeply embedded	51%
Mildly embedded	31%
Poorly embedded	18%

Table 14.19: Descriptive analysis of Digital Talent's level of embeddedness in their current company derived from transforming the data from Q11 (Source: primary data)

As per table 1.19, the sample indicated that **51%** of the respondents were deeply embedded in their current company.

4.3. Review of reliability and data attributes

As stated in section, the ability to produce a research instrument that is consistent, reproducible and precise data is important (ODwyer & Bernauer, 2013). For the study to achieve its objectives that was recapped in section 4.1, Three composite measure was highlighted when building the research instrument that represented the conceptual framework. See section 3.3. As stated in that section, these composite measures

(variables) are Influential factors and retention approaches, Intent to stay and Job embeddedness. The survey questions was grouped under the respective composite measures to ensure right data is collected for analysis and testing of hypothesis. This grouping is reflected in table 1.9 below.

The two surveys collected the data needed to test and measure the hypothesis and answer the research questions based on these three measures. To test the internal consistency of these three composite measures a Cronbach's α test was done on SPSS. The Cronbach α was used to ensure that the composite measure and the questions in the survey consistently measure the same characteristics (Tavakol; & Dennick, 2011). The results are highlighted in table 1.20. All there composite presented acceptable levels as they ranged between an 0.7 and 0.8. See table in C.1.5, table 1.55,1.56,1.57.

Composite Measures	Question Numbers	Cronbach's Alpha
Influential factors & retention approaches	SO_Q14, 17 & DT_Q10	0.795
Embeddedness	SO_Q16 & DT_16	0.781
Intent to stay	DT_Q12,13,14,15,16,17,18,20 and 21	0.707

Table 15.20: Reliability of composite measures (Source: SPSS)

4.4. Findings pertaining to Hypothesis 1: SMEs that have little to no focus and investment in digital transformation will have an effect on digital-oriented talent's intent to stay in the company.

When looking to test the null hypothesis, even though the distribution of the digital talent sample for preference is negatively skewed, see figure 1.33 & 1.34 in Appendix C.1.4, a parametric analysis, i.e., T-test will be used. This is based on the premise on the central limit theorem, where it stipulates that the sample size draws near to a normal distribution as the sample size increases (Kwak; & Kim, 2017). The overall sample data meets the assumptions or parameters that of the theorem, where the sample size must be a minimum of **30** and the sample overall (ethnicity, gender, and age group) are largely normal distribution, see Appendix C.1.3. The distribution of the independent variable, *SME level of pursuit in digital transformation*, revealed a normal distribution, see figure 1.34 in Appendix C.1.4 and dependant variable*, Digital talents preferred level of pursuit of digital transformation of an SME*, revealed a somewhat negatively skewed with a negative kurtosis distribution. See figure 1.33 in Appendix C.1.4

Out of a sample of **42** SME, regardless of industry and province they are operating from, **67%** indicate that they have No **(38%)** to little **(29%)** investment or focus on digital transformation. See table 1.21.

SME level of pursuit in digital transformation	%
No Investment or focus on digital transformation initiatives	38%
Little investment and focus on digital transformation initiatives	29%
Moderate investment and focus on digital transformation initiatives	2%
Significant investment and focus on digital transformation initiatives	31%

Table 16.21: Distribution of SMEs based on the level of pursuit in digital transformation. Source: primary data.

Comparing this with digital talent's response to *"Which option below best represents a company that you will stay in?"* only **4%** indicated that they would stay in an SME with no to little investment and focus on digital transformation. See table 1.22.

Digital Talents preferred level of pursuit of digital transformation	Likely to Stay
Little investment and focus on digital transformation initiatives	4%
Moderate investment and focus on digital transformation initiatives	31%
Significant investment and focus on digital transformation initiatives	65%

Table 17.22: Distribution of digital talent based on their preference in company's level of pursuit in digital transformation that influences them to stay. Source: primary data.

To make a statistically significant test, the mean of the digital talent preference **(3.38)** was tested using descriptive analysis. See table 1.23.

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
SME: *Which option below represents your businesses digital transformation journey?*	39	**2.33**	1.284	.206
Digital talent: *Which option below best represents a company that you will stay in?*	55	**3.38**	.892	.120

Table 18.23: Descriptive analysis output based on SME and digital responses to the level of pursuit in digital transformation. Source: SPSS and primary data.

The mean of the SMEs current level of focus and investment was used to the parameter of the mean of the digital talent's preference in a one sample T-Test to

see if there was an effect or difference between the means which would either reject or fail to reject the H_0 stated below;

- **H_0**: SMEs level of investment and focus on digital transformation has no effect on digital-oriented talent's intent to stay in the company.
- **H_1** : SMEs that are have little to no focus and investment in digital transformation will an effect on digital-oriented talent's intent to stay in the company

Based on the inferential statistics, the mean difference is equal to **1.052** with a p-value of **<0.01** which is less that the significance level of **α= 0.05**. also, the confidence interval does not include zero, Therefore, the **H_0** is rejected, and the alternate hypothesis is supported. See table 1.24. Thus, indicating that the level of investment and focus on digital transformation does have an effect on digital talents intent to stay.

One-Sample Test

Test Value = 2.33

	t	df	Significance		Mean Difference	95% Confidence Interval of the Difference	
			One-Sided p	Two-Sided p		Lower	Upper
Which option below best represents a company that you will stay in?	8.743	54	<.001	**<.001**	**1.052**	.81	1.29

Table 19.24: One Sample T-test results. Source: SPSS and primary data.

4.5. Findings pertaining to Hypothesis 2: SMEs that prefer developing and retaining talent will have positive relationship between digital-oriented talent's influential factors and intent to stay.

The approach to test this hypothesis was to:

1. Assess if there is a relationship between the SME's preferred method to acquire skills and Digital talent's preference to stay.

2. Test the correlation direction and strength between digital talents preference to be developed and the length they would stay.

64% of SME owners said that they prefer to develop and retain talent and **89%** of the digital talent respondents indicated that they prefer a company that invests in learning and developing talent. See table 1.25 and table 1.26.

SME Owner preference	**%**
Contract expertise	26%
Develop & retain talent	**64%**
Hire new capable talent	10%

Table 20.25: SME owners preferred method of acquiring skills. (Source: primary data)

likely to stay in a company that prefers to invest in learning and development	***%***
Somewhat disagree	4%
Neither agree nor disagree	7%
Somewhat agree	**33%**
Strongly agree	**56%**

Table 21.26: Digital talent's likelihood of staying if SMEs preferred developing skills versus contracting to acquire skills. (Source: primary data)

A descriptive analysis was done on SPSS, the mean of SME owners' preference when it comes to acquiring skills is **1.85**, using mean as a test value was run through a T- test on the digital talent sample to test if there is a relationship or an effect between the two variables. See table 1.27 and 1.28.

The null hypothesis tested is:

- **H_0**: SMEs preference in how they acquire skills have no effect on digital-oriented talent's intent to stay in the company.
- **H_1**: SMEs that prefer in developing talent will have effect on digital-oriented talent's intent to stay in the company.

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
When it comes to the need for skills, do you prefer to	39	**1.85**	.587	.094
Are you likely to stay in a company that prefers to invest in learning and	55	**4.42**	.786	.106

development than offer short-term contracts to bring expertise?	

Table 22.27: Descriptive analysis for SME and Digital talent preference. (Source: SPSS)

The results of the T-test, indicate a small difference of **2.568** between the two means and the p value is **<0.01** which is smaller than the 0.05 significance. The t value with a **54** degree of freedom at the significant level of the study is also higher than the t value on the t distribution table. See table 1.28 below and Appendix D.3 for t value distribution table used. Therefore, the H_0 is rejected and the alternate is supported. Thus, indicates that SMEs preference on how they acquire skills does influence digital talents intent to stay.

One-Sample Test

Test Value = 1.85

	t	df	Significance		Mean Difference	95% Confidence Interval of the Difference	
			One-Sided p	Two-Sided p		Lower	Upper
Are you likely to stay in a company that prefers to invest in learning and development than offer Short-term contracts to bring expertise externally?	24.224	54	<.001	**<.001**	**2.568**	2.36	2.78

Table 23.28: T-test output from testing the dependant variable against the mean of the independent variable to see if there is a relationship between the two. (Source: SPSS)

To test if there is a positive or negative effect on the digital talents preference and intent to stay when SMEs prefer to develop and retain talent, a Pearson's correlation test was used as the shape of the data for the variable followed a normal distribution and the two variables are discrete (ordinal) variable. See Appendix C.1.4 figure 1.36 and 1.37.

The null hypothesis tested is:

- **H_0**: SMEs that prefer developing and retaining talent will have negative relationship between digital-oriented talent's preference and intent to stay.
- **H_1**: SMEs that prefer developing and retaining talent will have positive relationship between digital-oriented talent's influential factors and intent to stay.

The results indicate a small positive relationship **(r=0.155).** Thus, supporting the alternate hypothesis (**H1**) stating that there is a positive relationship between digital-oriented talent's influential factors and intent to stay when the company prefer to develop and retain talent. However, the data isn't sufficient to make a statistically significant inference that this correlation exists in the population. This is due to the significance level **(α=0.460)** being greater than the chosen α of **0.05** for the study. See table 1.29.

Correlations[a]

		(T) How long would you stay	Are you more likely to stay in a company that prefers to invest in learning and development than offer short-term contracts to bring expertise?
(T) How long would you stay	Pearson Correlation	1	**.155**
	Sig. (2-tailed)		**.460**
	N	25	25
Are you more likely to stay in a company that prefers to invest in learning and development than offer short-term contracts to bring expertise?	Pearson Correlation	**.155**	1
	Sig. (2-tailed)	**.460**	
	N	25	25

a. When it comes to the need for skills, do you prefer to = Develop & retain talent

Table 24.29: Output from Pearson's correlation test, testing for the strength of the relationship between the dependant variable and independent variable. (Source: SPSS)

4.6. Findings pertaining to Hypothesis 3: SMEs that prefer short-term contracting will have a negative relationship between digital-oriented talent's influential factors and intent to stay in the age group 35 to 44.

24% of the SME indicated that they prefer contracting and **84%** of digital talent highlighted that they wouldn't staying in a company that offered short-term contracting regardless of age group. See table 1.25 from section 4.5 and 1.30 below. To validate the digital talents sentiments the researcher asked When looking at the age group 35 to 44, only **4%** within this age group responded that they would stay in a company that offered short-term contracts compared to the **29%** that said they wouldn't. See table 1.30.

SME Owner preference	%
Contract expertise	**24%**
Develop & retain talent	67%
Hire new capable talent	10%

Table 1.25: SME owners preferred method of acquiring skills. (Source: primary data)

Prefer to stay in a company that offers short-term contracts	18-24	25-34	35-44	45-54	> 55	Grand Total
Strongly disagree	5%	22%	**18%**	5%	4%	**55%**
Somewhat disagree	4%	9%	**11%**	2%	4%	**29%**
Neither agree nor disagree	0%	4%	2%	2%	0%	7%
Somewhat agree	0%	0%	**4%**	2%	0%	5%
Strongly agree	0%	2%	0%	0%	2%	4%

Table 25.30: Digital talent prefer to stay in a company that offers short-term contracts (Source: primary data)

Using the same analysis process and method taken in the previous hypothesis, a T-test was used to establish if there was a relationship between the two variables, then the direction and the strength of the relationship was tested using Pearson's correlation.

From hypothesis 2, it was established that there is a relationship between the preference of the SME and the preference of digital talent and intent to stay. See table 1.28 in previous section. Therefore, the researcher tested the relationship direction based on:

- **H_0**: SMEs that prefer short-term contracting will have a positive relationship between digital-oriented talent's preference and intent to stay in the age group 35 to 44.
- **H_1**: SMEs that prefer short-term contracting will have a negative relationship between digital-oriented talent's preference and intent to stay in the age group 35 to 44.

A bivariant correlation analysis, Pearson's correlation, was run to test the direction of the relationship and its significance. From the result table 1.31 below indicated that there is a perfect negative correlation where r =**-1.00**, indicating a direct negative relationship between digital talent's influential factors and intent to stay when the SME prefers to offer short-term contracting and that there is enough evidence in the sample to indicated that there is statistically significance to the population as the α=**0.00** is greater than **0.05**. Therefore, the null hypothesis is rejected, and alternative is supported.

Correlations[a]

		(T) How long would you stay	Are you more likely to stay in a company that offer short-term contracts than full-time employment contracts?
(T) How long would you stay	Pearson Correlation	1	**-1.000**[**]
	Sig. (2-tailed)		**.000**
	N	3	3
Are you more likely to stay in a company that offer short-term contracts than full-time employment contracts?	Pearson Correlation	-1.000[**]	1
	Sig. (2-tailed)	.000	
	N	3	3

**. Correlation is significant at the 0.01 level (2-tailed).

a. When it comes to the need for skills, do you prefer to, = Contract expertise, (T) Age grouped = 35 to 44

Table 26.31: Output from Pearson's correlation test, testing for the strength of the relationship between SME that offer short-term contracts versus digital talent between 35 to 44 preference and intent to stay (Source: SPSS).

4.7. Findings pertaining to Hypothesis 4: There is a mediation effect between Influential factors and intent to stay when retention approaches are introduced.

As stated in section 2.6.2, the framework proposes that when SMEs implement retention approaches that focus on factors that influence digital-oriented employees to stay, can play a mediating role that either has a positive or a negative impact on the relationship between influential factors and intent to stay.

This hypothesis will be tested through testing if retention approach such as reverse mentoring and remote working has a mediating effect and the direction of the relationship between influential factors like being able to influence and contribute to the direction of the SME and flexible work when these retention approaches are introduced.

The approach to test mediation is the widely accepted contemporary approach that has been claimed be more effective in modern day research compared to the traditional approach proposed by Baron and Kenny in 1986 (Gürbüz; & Bayık, 2021).

For the study to reach a conclusion on mediation, it will make use of Andrew F. Hayes v4.2 of SPSS PROCESS to test the significance of the indirect effect of mediation by bootstrapping, which in the study by Gürbüz & Bayık in 2021, claimed that no other requirements is needed to make the conclusion on the significance of the mediation model (Gürbüz; & Bayık, 2021).

4.7.1. Findings pertaining to Hypothesis 4.1: There is a mediation effect when SMEs offer reverse mentoring in response to the need for flexible work and intent to stay.

Taking the contemporary approach requirements, a SPSS PROCESS macro test was run with a re-sampling of 10000, where opportunity influence construct (x) has an indirect effect through the mediator, reverse mentoring (m), on the length of stay construct (y) (Gürbüz; & Bayık, 2021). For the illustration see figure 1.19. The researcher used a bootstrap of 10000 to give ethe study the best chance of testing the hypothesis by creating many simulated samples (Gürbüz; & Bayık, 2021; Wood, 2005). The study also filtered the sample to only analyse mid to long term length of stay. Which was derived by grouping choices into 3 categories. This is where option less than 1 year was grouped as short-term, 1 to 3 years was grouped as midterm and greater than 3 years was marked as long term. See table 1.32 & 1.33.

Q12 options	New category	Recoded
6 months or less	Short-term	1
Over 6 months, up to 1 year		
Over 1 year, up to 3 years	Mid term	2
Over 3 years, up to 5 years	long term	3
Over 5 years		

Table 27.32: Grouping of how ideally digital talent would stay in a company in the terms (Source: primary data)

Length of stay	*Distribution %*
Long term	**69%**
Mid term	**25%**
Short-term	5%

Table 28.33: Distribution of length of stay based on digital talent responses (Source: primary data)

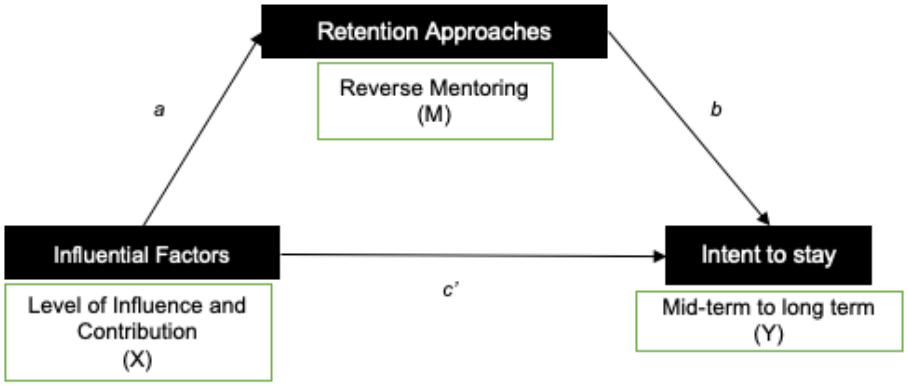


Figure 19.19: Mediation model for reserve mentoring as a mediator derived from Gürbüz & Bayık study in 2021 (Source: (Gürbüz; & Bayık, 2021)

The results are presented in figure 1.20 which indicates that influential factors have a significant impact on reverse mentoring (***a* = 0.5320**) at significance level of ***p*=0.00**. However, there isn't a significant impact, *p-value* of **0.5908** which is higher than the study's significance level, on the length of stay (mid to long term) through reverse mentoring (***b* = 0.2411**).

```
**************************************************************************
Model  : 4
    Y  : DT_LOS
    X  : DT_17_IF
    M  : DT_18_RA

Sample
Size:  52

**************************************************************************
OUTCOME VARIABLE:
 DT_18_RA

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      .5877      .3454      .4902    26.3788     1.0000    50.0000      .0000

Model
            coeff         se          t          p       LLCI       ULCI
constant   2.0042      .4333     4.6254      .0000     1.1339     2.8745
DT_17_IF    .5320      .1036     5.1360      .0000      .3239      .7400

**************************************************************************
OUTCOME VARIABLE:
 DT_LOS

Coding of binary Y for logistic regression analysis:
    DT_LOS  Analysis
      2.00       .00
      3.00      1.00

Model Summary
       -2LL    ModelLL         df          p   McFadden   CoxSnell   Nagelkrk
    58.5093     2.0698     2.0000      .3553      .0342      .0390      .0567

Model
            coeff         se          Z          p       LLCI       ULCI
constant   -1.2123     1.6170     -.7497      .4534    -4.3814     1.9569
DT_17_IF    .3045      .4082      .7459      .4557     -.4956     1.1046
DT_18_RA    .2411      .4485      .5377      .5908     -.6378     1.1201

These results are expressed in a log-odds metric.
```

Figure 20.20: Output of the linear regression analysis using SPSS PROCESS macro (Hayes, 2015) (Source: SPSS)

The results in figure 1.21 indicated that there isn't any evidence in the sample of an indirect effect of mediation at the significance level (***a*b* = 0.1283, *BootLLCI* = -0.5460 *and BootULCI*= 1.0337**). As seen the figure 1.21, the lower confidence interval (LLCI) and upper confidence interval (ULCI) passes through zero therefore indicating no significance. When testing a direct effect, this resulted in highlighting that there isn't a direct effect as the lower **(-0.4956**) and upper confidence (**1.1046**) interval passes through zero.

```
****************** DIRECT AND INDIRECT EFFECTS OF X ON Y **********

Direct effect of X on Y
     Effect         se          Z          p       LLCI       ULCI
      .3045      .4082      .7459      .4557     -.4956     1.1046

Indirect effect(s) of X on Y:
            Effect     BootSE   BootLLCI   BootULCI
DT_18_RA      .1283      .4282     -.5460     1.0337

*********** BOOTSTRAP RESULTS FOR REGRESSION MODEL PARAMETERS *****

OUTCOME VARIABLE:
 DT_18_RA

              Coeff   BootMean     BootSE   BootLLCI   BootULCI
constant     2.0042     2.0721      .6539      .9371     3.4465
DT_17_IF      .5320      .5161      .1493      .1991      .7699

----------

OUTCOME VARIABLE:
 DT_LOS

              Coeff   BootMean     BootSE   BootLLCI   BootULCI
constant    -1.2123    -1.9387     3.9028    -9.5183     1.8140
DT_17_IF      .3045      .3491      .6351     -.9685     1.5195
DT_18_RA      .2411      .4000      .9129     -.9473     1.9665
```

Figure 21.21: Output of the linear regression analysis using SPSS PROCESS macro (Hayes, 2015) focusing on the Direct and Indirect effect (Source: SPSS)

Therefore, there isn't significant evidence to indicate that reserve mentoring has a mediation effect. Thus, the hypothesis is rejected.

4.7.2. Findings pertaining to Hypothesis 4.2: There is a mediation effect when SMEs offer remote working in response to the need for flexible work and intent to stay.

The researcher tested the mediating effect using the same approach, requirements and method that was used in Hypothesis 4.1. Figure 1.22 illustrated the constructs in the model that was be tested.

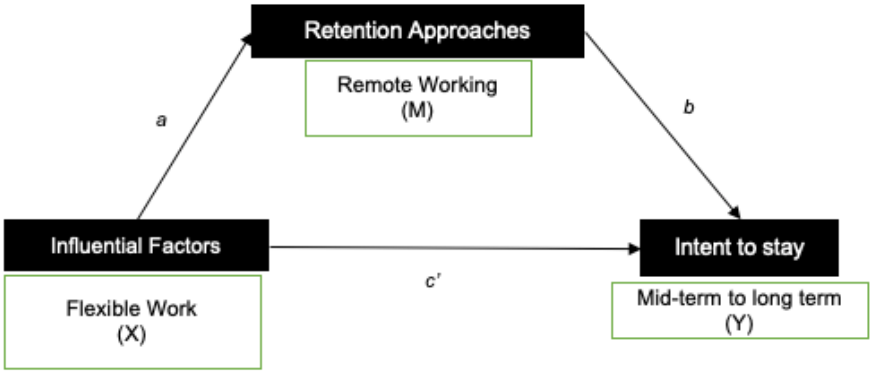


Figure 22.22: Mediation model for remote working as a mediator derived from Gürbüz & Bayık study in 2021 (Source: (Gürbüz; & Bayık, 2021)

The results as seen in figure 1.23 indicate that influential factor, flexible work has a significant impact on remote working (***a* = 0.8378**) at significance level of ***p*=0.00**. However, similar to hypothesis 4.1, there isn't a significant impact on the length of stay (mid to long term) through remote working construct (***b* = -0.4844**). the *p-value* of **0.3532** which is higher than the study's significance level.

```
**************************************************************************
Model  : 4
    Y  : DT_LOS
    X  : DT_Q15
    M  : DT_Q16

Sample
Size:  52

**************************************************************************
OUTCOME VARIABLE:
 DT_Q16

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      .7191      .5171      .4852    53.5353     1.0000    50.0000      .0000

Model
             coeff         se          t          p       LLCI       ULCI
constant      .4990      .5243      .9517      .3458     -.5541     1.5520
DT_Q15        .8378      .1145     7.3168      .0000      .6078     1.0678

**************************************************************************
OUTCOME VARIABLE:
 DT_LOS

Coding of binary Y for logistic regression analysis:
    DT_LOS  Analysis
      2.00       .00
      3.00      1.00

Model Summary
       -2LL    ModelLL         df          p   McFadden   CoxSnell   Nagelkrk
    59.4913     1.0879     2.0000      .5805      .0180      .0207      .0301

Model
             coeff         se          Z          p       LLCI       ULCI
constant      .7041     1.6410      .4291      .6679    -2.5122     3.9205
DT_Q15        .5312      .5566      .9543      .3400     -.5598     1.6222
DT_Q16       -.4844      .5218     -.9283      .3532    -1.5071      .5383

These results are expressed in a log-odds metric.
```

Figure 23.23: Output of the linear regression analysis using SPSS PROCESS macro (Hayes, 2015) (Source: SPSS)

Figure 1.24 below indicated that there isn't any evidence in the sample of an indirect effect of mediation at the significance level and indicates that remote working is negatively related to length of stay (***a*b* = -0.4059, *BootLLCI* = -2.7405 *and* *BootULCI*= 0.4336**). since the lower confidence interval (LLCI) and upper confidence interval (ULCI) passes through zero therefore indicating the no significance. When testing a direct effect, this to, revealed that there isn't a direct effect either as the lower **(-0.4877**) and upper confidence (**3.7710**) interval passes through zero.

```
****************** DIRECT AND INDIRECT EFFECTS OF X ON Y *****************

Direct effect of X on Y
     Effect         se          Z          p       LLCI       ULCI
      .5312      .5566      .9543      .3400     -.5598     1.6222

Indirect effect(s) of X on Y:
           Effect     BootSE   BootLLCI   BootULCI
DT_Q16     -.4059     2.0085    -2.7405      .4336

*********** BOOTSTRAP RESULTS FOR REGRESSION MODEL PARAMETERS ************

OUTCOME VARIABLE:
 DT_Q16

               Coeff   BootMean     BootSE   BootLLCI   BootULCI
constant      .4990      .4323      .6129    -1.0056     1.4593
DT_Q15        .8378      .8522      .1282      .6333     1.1500

----------

OUTCOME VARIABLE:
 DT_LOS

               Coeff   BootMean     BootSE   BootLLCI   BootULCI
constant      .7041      .1624     3.8272    -8.5165     4.0982
DT_Q15        .5312     1.0788     2.0913     -.4877     3.7710
DT_Q16       -.4844     -.9010     2.0396    -3.0754      .5387
```

Figure 24.24: Output of the linear regression analysis using SPSS PROCESS macro (Hayes, 2015) focusing on the Direct and Indirect effect (Source: SPSS)

Therefore, the hypothesis is rejected as there isn't significant evidence to indicate that remote working has a mediation effect.

4.8. Findings pertaining to Hypothesis 5: Digital talent with advanced technology proficiencies that feel embedded to any degree will have a positive relationship with their intent to stay.

For this hypothesis to be tested, two variables had to be transformed to create two additional ones. Question 10 and 12 were transformed and recoded to create two categorical variables. The first variable is *how long would they stay* as stated in the

4.7.1, a new variable called length of stay was derived by grouping the choices of question 12. See table 1.32 & 1.33 in previous section. Question 10 was transformed by first grouping the data into 3 categories where "*Strongly agreed"* and "*Somewhat agree"* were grouped together and a counted based on how many occurrences of the two options across question 10 by a single responded. The same process was applied to responses for "Neither agree or disagree" and "Strongly agree & Somewhat agree".

The numeric values were then the ranges was grouped into 3 new categories and recoded. See table 1.34. This formed the second additional variable named *"DT_embeddedness" which looked at level of embeddedness the respondents are in.*

Numeric value	New category	Recoded
0 to 3	Poorly embedded	1
4 to 6	Mildly embedded	2
7 to 10	Deeply embedded	3

Table 29.34: Level of embeddedness (Source: primary data)

This enabled the null and alternate hypothesis stated below to be tested.

- **H_0**: Digital talent with advanced technology proficiencies that feel embedded to any degree will have a no relationship with their intent to stay.
- **H_1**: Digital talent with advanced technology proficiencies that feel embedded to any degree will have a positive relationship with their intent to stay.

First a T-test was done to assess if there is a relationship between the two variables in the sample. The mean of **2.33** digital talent in the sample was calculated. See table 1.35 and 1.36. Which was used as the test value for the T-test.

Descriptive Statistics[a]

	N	Minimum	Maximum	Mean	Std. Deviation
(T) Respondent's embedded level	55	1	3	**2.33**	.771

a. What is your technology proficiency? = All

Table 30.35: Descriptive analysis from T-test for Level of embeddedness (Source: SPSS)

The *p*-value (***p*<0.01**) was less than the significance value of 0.05 of the study. Therefore, the Null hypothesis is rejected indicating there is evidence of a relationship within the sample.

One-Sample Test

Test Value = 2.33

	t	df	Significance		Mean Difference	95% Confidence Interval of the Difference	
			One-Sided p	Two-Sided p		Lower	Upper
(T) How long would you stay	3.858	54	<.001	**<.001**	.306	.15	.47

Table 31.36: Output of T-test on the Level of embeddedness (Source: SPSS)

To test the direction and strength of the relationship and testing if there is significant evidence of the correlation in the population of digital talent with advanced technology proficiencies, a Pearson's correlation test was used again due the normal distribution and variables are quantitative.

The *r* value of **0.396** indicating a small to moderate positive correlation with a significant level of **0.05**. Therefore, the alternate hypothesis is supported highlighting that any level of embeddedness does have positive impact on digital talent with advanced technology proficiency's intent to stay. See table 1.37.

Correlations[a]

		(T) How long would you stay	(T) How embedded the sample is
(T) How long would you stay	Pearson Correlation	1	**.396***
	Sig. (2-tailed)		**.045**
	N	26	26
(T) How embedded the sample is	Pearson Correlation	**.396***	1
	Sig. (2-tailed)	**.045**	
	N	26	26

*. Correlation is significant at the 0.05 level (2-tailed).

a. What is your technology proficiency? = Advance

Table 32.37: Pearson correlation results that tested the correlation between length of stay and embeddedness (Source: SPSS)

4.9. Chapter Summary

This chapter focused on showcasing the distribution, reliability of the composite measures and results from analysis and testing of the hypothesis

4.9.1. From a SME perspective

57 responses were collected via SME survey. After data sanitizing the data, imputing missing values using a fully conditional specification method called Markov chain Monte Carlo in SPSS and filtering by the sample frame the study was left with a sample of **39** response which still enables the study to make good statistical inferences as the response rate is **>75%** (Alshibly, 2018; Andrade, 2020; Burmeister; & Aitken, 2012; James E. Bartlett et al., 2001).
The demography of the SME sample presented that at a provincial level that majority of the responses were from Gauteng (**85%**), followed by **13%** KwaZulu-Natal and **3%** Western Cape. From an industry perspective, **33%** was from a category call *"Other"* that was included to cater for SMEs that wasn't sure which industry they belong to. **21%** of the response was from finance & business services, **15%** Transport, storage and communications, **13%** manufacturing, Wholesale trade & construction was **5%** respectively and community and catering was **3%** respectively. See table 1.4.

A larger portion of the responses were from SMEs with a staff complement of 0-5 **(51%)** followed by 5-10 employees **(18%)** and the 10-50, 50-100 & 100 – 250 make up **10%** each respectively. See table 1.5.

The representation of SME per province and industry has some resemblance to the larger population in certain aspects. See figure 1.11 and 1.12 in section 3.5.1

The most commonly used retention approached used by SMEs in the sample is providing the right company culture **(69%)** and the least short-term contracting **(14%).** Besides providing the right company culture, manufacturing sector favour providing a safe & creative environment, while finance & business services favoured using remote working and sharing digital ambition & building the brand. Transport, storage and communication preferred using reverse mentoring.

4.9.2. From a digital talent perspective

56 responses were collected from the survey, after data sanitizing and imputing of missing data the study was left with a sample of 55 to analyse. There were more male respondents **(71%)** than females **(29%).** See table 1.12**.** The ethnicity distribution revealed that **35%** of the respondents were black, **31%** white, **27%** Indian and **7%** coloured. See table 1.13.

The age group distribution highlighted that **36%** were between the ages of 25 to 34, **35%** between 35 and 44, **11%** was 45-54, 18-24 and 45 -54 both had **9%** respondents each. Figure 1.16, the age group distribution, somewhat fairly resembles the latest labour force distribution in south Africa (Statista, 2023). See table in Appendix D.2

The top two education levels captured in the study is bachelor's degrees **(31%),** diplomas **(22%)**, High school **(16%),** professional degree **(16%)** and trade or technical certification **(15%)**.

The technology proficiency, the distribution was largely talent with advanced proficiency **(47%),** followed by expert **(20%),** intermediate was **18%**, being developed and basic proficiencies were **4%** and **11%** respectively.

The study also collected how long digital talent would ideally stay in a company. This data was transformed and grouped to create a new variable called length of stay. This variable was used in the testing of hypothesis 4.1 and 4.2. **69%** of the respondent indicated that they would stay between 3years to 5 years and above, i.e., long term.

The analysis of duration based on age and gender distribution revealed that both male (**38%**) and females (**13%**) between the ages of 25 to 44 were the most that prefer staying long term.

The study asked assessed the level of embeddedness analysing and transforming 10 statements linked to embeddedness which was derived from literature reviewed. See section 2.6.1 and Appendix C.1.7. **51% (28)** of the respondents were deeply embedded, **31% (17)** were mildly embedded and **18% (10)** were poorly embedded.

4.9.3. Reliability and data attributes

For the study to achieve its objectives, three composite measure was highlighted to build the instrument. Influential factors and retention approaches, Intent to stay and Job embeddedness. The internal consistency of these three composite measures using a Cronbach's α test through SPSS. The results are highlighted in table 1.20. All there composite presented acceptable levels as they ranged between an 0.7 and 0.8. See table in Appendix C.1.5

4.9.4. Testing of hypothesis and results

For hypothesis 1, 2, 3 and 5, the researcher first assessed if there was a relationship between the independent variable and dependent variable by testing if there is a different in the mean at a significant level less than 0.05. Descriptive analysis helped determine the mean of the independent variable and was used as a test value for a one sample T-test which provide results that either rejected or support the null hypothesis.

The researcher then tested the direction and strength of the relationship between the two variable in hypothesis 2, 3 and 5. Only hypothesis 1, 3 and 5 had a significance level below 0.05 indicating that there is enough evidence in the sample to generalise to the population.

Hypothesis 4 used Andrew F. Hayes PROCESS macro the test if there is a mediation effect if specific retention approaches were introduced. The approach and requirements to select the method was derived from a study done by Gürbüz; & Bayık in 2021. The method results indicated that the sample didn't have evidence that reverse mentoring and remote working had a mediation effect, direct or indirect. See table 1.38 which summaries the methods, outcome and significance for each hypothesis.

Hypothesis Number	Hypothesis	Data analysis method	Reject or Support Hypothesis	Significance
1	SMEs that have little to no focus and investment in digital transformation will effect on digital-oriented talent's intent to stay in the company	Null Hypothesis Testing (H0) using One Sample T-test	H0: Rejected H1: Supported	Significant
2	SMEs that prefer developing talent are more likely to have a positive relationship between	Null Hypothesis Testing (H0) using One Sample T-test &	H0: Rejected H1: Supported	Not significant

	digital-oriented talent's intent to stay in the company	Pearson correlation test		
3	There is a negative relationship between digital-oriented talent's preference and intent to stay between the age group 35 to 44 when the company prefer to offer short-term contracting	Null Hypothesis Testing (H0) using One Sample T-test & Pearson correlation test	H0: Rejected H1: Supported	Significant
4	There is a mediation effect between Influential factors and intent to stay when retention approaches are introduced	Regression Analysis: Andrew F. Hayes PROCESS model v4.2	Overall hypothesis: Rejected	No significance
4.1	There is a mediation effect when SMEs offer reverse mentoring in response to the need for flexible work and intent to stay	Regression Analysis: Andrew F. Hayes PROCESS model v4.2	Overall hypothesis: Rejected	No significance
4.2	There is a mediation effect when SMEs offer remote working in response to the need for flexible work and intent to stay	Regression Analysis: Andrew F. Hayes PROCESS model v4.2	Overall hypothesis: Rejected	No significance
5	Digital talent with advanced technology proficiencies that feel	Null Hypothesis Testing (H0)		Significant

	embedded to any degree will have a positive relationship with their intent to stay	using One Sample T-test & Pearson correlation test	H0: Rejected H1: Supported	

Table 33.38: Hypothesis testing outcomes and significance (Source: SPSS and primary data)

CHAPTER 5: DISCUSSION OF RESULTS AND FINDINGS

5.1. Introduction

This chapter aims to discuss the results presented in the previous section in more detail, and highlight the relevance to the study and literature reviewed. Additionally, insights from the primary data is used to further support the researchers discussion and viewpoints. The chapter starts with discussing the demographic profile of SMEs and digital talent in the sample followed by discussing the results and outcomes of each hypothesis in relation to literature and research objectives. Then, summarises the chapter by highlighting key points and insights that will inform the conclusion and recommendations in the next chapter.

5.2. Profile of respondents

5.2.1. Profile of SMEs in the sample

One of the key constructs of this study is Small enterprises or SMEs. The importance of SMEs is evident in the percentages of contribution to GDP and employment (SEDA, 2023; Statista, 2023; StatSA, 2022a; StatsSA, 2023). The importance is also prevalent in the inclusion of SMEs in most national economic development plans as a key driver of growth and solution to reduce unemployment (Fatoki, 2014; Viswanathan & Telukdarie, 2021). With the high failure rate due to various reasons, the shift into the digital era which was accelerated by the pandemic as well as the many challenges SMEs face poses a threat to the growth of the country (Fatoki, 2014; Galawe, 2017; Kalidas et al., 2020). The survival of SMEs in the modern digital era is underpinned by the level of focus and investments made into digitally transforming aspects of the business or completely changing the way they operate (Hai et al., 2021; Pinzaru et al., 2020; Rangaswam, 2021). The effort also plays a role in attracting and retaining digital skills which is vital for SMEs to drive toward their digital ambitions (Kalidas et al., 2020; Kane, 2019; Monteiro et al., 2020) which the study validates in testing hypothesis 1.

As mentioned in the previous chapter, The target sample size was **50** SMEs and received **57** responses out of which **39** were analysed after data cleaning, imputation

and filtering to the sample frame stated in section 3.2.1. Which still enabled the study to make fair statistical inferences (Alshibly, 2018; Andrade, 2020; Burmeister; & Aitken, 2012; James E. Bartlett et al., 2001).

5.2.1.1. Demography of SME owner in sample

The study targeted SMEs in **3** major provinces and specific industries that also contributed largely in 2022 to the GDP and employment of South Africa. Gauteng, KwaZulu-Natal and Western Cape were reported to contribute **64%** of South Africa's GDP pre-pandemic (StatsSA, 2019). Financial services **(24%),** Manufacturing **(14%)** and Trade **(13%)** contributed the larger nominal GDP in Q3 2022 and had the larger share of employment. Community and Social Services was the highest contributor (StatSA, 2022a; StatsSA, 2023). Table 1.39 highlights the distribution of SMEs per province before the sample frame stated in section 3.2.1 was applied. Table 1.4 and figure 1.13 in section 4.2.1.1 showcased the overall distribution of the industries that the study collected data before applying the sample frame. Expanding from table 1.4, table 1.40 presents the distribution of SMEs by province and industry once the sample frame is applied.

SME Per Province	Distribution
Gauteng	**79%**
Kwazulu-Natal	**12%**
Western Cape	**2%**
Free State	**2%**
Northern Cape	**5%**

Table 34.39: SME per province (Source: primary data)

SME by province and industry	Distribution
Gauteng	**85%**
Other	31%
Finance & Business services	18%
Transport, storage and communications	15%
Manufacturing	8%
Construction	5%
Retail and Motor Trade and Repair Services	3%
Catering, accommodation & other trade	3%
Community, Social and personal services	3%
Kwazulu-Natal	**13%**

Wholesale Trade, Commercial Agents and Allied Services	5%
Manufacturing	5%
Finance & Business services	3%
Western Cape	**3%**
Other	3%

Table 35.40: SME per province and Industry once sample frame is applied (Source: primary data)

When looking at the distribution of provinces, the larger portion of the sample is from Gauteng and mainly in the financial & business services. Western Cape responses were too low to make any generalisations about the population.

Overall the majority of the SMES had been operating for over 4 years **(62%)**. See table 1.6 for the breakdown per industry.

The representation of SMEs per province and industry has some resemblance to the larger population in certain aspects (SEDA, 2023; Statista, 2023; StatsSA, 2023). See figure 1.12 and figure 1.13 in section 3.5.1.

5.2.1.2. SME and digital transformation in sample

Studies done by Thanh Nguyen Hai (2021) and underpinning work from George Westerman (2014) highlighted that SMEs or businesses that are further down the line and digitally savvy have a competitive advantage and thrive. Linzaru et al (2020) and Rangaswam (2021) highlighted that the opportunities presented by the pandemic, it required SMEs to change the way they operated and offered their services by adopting modern digital technologies like Cloud, AI and Data science. From the sample, from a South African context based on Gauteng and KwaZulu-Natal, only **68%** of SMEs indicated that digital transformation is either extremely or very important for their survival. While **21%** indicated that it is slightly to moderately important and **11%** indicated that it is not important. See figure 1.25

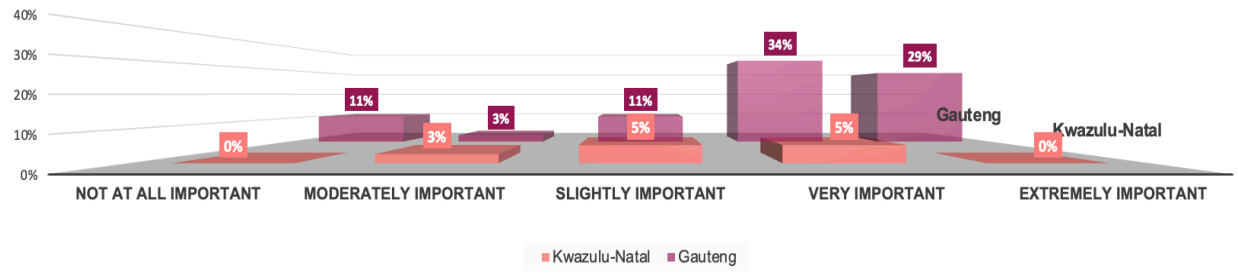


Figure 25.25: Distribution of SMEs per province based on their view of how important is digital transformation for survival post-pandemic (Source: primary data)

From an industry perspective, the **11%** of the respondents who said digital transformation is not important for their survival was made up of SMEs in the Transport, storage and communication **(5.3%)** and manufacturing sector **(5.3%).** The perception of Transport industries may be justified due to the slow adoption of initiatives by the Department of Transport around integrated transport systems. Some good examples are the Move app in Gauteng and the Rea Vaya BRT system (DEPARTMENT OF TRADE AND INDUSTRY, 2019). However, the emergence of new entrants to the Mobility-as-a-service (MaaS) like Bolt, In Drive and other mobility as a service amongst Uber indicates that the customer behaviours and perception has changed in the urban areas (Dipela, 2022). Similarly, there is substantial evidence of the growth of digital transformation in telecommunication in South Africa (GCIS, 2022). In Manufacturing, the Centre for Competition, Regulation and Economic Development (CCRED), provided empirical evidence that there is some form of digital transformation whether partial or full in the manufacturing sector based on a survey of around **440** manufacturing firms of which **79%** were SMEs (CCRED, 2022). This, indicates that the manufacturing SMEs in the sample would need to focus on the market and the wider population on the competitive landscape capability and advantage.

The SMEs in manufacturing and transportation, storage and communication need to be cognizant of the shift in consumer behaviour and perception. Digital disruption is a reality and like the prior industrial revolution, it's a matter of when and not if (Bianchini & Kwon, 2021; George Westerman, 2014; Rangaswam, 2021). The digital vortex positioned by Brian Armstrong (2020), illustrates this phenomena perfectly. The vortex illustration proposed that all industries eventually gravitate towards the eye of the vortex and the closer it gets to the eye the more rapid the disruption (Amstrong, 2020). See figure 1.26

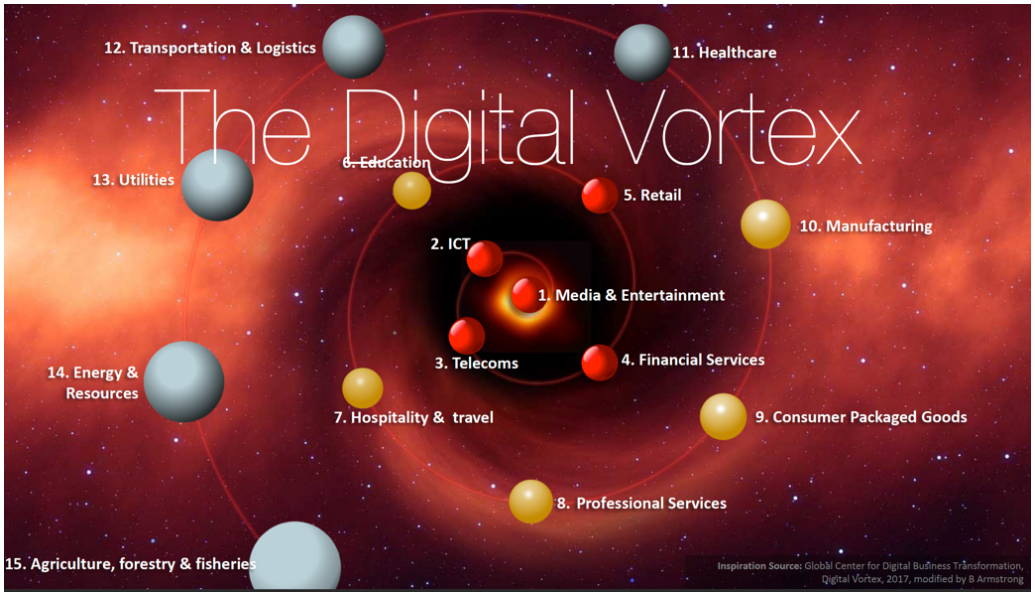


Figure 26.26: Digital Vortex (Source: (Amstrong, 2020))

Despite the perception **36%** of the SMEs in the transport, storage and communication industry indicated that they have a digital strategy, while none of the manufacturing SMEs in the sample specified that they have a strategy. **55%** of the SMEs in the financial & business sector revealed that they do have a strategy compared to the **18%** that indicated they didn't, even though they highlighted that digital transformation is important from moderately to extremely important.

From an overall sample view, only **32%** of the SMEs indicated that they have significant focus and investment into digital transformation and **2%** moderate focus and investment. See table 1.8. These results echo the result from the Finscope quarterly report that highlights not every SME is looking to transform digitally (2020) and insights into the slow adoption of frontier technology from SEDA (2023).

5.2.1.3. SME and retention approaches

From the sample, only **51%** indicated that they have the necessary skills to meet their digital ambitions. The sentiments are based on **10%** of financial and business services, **10%** from transport, storage and communications, **5%** from manufacturing and the larger portion of **20%** are from SMEs that flagged their industry as other. **29%** of SMEs indicated they don't have the skills while **20%** neither agreed nor disagreed with having the right skills. These results reflect the challenges of skills shortage and gaps faced in the broader populations of SMEs as a whole (ManPower, 2022a). See table 1.41.

Industry	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree	Grand Total
Finance & Business services	5%	5%	3%	3%	5%	21%
Manufacturing	0%	5%	5%	3%	0%	13%
Catering, accommodation & other trade	0%	0%	0%	3%	0%	3%
Community, Social and personal services	3%	0%	0%	0%	0%	3%
Construction	0%	3%	0%	3%	0%	5%
Retail and Motor Trade and Repair Services	0%	0%	3%	0%	0%	3%
Transport, storage and communications	0%	10%	0%	0%	5%	15%
Wholesale Trade, Commercial Agents and Allied Services	3%	0%	3%	0%	0%	5%
Other	8%	10%	5%	3%	8%	33%

Table 36.41: SME - do you have the necessary skills to achieve your digital ambition (Source: primary data)

When looking at retention approaches that are currently employed by SMEs, **69%** of the SMEs indicated that they provide the right company culture. Which throughout literature has been proven as a key factor that employees look for (Ghosh et al., 2012; Lee et al., 2014; Robbins & Judge, 2013; Roberts, 2019; Rozsa et al., 2019). Similarly career advancement or promotions and reward programs **(45%)**. Modern retention approaches like reverse mentoring and remote working were only employed by **43%** of SMEs. Even though an argument can be made that this is low, when focusing at an industry level remote working in the transportation, storage & communication and manufacturing sector would require more traditional ways of working. The level of digital transformation also plays a factor (CCRED, 2022; Dipela, 2022; GCIS, 2022).

Surprisingly, only **38%** of the SMEs in the sample make use of digital ambition/initiatives & branding, a safe and creative work environment, remuneration programs that align salaries to the market and have effective leadership. Only **(17%)** democratized learning

and development programs, and fringe benefits. As stated in the opening chapters, retaining talent is a major challenge for most SMEs. Studies, such as Ghosh et al (2012), have shown that factors such as compensation, effective communication of goals, development opportunities, and the ability to perform at one's best are essential in increasing employee commitment to the organization.. See table 1.9.

To acquire skills, **64%** of the SMEs stated that they prefer developing and retaining talent over the **26%** who prefer contracting and **10%** who prefer to hire new capabilities. See figure 1.14. The results suggest that not many SMEs feel that digital talent is looking for short work contracts which was argued in the study by Gregory Lee (2001). The sample also contradicts the statement made by the researcher in section 2.4 that stated that the preference to contract holds ground on the premise that many SMEs potentially don't have the appetite, the financial resources, processes or practices to retain talent. However, when looking at the broader context there is some validity to the aforementioned statement when retention rate is included.

37% of SMEs stated that they have a retention of greater than **50%** and alarmingly **46%** have retention rates below **50%** across all industries. This indicates that **46%** of SMEs in the sample have a turnover rate of over greater than the highest turnover rate for South Africa of **11%** in 2020 (Mokoena et al., 2022). See figure 1.15.

5.2.1.4. SMEs and their perception on what digital talent want

To recap, in section 2.4, it was stated that SMEs that have a strong focus on proactive retention practices, processes and policies to build a dynamic talent retention strategy will have a strong advantage at a global level and if the approaches are aligned to digital talents influential factors i.e. their psychological contracts, there is a likelihood of have a mediating effect between what talent expect and intent to stay (Crowley-Henry et al., 2021; McDonnell, 2011; Nayak et al., 2021; Sigler, 1999). This study asked SMEs which retention approach would their employees deem as important. **18%** of the SMEs, regardless of industry, indicated that remote working or flexible ways of working in most important while **13%** said Career advancement and **13%** awareness of digital ambition/initiative & branding. When asked what was the least important, **36%** said reverse mentoring, **18%** reward programs and **18%** said focus on community or CSI programs. See table 1.42 and 1.43.

Most important to employees	%
Remote working or flexible ways of working	18%
Digital ambition/initiatives & Branding	13%
Career advancement or promotion	13%
Safe and creative work environment	8%
Remuneration programs that aligns salaries to market	8%
Short-term contracting instead full time employment	8%
Democratized Learning & Development Program	8%
Offer fringe benefits (non-monetary)	8%
Effective supervision/leadership	5%
Having the right company culture	5%
Reward program	5%
Opportunity to reverse mentor	3%

Table 37.42: SME - retention approach deemed as most important by their employees (Source: primary data)

Least important to employees	%
Opportunity to reverse mentor	36%
Reward program	18%
Focus on Community or CSI program	18%
Short-term contracting instead full time employment	8%
Having the right company culture	5%
Effective supervision/leadership	5%
Offer fringe benefits (non-monetary)	5%
Remuneration programs that aligns salaries to market	3%
Democratized Learning & Development Program	3%

Table 38.43: SME - retention approach deemed as least important by their employees (Source: primary data)

Looking at an industry level and focusing on the top 3 most important approaches mentioned above, Remote working was largely selected by finance and business services **(18%)**, transport, storage and communication **(12%)** and wholesale trade **(6%)**. Manufacturing **(18%)**, Finance and business services **(6%)** and retail and motor trade **(6%)** indicated that career development was the most important. sharing digital ambition/initiative and branding were equally selected by the finance and business services, Transport, storage and communication, wholesale trade industries **(6% respectively)**. See table 1.44. These perspectives align with the research done by Monteiro et al (2020) who postulated that sharing digital ambition and branding is argued to improve the appeal of the organization or reputation and in turn reduce turnover. There is also alignment with the research report published by McKinsey in 2020, where the authors provided evidence that practices like remote working influenced highly skilled and educated talent needs for flexible work (2020).

Applying the same criteria but focusing on the least important approaches, **14%** in the financial and business and **11%** in the manufacturing industry believed that reverse mentoring was least important to their employees. This is contradictory to the conceptual framework proposed by Jayathilake et al (2021) where they concluded that reverse mentoring is one of the dynamic approaches that SMES can offer digitally savvy talent.

The aforementioned industries also believed that focus community and CSI programs were one of the least important. Reward programs were largely believed to be less important by finance and business **(7%)**, community and social **(4%)** and transportation, storage and community sector **(4%)**. See table 1.45.

Most important to employees	**Remote working or flexible ways of working**	**Career advancement or promotion**	**Digital ambition/initiatives & Branding**
Finance & Business services	18%	6%	6%
Manufacturing	0%	18%	0%
Transport, storage and communications	12%	0%	6%
Other	6%	0%	12%
Wholesale Trade, Commercial Agents and Allied Services	6%	0%	6%
Retail and Motor Trade and Repair Services	0%	6%	0%
Grand Total	**41%**	**29%**	**29%**

Table 39.44: SME perspective on what is most important retention approach that their employee would consider (Source: primary data)

Least important to employees	**Opportunity to reverse mentor**	**Reward program**	**Focus on Community or CSI program**
Finance & Business services	14%	7%	7%
Manufacturing	11%	0%	4%
Community, Social and personal services	0%	4%	0%
Construction	7%	0%	0%
Retail and Motor Trade and Repair Services	0%	4%	0%

Transport, storage and communications	7%	4%	4%
Wholesale Trade, Commercial Agents and Allied Services	0%	0%	4%
Other	11%	7%	7%
Grand Total	**50%**	**25%**	**25%**

Table 40.45: SME perspective on what is least important retention approach that their employee would consider (Source: primary data)

The SMEs provided a good base or view in which the researcher can test the alignment between the SME perception and digital talent's perception.

5.2.2. Profile of Digital talent in the sample

From the survey, **56** responses were received out of which, after data sanitization, cleaning and imputation, the researcher was left with **55** responses to analyse, test hypotheses and answer the research questions.

The success of SMEs or any organisation is centred around having the right talent and skills (El-Deeb, 2022; Frankiewicz & Chamorro-Premuzic, 2020; Kravariti et al., 2021). It is in the best interest of the organization to find ways that keep talent proactively rather than reactively by focusing their influential factors and/or expectations as part of their psychological contracts which is emphasized in many well-established literature like Gregory Lee (2001), Shore & Coyle-shapiro (2003), Clayton Glen's work in 2006 (2006), Robbins & judges work on Vroom's expectation theory in 2013 and in more recent publishing's, around embeddedness and intent to stay work from Lee et al (2014) and Holtm et al (2020) to name a few.

5.2.2.1. Digital Talent Gender, Ethnicity and Age Group

Of the sample of **55**, **71%** were male respondents and **29%** were females**.** Table 1.13 showcased the distribution of the sample by ethnicity. Figure 1.16 depicts a consolidated view of the overall distribution of digital talent by province, gender and ethnicity but also grouped by age group which fairly resembles the latest labour force distribution in South Africa (Statista, 2023). This enabled the study to make fair generalizations about the age group but created a bias toward male respondents.

5.2.2.2. Digital Talent's education level and technology proficiency

The sample had majority of its respondents with some form of higher education i.e. education above high school. See figure 1.17 and figure 1.18 which depict the technology proficiency by gender

The distribution for technology proficiency was largely talent with advanced proficiency **(47%),** followed by expert **(20%),** intermediate **18%**, being developed and basic proficiencies **4%** and **11%** respectively. Which enabled the researcher to test hypothesis 5 with a good sample base.

5.2.2.3. Digital Talent's intent to stay.

Over the years literature expanded on the motivation behind the talent to leave to influential factors and psychological contracts that influence talent to stay (Hom et al., 2017; Mutanga et al., 2021; Pardee, 1990; Ramlall, 2004; Vaim, 2021; Vaiman et al., 2012). A shift in focus towards understanding talent has a substantial benefit in identifying dynamic approaches that align with the needs or expectations (Holtom et al., 2020; Rozsa et al., 2019; Viswanathan & Telukdarie, 2021)

Digital talent was asked the same questions around what is the most important and least important retention approaches that will influence you to stay. From a most important perspective, remuneration programs that align salaries to the market were the most selected option **(20%).** Remote working or flexible work **(16%)** and effective supervision and leadership **(13%)**. Looking at the least important approaches, **31%** indicated short-term contracting, **29%** responded reverse mentoring and **15%** said the focus on community or CSI programs. See table 1.46 and 1.47.

With this data, the study identified how aligned SME owners are to these preferences. See table 1.48. This emphasises the importance of aligned approaches and the positive impact it can have on talent retention (Mutanga et al., 2021; Ramlall, 2004; Zin et al., 2012)

Most Important	Basic	Intermediate	Advance	Being developed	Expert	Grand Total
Remuneration programs that align salaries to market	2%	4%	13%	0%	2%	**20%**

Remote working or flexible ways of working	0%	5%	5%	0%	5%	**16%**
Effective supervision/leadership	2%	0%	7%	0%	4%	**13%**
Democratized Learning & Development Program	2%	0%	2%	0%	5%	**9%**
Career advancement or promotion	0%	2%	5%	2%	0%	**9%**
Digital ambition/initiatives & Branding	2%	4%	2%	0%	0%	**7%**
Safe and creative work environment	0%	0%	5%	2%	0%	**7%**
Offer fringe benefits (non-monetary)	2%	2%	2%	0%	2%	**7%**
Having the right company culture	0%	2%	4%	0%	2%	**7%**
Short-term contracting instead full-time employment	2%	0%	2%	0%	0%	**4%**

Table 41.46: Digital Talent's perspective on what is most important retention approach (Source: primary data)

Least important	Basic	Intermediate	Advance	Being developed	Expert	Grand Total
Short-term contracting instead full-time employment	2%	2%	20%	2%	5%	**31%**
Opportunity to reverse mentor	2%	5%	9%	2%	11%	**29%**
Focus on Community or CSI program	0%	4%	9%	0%	2%	**15%**
Offer fringe benefits (nonmonetary)	2%	2%	4%	0%	0%	**7%**
Safe and creative work environment	2%	0%	2%	0%	0%	**4%**
Having the right company culture	2%	2%	0%	0%	0%	**4%**
Effective supervision/leadership	0%	2%	2%	0%	0%	**4%**
Career advancement or promotion	2%	0%	0%	0%	2%	**4%**
Reward program	0%	2%	0%	0%	0%	**2%**

Remote working or flexible ways of working	0%	0%	2%	0%	0%	**2%**

Table 42.47: Digital Talent's perspective on what is least important retention approach (Source: primary data)

	Digital talent	SME
Most Important	Remuneration programs that aligns salaries to market	Remote working or flexible ways of working
	Remote working or flexible ways of working	Career advancement or promotion
	Effective supervision/leadership	Digital ambition/initiatives & Branding
Least important	Short-term contracting instead full time employment	Opportunity to reverse mentor
	Opportunity to reverse mentor	Reward program
	Focus on Community or CSI program	Focus on Community or CSI program

Table 43.48: Digital Talent's vs SME perspective on what is most and least important retention approach (Source: primary data)

5.2.2.4. Digital Talent's embeddedness.

Job embeddedness theory has widely gained popularity as it provides a more wholistic approach to understanding the factors behind why talent stay (Holtom et al., 2020; Lee et al., 2014; Mitchell et al., 2001; Mutanga et al., 2021).

Table 1.15 summarised the level of embeddedness in the sample and expanding on that table 1.49 applies a length of stay lens.

Length of stay	Long term	Mid term	Short-term
Deeply embedded	42%	15%	0%
Mildly embedded	15%	4%	4%
Poorly embedded	8%	4%	8%
Grand Total	**65%**	**23%**	**12%**

Table 44.49: level of embedment vs length of stay (Source: primary data)

This insight brings further evidence on how important job embedment is and the potential it has to retain talent for longer periods so that SMES can achieved their digital ambitions.

5.3. Discussion pertaining to Hypothesis 1: SMEs that have little to no focus and investment in digital transformation will have an effect on digital-oriented talent's intent to stay in the company.

One significant outcome for SMEs in having a strong focus and investment in digital transformation is the increase in appeal of the company and a motivation factor for talent to stay (Monteiro et al., 2020). Kane (2019) argued that having the right talent fuels and enables business transformation but also highlighted that a company's efforts and investments should align to have the intended impact or results (Kane, 2019). The right effort and investment also create new opportunities, capabilities and services. These open the door for talent within the organisation to develop and grow in the business. I.e. Self-development to grow their profile and market appeal and/or go up the ranks of the company. This is one of the ways that create the appeal to stay that Monteiro and colleagues postulate (2020) as well as potentially increase the brand appeal (Arasanmi & Krishna, 2019; Monteiro et al., 2020). The study aimed to test if there is evidence for this claim in a South African context.

Based on the analysis of primary data, **96%** of the digital talent respondents indicated that they will stay in companies that have moderate to significant focus and investment in digital transformation. To further validate this, the hypothesis was tested and statistically significant evidence was found in the sample that investing in digital transformation has a positive effect on employee retention.

Thus, supports the hypothesis and support the findings from other research like Monteiro et al (2020), Kane (2019) and Arasami (2019) as well as provided evidence of the claims in a South African context. However, only **34%** of the SMEs in the sample indicated that they have this kind of focus and investment. See table 1.21. This corroborates the findings of the SEDA 2021 report where many businesses are taking a defensive approach to survive versus investing in digital transformation (SEDA, 2021a). While justifiable, it will only push these SMEs further into laggard territory that may cost them more when the urgency increases (George Westerman, 2014). The general outcomes and significance of these views in relation to the research question will be discussed in the next chapter.

5.4. Discussion pertaining to Hypothesis 2: SMEs that prefer developing and retaining talent will have positive relationship between digital-oriented talent's influential factors and intent to stay.

By observation of the analysed primary data, **64%** of SME owners said that they prefer to develop and retain talent versus contracting **(24%)** and hiring **(10%)**. This is in line with the argument that an internal challenge that is best solved by the business itself (Buvat et al., 2017; McKinsey, 2018; Rabie et al., 2016) and a high focus on training and development can reduce the skills gap that the SME has (Rabie et al., 2016). However, only **17%** make use of democratized learning and development as a retention approach. Prompting the need, and supporting the literature for SMEs to understand the employee's personal mastery needs, and mental models and developing tailored learning systems that best suit the employees' (Lee-Kelley et al., 2007).

The results of the study highlighted a statistically significant effect on digital talent's intent to stay when SMEs focus on developing and retaining employees rather than hiring or offering short-term contracts. When testing the type of effect, positive or negative, the results indicate a small positive correlation between dev and the digital talent's intent to stay. Thus, supporting the hypothesis, however, the sample didn't have enough statistically significant evidence to generalise to the larger digital talent population.

Referring back to the two arguments raised in section 2.3.2.1

1) How do SMEs gain the talent and expertise needed to survive and grow?

2) Seeing that SMEs account for **87%** of all employment (FinScope, 2020, p. 7), how can they play a role in reducing the gap and the shortage through development initiatives?

As mentioned in the same section, *the challenge is best solved by the business itself (Buvat et al., 2017; McKinsey, 2018; Rabie et al., 2016),* The results of the hypothesis provided the support for this statement. If more small and medium-sized enterprises prioritize talent development and democratized learning, it could reduce the skill gaps and shortages while retaining talent. Research conducted by Mutunga et al (2021) supports this claim where they predicated that creating a learning and development

culture creates a pull factors that entice talent to upskill. This upskilling, they argued that will potentially lead to higher salary packages, enhance job security and career advancement (Mutanga et al., 2021).

However, developing talent may increase the risk of them leaving due to demand in the market.. This argument was implied in Rabie et al (2016, p. 1010) where “SME owners generally provide less training and development initiatives to staff as the perception is that the costs are higher and the benefits lower than larger organisations”.

5.5. Discussion pertaining to Hypothesis 3: SMEs that prefer short-term contracting will have a negative relationship between digital-oriented talent’s influential factors and intent to stay in the age group 35 to 44.

As stated in section 2.5, Holtmon et al (2020) and Mitchell et al (2001) highlighted the importance of understanding employees to capture the domains in which people are embedded. They also argued to account for variables like type of occupation or personality, connectedness and family or community influences that play an influential role in decision-making (Holtom et al., 2020; Mitchell et al., 2001). The results of the study relate to the claim and highlight that businesses should offer varied benefits that cater to the specific needs of employees from different generations. Several studies, such as Rose & Gordon (2010) and Govaerts et al (2010), have demonstrated a positive correlation between age, retention strategies, and employee retention.
Other literature reviewed in section 2.5 provides additional evidence to support this claim (Glen, 2006; Monteiro et al., 2020; Mutanga et al., 2021; Shore & Coyle-Shapiro, 2003).

The study tested if short-term contracting is a key factor for digital talent between the ages of 35 to 44. This hypothesis was formulated to test if businesses and digital talent in South Africa prefer shorter term work or contracts. The study wanted to test the claims made by the research conducted by Gregory Lee (2001) that was underpinned by agency theory.

From the primary data, **24%** of the SMEs indicated that they prefer contracting and **84%** of digital talent highlighted that they wouldn't stay in a company that offered short-term contracts regardless of age group. See table 1.24 and 1.30. in the age group of 35 to 44, **29%** said they wouldn't and only **4%** responded that they would stay in a company that offered short-term contracts compared to the. See table 1.30.

From hypothesis 2, it was established that there is a relationship between the what approaches SMEs prefer and digital talents' intent to stay. The study highlighted a statistically significant negative relationship between short-term contracting and digital talents' intent to stay between the ages of 35 to 44's. Thus supporting the hypothesis and implying that not everyone is looking for short-term work post-pandemic and validates the sentiment that different approaches need to align by applying generational lenses and external factors like interest rate hikes and poor economic posture (Govaerts et al., 2010; Rose & Gordon, 2010)

5.6. Discussion pertaining to Hypothesis 4: There is a mediation effect between Influential factors and intent to stay when retention approaches are introduced.

The framework proposed in section 2.6.2 was designed to test if SMEs provide/implement retention approaches that satisfy influential factors of digital talent and in turn, test if the approaches play a mediating role that either has a positive or a negative impact on the relationship between influential factors and intent to stay.

This is in line with the literature where, Nayak et al (2021), postulated that once the retention approach meets the expectations that are linked to their influential factors and psychological contracts only then employees with a higher degree of internal ambassadorship are likely to be more committed to stay (Nayak et al., 2021).

This hypothesis was tested through two sub hypothesis where reverse mentoring (hypothesis 4.1) and remote working (hypothesis 4.2) has a mediating effect and the direction of the relationship between influential factors like being able to influence and contribute to the direction of the SME and flexible work when these retention approaches are introduced..

Based on the sample there wasn't significant evidence to indicate that reserve mentoring or remote working had a mediation effect. Thus, the hypothesis is rejected. However, there was statistically significant evidence that reverse mentoring and remote working did meet the expectations for having the ability to influence the organization and flexible work. This supports the claims made by Jayathilake et.al (2021) and findings in the McKinsey report (2020) where practices like reverse mentoring and remote working have an influence on digital talents' intent to stay (Jayathilake et al., 2021; McKinsey, 2020).

5.7. Discussion pertaining to Hypothesis 5: Digital talent with advanced technology proficiencies that feel embedded to any degree will have a positive relationship with their intent to stay.

Committed or embedded employees enable companies to achieve their goals which result in obtaining a competitive advantage (Sutanto, 1999). The findings imply that there was statistically significant evidence that any degree of embeddedness does have a positive impact on digital talent with advanced technology proficiency's intent to stay. This is a significant result as it substantiates the job embedded theory (Lee et al., 2014; Mitchell et al., 2001) and indicates its relevance in a South African context.

This imperative finding is further backed by the primary data where **88%** of the respondents who were embedded in various levels indicated that they would stay 3 to 5 years **(23%)** or long term **(65%)** i.e. over 5 years. This indicates that any level of embeddedness will result in positive intent to stay and supports the findings of Nayak et al (2021), they postulated that internal ambassadorship is likely to be more committed to stay. However the study's findings contradict Nayak et al (2021) claims that only higher degree of embeddedness will result in high retention.

The researcher postulates that employees with a higher level of proficiency in technology are more likely to feel embedded in an organisation. This is because advanced technological skills provide opportunities for career growth, offer a chance to play a significant role in shaping the organization, and working on exciting digital projects. Additionally, these skills increase job security and market value, which are factors that influence the employee's intention to stay and their expectations or

psychological contract (Holtom et al., 2020; Jayathilake et al., 2021; Mutanga et al., 2021; Rousseau & Parks, 1993).

5.8. Conclusion

The digital era and disruption is no respecter of industry, the more technology advances and becomes available, as well as change in adoption perception, the more rapid the potential disruption (Amstrong, 2020; Bianchini & Kwon, 2021; George Westerman, 2014; Rangaswam, 2021). SMEs that have focus and investment in digital transformation can take advantage of the competitive advantage and adapt easily to changes in the internal and external environment while also benefitting digital talent to staying due to the appeal it creates (Monteiro et al., 2020; Parijat & Bagga, 2014; Robbins & Judge, 2013).

The study indicated the need for SMEs in the sample to closely understand the needs and influential factors of the employees they seek to retain. It also highlighted that largely, SMEs are not currently utilizing the retention approaches that digital talent seeks. This potentially will have a negative impact on the retention rate as they provided. Further substantiating that retention approaches aligned to digital talent's influential factors or psychological contracts have a positive impact on their intent to stay.

The study provided a view of how aligned SMEs and digital talent are on the preference around influential factors and retention approaches. The majority of SMEs only aligned on one factor, remote working, as the most important, whereas they were largely misaligned with digital talent regarding short-term contracting and reverse mentoring. See table 1.48. Even though SMEs preferred retaining and developing, only a few offer democratized learning. Developing talent has far more benefits than just retaining talent. It influences talent to upskill to advance their career, increase their market value (higher salary packages) and strengthen job security, and contributing to closing the skills gap (Govaerts et al., 2010; Holtom et al., 2020; Lee-Kelley et al., 2007; Mutanga et al., 2021). The discussion also highlighted the need for establishing the right learning culture and systems that meet the needs and expectations of talent to reap the benefit (Lee-Kelley et al., 2007; Mutanga et al., 2021).

The results support the literature around job embeddedness. It highlighted the positive impact the level of embeddedness has on digital talents' intent to stay in an organisation. It also relayed the need for South African SMEs to consider influential factors, internal and external to the job, that will create stickiness to the organisation (Mitchell et al., 2001).

Even though the study wasn't able to establish a mediation effect between retention approaches aligned to influential factors and digital talents intent to say, it provided statistical significant evidence that modern retention approaches like remote working does satisfy digital talent's influential factors or psychological contracts around flexible work as well as reverse mentoring satisfy the need to influence the organizations goals and capabilities.

CHAPTER 6: CONCLUSIONS & RECOMMENDATIONS

6.1. Introduction

The purpose of this study was to explore the retention approaches and dynamic models that SMEs use to retain talent in the digital era. The pursuit was to understand the phenomena of retention and why is it still a challenge for many companies. The study focused on assessing the relationship between influential factors and their intent to stay. It aimed to test if there was a mediation effect when retention approaches, that were in line with the digital talents expectation or influential factors, are introduced. Also, test if factors leading to job embeddedness were relevant in a South African context. In this section, the research questions will be answered by bringing all the results and insights together. The researcher will then provide recommendations based on the research done and also highlight opportunities for further studies.

6.2. Conclusions regarding: What is the relationship between aligned influential factors and retention approaches have on digital talents' intent to stay in an SME?

While there are a plethora of approaches based on well-established literature around retention as well as literature, models and frameworks for digital transformation, the core of the findings is that not every SME is looking to digitally transform specifically in the manufacturing and transportation & communications industry. However, those who are perusing digital savviness don't have the adequate focus or investment nor the skills to transform. The study's findings revealed that SMEs can improve digital talent's intent to stay by prioritizing employee development and retention instead of hiring or offering short-term contracts. Contrarily, only **17%** of the SMES currently utilise democratized learning and development as a retention approach. Eluding to the fact that while SMEs prefer developing and retaining talent they are not utilizing democratized learning as an opportunity to close the skills gap and/or retain talent.

Raising the need for initiatives to drive a learning culture based on motivation factors that drive talent to upskill and in turn increase their value in the company and market.

A small portion (**14%)** of the SMEs in the study indicated that they prefer contracting to acquire. In contrast digital talent in South Africa, specifically Gauteng and KwaZulu-Natal, and the ages of 35-44 are not big adopters of short-term contracting. Regardless of age, **84%** of the respondents highlighted that they prefer full-time employment. Eluding to the current levels of readiness for the gig economy and that currently, job security is a huge factor in retaining digital talent in this era. Overall SMEs listed remote working, career advancement or promotion and working for a company that shares digital ambition/initiative and has a brand name, as the top 3 most important approaches for digital talent. However, besides remote working, digital talents' preference was more focused on remuneration and effective leadership and supervision as the top 3 most important factors they consider to stay in an organisation.

The data also highlighted that only **38%** of the SMEs currently employ remuneration programs to align salaries to market and effective leadership which potentially has an impact on retention.

Overall the researcher concluded that well-theorized retention approaches do have a positive or negative relationship on talents' intent to stay in a company in a South African context. The study also provided evidence that while there are some aligned approaches that indicate some SMEs are likely to retain talent, there is a need for SMEs to get a better understanding of their employees as well as the talent pool in the market and align their retention strategy to what digital talent prefer. One size doesn't fit all. The study provided evidence of how influential factors drive the perception or dimensions in which retention approaches are perceived. It alluded to how focusing and investing in digital transformation creates an appeal but also creates the need for skills. While a learning and development culture helps meet the need, it also creates a challenge where SMEs need to evaluate the new market value that the employee has advanced to as a result of upskilling. The study calls for proactive measures of such evaluation and leveraging approaches that best suit the talents' influential factors.

6.3. Conclusions regarding: To what extent does influential factors and retention approaches influence/mediate the decision to stay in an SME?

Based on the sample, the study did not find any evidence of mediation effect between influential factors and employees' intention to stay when modern retention approaches are introduced. However, the results indicate that remote working and reverse mentoring are crucial in meeting employees' expectations. Interestingly, despite its significance, reverse mentoring is ranked among the least preferred approaches by the digital talent.

6.4. Conclusions regarding: Is there a significant relevance of modern Western theories on talents' intent to stay in a post-pandemic South Africa?

There is significant evidence in this study that Job embeddedness does play a role in talents' intent to stay in a company from a South African context. The broader view taken by Job embeddedness to focus on constructs like Link, Fit and Sacrifice, is better suited in a South African context post-pandemic. As an example, the reluctance to take on contractual work relates to the sacrifice they are not willing to make by letting go of job security. This is most likely a result of the instability in the economy, high inflation rates, and high unemployment rate as well as the ever-changing SME landscape and challenges they faced as seen in SEDA's quarterly report.

Approaches like remote working creates the opportunity for talent to link more with their social, psychological and financial aspects while contributing to the organization's goals and achieving their personal goals. Whereas the ability to influence through reverse mentoring, awareness of digital ambitions, compensation aligned to the market, the level of investment into digital transformation and being developed provides an opportunity for talent to assess their compatibility and fit into that organization. To simplify, it also provides a fit or alignment to what the talents expect versus what the SMEs offer or provide. The common theme surfacing from

this study is the importance of proactive evaluation of the constructs proposed in job embeddedness and dynamically adjusting.

6.5. Overall View and Recommendations

The study provided evidence of how various factors influence the perception of retention approaches. It suggested that investing in digital transformation can be appealing, but it also creates a need for skills. A culture of learning and development can help meet this need, but it also presents a challenge for small and medium-sized enterprises (SMEs) to evaluate the new market value that their employees have gained through upskilling. The study recommends taking proactive measures to evaluate and leverage the talent's influential factors, using approaches that best suit their needs. More specifically, proactively aligning salaries, remote working and effective leadership are some of the main approaches that SMEs can take to ensure their employees stay in a post-pandemic landscape.

While there are some justifications for why SMEs in manufacturing and transport, storage and communication sectors not investing in digital transformation, with the future of smart factories, integrated transport systems, mobility as a service (MaaS), eMedia and growth in streaming services looming, poses a potential risk to these SME’s survival or creates an unrealistic urgency to transform when disrupted. SMEs should start systematically investing to digitally transform certain aspects of their business gradually while investing in developing their employees in modern technologies to ensure that they have the skills when they are ready to scale. They should also assess the needs and factors influencing employees not by assessing their level of engagement but by the level of embedment. Which Mitchell et al (Mitchell et al., 2001) argue that it results in commitment and in turn engagement.

The researcher also recommends that SMEs consider utilising people analytics and external influential factors when looking at certain retention approaches. In other words, retention approaches need to be tailored to the specific business resources and employees’ influential factors that consider internal and external factors impacting both parties. Adopting the latest global trends won’t necessarily yield the benefits expected as it should factor in the readiness of the employees and talent in the market as well as dynamically evolve as people evolve. From this study, a good

example is short-term contracting and reverse mentoring. Getting a ranked list of important factors and approaches would be a highly beneficial and cost-effective way to tailor-make approaches that fit the business as well as the expectations of their employees and attract talent externally. Having this capability would provide SMEs with a competitive advantage when competing for talent.

6.6. Suggestions for further research

This research study provides a foundation for further research to expand upon, as it identifies influential factors for digital talent in a South African context. It also presents an opportunity to study the feasibility of gig economy in an unstable economy. It can also provide HR professionals with additional evidence to create embedded surveys rather than just engagement surveys.

Another important study that would be beneficial to literature is a study that looks at the level of influence that external factors have on talents' decision making when it comes to staying in a company. Do these factors force them to leave involuntarily or provide pressure to stay due to uncertainty?

However, with the limitations and small sample size of this study, a more empirical research study with a wider sample expanding to all 9 provinces as well as a better representation of all industries is required. Conducting a thorough empirical investigation can help establish a stronger understanding of the relationship between various influential factors and the intent to stay in the modern era. Additionally, it can reveal whether introducing modern approaches that align with expectations has a mediating effect on this relationship

The study also highlights the need for more research around agile retention strategies that dynamically change to the demography of the employees as well as the importance of people analytics as a core capability for all businesses.

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APPENDIX A Consistency Table

Table 45.50: Consistency table: Research questions, propositions, data collection and data analysis. (Galawe, 2017)

RQ #	State Research Question or Objective	Hypothesis Number	Hypothesis	variables	Data collection detail	Type of data	Shape of data	Data analysis method
1	What is the relationship between aligned influential factors and retention approaches have on digital talents intent to stay in an SME?	1	SMEs that have little to no focus and investment in digital transformation will effect on digital-oriented talent's intent to stay in the company	Independent Variable = Little to no focus and investment Dependant variable = Intent to stay	**SME Survey questions** SO_Q9	Ordinal Data	Symmetrical	Null Hypothesis Testing (H0) using One Sample T-test
					Digital Talent Survey questions DT_Q14	Ordinal Data	Non Symmetrical	
1	What is the relationship between aligned influential factors and retention approaches have on digital talents intent to stay in an SME?	2	SMEs that prefer developing and retaining talent will have positive relationship between digital-oriented talent's influential factors and intent to stay	Independent Variable = SME owner preference to acquire skills (Develop & Retain) Dependant variable = Digital talents preference and Intent to stay	**SME Survey questions** SO_Q12	Ordinal Data	Symmetrical	Null Hypothesis Testing (H0) using One Sample T-test & Pearson correlation test
					Digital Talent Survey questions DT_Q20	Ordinal Data	Symmetrical	
1		3			**SME Survey questions**		Symmetrical	

	What is the relationship between aligned influential factors and retention approaches have on digital talents intent to stay in an SME?		SMEs that prefer short-term contracting will have a negative relationship between digital-oriented talent's influential factors and intent to stay in the age group 35 to 44	Independent Variable = SME owner preference to acquire skills (Short-tern contracting) Dependant variable = Digital talents preference and Intent to stay	SO_Q12	Ordinal Data		Null Hypothesis Testing (H0) using One Sample T-test & Pearson correlation test
					Digital Talent Survey questions & Transformed variables DT_Q20, DT_grouped_age	Ordinal Data	Symmetrical	
2	To what extent does influential factors and retention approaches influence/mediate the decision to stay in an SME?	4	There is a mediation effect between Influential factors and intent to stay when retention approaches are introduced	Independent Variable (X) = Influential factors Dependant variable (Y) = Intent to stay Mediation Variable (M) = Retention approaches	**Digital Talent Survey questions** DT_Q15,16,17,18	Ordinal Data	Symmetrical	Regression Analysis: Andrew F. Hayes PROCESS model v4.2
2	To what extent does influential factors and retention approaches influence/mediate the	4.1	There is a mediation effect when SMEs offer reverse mentoring in response to the need for	Independent Variable (X) = Level of Influence and Contribution	**Digital Talent Survey questions**	Ordinal Data	Non Symmetrical with slight	Regression Analysis: Andrew F. Hayes

	decision to stay in an SME?		flexible work and intent to stay	Dependant variable (Y) = Intent to stay Mid-term to long term Mediation Variable (M) = Reverse Mentoring	DT_Q17,18		left skewness	PROCESS model v4.2
2	To what extent does influential factors and retention approaches influence/mediate the decision to stay in an SME?	4.2	There is a mediation effect when SMEs offer remote working in response to the need for flexible work and intent to stay	Independent Variable (X) = Flexible work Dependant variable (Y) = Intent to stay Mid-term to long term Mediation Variable (M) = Remote working	**Digital Talent Survey questions** DT_Q15,16	Ordinal Data	Non Symmetrical with slight left skewness	Regression Analysis: Andrew F. Hayes PROCESS model v4.2
3	Is there a significant relevance of modern Western theories on talents' intent to stay in a post-pandemic South Africa?	5	Digital talent with advanced technology proficiencies that feel embedded to any degree will have a positive relationship with their intent to stay	Independent Variable = Embeddedness Dependant variable = Intent to stay	**Transformed variables from Digital talent survey responses** DT_Length_of_stay DT_Embeddedness	Ordinal Data	Non Symmetrical with slight left skewness	Null Hypothesis Testing (H0) using One Sample T-test & Pearson correlation test

APPENDIX B Research Instruments

B1: Questionnaire Cover Letter

To Small Business Owners

Dear Sir/Madam

I am a student at Wits Business School enrolled for a Master's degree in **Digital business**. I would like to request you views in the retention of talent in small businesses in South Africa. This will form part of my Master's research project titled: **Retaining Talent in the digital era of South African SMEs.** This study aims to examine the phenomena of retention from a Small and Medium-sized Enterprises (SME) perspective as well as from a Talent perspective. The study aims to do so by assessing the relationship between the influential factors of employees (talent) to stay in an organisation and the retention approaches employed as well as examining the effect that the alignment between these variables has on the retention rate or the predictability thereof. This kind of study will go a long way in contributing to the success of SME retention rate, with the intent of retaining the critical skills and capabilities it needs for digital transformation to navigate the competitive landscape in the digital age.

if you are willing to participate you can click on the link below which will take you to the questionnaire.

https://wits.eu.qualtrics.com/jfe/form/SV_88GAMdi5xrl36uO

It should take approximately 10 - 15 minutes to complete. All the data gathered from this survey will be treated as anonymous, no specific person or company data will be disclosed but all information will be disclosed as aggregate figures. If you are willing and comfortable participating and contributing, it will be appreciated if you could complete the questionnaire no later than **30 October 2022**

Please feel free to contact me or my supervisor if you have any concerns or questions

Newayne Dharmaratne (Student): Tel 071 6747 933**, Email** 2394604@students.wits.ac.za

Dr McEdwards Murimbika (Supervisor): Tel 011 717-3658, **Email** mcedward.murimbika@wits.ac.za

Thanking you in anticipation for your assistance Yours sincerely

Newayne Dharmaratne (Masters Student) Wits Business School University of Witwatersrand

B2: Questionnaire Cover Letter

To Small Business Employees

Dear Sir/Madam

I am a student at Wits Business School enrolled for a Master's degree in **Digital business**. I would like to request your input on the retention of talent in small businesses in South Africa. This will form part of my Master's research project titled: **Retaining Talent in the digital era of South African SMEs.** The objective of this study is to examine the phenomena of retention from a Small and Medium-sized Enterprises (SME) perspective as well as from a Talent (you) perspective by assessing the relationship between the factors that influence you (talent) to stay in the company and the retention approaches employed by the company as well as examine the effect the alignment of these to variables have on the retention rate or the predictability thereof. This kind of study will go a long way in contributing to the success of SME retention rate, with the intent of retaining the critical skills and capabilities it needs for digital transformation to navigate the competitive landscape in the digital age.

if you are willing to participate you can click on the link below which will take you to the questionnaire.

https://wits.eu.qualtrics.com/jfe/form/SV_8i6iF3DhWv8Hq1U

It should take approximately 15 - 20 minutes to complete. All the data gathered from this survey will be treated as anonymous, no specific person or company data will be disclosed but all information will be disclosed as aggregate figures. If you are willing and comfortable participating and contributing, it will be appreciated if you could complete the questionnaire no later than **30 October 2022**

Please feel free to contact me or my supervisor if you have any concerns or questions

Newayne Dharmaratne (Student): Tel 071 6747 933**, Email** 2394604@students.wits.ac.za

Dr McEdwards Murimbika (Supervisor): Tel 011 717-3658, **Email** mcedward.murimbika@wits.ac.za

Thanking you in anticipation for your assistance Yours sincerely

Newayne Dharmaratne (Masters Student) Wits Business School University of Witwatersrand

B3: Questionnaire For SME owners



Consent. Retaining Talent in the digital era of South African SMEs

The objective of this study is to examine the phenomena of retention from a Small and Medium-sized Enterprises (SME) perspective and from a Talent perspective. The study aims to do so by assessing the relationship between the factors that influence your employees to stay in the company and the retention approaches employed by the company as well as examine the effect the alignment of these factors have on the retention rate or the predictability thereof.

The survey consists of 17 questions which should take 10 to 15mins to complete. All responses are anonymous and confidential.

By click on "Yes" below, you agree to participate in this research project and that you agree that the information provided may be used anonymously during this project for academic purposes only.

- ◯ Yes
- ◯ No

→



Q1. Which industry is your business in?

- ◯ Finance & Business services
- ◯ Catering, accommodation & other trade
- ◯ Manufacturing
- ◯ Agriculture
- ◯ Transport, storage and communications
- ◯ Community, Social and personal services
- ◯ Wholesale Trade, Commercial Agents and Allied Services
- ◯ Retail and Motor Trade and Repair Services
- ◯ Construction
- ◯ Electricity, gas and water
- ◯ Minning and quarrying
- ◯ Other

Q2. Which province is your business based?

- ◯ Gauteng
- ◯ Kwazulu-Natal
- ◯ Western Cape
- ◯ Eastern Cape
- ◯ Free State
- ◯ Limpopo
- ◯ Mpumalanga
- ◯ North West
- ◯ Northern Cape

Q3. Number of permanent full time employees in your business

- ◯ 0-5
- ◯ 5-10
- ◯ 10-50
- ◯ 50-100
- ◯ 100-250
- ◯ >250

Q4. What is your annual financial turnover?

- ◯ <R100k
- ◯ R100k-R500K
- ◯ R500k-R1m
- ◯ R1m-R5m
- ◯ R5m-R20m
- ◯ R20m-R65m
- ◯ R65m - R170m

Q5. What is your total gross asset value ?

- ◯ <R100k
- ◯ R100-R500k
- ◯ R500k-R1m
- ◯ R1m-R5m
- ◯ R5m-R10m
- ◯ R10m-R23m
- ◯ >R23m

Q6. How long have you been in business?

- ◯ 0-1 years
- ◯ 1-2 years
- ◯ 2-3 years
- ◯ >4 years

Q7. How important is digital transformation to your business survival post pandemic?

- ◯ Not at all important
- ◯ Slightly important
- ◯ Moderately important
- ◯ Very important
- ◯ Extremely important

Q8. Do you have a digital transformation strategy?

- ◯ Strongly disagree
- ◯ Somewhat disagree
- ◯ Neither agree nor disagree
- ◯ Somewhat agree
- ◯ Strongly agree

Q9. Which option below represents your businesses digital transformation journey?

- ◯ No Investment or focus on digital transformation initiatives
- ◯ Little investment and focus on digital transformation initiatives
- ◯ Moderate investment and focus on digital transformation initiatives
- ◯ Significant investment and focus on digital transformation initiatives

Q10. How would you rank your level of current effort in achieving your digital transformation strategy?

- ◯ Not close to the ideal
- ◯ Slightly close to the ideal
- ◯ Moderately close to the ideal
- ◯ Very close to the ideal
- ◯ Extremely close to the ideal

Q11. Do you have the necessary skill or talent to achieve your digital transformation ambitions?

- ◯ Strongly disagree
- ◯ Somewhat disagree
- ◯ Neither agree nor disagree
- ◯ Somewhat agree
- ◯ Strongly agree

Q12. When it comes to the need for skills, do you prefer to,

- ◯ Contract expertise
- ◯ Develop & retain talent
- ◯ Hire new capable talent

Q13. What is your current retention rate?

- ◯ 0-10%
- ◯ 10-20%
- ◯ 20%-50%
- ◯ >50%
- ◯ Not sure

Q14. To keep talent within the business, which of these approaches does your business employ?

- ☐ Sharing digital ambition/initiatives & Branding
- ☐ Democratized Learning & Development Program
- ☐ Offer short term contracting instead full time employment
- ☐ Offer Remote working or flexible ways of working
- ☐ Offer fringe benefits (non monetary)
- ☐ Career advancement or promotion
- ☐ Safe and Creative work environment
- ☐ Remuneration programs that align salaries to market
- ☐ Effective supervision/leadership
- ☐ Reward program
- ☐ Focus and offer opportunities to participate in Community or CSI programs
- ☐ Having the right company culture
- ☐ Offer opportunity for reverse mentor where young talent mentors company leaders on culture, modern technology, services and solutions that is currently appealing and trending

Q15. From an employees perspective, how would your employees rank these retention approaches? where 1 is most important and 13 is least important

	Order of Importance
Sharing digital ambition/initiatives & Branding	☐
Democratized Learning & Development Program	☐
Offer short term contracting instead full time employment	☐
Offer Remote working or flexible ways of working	☐
Offer fringe benefits (non monetary)	☐
Career advancement or promotion	☐
Safe and creative work environment	☐
Remuneration programs that align salaries to market	☐
Effective supervision/leadership	☐
Reward program	☐
Focus and offer opportunities to participate in Community or CSI programs	☐
Having the right company culture	☐
Offer opportunity for reverse mentor where young talent mentors company leaders on culture, modern technology, services and solutions that is currently appealing and trending	☐

Q16. Based on your company's culture and way of working, to what extent do you agree or disagree with the following statement

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Our company provides employees flexibility, control over their work and make decisions about work or certain tasks	○	○	○	○	○
My employees feel like their are a good match for this organisation based on their role and the mission/purpose of the company	○	○	○	○	○
My employees feel like the company's problems are their own	○	○	○	○	○
My employees feel they are paid fairly for what they contribute to my organization	○	○	○	○	○
My employees feel proud that they are part of this company	○	○	○	○	○
The company utilises skills and talents it has well	○	○	○	○	○
The company benefits are great and are one of the reason my employees would stay	○	○	○	○	○
The company provides employees with the opportunity to grow and advance their career	○	○	○	○	○
The organisation invests enough on training and development of digital capabilities and/or future skills	○	○	○	○	○
Their is culture where good interpersonal relationships at work can be formed	○	○	○	○	○

Q17. How many of these motivation factors does your company focus on or offer?

- [ ] Make Organizational goals clear to employees
- [ ] Having a vital role in influencing and achieving organizational goals
- [ ] Job characteristics and meaningful challenging work
- [ ] Work recognition (acknowledgment and appreciation for you contribution)
- [ ] Training & Development Training & Development (especially digital and future skills)
- [ ] Promotions & Opportunity for growth
- [ ] Opportunity for independent thought and action
- [ ] Non financial employee benefits (EVP)
- [ ] Building a professional network and social bonds with colleagues
- [ ] Job Security
- [ ] Work-Life balance
- [ ] Salary is equal to market rate
- [ ] Having control over the pace of their work
- [ ] Empowerment, Coaching and mentoring
- [ ] Creative environment and freedom to be creative
- [ ] Flexible ways of work (Remote, Hybrid working)
- [ ] Effective and supportive leadership
- [ ] Ability to achieve personal goals

B4: Questionnaire For Digital Talent



Consent. Retaining Talent in the digital era of South African SMEs

The objective of this study is to examine the phenomena of retention from a Small and Medium-sized Enterprises (SME) perspective and from a Talent (you) perspective. The study aims to do so by assessing the relationship between the factors that influence you (talent) to stay in the company and the retention approaches employed by the company as well as examine the effect the alignment of these factors have on the retention rate or the predictability thereof.

The survey consists of 21 questions which should take 15 to 20mins to complete. All responses are anonymous and confidential.

By click on "Yes" below, you agree to participate in this research project and that you agree that the information provided may be used anonymously during this project for academic purposes only.

- ◯ Yes
- ◯ No

>>



Q1. Please select your ethnicity

- ◯ Black
- ◯ Coloured
- ◯ Indian/Asian
- ◯ White
- ◯ Other

Q2. Please select your gender

- ◯ Male
- ◯ Female
- ◯ Non-binary / third gender
- ◯ Prefer not to say

Q3. Please select your age group

- ◯ 18-24
- ◯ 25-34
- ◯ 35-44
- ◯ 45-54
- ◯ 55 and Older

Q4. What is your highest qualification?

- ◯ Less than high school
- ◯ High school graduate
- ◯ Trade/technical/vocational certification
- ◯ Diploma
- ◯ Bachelor's degree
- ◯ Professional degree
- ◯ Doctorate

Q5. What is your technology proficiency?

- ◯ Not knowledgeable at all
- ◯ Being developed
- ◯ Basic
- ◯ Intermediate
- ◯ Advance
- ◯ Expert

Q6. Which industry is your current company that you employed in servicing?

- ◯ Finance & Business services
- ◯ Catering, accommodation & other trade
- ◯ Manufacturing
- ◯ Agriculture
- ◯ Transport, storage and communications
- ◯ Community, Social and personal services
- ◯ Wholesale Trade, Commercial Agents and Allied Services
- ◯ Retail and Motor Trade and Repair Services
- ◯ Construction
- ◯ Electricity, gas and water
- ◯ Minning and quarrying

Q7. Which province is the company you working based?

- ◯ Gauteng
- ◯ Kwazulu-Natal
- ◯ Western Cape
- ◯ Eastern Cape
- ◯ Free State
- ◯ Limpopo
- ◯ Mpumalanga
- ◯ North West
- ◯ Northern Cape

Q8. How long have you been with your current employer?

- ◯ <1 year
- ◯ 1-2 years
- ◯ 2-3 years
- ◯ 4-6 years
- ◯ >6 years

Q9. Which of these factors below are very important in influence your decision to stay in a company?

	Level of important for me to stay	
	Very Important	Not so Important
Organizational goals are clear to me	◯	◯
Having a vital role in influencing and achieving my organizational goals	◯	◯
Job characteristics and meaningful challenging work	◯	◯
Training & Development (especially digital and future skills)	◯	◯
Promotions & Opportunity for growth	◯	◯
Opportunity for independent thought and action	◯	◯
Non financial employee benefits (EVP)	◯	◯
Building a professional network and social bonds with colleagues	◯	◯
Job Security	◯	◯
Work-Life balance	◯	◯
Salary is equal to market rate	◯	◯
Having control over the pace of my work	◯	◯
Empowerment, Coaching and mentoring	◯	◯
Creative environment and freedom to be creative	◯	◯
Flexible ways of work (Remote, Hybrid working)	◯	◯
Effective and supportive leadership	◯	◯
Ability to achieve personal goals	◯	◯
Work recognition (acknowledgment and appreciation for you contribution)	◯	◯

Q10. How many of these motivation factors does your current company meet your expectation?

- [ ] Organizational goals are clear to me
- [ ] Having a vital role in influencing and achieving my organizational goals
- [ ] Job characteristics and meaningful challenging work
- [ ] Work recognition (acknowledgment and appreciation for you contribution)
- [ ] Training & Development (especially digital and future skills)
- [ ] Promotions & Opportunity for growth
- [ ] Opportunity for independent thought and action
- [ ] Non financial employee benefits (EVP)
- [ ] Building a professional network and social bonds with colleagues
- [ ] Job Security
- [ ] Work-Life balance
- [ ] Salary is equal to market rate
- [ ] Having control over the pace of my work
- [ ] Empowerment, Coaching and mentoring
- [ ] Creative environment and freedom to be creative
- [ ] Flexible ways of work (Remote, Hybrid working)
- [ ] Effective and supportive leadership
- [ ] Ability to achieve personal goals

Q11. Based on your experiences in your company, to what extent do you agree or disagree with the following statement

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
I feel I have the flexibility, control over my work can make decisions about work or certain tasks	○	○	○	○	○
I feel like I am a good match for this organisation based on my role and the mission/purpose of my company	○	○	○	○	○
I really feel as if this organization's problems are my own	○	○	○	○	○
I am fairly paid for what I contribute to my organization	○	○	○	○	○
I am proud that I am a part of this company	○	○	○	○	○
My job utilizes my skills and talents well	○	○	○	○	○
The company benefits are great and are one of the reason I would stay	○	○	○	○	○
I feel my organisations provide me with the opportunity to grow and advance my career	○	○	○	○	○
I feel the organisation invests enough on training and development of digital capabilities and/or future skills	○	○	○	○	○
I have good interpersonal relationships at work	○	○	○	○	○

Q12. How long would you ideally stay in the same company?

- ◯ 6 months or less
- ◯ Over 6 months, up to 1 year
- ◯ Over 1 year, up to 3 years
- ◯ Over 3 years, up to 5 years
- ◯ Over 5 years

Q13. Are you more likely to stay in the company if they are actively looking to digitalise or adopt digital technologies (Cloud, AI, Machine Learning, Blockchain etc)?

- ◯ Strongly disagree
- ◯ Somewhat disagree
- ◯ Neither agree nor disagree
- ◯ Somewhat agree
- ◯ Strongly agree

Q14. Which option below best represents a company that you will stay in?

- ◯ No Investment or focus on digital transformation initiatives
- ◯ Little investment and focus on digital transformation initiatives
- ◯ Moderate investment and focus on digital transformation initiatives
- ◯ Significant investment and focus on digital transformation initiatives

Q15. When looking at work-life balance and the work itself, is flexibility important factor for you to stay in a company?

- ◯ Strongly disagree
- ◯ Somewhat disagree
- ◯ Neither agree nor disagree
- ◯ Somewhat agree
- ◯ Strongly agree

Q16. If your company offered remote working as an option would it satisfy the need for flexibility, in turn influence stay in the company?

- ◯ Strongly disagree
- ◯ Somewhat disagree
- ◯ Neither agree nor disagree
- ◯ Somewhat agree
- ◯ Strongly agree

Q17. When looking at playing an active role in the organisation, is having the opportunity to influence and contribute to the companies goals and capabilities an important factor in staying in a company?

- ◯ Strongly disagree
- ◯ Somewhat disagree
- ◯ Neither agree nor disagree
- ◯ Somewhat agree
- ◯ Strongly agree

Q18. If your company offered reverse mentoring (where you mentor leadership in the company on creating the right culture, modern technology, services and solutions) as an option would it satisfy the need for opportunity to influence the organisations goals and capabilities, in turn influence to stay in the company?

- ◯ Strongly disagree
- ◯ Somewhat disagree
- ◯ Neither agree nor disagree
- ◯ Somewhat agree
- ◯ Strongly agree

Q19. From your current company perspective, rank the following according to what is most important which will influence you to stay? where 1 is most important and 13 is least important

	Order of Importance
Digital ambition/initiatives & Branding	
Democratized Learning & Development Program	
Short term contracting instead full time employment	
Remote working or flexible ways of working	
Offer fringe benefits (non monetary)	
Career advancement or promotion	
Safe and creative work environment	
Remuneration programs that aligns salaries to market	
Effective supervision/leadership	
Reward program	
Focus on Community or CSI program	
Having the right company culture	
Opportunity to reverse mentor company leaders on culture, modern technology, services and solutions	

Q20. Are you more likely to stay in a company that prefers to invest in learning and development than offer short-term contracts to bring expertise externally?

- ◯ Strongly disagree
- ◯ Somewhat disagree
- ◯ Neither agree nor disagree
- ◯ Somewhat agree
- ◯ Strongly agree

Q21. Are you more likely to stay in a company that offer short-term contracts than full-time employment contracts?

- ◯ Strongly disagree
- ◯ Somewhat disagree
- ◯ Neither agree nor disagree
- ◯ Somewhat agree
- ◯ Strongly agree

APPENDIX C: Analysis tables

C.1.1. SME Owner Missing Data Analysis table from SPSS

Variable Summary[a,b]					
	Missing		Valid N	Mean	Std. Deviation
	N	Percent			
Ability to achieve personal goals	13	31.0%	29	.52	.509
Effective and supportive leadership	13	31.0%	29	.48	.509
Flexible ways of work (Remote, Hybrid working)	13	31.0%	29	.45	.506
Creative environment and freedom to be creative	13	31.0%	29	.34	.484
Empowerment, Coaching and mentoring	13	31.0%	29	.38	.494
Having control over the pace of their work	13	31.0%	29	.31	.471
Salary is equal to market rate	13	31.0%	29	.41	.501
Work-Life balance	13	31.0%	29	.59	.501
Job Security	13	31.0%	29	.41	.501
Building a professional network and social bonds with colleagues	13	31.0%	29	.38	.494
Non-financial employee benefits (EVP)	13	31.0%	29	.24	.435
Opportunity for independent thought and action	13	31.0%	29	.55	.506
Promotions & Opportunity for growth	13	31.0%	29	.55	.506
Training & Development Training & Development (especially digital and future skills)	13	31.0%	29	.55	.506
Work recognition (acknowledgment and appreciation for you contribution)	13	31.0%	29	.79	.412
Job characteristics and meaningful challenging work	13	31.0%	29	.52	.509
Having a vital role in influencing and achieving organizational goals	13	31.0%	29	.55	.506
Make Organizational goals clear to employees	13	31.0%	29	.79	.412
There is culture where good interpersonal relationships at work can be formed	13	31.0%	29	5.69	1.339

The organisation invests enough on training and development of digital capabilities and/or future skills	13	31.0%	29	4.69	1.650
The company provides employees with the opportunity to grow and advance their career	13	31.0%	29	5.21	1.840
The company benefits are great and are one of the reason my employees would stay	13	31.0%	29	4.69	1.538
The company utilises skills and talents it has well	13	31.0%	29	5.24	1.683
My employees feel proud that they are part of this company	13	31.0%	29	5.14	1.620
My employees feel they are paid fairly for what they contribute to my organization	13	31.0%	29	4.79	1.612
a. Maximum number of variables shown: 25					
b. Minimum percentage of missing values for variable to be included: 0.0%					

Table 46.51: SPSS output from missing data analysis (Source: SPSS)

C.1.2. Digital Talent Missing Data Analysis table from SPSS

Variable Summary[a,b]					
	Missing		Valid N	Mean	Std. Deviation
	N	Percent			
Are you more likely to stay in a company that offer short-term contracts than full-time employment contracts?	11	20.0%	44	1.86	1.133
Are you more likely to stay in a company that prefers to invest in learning and development than offer short-term contracts to bring expertise externally?	11	20.0%	44	4.41	.816
Opportunity for reverse mentor	11	20.0%	44	10.57	2.731
Having the right company culture	11	20.0%	44	5.61	3.966
Focus and offer opportunities to participate in Community or CSI programs	11	20.0%	44	10.77	2.281
Reward program	11	20.0%	44	8.14	3.115
Effective supervision/leadership	11	20.0%	44	5.43	3.150
Remuneration programs that align salaries to market	11	20.0%	44	4.41	2.952

Safe and Creative work environment	11	20.0%	44	5.43	2.765
Career advancement or promotion	11	20.0%	44	6.05	3.132
Fringe benefits (non-monetary)	11	20.0%	44	7.27	3.128
Remote working or flexible ways of working	11	20.0%	44	5.30	2.890
Short-term contracting instead full time employment	11	20.0%	44	9.34	4.226
Democratized Learning & Development Program	11	20.0%	44	6.52	3.246
Digital ambition/initiatives & Branding	11	20.0%	44	6.16	3.490
If your company offered reverse mentoring as an option would it satisfy the need for opportunity to influence the organisations goals and capabilities, in turn influence to stay in the company?	11	20.0%	44	4.14	.878
When looking at playing an active role in the organisation, is having the opportunity to influence and contribute to the companies goals and capabilities an important factor in staying in a company?	11	20.0%	44	4.14	.979
Which option below best represents a company that you will stay in?	9	16.4%	46	3.43	.910
If your company offered remote working as an option would it satisfy the need for flexibility, in turn influence stay in the company?	8	14.5%	47	4.26	1.010
When looking at work-life balance and the work itself, is flexibility important factor for you to stay in a company?	8	14.5%	47	4.47	.881
Are you more likely to stay in the company if they are actively looking to digitalise or adopt digital technologies (Cloud, AI, Machine Learning, Blockchain etc)?	8	14.5%	47	4.19	1.056
How long would you ideally stay in the same company?	8	14.5%	47	4.13	1.013
I have good interpersonal relationships at work	8	14.5%	47	4.04	1.160

I feel the organisation invests enough on training and development of digital capabilities and/or future skills	8	14.5%	47	3.23	1.289
I feel my organisations provide me with the opportunity to grow and advance my career	8	14.5%	47	3.60	1.245
a. Maximum number of variables shown: 25					
b. Minimum percentage of missing values for variable to be included: 0.0%					

Table 47.52: SPSS output from missing data analysis (Source: SPSS)

C.1.3. Overall Distribution

Digital Talent

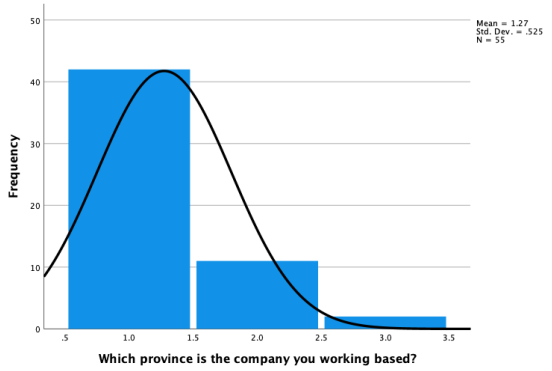


Figure 27.27: Distribution of digital talent respondents based on province. (Source primary data)

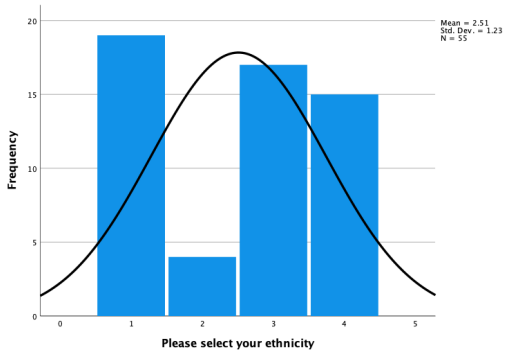


Figure 28.28: Distribution of digital talent respondents based on ethnicity. (Source primary data)

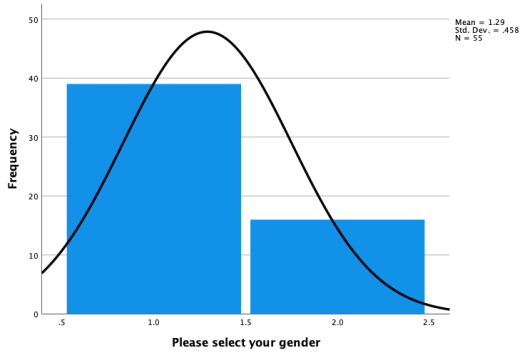


Figure 29.29: Distribution of digital talent respondents based on gender. (Source primary data)

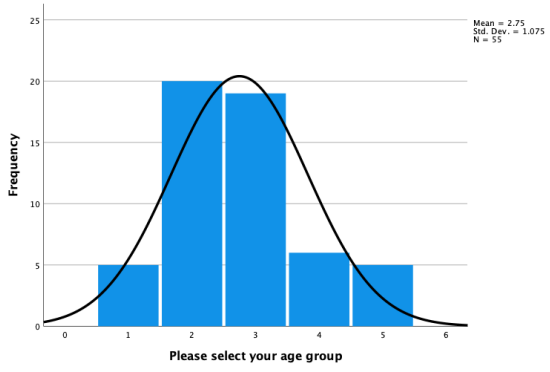
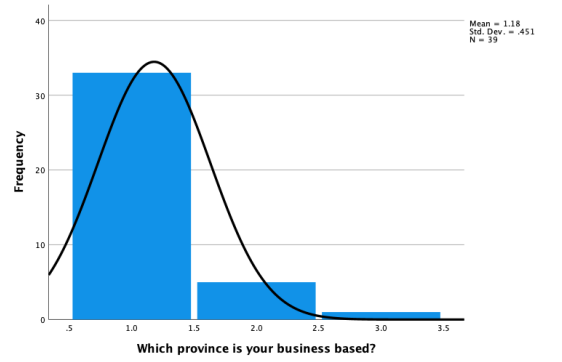
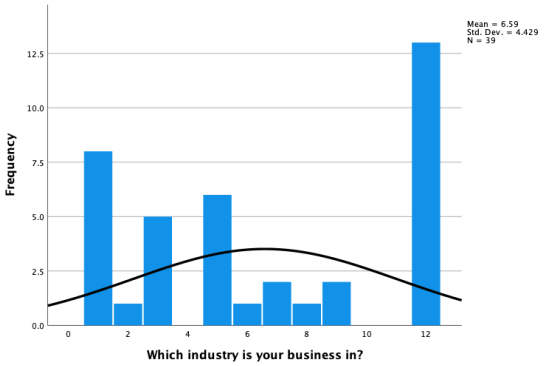
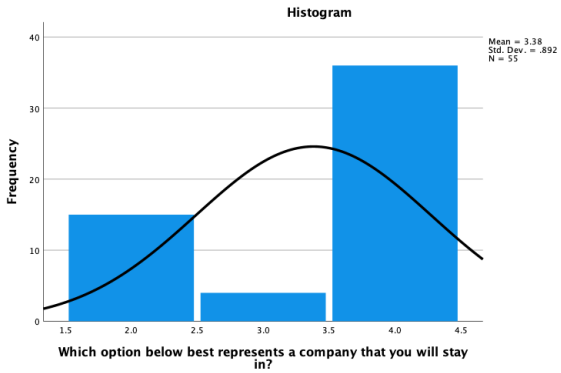
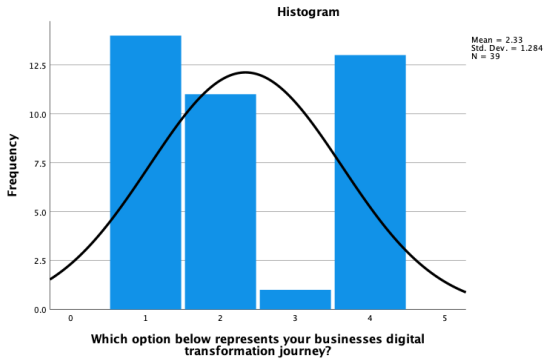
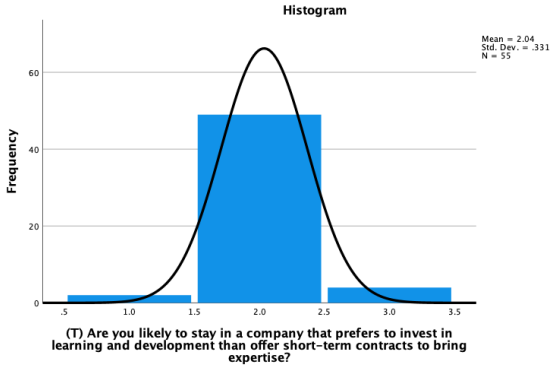


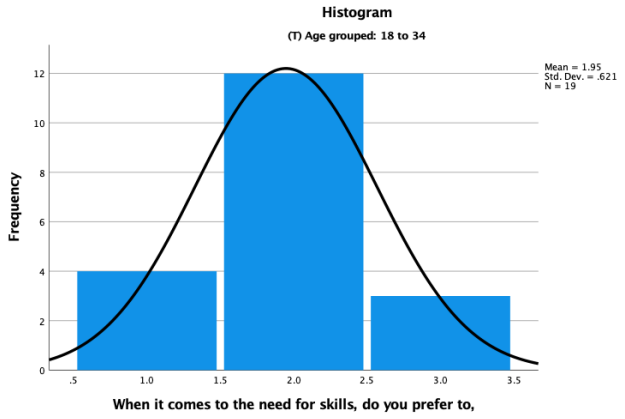
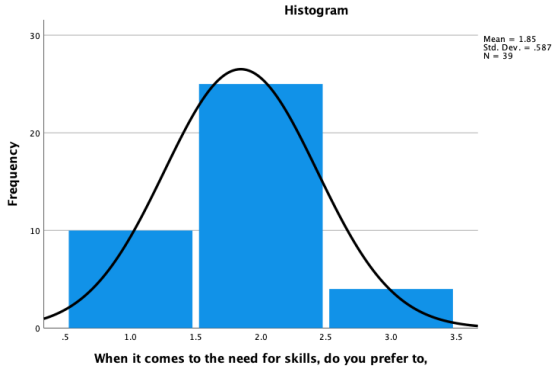
Figure 30.30: Distribution of digital talent respondents based on age group. (Source primary data)

SME	
	
Figure 31.31: Sample frame distribution of SME respondents based on province. (Source primary data)	**Figure 32.32: Sample frame distribution of SME respondents based on industry. (Source primary data)**

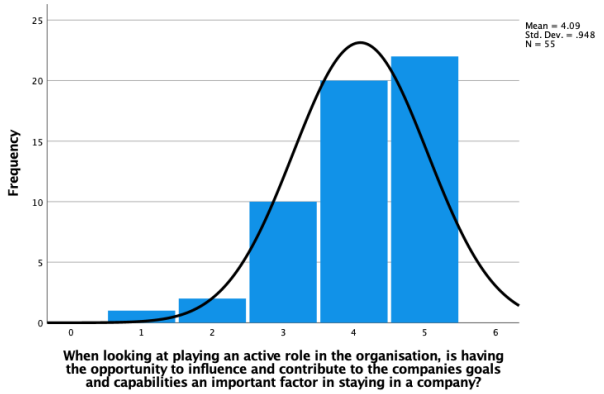
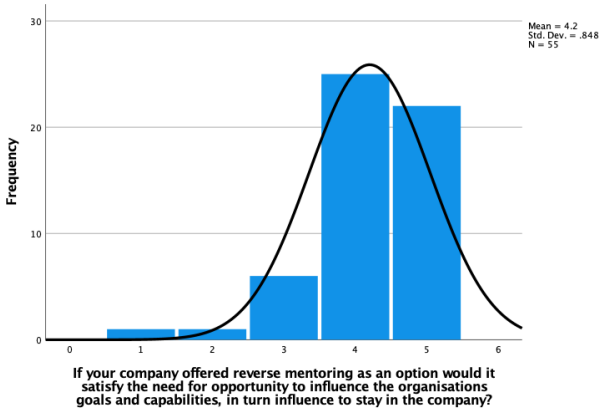
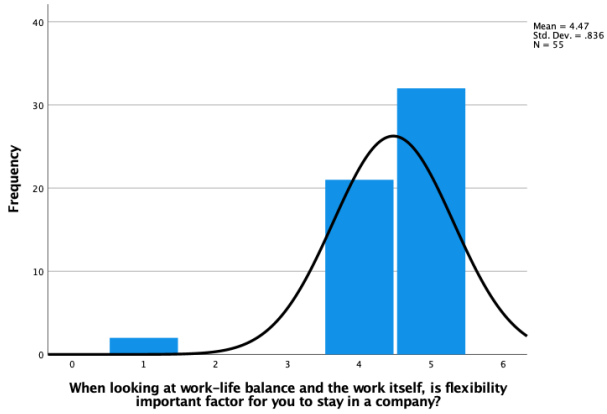
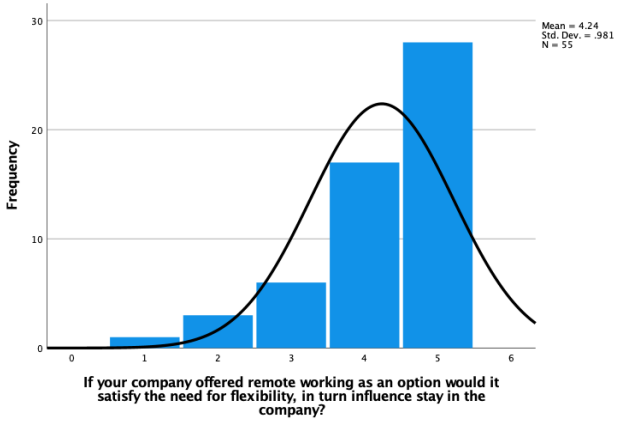
C.1.4. Distribution per variable tested.

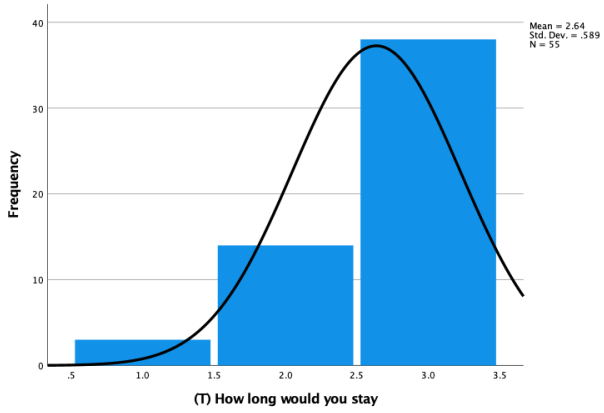
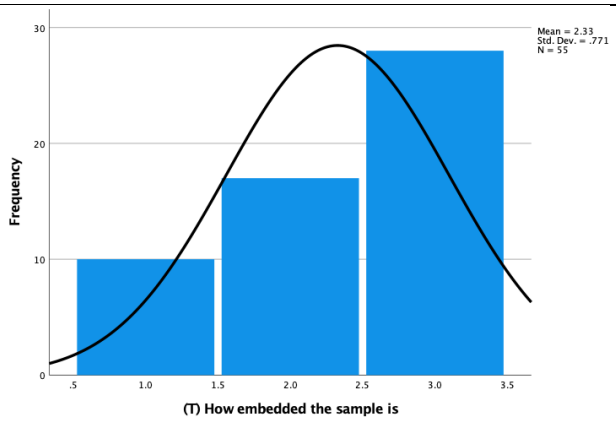
	Digital Talent	SME

Hypothesis 1	 **Figure 33.33: Distribution of digital talent respondents' intent to stay based the level of the company's focus and investment of digital transformation. (Source primary data)**	 **Figure 34.34: Sample frame distribution of SME respondents based on their current level of focus and investment in digital transformation. (Source primary data)**
Hypothesis 2	 **Figure 35.35: distribution of digital talent based the likelihood of staying if SMEs choose to develop talent. (Source: primary data that was transformed)**	

Hypothesis 3	 **Figure 37.37: distribution of digital talent preference to contracting based on the age range of 18 to 34. (Source: primary data that was transformed)**	 **Figure 36.36: Sample frame distribution of SME respondents based on their preference on acquiring skills. (Source primary data)**

	Digital Talent

Hypothesis 4.1	 **Figure 38.38: Distribution of how important is having the opportunity to influence and contribute to the companies goals as a factor to stay(Source primary data)**	 **Figure 39.39: Distribution of satisfaction when reverse mentoring in introduced. (Source primary data)**
Hypothesis 4.2	 **Figure 40.40: Distribution of how important is flexible work as a factor to stay in a company. (Source primary data)**	 **Figure 41.41: Distribution of how important is flexible work as a factor to stay in a company. (Source primary data)**

Hypothesis 5		
	Figure 42.42: Distribution of how long would digital talent stay in a company. (Source primary data)	**Figure 43.43: Distribution of how embedded the sample is. (Source primary data)**

C.1.5. Reliability of composite measures.

Reliability test on composite measure: Embeddedness

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.781	.781	20

Table 48.53: Cronbach alpha results for embeddedness (Source: SPSS)

Reliability test on composite measure: Intent to stay.

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.707	.721	9

Table 49.54: Cronbach alpha results for Intent to stay (Source: SPSS)

Reliability test on composite measure: Influential factors & retention approaches

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.795	.793	49

Table 50.55: Cronbach alpha results for Influential factor & retention approaches (Source: SPSS)

C1.5.1 Rule of thumb for interpreting Cronbach results and internal consistency

Cronbach's alpha	Internal consistency
$\alpha \geq 0.9$	Excellent
$0.9 > \alpha \geq 0.8$	Good
$0.8 > \alpha \geq 0.7$	Acceptable
$0.7 > \alpha \geq 0.6$	Questionable
$0.6 > \alpha \geq 0.5$	Poor
$0.5 > \alpha$	Unacceptable

Figure 44.44: Cronbach alpha table

C.1.6 Transformed and recoded question 20 (applicable for question 21 as well).

Q20 : Are you likely to stay in a company that prefers to invest in learning and development than offer short-term contracts to bring expertise?

Current Coding	Options	Categories	Recoded
1	Strongly Disagree	Contract expertise	1
2	Somewhat Disagree	Contract expertise	
3	Neither	Neither	3
4	Somewhat Agree	Develop & retain talent	2
5	Strongly Agree	Develop & retain talent	

Table 51.56: Transformation of Q20 (Source: primary data).

Ideal length	Group	Code

6 months or less	Short-term	1
Over 6 months, up to 1 year		
Over 1 year, up to 3 years	Mid term	2
Over 3 years, up to 5 years	Long term	3
Over 5 years		

Table 52.57: Transformation of Q12 (Source: primary data).

C.1.7 Transformed and recoded to determine embeddedness

	I feel I have the flexibility, control over my work can make decisions about work or certain tasks	I feel like I am a good match for this organisation based on my role and the mission/purpose of my company	I really feel as if this organization's problems are my own	I am fairly paid for what I contribute to my organization	I am proud that I am a part of this company	My job utilizes my skills and talents well	The company benefits are great and are one of the reason I would stay	I feel my organisations provide me with the opportunity to grow and advance my career	I feel the organisation invests enough on training and development of digital capabilities and/or future skills	I have good interpersonal relationships at work
1	Strongly agree	Strongly agree	Somewhat disagree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Somewhat disagree	Somewhat agree	Somewhat agree	Neither agree nor disagree
2	Somewhat agree	Neither agree nor disagree	Neither agree nor disagree	Somewhat agree	Neither agree nor disagree	Neither agree nor disagree	Somewhat agree	Somewhat agree	Strongly disagree	Somewhat agree
3	Somewhat agree	Strongly agree	Strongly agree	Somewhat disagree	Strongly agree	Somewhat agree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Somewhat agree
4	Neither agree nor disagree	Neither agree nor disagree	Strongly agree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Neither agree nor disagree	Somewhat agree	Strongly agree	Neither agree nor disagree
5	Strongly disagree	Somewhat agree	Neither agree nor disagree	Somewhat agree	Somewhat disagree	Neither agree nor disagree	Neither agree nor disagree	Neither agree nor disagree	Somewhat agree	Somewhat agree
6	Strongly agree	Neither agree nor disagree	Strongly agree	Neither agree nor disagree	Neither agree nor disagree	Neither agree nor disagree	Somewhat agree	Neither agree nor disagree	Strongly agree	Strongly agree
7	Neither agree nor disagree	Neither agree nor disagree	Neither agree nor disagree	Neither agree nor disagree	Neither agree nor disagree	Somewhat agree	Somewhat disagree	Strongly agree	Somewhat disagree	Strongly agree
8	Neither agree nor disagree	Somewhat disagree	Strongly agree	Neither agree nor disagree	Strongly disagree	Somewhat disagree	Somewhat disagree	Somewhat disagree	Somewhat disagree	Somewhat disagree
9	Somewhat agree	Neither agree nor disagree	Strongly disagree	Somewhat agree	Strongly agree	Neither agree nor disagree	Strongly disagree	Neither agree nor disagree	Somewhat disagree	Neither agree nor disagree
10	Strongly agree	Strongly agree	Strongly agree	Strongly agree	Strongly agree	Strongly agree	Strongly agree	Strongly agree	Strongly agree	Strongly agree
11	Strongly agree	Strongly agree	Strongly disagree	Strongly agree	Strongly agree	Strongly agree	Strongly agree	Strongly agree	Strongly agree	Strongly agree
12	Somewhat agree	Strongly disagree	Strongly disagree	Strongly disagree	Neither agree nor disagree	Somewhat disagree	Strongly disagree	Strongly disagree	Neither agree nor disagree	Strongly agree
13	Strongly agree	Strongly agree	Neither agree nor disagree	Strongly agree	Strongly agree	Strongly agree	Somewhat agree	Strongly agree	Strongly agree	Strongly agree
14	Neither agree nor disagree	Somewhat agree	Strongly agree	Somewhat disagree	Strongly agree	Strongly agree	Strongly disagree	Neither agree nor disagree	Strongly disagree	Neither agree nor disagree
15	Somewhat agree	Somewhat agree	Somewhat disagree	Strongly agree	Somewhat agree	Somewhat agree	Strongly disagree	Somewhat agree	Somewhat disagree	Strongly agree
16	Somewhat agree	Somewhat agree	Somewhat agree	Strongly agree	Somewhat agree	Somewhat agree	Somewhat disagree	Strongly agree	Somewhat agree	Strongly agree
17	Strongly agree	Strongly agree	Strongly disagree	Strongly agree	Strongly agree	Strongly agree	Somewhat disagree	Strongly agree	Somewhat agree	Strongly agree
18	Somewhat disagree	Strongly disagree	Strongly disagree	Somewhat agree	Strongly disagree	Strongly agree	Strongly agree	Strongly agree	Strongly agree	Strongly disagree
19	Somewhat agree	Somewhat agree	Strongly agree	Somewhat disagree	Somewhat agree	Somewhat agree	Strongly disagree	Strongly disagree	Strongly disagree	Strongly agree
20	Somewhat agree	Strongly agree	Somewhat agree	Somewhat disagree	Strongly agree	Strongly agree	Somewhat disagree	Somewhat disagree	Somewhat disagree	Strongly agree
21	Strongly agree	Strongly agree	Strongly agree	Strongly agree	Strongly agree	Strongly agree	Strongly agree	Strongly agree	Somewhat agree	Somewhat agree
22	Somewhat agree	Somewhat agree	Somewhat agree	Somewhat agree	Strongly agree	Strongly agree	Somewhat agree	Neither agree nor disagree	Neither agree nor disagree	Somewhat agree
23	Strongly agree	Strongly agree	Somewhat agree	Somewhat disagree	Somewhat agree	Strongly agree	Strongly disagree	Strongly agree	Somewhat agree	Strongly agree
24	Neither agree nor disagree	Somewhat agree	Somewhat agree	Neither agree nor disagree	Strongly agree	Somewhat agree	Neither agree nor disagree	Neither agree nor disagree	Neither agree nor disagree	Somewhat agree
25	Somewhat agree	Somewhat agree	Strongly agree	Somewhat agree	Somewhat agree	Somewhat agree	Somewhat agree	Somewhat agree	Somewhat agree	Somewhat agree
26	Somewhat agree	Somewhat agree	Somewhat agree	Somewhat agree	Somewhat agree	Somewhat agree	Somewhat disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree
27	Somewhat disagree	Neither agree nor disagree	Strongly disagree	Somewhat disagree	Somewhat agree	Somewhat agree	Strongly disagree	Neither agree nor disagree	Somewhat agree	Somewhat agree
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29	Somewhat agree	Somewhat agree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Somewhat agree	Somewhat disagree	Neither agree nor disagree	Neither agree nor disagree	Somewhat agree
30	Strongly agree	Strongly agree	Neither agree nor disagree	Strongly agree	Strongly agree	Somewhat agree	Somewhat agree	Strongly agree	Somewhat agree	Strongly agree
31	Strongly agree	Strongly agree	Somewhat agree	Strongly agree	Strongly agree	Strongly agree	Strongly agree	Somewhat agree	Strongly agree	Strongly agree
32	Somewhat disagree	Somewhat agree	Somewhat disagree	Somewhat agree	Somewhat agree	Somewhat disagree	Somewhat disagree	Somewhat disagree	Strongly disagree	Somewhat agree
33	Strongly agree	Strongly agree	Somewhat disagree	Somewhat agree	Strongly agree	Strongly agree	Somewhat agree	Somewhat agree	Neither agree nor disagree	Strongly agree
34	Strongly agree	Somewhat agree	Somewhat agree	Strongly agree	Strongly agree	Strongly agree	Neither agree nor disagree	Neither agree nor disagree	Somewhat disagree	Somewhat disagree
35	Strongly agree	Strongly agree	Strongly agree	Strongly agree	Strongly agree	Strongly agree	Strongly agree	Neither agree nor disagree	Strongly agree	Somewhat agree
36	Somewhat agree	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat agree	Strongly agree	Strongly agree	Strongly agree	Strongly agree	Somewhat agree
37	Neither agree nor disagree	Strongly agree	Somewhat agree	Somewhat disagree	Somewhat agree	Somewhat agree	Strongly disagree	Somewhat agree	Neither agree nor disagree	Somewhat agree
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41	Strongly agree	Strongly agree	Somewhat agree	Somewhat agree	Somewhat agree	Somewhat agree	Somewhat agree	Somewhat agree	Somewhat agree	Somewhat agree
42	Strongly disagree	Strongly disagree	Strongly disagree	Strongly disagree	Strongly disagree	Strongly disagree	Strongly disagree	Strongly disagree	Strongly disagree	Strongly disagree
43	Strongly disagree	Strongly disagree	Strongly agree	Strongly disagree	Somewhat disagree	Strongly disagree	Somewhat disagree	Strongly disagree	Strongly disagree	Strongly disagree
44	Neither agree nor disagree	Neither agree nor disagree	Strongly agree	Neither agree nor disagree	Somewhat agree	Somewhat agree	Somewhat agree	Somewhat agree	Somewhat disagree	Strongly agree
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47	Somewhat disagree	Strongly agree	Somewhat agree	Neither agree nor disagree	Strongly agree	Strongly agree	Strongly disagree	Strongly agree	Neither agree nor disagree	Somewhat agree
48	Somewhat agree	Strongly agree	Somewhat disagree	Somewhat agree	Somewhat agree	Somewhat agree	Neither agree nor disagree	Somewhat agree	Neither agree nor disagree	Strongly agree
49	Somewhat agree	Somewhat agree	Somewhat agree	Somewhat disagree	Somewhat agree	Strongly agree	Neither agree nor disagree	Somewhat agree	Somewhat agree	Strongly agree
50	Somewhat agree	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat agree	Somewhat agree	Somewhat disagree	Somewhat agree	Somewhat agree	Somewhat agree
51	Strongly disagree	Somewhat disagree	Somewhat disagree	Strongly disagree	Somewhat disagree	Somewhat agree	Somewhat disagree	Somewhat agree	Somewhat agree	Neither agree nor disagree
52	Strongly agree	Somewhat agree	Strongly agree	Strongly agree	Strongly agree	Strongly agree	Somewhat agree	Strongly agree	Strongly agree	Strongly agree
53	Somewhat agree	Somewhat agree	Somewhat agree	Somewhat disagree	Somewhat agree	Somewhat agree	Somewhat disagree	Somewhat agree	Somewhat disagree	Somewhat agree
54	Strongly agree	Somewhat agree	Somewhat agree	Somewhat agree	Somewhat agree	Somewhat agree	Somewhat agree	Somewhat disagree	Neither agree nor disagree	Strongly agree
55	Strongly agree	Somewhat agree	Somewhat disagree	Neither agree nor disagree	Neither agree nor disagree	Somewhat agree	Somewhat disagree	Somewhat agree	Somewhat disagree	Somewhat disagree

Figure 45.45: Output table of Question 11: Based on your experiences in your company, to what extent do you agree or disagree with the following statement (Source: Primary data)

Numeric value	New Categories	Recoded
0 to 3	Poorly embedded	1
4 to 6	Mildly embedded	2
7 to 10	Deeply embedded	3

Table 53.58: Transformation of Q10 into levels of embedment (Source: primary data).

APPENDIX D: Additional

D.1 SME Classification Table

Sectors or sub-sectors in accordance with the Standard Industrial Classification	Size or class of enterprise	Total full-time equivalent of paid employees	Total annual turnover
Agriculture	Medium	51 - 250	≤ 35,0 million
	Small	11- 50	≤ 17,0 million
	Micro	0 – 10	≤ 7,0 million
Mining and Quarrying	Medium	51 - 250	≤ 210,0 million
	Small	11- 50	≤ 50,0 million
	Micro	0 – 10	≤ 15,0 million
Manufacturing	Medium	51 - 250	≤ 170,0 million
	Small	11- 50	≤ 50,0 million
	Micro	0 – 10	≤ 10,0 million
Electricity, Gas and Water	Medium	51 - 250	≤ 180,0 million
	Small	11- 50	≤ 60,0 million
	Micro	0- 10	≤ 10,0 million
Construction	Medium	51 - 250	≤ 170,0 million
	Small	11- 50	≤ 75,0 million
	Micro	0- 10	≤ 10,0 million
Retail, motor trade and repair services.	Medium	51 - 250	≤ 80,0 million
	Small	11- 50	≤ 25,0 million
	Micro	0 – 10	≤ 7,5 million
Wholesale	Medium	51 - 250	≤ 220,0 million
	Small	11- 50	≤ 80,0 million
	Micro	0 – 10	≤ 20,0 million
Catering, Accommodation and other Trade	Medium	51 - 250	≤ 40,0 million
	Small	11- 50	≤ 15,0 million
	Micro	0 – 10	≤ 5,0 million
Transport, Storage and Communications	Medium	51 - 250	≤ 140,0 million
	Small	11- 50	≤ 45,0 million
	Micro	0 – 10	≤ 7,5 million
Finance and Business Services	Medium	51 - 250	≤ 85,0 million
	Small	11- 50	≤ 35,0 million
	Micro	0- 10	≤ 7,5 million
Community, Social and Personal Services	Medium	51 - 250	≤ 70,0 million
	Small	11- 50	≤ 22,0 million
	Micro	0 – 10	≤ 5,0 million

Table 54.59: Revised Classification of Small Businesses (National Small Business Council, 2019)

D.2 Statista Table: Q3 2022 labour force distribution in south Africa by age group

Characteristic	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years
Q3 2022	25%	71.2%	78.2%	73.5%	39.6%
Q2 2022	26.6%	72.1%	77.7%	73.6%	40.2%
Q1 2022	24.9%	69.5%	76.9%	72.2%	38.6%
Q4 2021	22.7%	69.6%	76.8%	72.4%	38.7%

Source : Statista Q3 2022 report

D.3 T-Test Critical value table

Critical values of *t* for two-tailed tests

Significance level (α)

Degrees of freedom *(df)*	.2	.15	.1	.05	.025	.01	.005	.001
1	3.078	4.165	6.314	12.706	25.452	63.657	127.321	636.619
2	1.886	2.282	2.920	4.303	6.205	9.925	14.089	31.599
3	1.638	1.924	2.353	3.182	4.177	5.841	7.453	12.924
4	1.533	1.778	2.132	2.776	3.495	4.604	5.598	8.610
5	1.476	1.699	2.015	2.571	3.163	4.032	4.773	6.869
6	1.440	1.650	1.943	2.447	2.969	3.707	4.317	5.959
7	1.415	1.617	1.895	2.365	2.841	3.499	4.029	5.408
8	1.397	1.592	1.860	2.306	2.752	3.355	3.833	5.041
9	1.383	1.574	1.833	2.262	2.685	3.250	3.690	4.781
10	1.372	1.559	1.812	2.228	2.634	3.169	3.581	4.587
11	1.363	1.548	1.796	2.201	2.593	3.106	3.497	4.437
12	1.356	1.538	1.782	2.179	2.560	3.055	3.428	4.318
13	1.350	1.530	1.771	2.160	2.533	3.012	3.372	4.221
14	1.345	1.523	1.761	2.145	2.510	2.977	3.326	4.140
15	1.341	1.517	1.753	2.131	2.490	2.947	3.286	4.073
16	1.337	1.512	1.746	2.120	2.473	2.921	3.252	4.015
17	1.333	1.508	1.740	2.110	2.458	2.898	3.222	3.965
18	1.330	1.504	1.734	2.101	2.445	2.878	3.197	3.922
19	1.328	1.500	1.729	2.093	2.433	2.861	3.174	3.883
20	1.325	1.497	1.725	2.086	2.423	2.845	3.153	3.850
21	1.323	1.494	1.721	2.080	2.414	2.831	3.135	3.819
22	1.321	1.492	1.717	2.074	2.405	2.819	3.119	3.792
23	1.319	1.489	1.714	2.069	2.398	2.807	3.104	3.768
24	1.318	1.487	1.711	2.064	2.391	2.797	3.091	3.745
25	1.316	1.485	1.708	2.060	2.385	2.787	3.078	3.725
26	1.315	1.483	1.706	2.056	2.379	2.779	3.067	3.707
27	1.314	1.482	1.703	2.052	2.373	2.771	3.057	3.690
28	1.313	1.480	1.701	2.048	2.368	2.763	3.047	3.674
29	1.311	1.479	1.699	2.045	2.364	2.756	3.038	3.659
30	1.310	1.477	1.697	2.042	2.360	2.750	3.030	3.646
40	1.303	1.468	1.684	2.021	2.329	2.704	2.971	3.551
50	1.299	1.462	1.676	2.009	2.311	2.678	2.937	3.496
60	1.296	1.458	1.671	2.000	2.299	2.660	2.915	3.460
70	1.294	1.456	1.667	1.994	2.291	2.648	2.899	3.435
80	1.292	1.453	1.664	1.990	2.284	2.639	2.887	3.416
100	1.290	1.451	1.660	1.984	2.276	2.626	2.871	3.390
1000	1.282	1.441	1.646	1.962	2.245	2.581	2.813	3.300
Infinite	1.282	1.440	1.645	1.960	2.241	2.576	2.807	3.291

Source : Scribbr

APPENDIX E: Demography graphs and tables

E1: SME by province, industry and number of years of service.

SME by province and industry	0-1 years	1-2 years	2-3 years	>4 years	Grand Total
Gauteng	**10%**	**13%**	**13%**	**49%**	**85%**
Other	3%	10%	5%	13%	31%
Finance & Business services	0%	0%	0%	18%	18%
Transport, storage and communications	8%	0%	3%	5%	15%
Manufacturing	0%	0%	3%	5%	8%
Construction	0%	0%	0%	5%	5%
Retail and Motor Trade and Repair Services	0%	0%	3%	0%	3%
Catering, accommodation & other trade	0%	3%	0%	0%	3%
Community, Social and personal services	0%	0%	0%	3%	3%
Kwazulu-Natal	**0%**	**0%**	**0%**	**13%**	**13%**
Wholesale Trade, Commercial Agents and Allied Services	0%	0%	0%	5%	5%
Manufacturing	0%	0%	0%	5%	5%
Finance & Business services	0%	0%	0%	3%	3%
Western Cape	**3%**	**0%**	**0%**	**0%**	**3%**

Other	3%	0%	0%	0%	3%
Grand Total	**13%**	**13%**	**13%**	**62%**	**100%**

Table 55.6: SME by province, industry and number of years of service. (Source: primary data)

E2: SME level of focus and investment into digital transformation by industry

Industry	Significant investment and focus on digital transformation initiatives	Moderate investment and focus on digital transformation initiatives	Little investment and focus on digital transformation initiatives	No Investment or focus on digital transformation initiatives
Finance & Business services	2%	0%	15%	5%
Manufacturing	0%	0%	2%	10%
Catering, accommodation & other trade	2%	0%	0%	0%
Community, Social and personal services	2%	0%	0%	0%
Construction	0%	0%	0%	5%
Retail and Motor Trade and Repair Services	0%	0%	5%	0%
Transport, storage and communications	5%	2%	2%	5%
Wholesale Trade, Commercial Agents and Allied Services	0%	0%	2%	2%
Other	20%	0%	2%	10%
Grand Total	**32%**	**2%**	**29%**	**37%**

Table 56.8: SME level of focus and investment into digital transformation by industry (Source: primary data)

E3: Retention approaches currently employed by SMES

Retention Approaches	How many SMEs offer
Digital ambition/initiatives & Branding	38%
Democratized Learning & Development Program	17%
Short-term contracting instead full time employment	14%
Remote working or flexible ways of working	43%
Offer fringe benefits (non-monetary)	17%
Career advancement or promotion	45%
Safe and creative work environment	38%
Remuneration programs that aligns salaries to market	38%
Effective supervision/leadership	38%
Reward program	45%
Focus on Community or CSI program	26%
Having the right company culture	69%
Opportunity to reverse mentor	43%

Table 57.9: Retention approaches SMEs currently employ (Source: primary data)

E4: Retention approaches currently employ by SMES per industry

Retention Approaches	Manufacturing	Finance & Business services	Transport, storage, and communication	Other
Digital ambition/initiatives & Branding	20%	56%	33%	38%
Democratized Learning & Development Program	0%	33%	17%	15%
Short-term contracting instead full-time employment	40%	11%	0%	15%
Remote working or flexible ways of working	20%	56%	33%	62%
Offer fringe benefits (non-monetary)	0%	11%	33%	31%
Career advancement or promotion	60%	44%	33%	46%
Safe and creative work environment	80%	33%	33%	46%

Remuneration programs that align salaries to market	60%	33%	33%	31%
Effective supervision/leadership	60%	44%	50%	23%
Reward program	40%	22%	50%	54%
Focus on Community or CSI program	20%	33%	17%	15%
Having the right company culture	60%	89%	67%	62%
Opportunity to reverse mentor	0%	33%	67%	46%

Table 58.10: Retention approaches SMEs currently employ by Industry (Source: primary data)

E4: Distribution of duration based on age and gender

	Female					***Male***				
Length of stay	**18-24**	**25-34**	**35-44**	**45-54**	**55 and Older**	**18-24**	**25-34**	**35-44**	**45-54**	**55 and Older**
Long term	4%	5%	7%	4%	2%	0%	18%	20%	2%	7%
Mid term	0%	4%	0%	4%	0%	4%	7%	5%	2%	0%
Short-term	0%	0%	0%	0%	0%	2%	2%	2%	0%	0%
Grand Total	**4%**	**9%**	**7%**	**7%**	**2%**	**5%**	**27%**	**27%**	**4%**	**7%**

Table 59.18: Distribution of duration based on age and gender (Source: primary data)

APPENDIX F: Ethic Clearance Certificate

Graduate School of Business Administration
University of the Witwatersrand, Johannesburg

Wits Business School Ethics Committee
Constituted under the University Human Research Ethics Committee (Non-Medical)

Ethics Clearance Certificate

Ethics protocol number: WBS/DB2394604/336
This certificate is only valid with a legitimate ethics protocol number and signed by the Researcher (below).

This certificate is only valid if accompanied by formal permission from the relevant stakeholder(s).

Project title	Talent retention in South African SMEs in the digital era
Investigator / Researcher	Mr Newayne Dharmaratne
Nature of Project	MM (Digital Business)
Decision of the Committee	Approved, provided stakeholders and participants are guaranteed anonymity and confidentiality.
Issue Date of Certificate	2023-01-18
Expiry date	Date of submission of the project / research report
Chairperson	Prof Anthony Stacey ☎ +27 11 717 3587 +27 82 880 4531 anthony.stacey@wits.ac.za

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Declaration by Researcher

One copy must be signed by the Researcher and returned to the Chairperson of the Wits Business School Ethics Committee.

I fully understand the conditions under which I am authorized to carry out the abovementioned research and I guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I undertake to resubmit the protocol to the Committee.

Signature

19th January '23
Date: