ASSESSING WORK ENGAGEMENT OF STREET TRADERS (VENDORS) IN THE CITY OF TSHWANE, SOUTH AFRICA

by

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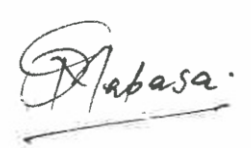
DECLARATIONS

I, **DUMISANI GODFREY MABASA (Student Number: 36235016)** declare that the thesis titled **'ASSESSING WORK ENGAGEMENT OF STREET TRADERS (VENDORS) IN THE CITY OF TSHWANE, SOUTH AFRICA'** is my own work and that all the sources that I have used or quoted were indicated and acknowledged by means of complete references.

I further declare that I submitted the thesis to originality checking software and confirm that it falls within the acceptable requirements for originality as determined by the University of South Africa.

I further declare that I have not previously submitted the work/thesis or part of it, for examination at Unisa or at any other higher education institution for another qualification.

Signature:  Date: **31/01/2023**

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ABSTRACT

The study was conducted to determine the occupational well-being of street traders, the most visible own-account workers in the informal sector, by assessing their work engagement through the UWES. The UWES is one of the few valid and most used instruments in assessing work engagement. UWES is validated for use in the formal sector. The informal sector accounts for most employment at more than 60 percent, yet well-being is most studied in the formal sector than in the informal sector. Participants were selected through a convenient sampling strategy. A survey questionnaire was administered face-to-face to collect quantitative data from participants. Data were analysed using International Business Machines (IBM) SPSS version 28. The pretest and pilot studies were conducted and reported prior data collection for the main study to improve quality assurance in the study. The UWES-7, instead of UWES-9, was validated for the study. The data did not support the factorial invariance of the three dimensions of UWES, namely, vigour, dedication, and absorption. Thus, a one-factor model was computed to determine work engagement, thus alleviating challenges associated with multicollinearity in the study. Some demographic variables were assessed and found to relate to work engagement. For example, agency motives traders (those trading out of choice) were reported to be more engaged in their work than structural motives traders (those trading out of necessity). The validity of UWES in assessing the work engagement of street traders is important for SDG 8, which promotes decent work for all. Given that the formal economy struggles to create decent work for all, the ILO recommends that the informal sector should be supported through policy development so as bring this about.

KEY TERMS

Agency motives; formal sector; informal sector; occupational well-being; self-employed/own-account workers; street traders; structural motives; work engagement; unemployment

KAKARETŠO

Dinyakišišo tše di dirilwe go laetša go phela gabotse mmeleng mošomong ga barekiši ba mebileng, bašomi ba go šoma mešomo ya bona bao ba bonagalago kudu ka lekaleng le e sego la semmušo, ka go sekaseka mabaka a bona a mošomo ka UWES. UWES ke ye nngwe ya didirišwa tše mmalwa tše di šomago le tše di šomišwago kudu go sekaseka mabaka a mošomo. UWES e netefaditšwe go šomišwa ka lekaleng la semmušo. Lekala leo e sego la semmušo le ikarabela go bontši bja mešomo ka go feta diphesente tše 60, le ge go le bjalo bophelo bjo Aon Hewitt bo ithutwa kudu ka lekaleng la semmušo go feta ka lekaleng leo e sego la semmušo. Bakgathatema ba ile ba kgethwa ka leano le le loketšego la go tsopola. Lenaneopotšišo la tekolonyakišišo le ile la laolwa go lebanya ka mahlo go kgoboketša datha ya go šomiša dipalopalo go tšwa go bakgathatema. Datha e ile ya sekasekwa ka go šomiša phetolelo ya 28 ya Metšhene ya Kgwebo ya Boditšhabatšhaba ebago *International Business Machines (IBM) SPSS.* Dinyakišišo tša pele ga teko le tša go tseba ka kgonagalo di dirilwe gomme tša bega kgoboketšo ya datha ya pele ya dinyakišišokgolo go Aon Hewitt afatša netefatšo ya boleng mo dinyakišišong. UWES-7, go e na le UWES-9, e ile ya netefatšwa bakeng sa dinyakišišo. Datha ga se ya thekga go se se fapane ga dintlha tša dikarolo tše tharo tša UWES, e lego, maatla, boikgafo, le go monego. Ka go realo, mohlala wa lebaka le tee o ile wa balwa go laetša mabaka a mošomo, ka go realo wa fokotša ditlhohlo tšeo di amanago le kamano ye maatla ya diphetogo tše di ikemego ka dinyakišišong. Diphetogo tše dingwe tša tshedimošo ka ga setšhaba di ile tša hlahlobja gomme gwa hwetšwa di amana le mabaka a mošomo. Go fa mohlala, bagwebi ba maikemišetšo a setheo (bao ba gwebago ka boithaopo) go ile gwa begwa gore ba swaregile kudu mošomong wa bona go feta bagwebi ba maikemišetšo a sebopego (bao ba gwebago ka lebaka la maemo ao a ka se fetošwego). Nepagalo ya UWES mo go sekasekeng mošomo wa bagwebi ba mebileng go bohlokwa go SDG ya 8, yeo e tšwetšago pele mešomo ye e hlomphegago go batho bohle. Ka ge go bonagala gore ikonomi ya semmušo e katana le go hlolela batho bohle mešomo ye e hlomphegago, ILO e šišinya gore lekala leo e sego la semmušo le swanetše go thekgwa ka tlhabollo ya pholisi gore se se direge.

MAREO A BOHLOKWA

Bagwebi ba maikemišetšo a sebopego; lekala la semmušo; lekala le e sego la semmušo; go phela gabotse mmeleng mošomong; bašomi ba go šoma mešomo ya bona/mošomi wa go itšhomela; mabaka a mošomo; bagwebi ba maikemišetšo a sebopego; barekiši ba mebileng; tlhokego ya mešomo.

ISIFINQO

Ucwaningo lwenziwa ukuze kutholwe inhlalakahle yomsebenzi yabahwebi basemgwaqweni, abasebenzi ama-akhawunti wabo emkhakheni ongakahleleki, ngokuhlola ukuzibandakanya kwabo emsebenzini nge-UWES. I-UWES ingelinye lamathuluzi ambalwa asemthethweni futhi asetshenziswa kakhulu ekuhloleni ukuzibandakanya komsebenzi. I-UWES iqinisekisiwe ukuthi isetshenziswe emkhakheni osemthethweni. Umkhakha ongakahleleki uhola abantu abaningi abaqashwayo ngamaphesenti angaphezu kwama-60, kodwa inhlalakahle ifundwa kakhulu emkhakheni osemthethweni kunasembonini engahlelekile. Ababambiqhaza bakhethwe ngesu lokusampula elikahle. Uhlu lwemibuzo lwenhlolovo lwasetshenziswa ubuso nobuso ukuze kuqoqwe imininingwane yobuningi kubabambiqhaza. Imininingwane yahlaziywa kusetshenziswa i-International Business Machines (IBM) SPSS ivejini yama-28. Ucwaningo lwangaphambili kanye nokuhlola lwenziwa futhi lwabika ukuqoqwa kwedatha yangaphambili yocwaningo oluyinhloko ukuze kuthuthukiswe ukuqinisekiswa kwekhwalithi ocwaningweni. I-UWES-7, esikhundleni se-UWES-9, yaqinisekiswa ocwaningweni. Imininingwane ayizange isekele ukuguquguquka kwezinto zobukhulu obuthathu be-UWES, okungukuthi, amandla, ukuzinikela, nokwamukeleka. Ngakho-ke, imodeli yesici esisodwa yahlanganiswa ukuze kunqunywe ukuzibandakanya komsebenzi, ngaleyo ndlela kuncishiswe izinselele ezihlobene nekhoniliyarithi yokuningi ocwaningweni. Okunye okuguquguqukayo kwezibalo zabantu kwahlolwa futhi kwatholakala ukuthi kuhlobene nokuzibandakanya komsebenzi. Isibonelo, abathengisi bezinjongo ze-ejensi (labo abahweba ngaphandle kokuzikhethela) kubikwe ukuthi bamatasa kakhulu emsebenzini wabo kunabathengisi bezinjongo zesakhiwo (labo abahweba ngaphandle kwesidingo). Ukuba semthethweni kwe-UWES ekuhloleni ukuzibandakanya komsebenzi wabadayisi basemgwaqweni kubalulekile ku-SDG 8, ethuthukisa umsebenzi ohloniphekile wawo wonke umuntu. Uma kubhekwa ukuthi umnotho osemthethweni udonsa kanzima ukudala imisebenzi ehloniphekile yawo wonke umuntu, i-ILO incoma ukuthi umkhakha ongekho emthethweni kufanele usekelwe ngokuthuthukiswa kwenqubomgomo ukuze lokhu kwenzeke.

AMAGAMA ABALULEKILE

Izinhloso ze-ejensi; umkhakha osemthethweni; umkhakha ongakahleleki; inhlalakahle emsebenzini; abasebenzi abazisebenzelayo/abasebenzisa ama-akhawunti wabo; abadayisi basemgwaqweni; izinhloso zesakhiwo; ukuhlanganyela emsebenzini; ukungasebenzi

TABLE OF CONTENTS

DECLARATIONS ..... **II**
ACKNOWLEDGEMENTS ..... **III**
ABSTRACT ..... **V**
TABLE OF CONTENTS ..... **X**
LIST OF FIGURES ..... **XIII**
LIST OF TABLES ..... **XIII**
LIST OF ABBREVIATIONS, ACRONYMS, AND SYMBOLS ..... **XVI**
CHAPTER 1: INTRODUCTION **1**
1.1. INTRODUCTION 1
1.2. BACKGROUND AND RATIONALE OF THE STUDY 2
1.2.1. The importance of occupational well-being 2
1.2.2. The importance of work engagement 5
1.2.3. Self employment in the informal economic sector 7
1.3. PROBLEM STATEMENT OF THE STUDY 18
1.4. OBJECTIVES OF THE STUDY 19
1.4.1. The primary objective of the study 19
1.4.2. The secondary objectives of the study 20
1.5. THE HYPOTHESES OF THE STUDY 21
1.6. RESEARCH DESIGN AND METHODOLOGY 23
1.6.1. Research design 24
1.6.2. Assumption and research philosophy of the study 25
1.6.3. Research Methodology 27
1.6.4. Data collection instrument 32
1.6.5. Data collection process 34
1.6.6. Data preparation (data editing and capturing), analysis and interpretation 34
1.7. ETHICAL IMPLICATIONS OF THE STUDY 38
1.8. SETTING OF THE STUDY 39
1.9. ASSUMPTIONS, CONSTRAINTS, DELIMITATIONS, AND LIMITATIONS 40
1.10. CONTRIBUTION OF THE STUDY 41
1.11. LAYOUT OF THE STUDY 43
1.12. THE CHAPTER SUMMARY 46
CHAPTER 2: CRITICAL REVIEW OF THE LITERATURE **48**
2.1. INTRODUCTION 48

2.2. OCCUPATIONAL WELL-BEING AND WORK ENGAGEMENT 49
2.3. THE ORIGIN OF WORK ENGAGEMENT 53
2.4. DEFINING WORK ENGAGEMENT 58
2.5. MEASUREMENT OF WORK ENGAGEMENT 61
2.6. SELF EMPLOYMENT IN THE INFORMAL ECONOMIC SECTOR 68
2.7. INFORMAL WORK, SECTOR AND ECONOMY DEFINED 71
2.8. SELF-EMPLOYED/OWN-ACCOUNT WORKERS (STREET TRADERS) 74
2.9. THE POTENTIAL OF THE INFORMAL SECTOR TO CREATE EMPLOYMENT 79
2.10. CHALLENGES FACING INFORMAL SECTOR (STREET TRADING) 86
2.11. CHAPTER SUMMARY 90
CHAPTER 3: RESEARCH DESIGN AND METHODOLOGY 91
3.1. INTRODUCTION 91
3.2. RESEARCH OBJECTIVES AND HYPOTHESES 91
3.3. PHILOSOPHY, PARADIGM AND APPROACH TO THEORY DEVELOPMENT 94
3.3.1. Research philosophy 94
3.3.2. Approach to theory development 97
3.4. RESEARCH DESIGN AND METHODOLOGY 98
3.4.1. Research design 98
3.4.2. Research Methodology 101
3.4.3. Sampling strategy or design 110
3.4.4. Data Collection Process 112
3.4.5. Data Analysis Process 114
3.5. POTENTIAL SHORTCOMINGS AND SOURCES OF ERROR 125
3.6. CHAPTER SUMMARY 126
CHAPTER 4: PRETEST AND PILOT STUDIES (UWES-9) 128
4.1. INTRODUCTION 128
4.2. BACKGROUND AND RATIONALE FOR PRETEST AND PILOT STUDIES 128
4.3. PRETESTING OF THE STUDY 129
4.3.1. Procedure and reporting pretest study 132
4.4. SUMMARY OF THE PRETEST STUDY 137
4.5. PILOTING OF THE STUDY 137
4.5.1 Rationale for conducting a pilot study 137
4.5.2. Procedures and methods for data collection 140
4.5.3. Data Analyses and reporting 144

4.6. CHAPTER SUMMARY: PRETEST AND PILOT STUDIES 160
CHAPTER 5: RESULTS: PRESENTATION AND DISCUSSIONS 162
5.1. INTRODUCTION 162
5.2. DATA COLLECTION PROCESS 163
5.3. DATA CODING AND CAPTURING 164
5.4. FREQUENCY DISTRIBUTIONS 165
5.4.1. UWES-9 Frequencies and percentage distributions 165
5.4.2. Gender 167
5.4.3. Age profile of the participants 168
5.4.4. Nationality of participants 169
5.4.5. Education status of participants 170
5.4.6. Street traders working with or not working family members 170
5.4.7. Employment status of participants 171
5.4.8. Street traders belonging to other groups, e.g., stokvels 171
5.4.9. Street traders belonging to formal groups, e.g., trade unions 172
5.5. PRESENTATION OF RESULTS 173
5.5.1. Reliability assessment of the UWES-9 176
5.5.2. Summary of the section 180
5.6. FACTOR ANALYSIS 181
5.6.1. EFA in the study 182
5.6.2. The CFA in the study 183
5.6.3. Summary of the section 194
5.7. GROUP ANALYSIS 195
5.7.1. Gender and work engagement 195
5.7.2. Age and work engagement 197
5.7.3. Nationality and work engagement 199
5.7.4. Education level and work engagement 201
5.7.5. Working with or with no family member(s) and work engagement 203
5.7.6. Informal group (stokvels) and work engagement 204
5.7.7. Unions/associations and work engagement 206
5.7.8. Agency and structural motives street trading and work engagement 208
5.8. SUMMARY 209
CHAPTER 6: CONCLUSION AND RECOMMENDATION 211
6.1. INTRODUCTION 211

6.2. PURPOSE, OBJECTIVES, AND HYPOTHESES OF THE STUDY REVISITED 211
6.3. DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS 213
6.3.1. The Reliability and vadility assessment 214
6.3.2. Group Analysis 215
6.4. IMPLICATIONS OF EMPIRICAL RESULTS TO CONCEPTUAL CONCLUSSIONS .. 215
6.5. RECOMMENDATIONS FOR POLICY MARKERS 218
6.6. RECOMMENDATION FOR FUTURE RESEARCH 220
6.7. LIMITATIONS OF THE STUDY 221
6.8. DISCUSSION OF GAPS, ANOMALIES AND DEVIATIONS IN THE DATA 223
6.9. CONTRIBUTION TO KNOWLEDGE 224
6.10. CONCLUDING REMARKS 226
REFERENCES 228
ADDENDUMS: 256
ADDENDUM A: UWES IN THE FORMAL SECTOR 256
ADDENDUM B: INSTRUMENTS FOR ASSESSING WORK ENGAGEMENT 257
ADDENDUM C: RESEARCH INSTRUMENT CODING MANUAL 258
ADDENDUM D: ETHICAL CLEARANCE CERTIFICATE 265
ADDENDUM E: PERMISSION LETTER FROM THE CITY OF TSHWANE 266
ADDENDUM F: PERMISSION LETTER TO USE UWES-9 INSTRUMENT 267

LIST OF FIGURES

Figure 1.1: Pretoria Central Business District and surrounding areas map 28
Figure 5.1: UWES-7: Factor model- Factor loadings 188

LIST OF TABLES

Table 1.1: The distributions and amount of employment provided by SMMEs 9
Table 1.2: Unemployment percentage per level of education: 2013Q1 - 2021Q1 10
Table 1.3: NEET rates for youth aged 15-34 years by gender 13
Table 1.4: SMMEs by industry 14
Table 1.5: Estimated global population 17
Table 2.1: The popularity of ‘engagement’ search between 2008 and 2022 56
Table 2.2: Instruments for measuring work engagement 63
Table 2.3: The popularity of informal sector, economy, and employment 68
Table 2.4: Unemployment rate by gender, Q2: 2014 to Q2:2022 69
Table 2.5: Average Inflation (Consumer Price Index) between 2020 and 2022 80
Table 2.6: The distribution of informal workers by gender in different regions 81
Table 2.7: The distribution of SMMEs by industry 2021Q1 83

Table 2.8: SMMEs by formal and informal sectors in 2021Q3 84
Table 2.9: Distribution of SMMEs per province 85
Table 3.1: The validity fit indices-absolute fit indices..... 124
Table 4.1: The demographic description of the respondents in a pretest study 133
Table 4.2: Participants' responses per question on the questionnaire 135
Table 4.3: The demographic description of the respondents in a pilot study..... 146
Table 4.4: The participants' frequency distribution on the UWES-9 148
Table 4.5: Descriptive statistics..... 149
Table 4.6: Reliability Statistics..... 152
Table 4.7: Vigour Scale: Summary Item Statistics 153
Table 4.8: Vigour Scale: Item-Total Statistics..... 153
Table 4.9: Dedication Scale: Summary Item Statistics..... 154
Table 4.10: Dedication Scale: Item-Total Statistics 155
Table 4.11: Absorption Scale: Summary Item Statistics..... 155
Table 4.12: Absorption Scale: Item-Total Statistics..... 156
Table 4.13: The internal reliability test for the UWES-9 composite scale 156
Table 4.14: The composite scale of UWES-9 Summary Item Statistics 157
Table 4.15: The Corrected Item-Total Correlation on the one-factor UWES-9 157
Table 5.1: The response frequencies and percentage distributions 166
Table 5.2: Gender profiles of participants..... 168
Table 5.3: Age distribution of participants 168
Table 5.4: Nationality of participants 169
Table 5.5: Education status of participants..... 170
Table 5.6: Street traders working with or not working with family member(s)..... 170
Table 5.7: Employment status of participants..... 171
Table 5.8: Street traders belonging to other groups, e.g., stokvels 172
Table 5.9: Street traders belonging to formal groups, e.g., trade unions..... 172
Table 5.10: UWES-9 Reliability Statistical test 176
Table 5.11: UWES-9 Summary Item Statistical test 177
Table 5.12: UWES-9 Item-Total Statistical test 177
Table 5.13: UWES-7 Reliability Statistical test 178
Table 5.14: UWES-7 Summary Item Statistical test 179
Table 5.15: UWES-7 Item-Total Statistical test 179
Table 5.16: Summary of factor loading for UWES-7 188
Table 5.17: The average variance extracted: UWES-7 validity analysis 189
Table 5.18: Goodness-of fit of the UWES-7: work engagement of street traders..... 192
Table 5.19: *t* test group statistics for gender in influencing work engagement 195
Table 5.20: Independent Samples Test for Gender in relation to work engagement... 196
Table 5.21: Oneway descriptive analysis: age and work engagement..... 197
Table 5.22: ANOVA for the age group of street traders..... 198
Table 5.23: *t* test group statistics for nationality and work engagement 200
Table 5.24: Independent Samples Test for nationality and work engagement. 200
Table 5.25: One-way descriptive analysis of education and work engagement 201

Table 5.26: Education analysis through ANOVA and work engagement 202
Table 5.27: Street traders working with or not working with family member(s)..... 203
Table 5.28: Independent Samples test: working or not with family member(s) 203
Table 5.29: Informal groups (stokvels) and work engagement..... 205
Table 5.30: Independent Samples Test and informal groups (stokvels)..... 205
Table 5.31: *t* test group statistics: street trading and formal groups (unions) 206
Table 5.32: Independent Samples test: street trading and formal group (unions)..... 207
Table 5.33: Agency or structural motives street trading 208
Table 5.34: Independent sample test: agency or structural motives street trading..... 209
Table 6.1: The link among hypotheses, empirical findings, and literature study..... 212
Table 6.2: The null hypotheses and the empirical results..... 227

LIST OF ABBREVIATIONS, ACRONYMS, AND SYMBOLS

Acronyms	Description
AON HEWITT	Application Oriented Network
ANOVA	Analysis of Variance
AVE	Average Variance Extracted
CBD	Central Business District
CEMS	College of Economic and Management Sciences
CFA	Confirmatory Factor Analysis
CFI	comparative fit index
CPI	Consumer Price Index
CR	Construct Reliability
df	degree of freedom
DRC	Democratic Republic of Congo
DTI	Department of Trade and Industry
DSBD	Department of Small Business Development
EFA	Exploratory Factor Analysis
EMEs	Emerging Market Economies
FA	Factor Analysis
FWC	Family-to-Work Conflict
GWA or Q12	Gallup's Workplace Audit
GFI	Goodness-of-fit index
GDP	Gross Domestic Product
GGDP	Global Gross Domestic Production
GWA	Gallup
HR	Human Resource
IBM	International Business Machine
ILO	International Labour Organisation
MBI	Maslach Burn-out Inventory
MDGs	Millennium Development Goals
Max R(H)	Maximum Reliability
MSMEs	Micro, Small, and Medium Enterprises
MSMEs	Micro-sized, and Medium Enterprises
MSV	Maximum Shared Squared Variance
NSBA	National Small Business Act
NDP	National Development Plan
NPC	National Planning Commission
OECD	Organisation for Economic Co-operation and Development
OSHE	Occupational Safety, Health, and Environment
OLBI	The Oldenburg Burnout Inventory
pa	Per Annum

PCA	Principal Components Analysis
PhD	Doctor of Philosophy
Q1, Q2, Q3, Q4	First quarter, second quarter, third quarter, and fourth quarter
RMSEA	root mean square error of approximation
SA	South Africa
SARB	South African Reserve Bank
SARS	South African Revenue Services
SD	Standard deviations
SDGs	Sustainable Development Goals
SEDA	Small Enterprise Development Agency
SEM	Structural Equation Model
SMMEs	Small, Medium, and Micro-sized Enterprises
SMEs	Small and Medium Enterprises
SPSS	Statistical Package for the Social Sciences
SRMR	standardised root mean residual
StatsSA	Statistics South Africa
SWEBO	Scale of Work Engagement and Burnout
TLI	Tucker Lewis Index
RBV	Resource-based view
NEET	Not at Employment, Education or Training
UIF	Unemployment Insurance Fund
US	United States of America
UN	United Nation
UNDP	United Nations Development Programme
UNDPESAPD	(United Nations Department of Economic and Social Affairs Population Division)
UWES	Utrecht Work Engagement Scale (UWES)
WES	Work Engagement Scale/ Work Experience Scales
WHO	World Health Organization
WFC	Work-to-Family Conflict
x^2	chi-square
α	Alpha
$	Dollars (United States of America (US))

CHAPTER 1: INTRODUCTION

1.1. INTRODUCTION

The first chapter provides the layout structure of how the entire study was systematically conducted to arrive at an acceptable solution to the research problem. The chapter briefly discusses the following aspects of the study:

- Background
- Problem statement
- The objectives
- The hypotheses
- The research design and methodology include the following subjects:
  - Research philosophy and assumptions
  - Ethical implications for the study
  - The population
  - Sampling strategy
  - Data collection instrument
  - Data collection activity
  - Data analysis
  - Reporting
- Contribution of study
- Limitations and constraints
- Study setting
- The layout of chapters

These items, as listed above, are briefly discussed in the following sections and subsections.

1.2. BACKGROUND AND RATIONALE OF THE STUDY

The current section focuses on the discussion of the background and rationale of the study. There are different approaches of and explanations for the background and rationale of the study (Neuman, 2014; Saunder, Lewis & Thornhill, 2016). However, the commonalties of these explanations are that the section must include a statement of the research problem and a rationale for what is being examined. The study determined the occupational well-being of street traders, the most visible self-employed/own-account workers in the informal sector, by assessing their work engagement using the Utrecht Work Engagement Scale (UWES). In addition, some of the aspects that were discussed in the background and rationale section of the study, included among others the following, namely, the importance of occupational well-being, assessing work engagement through the UWES, and self-employment in the informal sector (street trading, informal employment in the informal economic sector). These are the key constructs of the study and were discussed in separate sections below.

1.2.1. The importance of occupational well-being

The focus in the current section was on the discussion of the importance of occupational well-being. The occupational well-being of workers is generally reported to be in the best interest of communities and organisations (Dubbelt & Demerouti, 2019; Harter, Schmidt & Keyes, 2002; Laguna *et al*., 2017; NPC, 2011). Well-being is described as how well are individuals doing and feeling (Martela & Sheldon, 2019). Moreover, the description is informed by a knowledge domain, where words such as happiness, quality of life, welfare, and well-being can either be used interchangeably, or can connote different meanings (Abreu, Oner, Brouwer & van Leeuwen, 2019). Moreover, the description of well-being is in line with the aspirations of the Sustainable Development Goals (SDGs), especially SDG#8, which encourages for an inclusive and sustainable growth of the economy, full productive and decent jobs for all; and SDG#3, which advocates the matter of healthy workers and decent and safe working conditions, increasing the productive capacity of workers (ILO, 2018; ILO, 2016). These are guiding prinicples to United Nations' (UN) member states, meant to advocate the notion of

decent work for all. Decent work for all includes issues related to the occupational well-being of workers, irrespective of work status, be it formal or informal work (OECD/ILO, 2019). Moreover, well-being explains how well workers are doing and feeling.

Despite much efforts being done, the aspirations of SDG#3 and SDG#8 goals are far from realising for many countries (member states), as more people remain under- or informally employed (OECD/ILO, 2019). For example, the UN developed a set of Millennium Development Goals (MDGs) running through to 2015, with Target 1. B index, which was set to achieve total, productive, decent jobs for all (including both women and youth) (Bloom, McKenna & Prettner, 2018). Moreover, occupational well-being is associated with a healthy workforce and quality of life (Gallup, 2021; Harter *et al*., 2002). Although the informal sector accounts for more than 60 percent of employment (ILO, 2022), occupational well-being is mostly studied in the formal sector by assessing work engagement, among others (Schaufeli & Bakker, 2010; Schaufeli *et al*., 2019). Moreover, many street traders are self-employed/own-account workers, the most visible workers in the informal sector (Chen, 2016; Roever & Skinner, 2016), their occupational well-being, given the role they play as workers or members of communities, is important.

In addition, occupational well-being is a multidisciplinary subject studied by psychologists and sociologists, management scientists, and education and health specialists (Czerw, 2019). Moreover, well-being is used as a key outcome in several fields of psychology (ranging from clinical, health, developmental, and geriatric psychology to educational, organisational, community, and social psychology more generally) in examining key differences between various populations and in evaluating the effectiveness of various interventions (how much well-being people experience tends to be is a key measure) (Martela & Sheldon, 2019). Thus, the current study was conducted in the field of operations management, one of the subject fields in economic and management sciences, affirming the multidisciplinary nature of the subjet of occupational well-being. In addition, the current study drew some inspiration from the Philadelphia Declaration regarding the aims and purposes of the International Labour Organisation (ILO), which was later adopted in the constitution of ILO. In summary, the declarations advocate that all people, irrespective of race, creed or sexual orientation,

have the right to pursue material well-being in conditions of freedom and dignity, economic security and equal opportunity (Maul, 2019).

Furthermore, well-being is associated with progressive, becoming, belonging, and meaningful doing (Sassen, Galvaan & Duncan, 2018). Some of the characteristics of well-being include experience of coherence, contentment, good quality of life, health, life satisfaction, social support, and integration. In addition, some of the stimulants of well-being include the opportunity and choice to participate in meaningful work that supports an individual's needs, aspirations, and potential for development. Thus, for work to enhance occupational well-being, human rights and social justice must be respected (Sassen *et al*., 2018). Moreover, the assessment of well-being through work engagement has mostly been done in the formal sector (Schaufeli & Bakker, 2010) and less in the informal sector. The informal sector is reported to be the largest employer; therefore, knowledge about the occupational well-being of own-account workers is important, given the dividends associated with well-being.

However, there is a change of policy focus, bylaws and regulations which are meant to control, restrict, and regulate the widespread of informal enterprises (ILO, 2019; Mitullah, 2003; NPC, 2011). Many cities were historically designed only to accommodate formal economic activities (ILO, 2019; Mitullah, 2003), which is a challenge in accommodating informal activities. Moreover, the change in the world of work compels for the support, control and consideration of informality. In addition, the description of street trading is mostly by place of operation, these are the places that were not originally designed to accommodate such activities, namely, at public spaces (such as construction sites, natural markets, open areas, and street pavements); in areas where there is a steady flow of pedestrians, who are potential customers; around residential areas or public institutions such as hospitals, schools, sports complexes or wholesale markets transport nodes (Chen *et al*., 2016). Thus, the world's new agenda of work features a combination of the two main principles, namely, applying a mix of formal and informal economies (ILO, 2021). In contrast, the infrastructure has not been generally adapted to accommodate the coexistence of the two economies (formal and

informal economies). In the section, the importance of occupational well-being was discussed.

1.2.2. The importance of work engagement

In the current section, the focus was on the discussion of the importance of work engagement. Work engagement is summarily defined as the simultaneous employment and expression of a individual's preferred self in task behaviours, stimulating connections to their work, personal available (physical, cognitive, and emotional), and active in the whole task performances (Kahn, 1990). Most work engagement definitions that are available in the literature are either premised on or acknowledge the work of Kahn (1990). Moreover, the study determined the occupational well-being of street traders by assessing their work engagement using the UWES-9. UWES-9 was developed and premised on the work of Schaufeli, Salanova, González-Romá and Bakker (2002). Schaufeli *et al.* (2002) define work engagement as a fulfilling, positive, work-related state of mind that is characterised by vigour (physical aspect), dedication (cognitive aspect), and absorption (emotional aspect). There are three dimensions that are outlined by the definition of work engagement, namely, vigour (physical aspect), dedication (cognitive aspect) and absorption (emotional aspect) (Kahn, 1990; Schaufeli *et al*., 2002). In addition, a person who is engaged in one's work experiences some vigour (experiences high energy at work, is willing to persist in investing effort in one's work, and exhibits mental resilience while working); dedication (inspired by one's work, seeing it as an important and a source of pride); and absorption (engrossed in and may find it difficult to detach from one's work (Schaufeli *et al*., 2002; Schaufeli & Bakker, 2010; Schaufeli, Shimazu, Hakanen, Salanova & De Witte, 2019). These elements assist in the assessment of work engagement.

Moreover, there are various definitions of work engagement available in the literature, and no consensus exists on a single definition (Knight, Patterson & Dawson, 2019; Macey & Schneider, 2008; Saks & Gruman, 2014). Despite different definitions, the most commonalities about these definitions are that in general, all address the same elements, namely, physical, cognitive and emotional elements (Gifford & Young, 2021;

Kahn, 1990; Saks & Gruman, 2014; Schaufeli *et al*., 2019). Moreover, the lack of consensus on a single definition led to the development of various instruments for assessing work engagement (Saks & Gruman, 2014). However, many of these instruments were reported to have been used only once or few times, while the UWES is reported to be the most commonly used instrument in assessing work engagement (Carmona-Halty, Schaufeli & Salanova, 2019; Saks & Gruman, 2014; Schaufeli & Bakker, 2010; Schaufeli *et al*., 2019). Moreover, the UWES is available in more than 31 languages (Merino-Soto, Lozano-Huamán, Lima-Mendoza, Calderon de la Cruz, Juárez-García & Toledano-Toledano, 2022) and has been used in many countries, including South Africa (De Bruin & Henn, 2013; Rothmann & Rothmann Jr, 2010; Schaufeli, Bakker & Salanova, 2006; Storm & Rothmann, 2003), where the study was carried out. Recently, the ultrashort UWES version has been introduced, which is also reported to be reliable and valid, and it has been found to work as well as the other longer versions (Gifford & Young, 2021; Schaufeli *et al*., 2019). Moreover, in the current study, the UWES was used as an instrument of measurement.

Work engagement has mostly been studied on workers in real or conventional organisations. Moreover, it is in the formal sector context where the reliability and validity of the UWES has been determined (Schaufeli & Bakker, 2010). Little or nothing is known about the reliability and validity of UWES in assessing the work engagement of street traders, the most visible own-account workers in the informal sector. Moreover, some work engagement studies involving self-employed/own-account workers (entrepreneurs) were done on those whose businesses were incorporated or formalised (Gorgievski, Moriano & Bakker, 2014; Laguna & Razmus, 2019; Laguna, Razmus & Żaliński, 2017; Jasiński & Ociepa, 2021; Rauch, 2020). Moreover, some studies assessed the well-being of workers in the informal sector using instruments other than UWES (Sassen *et al*., 2018). Hence, one of the objectives of the current study was to determine the reliability and validity of the UWES in assessing the work engagement of self-employed/own-account workers in the informal sector. Moreover, the UWES assesses work engagement, it ultimately assesses occupational well-being; hence, the title the UWES is ‘work and well-being scale’ (Schaufeli & Bakker, 2003; Schaufeli *et al*., 2019).

Moreover, the informal sector is reported to be the largest employer or provider of work opportunities (ILO, 2022), but the occupational well-being of self-employed/own-account workers in the informal sector is understudied, as well-being studies are mostly done on workers in the formal sector (Schaufeli & Bakker, 2010). Moreover, work engagement is one of the indicators of occupational well-being, and it is associated with positive work-related outcomes (Schaufeli & Bakker, 2010; Schaufeli *et al*., 2019; Van den Broeck, Vander Elst, Baillien, Sercu, Schouteden, De Witte & Godderis, 2017). The lack of interest in occupational well-being studies in the informal sector has created a knowledge gap between the formal and informal sectors (UNDP/South Africa, 2020), which is a concern. It is also recommended that to amplify some understandings of occupational well-being, research must investigate these issues considering the micro-level of individuals (Fritsch, Sorgner & Wyrwich, 2019). The discussion of the importance of work engagement was the focus of the current section. The discussion of self-employment in the informal sector was the focus of the following section.

1.2.3. Self employment in the informal economic sector

The focus of the current section was on the discussion of the self-employment in the informal sector. The origin of the construct of informal employment, sector and economy, which the current study sought to measure, may be traced back almost five decades ago (Charmes, 2012; Chen, 2012). These concepts are mostly used either imprecisely or interchangeably (Charmes, 2012; Chen, 2012). Informal sector is broadly defined as consisting of unregistered units engaged in the production of goods or services with the purpose of either creating employment or generating income for a incumbent (ILO, 1993). Moreover, informal employment is defined by factors such as the absence of social protection and contributions by the workers concerned (Charmes, 2012; Chen, 2012; ILO, 1993; ILO, 2022). Many street traders operate unregistered businesses, mostly as self-employed/own-account workers, and those who have workers, are not compelled to make any social protection contribution in the form of an Unemployment Insurance Fund (UIF), retirement fund, life cover, and medical aid, among others (ILO, 2022). In most cases, they work with unpaid members of the family or relatives (Chen, 2012). In addition, social protection systems are identified to include

pensions, income support for the old age, poor, and unemployed to mitigate poverty (Gammage, Sultana & Glinski, 2020). Moreover, these social protection ininiatives are also meant to embrace issues of childcare, education, eldercare, and healthcare (Gammage *et al*., 2020). Many South Africans qualify and are the receipients of some of these social protections in the form of social grants, such as child and old age grants (Patel & Hochfeld, 2011). However, these grants do not have direct relationship with the contribution of self-employed/own-account workers in the informal sector. Some street traders are also beneficiaries of some of these social protections; depending on their social status in their communities. Moreover, these benefits are not linked to contributions made as self-employed/own-account workers in the informal sector (Gammage *et al*., 2020).

In addition, the informal economy is identified to broadly encompass all economic activities (both informal employment and informal sector) by workers and economic units that are, by law or practice are neither covered nor sufficiently covered by formal arrangements (OECD/ILO, 2019), as also explained in the above paragraphs. These concepts are well summarised as follow, the informal sector is referred to as all production or employment that takes place in small unincorporated or unregistered enterprises. In addition, informal employment refers to employment without contracts or legal or social protection both inside and outside the informal sector (OECD/ILO, 2019). The informal economy, whether happening in the formal or informal sector, share similar characteristics, for example, not protected by the statutes.

It is further reported that approximately 1.1 billion people work as self-employed/own-account workers in the informal sector, often in subsistence activities that lack a social protection system, and such is mostly pursued due to lack of job opportunities in the formal sector (ILO, 2019). Moreover, self-employed/own-account workers operate their enterprises and/or hire no workers (ILO, 2022). Some work with family members or relatives who are paid informally without being registered with the Department of Labour or South Africa Revenue Services (SARS) (Charmes, 2012). However, in South Africa, in the reporting periods of the first quarter (Q1) of 2020, the fourth quarter (Q4) of 2020, and the first quarter (Q1) of 2021, the number of formal small, medium and

microenterprises (SMMEs) was greater than the number of informal SMMEs (SEDA, 2022), as shown in Table 1.1 below.

Table 1.1: The distributions and amount of employment provided by SMMEs

	2020Q3		2021Q2		2021Q3	
	Number	**Distribution**	**Number**	**Distribution**	**Number**	**Distribution**
Formal	5 302 605	52.7%	5 644 614	54.7%	4 575 128	46.9%
Informal	934 069	9.3%	1308640	12.7%	2 134 474	21.9%
Employer	867 938	8.6%	931797	9%	866 747	8.9%
Own-account worker	1 495 575	14.9%	1539938	14.9%	1 537 817	15.8%

Source: (SEDA, 2022:16)

In the number of employment provided by the SMMEs, many were in the formal sector, as shown in Table 1.1 above. However, there are mixed reports, where the formal retail sector was generally reported to account for almost 2 million jobs, whereas 3 million jobs exist in the informal retail economic sector (National Planning Commission (NPC), 2011). Furthermore, in Table 1.1 above, the contribution of employment opportunities by formal or informal workers, employer or self-employed/own-account workers, is shown, with own-account workers making a remarkable contribution by being the second provider of employment after employment provided by SMMEs in the formal sector. More jobs were provided by SMMEs in the formal sector than by SMMEs in the informal sector. On the other hand, self-employed/own-account employment was most prevalent compared to employer-provided employment opportunities. Thus, confirming the important role that self-employment/own-account work plays in the economy. Hence, the focus of the current study was to determine occupational well-being of street traders by assessing their work engagement.

Moreover, many street traders resort to self-employment due to the high rate of unemployment or incapacity of the formal sector to create enough/decent employment for all. In addition, other than the financial considerations, individuals choose to be entrepreneurs for range of reasons, namely psychological income, job satisfaction, and independence; either due to their lack of training, work experience or low education

(Gevaert, Moortel, Wilkens & Vanroelen, 2018; Sassen *et al*., 2018). StatsSA (2021) outlines two definitions of unemployment: the official and expanded definitions. The official definition of unemployment includes people aged between 15 and 64 years who were not employed, actively looked for work or tried to start a business and were available for work. In addition, an expanded definition of unemployment, unemployed persons include people who are aged between 15 and 64 years, who were not employed, were available to work but did not look for work either because they were discouraged from looking for work or did not look for work for reasons other than discouragement (StatsSA, 2021). An expanded definition of unemployment was broadly summarised to include everyone who could work but was without work, tried to look for work, or did not try to look for work (Ukpere, 2011).

The global unemployment rate was estimated to remain higher than in 2019 at 186 million compared to 203 million in 2023 (ILO, 2022). Therefore, unemployment is a serious problem, as it has associated consequences for individuals, families, communities, and the economy. Moreover, in South Africa, unemployment steadily increased in most reporting periods (StatsSA, 2021), despite the impact of the coronavirus (COVID-19), which exacerbated the situation, as shown in Table 1.2.

Table 1.2: Unemployment percentage per level of education: 2013Q1 - 2021Q1

	2013Q1	2014Q1	2015Q1	2016Q1	2017Q1	2018Q1	2019Q1	2020Q1	2021Q1	2022Q2
Less than matric	29.2	29.5	30.8	31.3	33.1	31.1	32.5	35.2	38.3	51.3
Matric	27.1	26.4	27	27.6	27.5	28.2	28.7	31.4	34.0	38.5
Graduates	5.5.	7	6.6	6.1	7.3	7.9	7.9	9.5	9.3	2.4
Other Tertiary	11.9	14	16.9	16.6	17.8	15.6	17.2	19.2	21.2	7
RSA	25	25.2	26.4	26.7	27.7	26.6	27.6	30.1	32.6	33.9

Source: (StatsSA, 2021; StatsSA, 2022)

For example, the COVID-19 with its related economic crisis (fear of being infected, worries about older family members, and restrictions imposed on people's social lives) posed a serious threat to livelihood in general. In addition, the recovery from the COVID-19 is expected to take a little longer; many newly unemployed should expect to suffer

from unemployment a little longer; intensifying on the consequences of some chronic stressors associated with long-term unemployment, such as increased financial strain, the decline in one's self-esteem, consequences on the mental health of individuals and families, urgent action was recommended (Achdut & Refaeli, 2020).

The distribution of unemployment per education level provides a clear picture that education increases the prospects of employment, whereas less education increases the prospects of unemployment, as shown in Table 1.2. Moreover, South Africa reported a high rate of schooling dropout, where in 2014, for example, only 50 percent of the cohorts of learners who started schooling twelve years earlier wrote matric (Spaull, 2015). Moreover, of those who wrote, not all passed, and from those who passed, not all made it to tertiary education, and the majority were reported to be dropping out at Grades 10 and 11, respectively (Spaull, 2015). The school dropout rate trends is persistent and has not been arrested, rendering the affected individuals of being active economic participants compared to graduates (Runhare, Ouda, Vele & Mudzielwana, 2021).

Moreover, the largest group that was unemployed in many reporting periods was on those with less or lower education as reported in Table 1.2 above (StatsSA, 2022). There is a correlation between education and employment as reported in Table 1.2. The higher education achievement is positively correlated, whereas the lower education achievement is negatively correlated. Moreover, unemployment and the level of education have a positive impact on self-employment/own-account work (Odewale, Abd Rani, Migiro & Adeyeye, 2019) by reducing unemployment and poverty (González-Sánchez, Raya & De Los Ríos-Sastre, 2020). It is suggested that, again, education increases the prospects of both formal and informal employment.

Some of the challenges associated with unemployment are summarised by Tcherneva (2017) to include the following:

- The effects of unemployment are similar to those of a transmittable disease, a virus, a chronic problem or even a pandemic.

- Unemployment is a pernicious problem that creates venomous labour market outcomes, such as unemployability, that are difficult to break or overcome.
- Unemployment is associated with costs for communities, families, individuals, and the economy at large.
- Unemploment is deadly, distressful, painful, and socially dysfunctional, producing complicated health and socioeconomic problems that contribute to the increase in mortality, where most unemployed individuals are reported to be sicker due to alcoholism, anxiety, depression, and physical illness and spend resources mostly on healthcare costs.
- Unemployment is a causal factor in children's malnutrition or growth and further negatively impacts the mental health of spouses.
- Unemployment also negatively affect children's educational achievements, outcomes of the labour market, and social movements.
- Unemployment also causes an entrenched society or urban blight, economic crimes, and violent crimes, correlating strongly with youth unemployment and crime.
- Unemployment is directly and indirectly linked with inequality, producing societies that intensify interethnic and interracial tensions and antisocial or criminal behaviours.
- Unemployment is found to be a causal factor in economic, financial, social, and political instabilities, which are characterised by human exploitation, slavery, and trafficking.

Moreover, the challenges associated with unemployment are a root cause of so many social ills in society, as outlined above, such as violent crimes (Mazorodze, 2020). Unemployment is reported by different media houses and institutions to be one of the worst global social challenges. Moreover, youth (those aged between 15 and 34) were three times more likely to be unemployed than adults (United Nations (UN), 2019). Moreover, in South Africa, 45 percent of 20.7 million young people were not in employment, education or training (NEET) in the first quarter of 2022 (StatsSA, 2022), as shown in Table 1.3 below.

Table 1.3: NEET rates for youth aged 15-34 years by gender

Period	Female	Male	Total
Q2: 2021 (15-34 years)	48.1	40.5	44.2
Q2: 2022 (15-34 years)	47.4	42.6	45

Source: (StatsSA, 2022)

In Table 1.3 above, the distribution of unemployment among youth (15 and 34 years) by gender in the second quarters (Q2) of 2021 and 2022 is reported. Total unemployment increased from 44.2 percent in Q2 of 2021 to 45 percent in Q2 of 2022. Females were the most affected group in all the reporting periods, although there was a slight decrease in 2022. Thus, the study assesses the work engagement of street traders by examining some demographic variables, such as gender, age, and other variables. Street trading is one type of entrepreneurship (Kraus, Breier & Dasí-Rodríguez, 2020; Morris, Santos & Neumeyer, 2020), through which people help themselves by creating self-employed/own-account work in the informal sector (Sassen *et al*., 2018). However, entrepreneurship can a journey or endevour that is long, lonely and stressful (Wiklund, Nikolaev, Shir, Foo & Bradley, 2019).

Moreover, various reports present different statistics on the number of jobs that must be created to absorb and reduce the high rate of (youth) unemployment. It is estimated that approximately 734 million jobs must be created to accommodate and absorb the unemployed population between 2010 and 2030 (Bloom *et al*., 2018). However, the reality is that achieving these goals will be a difficuly mission because various factors such as the economic megatrend factors, namely, the COVID-19 pandemic, high rates of inflation in developed economies, rapid technological developments, rapidly rising interest rates and stringent financing conditions for emerging or developing economies, and conflicts between Russia and Ukraine (ILO 2022b), are at play (Sułkowski, 2020). Moreover, unemployment has broadly been on the agenda of the world's economic policy makers for the longest time and is also described as a chronic and intractable problem in nearly every developing country (ILO, 1972). In addition, the agenda also pursues issues of equity, some indicators of labour market performance, such as informal, in-work poverty and underemployment, and gender disparity in the labour markets (ILO, 2019).

The wide and most acceptable definition of employment in the informal economic sector refers to 'those actions of economic agents that fail to adhere to the established institutional rules or lack social protection' or 'all income-earning activities that are not regulated by the state in social environments where similar activities are regulated' (Rojas, 2013). There are however different definitions of employment in the informal sector available in literature. Street traders are the most visible self-employed/own-account workers in the informal sector (Chen, 2012; Roever & Skinner, 2016), whose activities are mostly the same as those in large formal businesses. However, the difference is that activities for street traders are mostly on a smaller scale. For example, most street traders trade fruits and/or vegetables; tax accounted for the same commodities in large businesses, whereas street traders do not account for tax on similar commodities (Ligthelm & van Wyk, 2004).

Moreover, in the South African context, where the current study was conducted, NPC (2011) puts it as priority on the National Development Programme (NDP) for the 2030 agenda to address, among other social challenges facing the country, namely, poverty alleviation, inequality, and the high level of unemployment, particularly among youth. To enlarge the country's productive capacity, some economists propose a further continuous economic expansion as a way to maintain full employment over time through investment and technological innovation (Domar, 1947; Ślusarczyk, 2018). However, some countered the proposal by arguing that targeting high growth and economic expansion is impossible. For example, technological innovation has the potential to create jobs while simultaneously destroying other jobs and sectors (Peng, Wang & Han, 2018). There is evidence that more than 2 billion out of almost 6 billion people reported living on less than $2 (United States (US) dollars) a day (Harasty & Ostermeier, 2020; Shutt, 2010). Moreover, Morris *et al*. (2020) propose that entrepreneurship is one of the solutions to issues of poverty exacerbated by unemployment. Street trading is classified as part of SMMEs, with most activities being in the trade and accommodation industry (SEDA, 2019; SEDA, 2022), as shown in Table 1.4.

Table 1.4: SMMEs by industry

Description	Percentage (%) distribution

Agriculture	3
Community	14
Construction	13
Electricity, gas, and water	0
Finance and Business services	16
Mining	0
Other	1
Trade and accommodation	38
Transport and communication	7

Source: (SEDA, 2022)

The trade and accommodation industry has the highest distribution of SMMEs compared to other industries, at 38 percent, as shown above in Table 1.4. Moreover, street trading, which is predominantly on self-employed/own-account occupation in the informal sector, appears to be an immediate response to unemployment. Moreover, as already indicated above, street trading is another form of entrepreneurship (Kraus *et al*., 2020*;* Morris *et al*., 2020). Thus, entrepreneurship as the research domain has grown in popularity and significance in recent years (Kraus, Filser, Puumalainen & Norbert, 2020). Furthermore, the domain has created new subfields, such as entrepreneurial behaviour, family and small business management, and female and technological or social entrepreneurship (Kraus *et al*., 2020), to mention but a few. The study aimed to contribute to the domain of entrepreneurship by determining the occupational well-being of street traders, one of the most visible types of entrepreneurs in the informal sector.

Moreover, in South Africa, there are mixed reports where the formal retail sector generally accounts for fewer jobs, with approximately 2 million jobs, whereas approximately 3 million jobs exist in the informal retail economic sector (NPC, 2011). Most jobs in SMMEs were in the formal sector rather than the informal sector (SEDA, 2022). Again, the informal sector is shown to be the largest employer compared to the formal sector (ILO, 2022c), which is important for the study. These also validate the worthiness of the current study, as the number of jobs in the informal retail sector was more compared to that in the formal retail sector. Since more people were working in the informal economic sector, the assessment of the work engagement of street traders, as one of the most visible self-employed/own-account workers in the informal economic

sector, is perceived in the current study to be important. Moreover, the assessment of work engagement is prevalent in the formal sector (Leiter & Bakker, 2010; Schaufeli *et al*., 2019), where nothing or little is known about the work engagement of people working in the informal economic sector. Furthermore, Leiter and Bakker (2010) indicate that all research in their work engagement book published in 2010 has been conducted in collaboration with people working in real/conventional organisations facing the challenges of productivity, health, and well-being and nothing on the informal sector. The knowledge gap between the formal and informal sectors has been identified and raised as a serious concern (UNDP/South Africa, 2020). The current study addressed part of the concern in one way or another. Moreover, it is recommended that including micro level individuals in research increases the knowledge base (Fritsch *et al*., 2019).

Broadly, the world's economy is characterised by a history of inability to create enough decent jobs for all people who desire to work, hence the 'Declaration on Social Justice for a Fair Globalisation' initiative (Maul, 2019). In summary, the declaration seeks to redress and remedy issues related to income inequality, high rates of unemployment and poverty, the vulnerability of economies to external shocks, and the growth of both unprotected work and the informal economy (ILO, 2022b; Maul, 2019). Moreover, South Africa is reported to be one of the unequal countries in the world according to income and wealth distribution, with the richest 10 percent of the population earning more than 60 percent of national income and owning 95 percent of all wealth (The World Bank, 2018; Webster & Francis, 2019). Moreover, these high levels of inequality have deepened and been sustained in the postApartheid era (Webster & Francis, 2019).

Moreover, South Africa is one of the migration destination countries and home to many immigrants from both neighboring and other countries (Crush & Peberdy, 2018). Moreover, many of these migrants seek for better job opportunities, some are refugees or asylum seekers, and some are undocumented (Crush & Peberdy, 2018). Therefore, assessing work engagement in the informal sector provides an opportunity to determine and learn about the occupational well-being of self-employed/own-account workers in the informal sector who, according to ILO (2019) and OECD/ILO (2019), constitute the majority of the global labour force in approximately 60 percent or more than 2 billion of

the global working population. It constitutes a significant fraction of the population, at approximately 25 percent of the 8 billion of the global population (Milner & Boldsen, 2023; UNDESAPD, 2022a), and the global population is expected to increase, as shown in Table 1.5 below:

Table 1.5: Estimated global population

Description	Population growth in billion
1950	2.5
2020	7.8
2022	8
2030	8.5
2050	9.7
2100	10.9

Source: (UNDESAPD, 2022a;UNDESAPD, 2022b)

Despite various initiatives to address these challenges, as outlined above, such as high rates of unemployment, poverty, income inequality, vulnerability of economies to external shocks, and the growth of both unprotected work and informal economies, South Africa, where the study is commissioned, these challenges persist and are attended to according to their prevalence and magnitude. In addition, the impact of the 2007 economic recession, where billions of ordinary people around the world lost their livelihood due to loss of jobs (Shutt, 2010), demand for manpower continues to shrinking (ILO, 2022; IMF, 2022). Other factors, such as the movements of enterprises (enterprise migration) from one region to the other, taking advantage of better business climates and government concessions (cheap labour, lax environmental laws and tax holidays), climate change, and environmental destruction, all contribute to an elevated rate of unemployment in the global economy, as people move from one place to another in search of jobs that evaporated due to all these factors (Ukpere, 2011; Maul, 2019). For example, new technological innovation has the potential to create new markets while rendering the existing market obsolete.

The background section of the study provided some explanations on the rationale for conducting a study. Various key focus areas were identified and discussed, such as employment, unemployment, education, inequality, informal and formal sectors,

SMMEs, work engagement, occupational well-being, and self-employed/own-account workers. In the next section, the problem of the study was discussed. The section built on the background of the study and should not be seen or treated in isolation.

1.3. PROBLEM STATEMENT OF THE STUDY

In the previous section, the background or the rationale of the study was discussed. In the current section, the focus was on the discussion of the problem of the study. Cooper and Schindler (2014) Leedy and Ormrod (2015:23); Mouton (2001:48); Saunders *et al*. (2019) state that the research problem should be in the form of a clear and unambiguous statement of the object of study (unit of analysis) and the objectives of the study. There are different explanations of what the problem of the study should be as provided in literature. In addition, Leedy and Ormrod (2015:49) urges that the problem of the study must be legitimate, worth addressing and manageable in terms of the time it must take to collect the required data. In line with the above, the present study sought to determine the occupational well-being of street traders, the most visible self-own/own-account workers in the informal sector, by assessing their work engagement using the UWES-9. The problem of the study may also be stated in the following ways: first, 'What is the work engagement of street traders in the City of Tshwane'. Second, is the UWES-9 valid for assessing the work engagement of street traders, the most visible self-employed/own-account workers in the informal sector? Third, are demographic variables related to the work engagement of street traders? For example, are employment status, namely, agency or structural motives are related to the work engagement of street traders?.

Moreover, the study determined the occupational well-being of street traders (units of analysis) by assessing their work engagement (objective of the study). In addition, the study determined the validity of the UWES in assessing the work engagement of self-employed/own-account workers in the informal sector. The study also determined whether demographic variables, namely, age, gender, and level of education, among others, are related to work engagement. Moreover, street trading (sel-employed/own-account occupation in the informal sector) has gained recognition in the role it plays in

job creation and economic development (Barsoum, 2015; Chen, 2012; ILO, 2019; Shrestha, 2013). In addition, evidence shows that approximately 2 billion jobs or 60 percent of global jobs are in the informal sector (ILO, 2022). In addition, studies on work engagement have mostly focused on workers working in conventional/real organisations (Leiter & Bakker, 2010; Schaufeli *et al.*, 2019). Little or nothing is known about work engagement on self-employed/own-account workers in the informal sector. Moreover, the research gap between informal and formal sector is a concern, where most research is conducted in the formal sector than in the informal sector (UNDP/South Africa, 2020). In addition, it is recommended that micro level individuals must also be considered for research to increase the knowledge base (Fritsch *et al*., 2019).

1.4. OBJECTIVES OF THE STUDY

The focus of the current section is to discuss and explain the objectives of the study. The problem statement of the study was discussed in the previous section. The objectives of the study are outlined and discussed in the current section. Burton and Steane (2004) argue that the study should outline as specific as possible a statement of its intended objectives, where such might take many forms reflecting the diverse purpose of the study. It is imperative that research objectives be described in clear, concrete terms to provide a good idea of what the study need to accomplish so that efforts can be accordingly directed to achieve them (Leedy & Ormrod, 2015). In addition, Walliman (2017) recommends that by examining the different aspects of the research problem area of the study, the study can pin in on an aspect that is of a particular interest, controversial, or of particular significance. Then, a rationale for the research problem could be defined, for example, by raising a question, defining some research objectives or formulating hypotheses (Walliman, 2017). Therefore, the objectives of the study were set out and divided into two sets, namely, the primary and secondary objectives, as follows:

1.4.1. The primary objective of the study

Therefore, the primary objective was formulated and directly linked to the topic of the

study as follows:

- Assessing work engagement of street traders, the most visible self-employed/own-account workers in the informal sector, through UWES-9 (one of the few reliable, valid, and most used instruments in assessing work engagement).

1.4.2. The secondary objectives of the study

To achieve the primary objectives as stated above, the secondary objectives of the study were formulated as follows:

- To assess the factorial invariance of the UWES-9 in assessing the work engagement of street traders.
- To assess the internal consistency and validity of the UWES-9 in assessing work engagement in the informal sector.
- To ascertain whether demographic variables, i.e., age, gender, education, nationality, working with or with no family member(s), membership in informal social groups and membership in formal groups, employment status, namely, structural and agency motives, are related to the work engagement of street traders.

Once these objectives are achieved, the study would be in a better position of solving the problem of the study as stated above, and to achieve its purpose, namely, determining the occupational well-being of street traders, the most visible own-account workers in the informal sector, by assessing their work engagement. Furthermore, work engagement is reported to be an important factor in enhancing worker performance and occupational well-being. In addition, a person who is engaged in one's work experiences some vigour (physical energy aspect); dedications (cognitive energy aspect); and absorption (emotional energy aspect) (Schaufeli *et al.*, 2002). These three elements, namely, vigor (physical energy aspects), dedication (cognitive energy aspects) and absorption (emotional energy aspect), as already stated above, are known

as the dimensions of work engagement (Kahn, 1990; Schaufeli *et al*., 2002). It was anticipated from the study that some positive contributions would be made in the field of occupational well-being (work engagement) in the informal sector. In the section, the hypotheses of the study were formulated.

1.5. THE HYPOTHESES OF THE STUDY

The research objectives of the study were clearly formulated and discussed in the previous section. In the current section, the hypotheses of the study are outlined and discussed. To achieve the objectives of the study, one of the avenues (options) available is through the formulation and testing of the hypotheses, alternatively through formulation of the research questions (Cooper & Schindler, 2014). Although, in some studies, both research questions and hypotheses might be used, in the study, the option of formulating the hypotheses is opted and used. In addition, Cooper and Schindler (2014) indicate that in situations calling for relational hypotheses, the formulation of the research questions is less frequently used. The nature of the study calls for relational hypotheses to be formulated. Leedy and Ormrod (2015:57) define hypotheses as logical suppositions, reasonable guesses, and an educated conjecture about a phenomenon under study. There are, however, different descriptions of hypotheses available in the literature; the commonality is that all are educated guesses about a phenomenon (Connelly, 2015; Polit & Beck, 2014; Saunders *et al*., 2016:49; Saunders *et al.*, 2019; Weathington, Cunningham & Pittenger, 2012).

In addition, Neuman (2014:185) identifies three approaches to formulating the hypotheses of a study as follows:

- **Null hypothesis:** A hypothesis stating that there is no significant effect of an independent variable on a dependent variable.
- **Alternative hypothesis:** A hypothesis paired with the null hypothesis that says an independent variable has a significant effect on a dependent variable.

- **Double-barrelled hypothesis:** A confusing and poorly designed hypothesis with two independent variables in which it is unclear whether one or the other variable or both in combination produce an effect.

In the current study, the null and alternative hypotheses were paired. In addition, the hypotheses of the study were also formulated as one of the ways of systematically resolving the problem of the study. The hypotheses of the study were stated and linked to the primary objectives of the study as follows:

- $H1_0$ Street traders are not engaged in their work.
- $H1_1$ Street traders are engaged in their work.

Moreover, the following hypotheses were linked to the secondary objectives of the study:

- $H2_0$ There is no factorial invariance in the UWES-9 in assessing the work engagement of street traders.
- $H2_1$ There is factorial invariance in the UWES-9 in assessing the work engagement of street traders.
- $H3_0$ UWES is not internally consistent and valid for assessing the work engagement of street traders, the most visible self-employed/own-account workers in the informal sector.
- $H3_1$ UWES is internally consistent and valid for assessing the work engagement of street traders, the most visible own-account workers in the informal sector.
- $H4_0$ There is a significant difference between the work engagement of street vendors based on their demographic characteristics (i.e. age, gender, education, nationality, working with or with no family member(s), membership in informal social groups and membership in formal groups, employment status, namely, structural and agency motives).
- $H4_1$ There is no significant difference between the work engagement of street vendors based on their demographic characteristics (i.e. age, gender, education, nationality, working with or with no family member(s), membership in informal

social groups and membership in formal groups, employment status, namely, structural and agency motives).

Furthermore, Leedy and Ormrod (2015) recommend that hypotheses might direct the study to possible sources of information that would aid in resolving one or more subproblems, and as a result, may also help in resolving the principal research problem of the study. In addition, even with the best data, hypotheses in a research project are rarely proven or disproved; instead, hypotheses are either supported or not supported by the data (Leedy & Ormrod, 2015:25). Moreover, the study was not in any position to prove or disprove the above formulated hypotheses, but various test were carried out and reported as either the hypotheses were supported or not supported as recommended by Leedy and Ormrod (2015:25).

The report of the study was based on such test results, facilitating the achievement of the objectives by resolving the problem of the study. The hypotheses of the study were formulated in relation to the objectives of the study. It is believed that once these hypotheses were tested for being either supported or not supported, the study would be in the right position to solving the problem of the study. In the following section, the focus was on the discussion of the research design and methodology of the study.

1.6. RESEARCH DESIGN AND METHODOLOGY

In the previous section, the hypotheses were formulated to operationalise the research problem of the study. The focus of the current section was on outlining and discussing the research design and methodology on how the identified problem of the study was intended to be solved. Moreover, the next step in the research process after formulation of the hypotheses, was to develop a specific plan for addressing or attending to the problem and subproblems of the study (Leedy & Ormrod, 2015:117). Literature refers to the research design and methodology step in a number of ways (Mouton, 2001:55; Saunders *et al*., 2016; Saunders *et al*., 2019). In the study, to ensure consistency, the research design and methodology concepts were used, and each concept was defined and briefly discussed in a separate section below.

1.6.1. Research design

The focus of the current section was on the discussion of the research design for the study. A research design is defined as a blueprint or a plan which explains in practical details how a study is intended to be carried out (Cooper & Schindler, 2014; Leedy & Ormrod, 2015:23; Mouton, 2001:48; Saunders *et al*., 2019). Different types of research designs are available to choose from, which choice is informed by the nature and purpose of the study, including empirical and nonempirical research designs (Mouton, 2001:144; Neuman, 2014:9). In addition, the choice of the research design is also informed by the end product the study anticipates to achieve, the research problem or research question, and the nature of the evidence needed to effectively address the research problem or question (Cooper & Schindler, 2014; Leedy & Ormrod, 2015:23; Mouton, 2001:48; Saunders *et al*., 2019). Thus, the current study sought to determine the occupational well-being of street traders, the most visible self-employed/own-account workers in the informal sector, by assessing their work engagement using the UWES-9. Hence, the nature of the research problem compelled the study to adopt an empirical research design study, which suggested that primary data must be collected to solve the problem of the study. In addition, the study determined if UWES has acceptable reliability and validity to assess work engagement of street traders, the most visible self-employed/own-account workers in the informal sector. In addition, primary data were be collected to conduct the tests to validate the instrument. Hence, the empirical survey design was appropriate for the study where primary data were collected through a questionnaire (UWES).

Moreover, survey studies can either be theory-driven, aiming to test hypotheses, or much more inductive (Cooper & Schindler, 2014; Leedy & Ormrod, 2015:23; Mouton, 2001:48; Saunders *et al*., 2019). In the current study, the survey was theory-driven and aimed to test the formulated hypotheses, which when tested, assisted in solving the formulated problem of the study. Moreover, a survey questionnaire is one of the classical approaches and methods of collecting primary data, used by the researcher to collect data and information about the research subject (Dalati & Marx Gómez, 2018). The questionnaire (UWES-9) was validated and mostly used to collect quantitative data

in the formal sector. Therefore, quantitative primary data was needed and was collected from street traders in the City of Tshwane through a face-to-face interviewer-administered questionnaire. The collected data was subjected to some statistical analyses through International Business Machine (IBM) Statistical Package for the Social Science (SPSS) Version 28 to make inferences based on the formulated hypotheses guiding the study.

1.6.2. Assumption and research philosophy of the study

The assumption and philosophy applicable to the study were briefly discussed in the current section following the discussion of the research design. Assumptions of the study, according to Leedy and Ormrod (2015:23), are conditions that are taken for granted, however, making the research project more meaningful. Furthermore, in an academic environment, assumptions are set forth as the background or foundation on which a study project rests (Leedy & Ormrod, 2015). In addition, Saunders *et al*., (2016) stress that a well-thought-out and consistent set of assumptions constitute a credible philosophy of the study, underpinning the methodological choices, research strategies and data collection techniques and data analysis procedures for the study. In the current study, the assembled team to carry out the study was knowledgeable to execute every step and procedure necessary to solve the identified research problem. The team included the principal researcher, supervisors as mentors and other service providers, such as the statistician and language practitioners. It was further assumed that the research design and methodology chosen for the study were most appropriate for solving the problem of the study.

Furthermore, Leedy and Ormrod (2015:23) indicate that it is helpful to distinguish among different philosophical orientations that point a study in somewhat different directions in the quests to make sense of the physical, social, and psychological worlds. Some philosophical orientations are identified, including positivism, constructivism, pragmatism, realism (Leedy & Ormrod, 2015:23), ontology, epistemology, and axiology (Neuman, 2014:94; Saunders *et al*., 2016:137; Saunders *et al*., 2019). In addition, positivism, was appropriate and adapted for the study. Positivists believe that, with

appropriate measurement tools, scientists may objectively determine absolute, indisputable truths about cause-and-effect relationships within the physical world and human knowledge (Leedy & Ormrod, 2015). In addition, positivism premises the philosophical stance of the natural scientist and involves working with an observable social truth to produce law-like generalisations (Saunder *et al*., 2016).

In the current study, positivisim philosophy was applicable and appropriate, as it was assumed in the study that, with the appropriate measurement tool, (namely, UWES-9), the absolute and undisputable truths about cause-and-effect relationship (occupational well-being of street traders (self-employed/own-account workers)) were objectively uncovered within the real world and human experience (informal sector). Moreover, the current study sought to determine the occupational well-being of street traders by assessing their work engagement through the UWES-9 in the City of Tshwane, where data was collected in the real natural environment. The truth about the occupational well-being of street traders was envisaged to be measured through the assessment of work engagement through the UWES-9. The UWES-9 assesses work engagement at an individual level, many street traders work as self-employed/own-account workers, where relevant data was collected, analysed and hypotheses were tested for either being supported or not supported. Moreover, the support or lack of support of the hypotheses led to the production of law-like theories or models.

In addition, three ways of making inferences are identified, namely, deductive reasoning, inductive generalisation and retroductive/abductive reasoning or an approach to theory development (Mouton, 2001:117; Saunders *et al*., 2016:144; Saunders *et al*., 2019), critical thinking and scientific methods, referred to as strategies for theory building (Leedy & Ormrod, 2015:117). The current study subscribed to these based on its nature. Accordingly, the nature of the current study ushered for use of scientific methods, which others refer to as deductive reasoning, according to which a study (a) identifies a problem that defines the goal of the study; (b) formulates some hypotheses; (c) gathers data relevant to test the hypotheses; and (d) analyses and interprets the data to determine if the results either support or do not support the hypotheses and solve the problem of the study (Leedy & Ormrod, 2015:117). In the

study, the research problem was already identified and explained above, namely, determining the occupational well-being of street traders by assessing their work engagement through the UWES-9. Hypotheses were formulated, wherein data were collected to test whether the hypotheses either supported or not supported, with the aim of solving the problem of the study and prove some theories or models.

1.6.3. Research Methodology

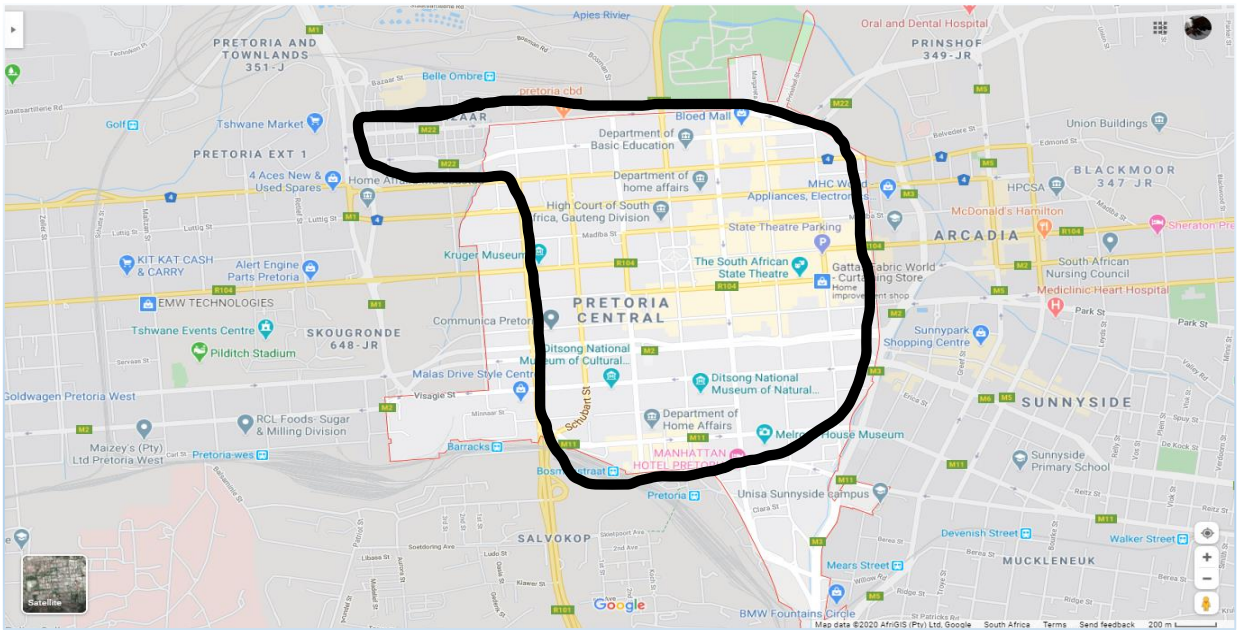
Once the research design, assumptions and philosophies of the study are identified and discussed, the next step in the research process, as recommended by Leedy and Ormrod (2015); Saunders *et al*. (2016); and Saunders *et al*. (2019), involved the discussion of the research methodology of the study. In literature, the terms 'research method' and 'research methodology' are used interchangeably and may appear synonymous (Creswell, 2003; Creswell & Creswell, 2018; Neuman, 2014; Saunders *et al*., 2016; Saunders *et al*., 2019). Research methodology is defined as a theory of how a study must be undertaken (Cooper & Schindler, 2014; Leedy & Ormrod, 2015:23; Mouton, 2001:48; Saunders *et al*., 2019). However, 'methodology' is said to be broader and encloses 'method' (Neuman, 2014). The research method focuses on the research process and the kind of tools and procedures used in the study, specific tasks (data collection or sampling) at hand, individual steps in the research process and most objective procedures to be employed (Mouton, 2001:56; Saunders *et al*., 2016; Saunders *et al*., 2019). To solve the problem of the study, various activities were considered and performed, including determining the population; sampling the population that was studied, determining the sampling techniques and size; determining data collection instruments; data preparation, coding, and analysis; and ethical considerations. These aspects of the study were briefly discussed below in a separate subsection.

1.6.3.1 Population of the study

The focus of the current section is to explain and briefly discuss the population of the study. The population of the study is outlined and described in the current section. The

target population (those people, events, or records that contain the desired information or can provide desired information by answering the measurement questions) of the study is defined as the unit of analysis (Cooper & Schindler, 2014; Leedy & Ormrod, 2015:6; Mouton, 2001). There are different types of descriptions and definitions of the term target population available in the literature (Cooper & Schindler, 2014:84; Leedy & Ormrod, 2015:6; Mouton, 2001:51). Furthermore, Cooper and Schindler (2014:345) emphasise that good operational definitions are critical in choosing the appropriate population.

Figure 1.1: Pretoria Central Business District and surrounding areas map



Source: (Afrigis, 2021)

Moreover, the study addresses the real-life problems associated with social, economic and health-related problems, leading the study to be empirical research (Cooper & Schindler, 2014; Leedy & Ormrod, 2015:23; Mouton, 2001:48; Saunders *et al*., 2019). Having considered the above descriptions, the target population of the study was identified as the street traders operating their business in the City of Tshwane central district and surrounding areas. These people were able to provide information by answering the formulated questions of the study. These included street traders rendering services (for example, barbers, cobblers, or shoemakers) or offering goods

(for example, clothes, cosmetics, herbs) or food items (fruits, vegetables, takeaways) for sale to their end users. These people worked at public spaces such as corners of or along streets or street pavements, open areas, natural markets, construction sites, and areas of cities where there was steady flow of pedestrians or potential customers as described by Chen, Alfers, Bali, Bird, Castellanos, Dobson and Rogan (2016). The arears considered for the study were mostly in and around central Tshwane and included but were not limited to part of Pretorius; Francis Baard; WF Nkomo; Nana Sita; Schubert; M18; Paul Kruger; and Bloed streets and Marabastad, as shown by the area circled on the map below. The areas had the characteristics of the natural market as described above.

It was explained above that trading space was a problem, and some traders accommodated themselves at places that were not permissible for business. Moreover, the circled area had more traders due to factors such as malls, transport nodes, and public amenities where the influx of potential customers was high. Moreover, there were reported increase in the number of informal traders/street traders operating in various cities in Gauteng (SEDA, 2019; SEDA, 2022). The City of Tshwane is one of the largest municipalities in Gauteng and is an administrative capital of the South African government (SEDA 2019; SEDA, 2022). There were many street traders in the targeted area that were observed; however, no formal list was available from which the study could rely. It was explained above that the list of street traders as provided by the City of Tshwane, was not up-to-date, and not usable. Hence the study opted to recruit participant through convenience or availability.

1.6.3.2. Sampling process in the study

The population of the study was identified and explained in the previous section, and the current section focuses on the discussion of the sampling process. In situations where the population or the units of analysis or objects of the study who should provide information to the study are many, it is not possible or recommended to study the entire population; instead, a subset, known as the sample of the population, must be studied (Leedy & Ormrod, 2015:176). Despite the lack of a credible list of street traders, as the

population of the study, were observed at those identified or demarcated areas that they were many enough for the study. In addition, the list of street traders requested from and provided by the City of Tshwane was not updated; as a result, it was not viable for use in the study. It appeared that the City of Tshwane had some challenges in managing the database records of street traders entering and exiting the City of Tshwane. Moreover, it is recommended that in survey studies, sampling or selection of cases can either be probabilistic (for example, stratified, simple random or systematic random) or nonprobability sampling (for example, convenience or quota sampling), and nonprobabilistic sampling is often used, especially in market research (Mouton, 2001:153).

The circumstances around the population of the study, namely, the outdated list of street traders as provided by the City of Tshwane, led the study to use nonprobability convenience sampling, also known as accidental sampling or sampling by availability. In convenience sampling, people or other units that are readily available, and may be quite appropriate for some research problems and must be considered for the study (Leedy & Ormrod, 2015:182; Neuman, 2014:249). Convenience sampling was deemed appropriate for the study and was considered. Despite convenience sampling being criticised for its potential to be biased, the participants of the study reflected the typical population under study and it was thus considered appropriate for the purposes of the study (Bono & McNamara, 2011; Cooper & Schindler, 2014). The area chosen for the study was at the heart of the city, with various amenities that attracted street traders and potential customers to come together.

1.6.3.2.1. Sampling frame

The sampling process was discussed in the previous section. In the current section, the focus was the discussion of the sample frame of the study. Studying the entire population was not a feasible exercise due to factors such as minimum time allocated for the study, exerting an enormous amount of pressure to complete the study, and the cost of conducting the study and the minimum allocated budget. After identifying the population for the study, the next step was to determine the sample from which data to

answer the research question or solve the research problem could be collected. Depending on the sampling process, the basic idea of sampling is to draw conclusions about the problem of the study by studying a subset of the population. A sample is described as a subset of the population (Cooper & Schindler, 2014:84; Leedy & Ormrod, 2015:38; Sreejesh, Mohapatra & Anusree, 2014). Studying a sample offers the following advantages: (1) lower cost, (2) greater accuracy of results, (3) greater speed of data collection, and (4) availability of population elements (Cooper & Schindler, 2014:84; Sreejesh *et al*., 2014). However, due to the lack of a viable list of street traders in the City of Tshwane, from which to draw a sampling frame, the study used a convenience sampling technique to select participants as already explained above. A sampling frame is defined as an empirically concrete list of all population elements, which may be telephone records or a registration database (Neuman, 2014:252). Moreover, the provided registration database of street traders was not updated and was unusable for the study, hence the use of a convenience sampling.

1.6.3.2.2. Sampling techniques

The discussion of the sampling techniques was the focus of the current section. It was highlighted in the above section that in the absence of the sample frame, it is recommended that the sample be selected for the study in some ways (Saunders *et al*., 2016; Saunders *et al*., 2019), which are appropriate for the study. The lack of a sample frame prompted the study to consider and use convenience sampling as already explained above. The participants for the study were recruited using the convenience sampling technique, which is nonprobability sampling. Cooper and Schindler (2014) emphasise that convenience sampling is unrestricted and normally the most cheap and easy to execute. Researchers and fieldworkers exercise the freedom to choose whomever they find if the subject meets the criteria of the target population, hence the term convenience or availability. Although a convenience sample has no control to ensure precision, it is still a useful procedure. Moreover, convenience sampling is regarded as the most acceptable technique for recruiting participants in the study (Bono & McNamara, 2011; Cooper & Schindler (2014).

1.6.3.2.3. Sample size

The focus of the current section was on the discussion of the sample size for the study. To be able to perform some statistical analyses, the sample size met the minimum quantitative requirements. For example, for exploratory factor analysis (EFA) and confirmatory factor analyses (CFA) Burns and Burns (2008) recommend a sample size of 150 and 200 completed questionnaires, respectively. Although these statistical analyses are important, in the study, the focus was on the CFA. Moreover, EFA is important in the early stage of the study, where the instrument is under development and used to determine the reliability and validity of the instrument (Hair Jr, Black, Babin & Anderson, 2014; Pallant, 2016; Costello & Osborne, 2005). The instrument adapted for the study is well developed and the psychometric property or structure of the instrument is known. Therefore, CFA and other relevant statistical tests, such as reliability and validity tests, were performed.

Moreover, Tomczak, Kleka and Lew (2014) recommend that using a sample much larger is actually not needed as it does not bring any added research benefits but may involve unnecessary suffering, risks, tie up research resources that could have been spent more usefully on other activities, and in the very least inflate unnecessary costs to the study. In addition, adopting a sample size that is too small has consequences that are at least serious (Tomczak, Kleka & Lew, 2014). Therefore, for the study, anything above 350 completed questionnaires were enough to be able to perform appropriate statistical data analysis associated with CFA as recommended by Burns and Burns (2008). The study was conducted under stringent time management; thus, it could not afford to address the consequences associated with having a much larger or smaller sample as explained. Moreover, there was a limited budget allocated for the study, requiring that each small step and action in the study counted to alleviate incurring unnecessary costs.

1.6.4. Data collection instrument

Once the sampling process, which included determining the sample frame, techniques, and size, were clearly discussed, the next step involved the discussion of the data

collection instrument. The choice of the sampling strategy was broadly discussed in the previous section, paving the way for the discussion of the data collection instrument. Thus, the discussion of the data collection instrument was the focus of the current section. Thus, the next step in the research process after a decision on the sampling strategy involved choosing the instrument for data collection (Mouton, 2001:153). In the study, a structured survey questionnaire was used, as already discussed briefly and in passing in the previous sections. The questionnaire (UWES) was adapted for the study, as it was mostly used to assess work engagement.

Moreover, in survey research, various options for data collection are available to choose from, namely, structured questionnaires, structured interviews, schedules, structured mail questionnaires, and structured electronic questionnaires (Mouton, 2001:153). The questionnaire adapted for the study is referred to as the UWES-9. It was explained above that it was used to collect the appropriate data needed to solve the research problem identified for the study. The UWES-9 is a structured survey questionnaire wherein the participants rate themselves on a Likert scale and was appropriate for the study. Face-to-face interviewer administered approach were used for data collection. The interviewer were read out the questions while completing the survey based on the answers provided.

The instrument is copyright protected by its developers, permission for use of the instrument was needed prior to use, and relevant conditions for use were adhered to. The UWES-9 is one of the few instruments with validity and reliability and has been used in many countries, including South Africa (De Bruin & Henn, 2013; Naudé, 2003; Storm & Rothmann, 2003), where the current study was conducted. In the study, the instrument was be customised to the target population, where the assistance of the language practitioner was required so that the purpose of the instrument was not compromised when some words were simplified. The instrument was pretested and piloted prior use in the main study, which is recommended for developing, revising or using instruments in a different context (Ikart, 2018). These processes helped in fine tuning and improving the quality and presentation of the instrument for the main study.

1.6.5. Data collection process

In the previous section, the data collection instrument was identified and discussed. The present section focused on the discussion of the data collection process. The procedure for the collection of primary data for the current study involved the assistance of fieldworkers administering the questionnaires to potential participants or subjects. The study used a face-to-face interviewer-administered survey, where participants were chosen using the convenience sampling process as already explained above. Participants were recruited on site at their respective stalls/stands or places of their work by a fieldworker visiting and explaining the purpose of the study. Once verbal agreement to take part in the study was reached between the potential participant and fieldworker, the subsequent logistics werel follow, namely, explaining what was contained on the questionnaire, conducting the survey, and signing the informed consent form. The fieldworker read and complete the questionnaire on behalf of the participants. Upon concluding the survey, the participant were requested to sign the informed consent as a confirmation that all relevant information on the questionnaire has been explained, and consent to participate was requested and granted. Moreover, an interviewer-administered questionnaire was an acceptable data collection process (Saunders *et al*., 2016:474; Saunders *et al*., 2019; Sreejesh *et al*., 2014). Once the data collection process was completed, the collected data were prepared for data processing and analysis.

1.6.6. Data preparation (data editing and capturing), analysis and interpretation

The data collection process was briefly discussed in the previous section. The data preparation (data editing and capturing), analysis and interpretation of the analysed data were the focus of and were discussed in the current section. Each of these activities as applicable to the study were discussed in a separate section below.

1.6.6.1. Data preparation (data editing and capturing)

The focus of the current section was on the discussion of data preparation, which included two main activities, namely, data editing and capturing. To alleviate errors of incomplete and unusable questionnaires, certain activities must to be done prior to and

after data collection (survey interviews). The early step in the data analysis process involves the preparation of the collected data, which includes other subactivities, namely, questionnaire editing, coding and data capturing (Mouton, 2001; Tustin, Lighelm, Martins & Van Wyk, 2005). All packaged questionnaires were checked if all the pages were included. Questionnaires were printed in manageable batches and packaged for a week to prevent the researcher from being overwhelmed. The plan was to reduce the pressure associated with time management and improve the quality of workmanship. Practically, printing and binding work were done in small batches for work that was covered over a period of a week. The researcher was the main administrator and ensured that all relevant resources were available for each day of the week.

At most, two fieldworkers were recruited and trained off and on the field by the researcher. The budget constraints allowed for the recruitment of only two fieldworkers. Training were conducted to the fieldworkers by the main researcher. The coding manual was used for training. In addition, a friendly approach was encouraged to fieldworkers when doing their job (data collection); for example, they must be able to approach people, and be approachable, be able to greet, introduce themselves and explain the reason for their visits or study. Street traders were not the same and behave differently, when fieldworkers were welcome or rejected, they accepted and be able to carry on with their work. When they were rejected, they were able to pick themselves up and continue with work, and when accepted, they appreciated it through a proper expression.

Moreover, every day, each fieldworker were dispatched with at least 10 questionnaires which could be completed as a daily target. The researcher were assisted in the data collection process in the first work. It allowed the researcher to make some assessments and adjustments when necessary. A period of a week was enough for the fieldworkers to run the process independently. However, the researcher was on standby for support. A WhatsApp group was created for communication among team members (the fieldworkers and researcher). The WhatsApp platform was cost effective and was relied on for communication by group members. However, other communication medium were used when necessary, such as voice calls and face-to-face meetings.

All the completed questionnaires were collected by the researcher on a daily basis from the fieldworkers as and when the fieldworkers were done for the day. On the following day, a reflection of the previous day's work experiences on fieldwork were shared for improvements and quality assurance purposes. If incompleted questionnaires from the previous day were available, the participants were revisited for completion if it were the fieldworker's oversight, unless if it was the participant's withdrawal, it was done prior to the session of the day. However, the feasibility of doing so was determined. It made fieldworkers realise the necessity of ensuring that all details on questionnaire administration were important and that quality assurance must be strived for. Fieldworkers were also encouraged to make notes on questionnaires that questions were raised on to facilitate the provision of clarity. A briefing session were held every day in the morning if there was a need, where a team share their data collection experiences and how data collection process could be improved.

When the questionnaires were completed on a daily basis, the researcher was responsible for collecting them from the fieldworkers for capturing of data on the computer spreadsheet. The capturing also allowed for further questionnaires editing for mistakes. The researcher was aided by the coding manual for data capturing. The coding procedure is a set of rules assigning numbers to certain variable attributes (Neuman, 2014). In addition, it is recommended that an extra care must be taken when coding open-ended questions, as it is a challenge to code data from open-ended questions (Neuman, 2014). Moreover, the questionnaire for the study had few open-ended questions on the demographic section, and the main questions for the study were pre-coded. All these procedures were carefully executed. When data editing and capturing were completed, the spreadsheet computer file and coding manual were shared with the statistician for further quality assurance. Once the data collection process and capturing were completed, the data analysis process was initiated. Quality assurance on the captured data was done following the coding manual for outliers. It was an interactive process between the team members, namely, the researcher, supervisors, and statistician.

1.6.6.2. Data analysis and interpretations

In the previous section, the focus was on the discussion of the data preparation process for quality assurance. The data analysis was the focus of the current section and was discussed as such. On the completion of the quality assurance on the data coding, data entry, and data cleansing, and data were cleared from any material errors, the next step was data analysis. The data captured into the computer spreadsheet file were uploaded and analysed using the latest available version of the IBM SPSS. The programme provides access to various types of statistical applications. Different tests were conducted, such as frequency analysis, internal consistency analysis, and CFA. The supervisor was brought on board to offer some expert advice and recommend tests that were necessary for the study. A team approach was important in the research journey, so that grey areas were not left unattended.

In addition, quantitative data was analysed through descriptive statistics to provide reports such as the mean and standard deviation as recommended (Lunenburg & Irby, 2008; Pallant, 2011). Moreover, Grinnell and Unrau (2011) stress that data analysis should be considered when choosing a data collection method and data sources because the analysis phase summarises, synthesises and organises the data to correct answers to the research questions or produce analysis that either supports or does not support the hypotheses. In the current study, data analysis was determined when identifying the type of data needed to answer the research questions or test the hypotheses, and when selecting the research instrument. Once data analyses were completed, reporting and discussion of the results started.

Once the reporting and discussion of the results were completed, the chapter that discussed the conclusions and recommendations of the study was attended. Finally, the consolidation of all separate chapters into one document was performed. On the completion of the consolidation of all the chapters, the work was submitted to the supervisors for review and comment. Upon receiving the feedback from the supervisors, the comments were attended to, and the work was submitted to the Turnitin programme for similarity check, which when done, the work was submitted to language editing.

During the time, preparation for examination was initiated. Once all the comments were received and attended to and the thesis was within the acceptable similarity index, the thesis was then submitted for examination.

1.7. ETHICAL IMPLICATIONS OF THE STUDY

Most of the steps in the study have been discussed in the above sections. The ethical implications associated with the various activities in the study were briefly discussed in the current section. Research ethics matter not only when human participants are involved or used in the research project but also when it is the matter of honesty and clear accountability on how data are collected, analysed, interpreted and reported (Walliman, 2017). In addition, by explaining the processes leading to how a study has arrived at certain conclusions, the study avoided accusations related to cover-ups or misrepresentation, false reasoning, and reporting. There are two aspects of ethical issues in research that were identified and emphasised by Walliman (2017) as follow:

- The researcher's individual values relate to honesty, openness, and integrity.
- The researcher's treatment of people involved in the research project, relating to informed consent, confidentiality, anonymity, and courtesy.

These principles were adhered to by being honest, open, and maintaining integrity throughout all the stages of research project. The information collected from people involved in the study were protected from the time they take part in the study, right through the reporting of the study findings. It was cautioned that, despite the principles behind ethical practices appearing to be straightforward and easy to comprehend, their implementation may be quite challenging in certain situations. Furthermore, not all decisions have to be clear-cut in human relations (Walliman, 2017). In cases where it became difficult to make a trade-off between the demand of the study and ethical dilemma, a guidance was sought from Unisa (2016), policy on research ethics. The policy stipulates in the purpose statement among others that it does not seek to restrict or discourage research but to:

- Inform the researcher of his/her responsibilities in conducting research ethically.
- Understand and promote adherence to applicable procedures.
- Protect the rights of stakeholders.

The Unisa (2016) policy on research ethics was kept at hand at all stages of the study. Proper guidance was sought from the policy on research ethics, Unisa (2016), on how to conduct research involving human participants and to navigate certain areas of the study. The guidance from the policy on research ethics ensured that ethical decisions arrived at are grounded in ethical principles. Comments from the supervisors, as torch bearers, on some ethical implications were appreciated.

1.8. SETTING OF THE STUDY

In the previous section, which forms the larger part of Chapter 3, the research design and research methodology of the study were discussed. More details on the research design and methodology were discussed in Chapter 3. In the current section, the setting of the study, as recommended by Neuman (2014:170), was provided and described to be proactive and alert in the research project, in dealing with people, and with any relevant issues that could arise in the study. The current study was carried out in the City of Tshwane, CBD (Central Business District). The study determined the occupational well-being of street traders, the most visible self-employed/own-account workers in the informal sector, by assessing their work engagement through the UWES. Street traders, due to factors such as widespread levels of unemployment and poverty, rising levels of urban migration and urbanisation, a prevalence of survivalist entrepreneurship, and entrepreneurial intentions, are reported to be on the increase in metropolitan areas (Nkrumah-Abebrese & Schachtebeck, 2017). The city of Tshwane, where the current study focused, was one of the metropolitan cities in Gauteng Province. In addition, the number of SMMEs operating in Gauteng increased from 34.7 percent in 2018Q1 to 38.1 percent in 2021Q3 (SEDA, 2022).

The study collected data in natural settings, meaning that the study did not intend to modify the environment from which data were collected. Thus, it is recommended by

Neuman (2014) that in naturalism, the applicable principles are that the study should examine events as they unfold in a natural, everyday ongoing social context, which will not be contrived, invented, or researcher-created settings. The participants were approached in their area of operations (stalls) where data collection was undertaken through the interviewer-administered survey questionnaire as outlined above. The participants did not have to close their shops or stop doing their work to participate in the study, but a few minutes of their time were requested to provide answers to the research questions as administered by the fieldworkers. Customers were still be able to buy, and the study would continue as and when the participant was ready to continue taking part in the study. During off-peak times, times between 10:00 am and 14:00 PM on weekdays (Monday to Friday) were prioritised. Enough time was provided for interruptions by customers, by pausing to allow participants/street traders to service their clients. The reality was that street traders compete for customers, so if one customer comes, services must be the best way possible. Thus, the study did not work as a hindrance in realising the possibility.

1.9. ASSUMPTIONS, CONSTRAINTS, DELIMITATIONS, AND LIMITATIONS

In the previous section, the focus was on the discussion of the settings of the study. The focus of the current section was on the discussion of the assumptions, constraints, delimitations, and limitations of the study. It is recommended that the delimitations and limitations of the study must be carefully spelled out, as well as the reasons for conducting the study (Leedy & Ormrod, 2015; Mouton, 2001:153; Saunders *et al*., 2016; Saunders *et al*., 2019). In addition, the limitations of the study identify the potential weaknesses to the proposed sample, data-collection environment, measurement techniques, and any bias or ‘shortcut’ strategies that may affect the quality and credibility of the results and conclusions of the study (Leedy & Ormrod, 2015:65). Moreover, the lack of a reliable list or updated database of street traders, as also reported as a concern by Ligthelm and van Wyk (2004) almost two decades ago, still persists. In addition, it was one of the major factors affecting the assumptions, delimitations and limitations of the study resulting from the decisions undertaken because of it. For example, a decision to select the research design, namely,

convenience sampling for the current study, was informed by a lack of a credible list of street traders as provided by the City of Tshwane. Convenience sampling, as used in the data collection process, was appropriate for the study but has its own shortcomings, namely, the selection and recruitment of participants and ultimately on the statistical generalisation of the results to the entire population of the study (Neuman, 2014:249), which was an overarching limitation of the study.

Moreover, convenience sampling has received criticism for impeding researchers from drawing inferences about a population of interest (Etikan, Musa & Alkassim, 2016). Despite the criticism, Bono and McNamara (2011); and Cooper and Schindler (2014) stress that if the sample reflects the population, convenience sampling was appropriate. In inconvenience sampling, researchers selected participants on availability or accidentally. Although a convenience sample does not offer control to ensure precision, it is still a useful procedure (Bono & McNamara, 2011; Etikan *et al*., 2016). The used of convenience as the most appropriate sampling technique and other limitations of the study were managed to promote the quality and validity of the findings of research.

The study focused on determining the occupational well-being of street traders, the most visible self-employed/own-account workers in the informal sector, using the UWES in the City of Tshwane, South Africa. The study was demacarted to only focus on the street traders operating in the South African context, which had some implications on policy or bylaws affecting street traders compared to other sovereign countries. To alleviate bias in the process of data collection, the researcher used the services of fieldworkers who do not have direct interest in the study. Consistency in the recruitment of participants and administration of questionnaires across all participants were adhered to.

1.10. CONTRIBUTION OF THE STUDY

In the previous section, the focus was on the discussion of the limitations and constraints of the study. When all were done, namely, providing and discussing the background, problem statement, objectives, hypotheses administration, research

design and methodology, ethical implications of the study, and setting of the study, the final part of the study was on the discussion of how the study could contribute to new knowledge. It is recommended that the researcher convinces the readers that a study is not a trivial, meaningless undertaking that, on the contrary, can potentially make a substantial contribution to the body of knowledge and may even, in some small ways, help make the world a better place (Leedy & Ormrod, 2015:140). The present study sought to determine the occupational well-being of street traders in the City of Tshwane by assessing their work engagement through the UWES.

Work engagement is reported to be related with positive occupational well-being, which is good for work-related success. However, most studies on work engagement have been conducted in the formal sector of the economy, with little or no attention given to the informal sector of the economy. Street traders are reported to be the most visible self-employed/own-account workers in the informal sector. Thus, assessing the work engagement of street traders assisted in determining their well-being. Street trading is a form of entrepreneurship, entrepreneurship is regarded as a long, lonely and stressful journey. Moreover, the informal sector continues to expand compared to the formal sector, providing approximately 60 percent of jobs or job opportunities. It is odd to neglect the occupational well-being of more than 60 percent of the global labour force. The study shed some light on the occupational well-being of street traders through the knowledge of their work engagement. Moreover, there is a concern raised about the similar research gap between formal and informal sector, where recommendation was made for the gap to be bridged (UNDP/South Africa, 2020). In addition, to broaden the knowledge base, it is also recommended to involve micro-level individuals through research (Fritsch *et al*., 2019). The study sought to implement these recommendations as they are important and long-overdue. The recommendations by ILO that attention must be given to informal sector for job creation, poverty alleviation and economic growth will only be more meaningful if knowledge through research is made available.

Furthermore, the UWES, one of the few reliable and valid instruments, is the most commonly used instrument in assessing work engagement and has only been validated in the formal sector and less or nothing in the informal sector (see Addendum B). It was

one of the objectives of the study to determine if UWES is valid to assess work engagement in the informal sector, by assessing the work engagement of the most visible self-employed/own-account workers (street traders) in the informal sector. In addition, South Africa has challenges with proper administration of the informal sector, which is one of the areas the study made some contributions. Ligthelm and van Wyk (2004) conducted a study almost two decades ago, the study was concerned about lack of database of informal traders, the challenge was still persisting even at the time of the study. It stifles choice of research in the area of informal sector, and must be address as a matter of urgency. When these areas are addressed as recommended, the study has made some contributions in the body of knowledge, which may help the world to be a better place as recommended by Leedy and Ormrod (2015:140).

Moreover, the contributions of the study were related and aligned to the formulated hypotheses, namely,

- $H1_1$ Street traders are engaged in their work.
- $H2_0$ UWES-9 is reliable and valid for assessing the work engagement of street traders.
- $H3_1$ There is factorial invariance in the UWES-9 in assessing the work engagement of street traders.
- $H4_1$ Biographic/Demographic variables are related to work engagement of street traders.

Data were collected to test for either support or not support of these hypotheses. The outcomes of the analyses, whether data supported or not supported the hypotheses, contribute new knowledge to the body of literature.

1.11. LAYOUT OF THE STUDY

The section focused and briefly outlined the chapters and chapter heading of the study as presented below:

Chapter 1: Introduction

Chapter 1 provided a summary of the contextual background of the study. It laid a foundation for the study by briefly discussing the main elements or sections of the study. It provided the contextual reasons why the study should be carried out. In summary, it provided the overview of the entire research project.

Chapter 2: Scholarship or Literature Review

Chapter 2 provided the critical scholarship review of the study as recommended by Mouton (2001:87). Furthermore, Mouton (2001:87) recommends that scholarship must be carried out based on the following elements:

- Definition of the construct.
- Different theories, models, and hypotheses in the field of study.
- Existing data and empirical findings that have been produced by previous scholars in the field of study.
- Measuring instruments have been developed to measure the constructs in the field of study.

The above elements, namely, definition of the construct of work engagement; the different theories, models, and hypotheses in the field of work engagement; existing data and empirical findings by previous scholars on work engagement; and the measuring instrument (UWES-9), are the main elements which were followed in the current study. The study determined the occupational well-being of street traders by assessing their work engagement using the UWES.

Chapter 3: Research design and methodology

The chapter laid a foundation upon which a study were carried out. It was through the research design and methodology of the study that solutions to the research questions or tests for hypotheses were objectively provided. The study was quantitative and cross

sectional and used a survey questionnaire (UWES-9) to collect data. In the chapter, all the logistics that ensured that the study was carried out to objectively solve the identified problem were discussed. Such included the description of the population, sampling strategy explanation, discussion of data collection and analyses, and reporting. The section also explained the data collection process, including issues such as recruitment of participants, administration of the survey, data editing and capturing for analysis. The section further explained the exercise that were taken during the pretest and pilot studies for the current research project.

Chapter 4: Report on pilot and pretest studies

The outcry of lack of reporting on pretest and pilot studies led to the chapter being included in the study. The processes and actions taken in the pretest and pilot studies were explained and reported in the chapter. Most of the activities related to quality assurance on the administration of the study were undertaken in the chapter.

Chapter 5: Data analysis, interpretation, and reporting

The chapter focused on and discussed the processes taken to make meaning to the collected data by following scientific or statistical processes. The latest version of SPSS was used to perform most of the relevant statistical data analyses, such as internal reliability assessment, validity assessment of the scale, and CFA, were among the possible tests that were performed.

Chapter 6: Conclusions and recommendations

The chapter provides the overall:

- **Summary of the study**

The summary section was included providing summaries of all the activities carried out in the study.

- **Limitations of the study**

The limitation section of the study provided explanations on what the study was unable to do due to factors that were identified in the study.

- **Contribution of the study**

The section explained the unique contribution made by the study

- **Conclusions**

The conclusion section involved an explanation of what the study has concluded on, given the problem of the study.

- **Recommendations for future study**

The section provided recommendations for future study based on the current research problem.

1.12. THE CHAPTER SUMMARY

The chapter briefly discussed the background of the study by identifying key constructs associated with the study. These, among others, focused on the background of the study by discussing subtopics such as the importance of occupational well-being, the importance of the construct of work engagement, and employment in the informal sector. The problem of the study was identified, stated, and discussed, followed by outlining of the research objectives and the formulation and discussion of the hypotheses. In addition, the research design and methodology of the study, which included providing operational and execution strategies of the study, were discussed, including issues such as assumptions and research philosophies of the study; population of the study; sampling process in the study; sampling frame, sampling techniques, sample size; data collection instrument, data collection process, data

preparation (data editing and capturing), analysis and interpretation. Subsequently, the ethical implications of the study, setting of the study, limitations and constraints of the study, contribution of the study, and layout of the study were also all discussed in their respective sections.

CHAPTER 2: CRITICAL REVIEW OF THE LITERATURE

2.1. INTRODUCTION

In the previous chapter, a foundation of the study was discussed on why, how, by and on whom the study was undertaken. The focus of Chapter 2 is to provide and discuss a scholarship review of the study. The chapter focuses on various aspects of the constructs of interest, namely, occupational well-being, work engagement and the self-employment/own-account (street trading) workers in the informal sector. The chapter also addresses the conceptual framework upon which the study is based. The following aspects of the study are also discussed in the current chapter, namely, the historical development of the construct of work engagement; the definition of work engagement; the relationship between work engagement and well-being; the measurement of work engagement; and employment in the informal sector with a special focus on street trading (self-employed/own-account workers in the informal sector). It is recommended that when conducting and synthesising literature or scholarship reviews, one should pull together the diverse perspectives and research results in a cohesive whole (Leedy & Ormrod, 2015; Snyder, 2019). It can be done among others by:

- Identifying common themes running throughout the literature.
- Show how approaches to the topic of study have changed over time.
- Comparing and contrasting varying theoretical perspectives on the topic of interest.
- Describing general trends in the findings of studies.
- Identify discrepant or contradictory findings and provide suggestions for possible explanations for such discrepancies.

In addition, Mouton (2001) recommends that when reviewing a body of scholarship, attention should also be given to the following key elements:

- Definition of the constructs of interest.
- Different theories, models, and hypotheses of interest in the field.
- Existing data and empirical findings produced by previous studies on the construct.

- Measuring instruments, such as the indices, questionnaires, and scales that were developed and used in measuring the extent or scope of the construct of interest.

Furthermore, the literature recommends different approaches to scholarship review (Cooper & Schindler, 2014; Neuman, 2014; Saunders *et al*., 2016; Saunders *et al*., 2019; Trafford & Leshem, 2008). These recommendations by scholars such as Mouton (2001); Leedy and Ormrod (2015); and Trafford and Leshem (2008) provided some guidelines for conducting and synthesising scholarship reviews for the current study. In addition, the main idea behind reviewing literature is to analyse the extant literature in a given study area, theme or discipline, identifying relevant theories, key constructs, empirical methods, contexts and remaining research gaps to set the future study agenda on those gaps (Paul & Criado, 2020). In the following section, the discussion of various sections of literature study as identified above is provided.

2.2. OCCUPATIONAL WELL-BEING AND WORK ENGAGEMENT

The linkage between occupational well-being and work engagement, the underpinning constructs of the study, was the focus of and was discussed in the current section. As in other constructs, there are several definitions of occupational well-being available in the literature. Some definitions are general, whereas others are situation or subject field specific, addressing a specific domain. Well-being is generally defined as a state of complete physical, mental, and social wellness and not merely the absence of disease or infirmity (Kim, 2012; Ruggeri, Garcia-Garzon, Maguire, Matz & Huppert, 2020; World Health Organization (WHO), 1946). Broadly, well-being may also be defined as the combination of feeling and functioning good or well; experience of positive emotions, namely, contentment and happiness; development of one's potential, having control in one's own life and a sense of purpose; and feeling of some positive relationships (Ruggeri *et al*., 2020). The definition of well-being, also touches on the dimensions of work engagement, namely, vigour (physical aspect), dedication (cognitive/mental aspect) and absorption (emotional/social aspect), which are stated in different terms to mean physical, mental and social, respectively.

Furthermore, occupational well-being has come to mean anything to any person over time, with distinction between well-being, representing positive work experiences, and unwell-being (burnout), representing negative work experiences (Wright & Huang, 2012). In addition, well-being is described as living a fulfilling and flourishing life which are dividends of people's ability to work, maintain positive relationships, and experience positive emotions (Wiklund *et al*., 2019). The general definition of well-being is based on agreement across various disciplines, namely, the healthcare, philosophy (dedication, cognitive or mental aspect), psychology, and sociology literatures, about the main elements of well-being, namely, psychological, physical (vigour aspect), and social (absorption or emotional aspect) (Grant, Christianson & Price, 2007; Wiklund *et al*., 2019). These are by-and-large dividends of work engagement, as identified by Kahn (1990) and Schaufeli *et al*. (2002). Despite the use of different words, these elements are integral to the definition of work engagement, namely, physical (vigour), psychological (cognition or dedication), and absorption (social or emotional) (Grant *et al*., 2007; Kahn, 1990; Schaufeli *et al*., 2002; Wiklund *et al*., 2019).

Moreover, well-being is an umbrella concept and work engagement is an associated concept of well-being. These concepts all have similar positive work-related outcomes, namely, happier people have more satisfying work, more psychologically fulfilling lives, are more likely to live longer and healthier lives, are more creative and productive, and stay more socially connected (Wiklund *et al*., 2019). These positive outcomes flow back into their families, workplaces, and communities, creating a virtuous cycle of well-being (Wiklund *et al*., 2019). In addition, work engagement is one of constructs that is mostly used to determine well-being. Thus, work engagement was assessed in the study with the ultimate purpose of determining occupational well-being.

Furthermore, OECD (2013) developed a range of indicators of well-being for a better life initiative. The initiative focuses on subjective well-being, defined as various evaluations that people make of their lives, which may be either positive or negative, and their affective reaction to their experiences (OECD, 2013). These indicators in general assesses well-being or unwell-being. In addition, work-related well-being is defined as the overall dividends of a worker's experience and functioning at work (Grant

et al., 2007; OECD, 2013; Ruggeri *et al*., 2020; Trudel-Fitzgerald, Kubzansky, & VanderWeele, 2021; Warr, 1990). These are in alignment with the aims of the present study, which sought to determine the occupational well-being of street traders, the most visible self-employed/own-account workers in the informal sector, using the UWES. The UWES contains various indicators that require workers to rate themselves, either positively or negatively, about their experience and functioning with work at the individual level. Most street traders, are self-employed/own-account workers in the informal sector, and do not work for real or formal conventional organisations. Thus, the definition of work-related well-being relates not only to workers in formal organisations but also to individual workers' experience and functioning at or with work.

In addition, work-related well-being is also defined as the worker's experience of meaningful behaviour, social relationships, and interconnectedness with one's work environment (Narainsamy & Van Der Westhuizen, 2013; Trudel-Fitzgerald *et al.*, 2021). Moreover, most street traders, as self-employed/own-account workers, are reported to work in an environment that does not have the statutory provisions of occupational health, safety and environment (ILO, 2019). Street traders' work experience of meaning, behaviour, social relationships, and interconnectedness with the work environment may be different from those who work for real organisations. One such difference may stem from the fact that formal sector workers are bound to comply with statutory occupational policies, whereas in the informal sector, such policies are not enforceable or complied with. The work environment in the informal sector is not conducive for the application of statutory occupational checks and balances. Thus, certain aspects of occupational well-being, such as stress/burnout and work engagement, job satisfaction, turnover intention or health problems, are influenced by job demands and lack or availability of resources (Mudrak, Zabrodska, Kveton, Jelinek, Blatny, Solcova & Machovcova, 2018).

Furthermore, the well-being of workers is important and has accruals of dividends to individuals in terms of lower work absence rates and health costs (Meyer & Gagne, 2008). Moreover, for street traders, who are mostly self-employed/own-account workers in the informal sector, dividends associated with occupational well-being may also accrue through lower absence rates and health costs. For example, if street traders

frequently abscond work, the rate of income and customer confidence are likekly to decline, and in the process, they lose business to their competitors, income is likely to increase when they go to work most of the time. Moreover, street trading, as a form of entreprenership, is characterised by being a long, lonely and stressful occupation (Fritsch *et al*., 2019).

Moreover, wellness, health and betterment indicators, including job performance, retention, and (cardiovascular) health-related aspects are positively associated well-being (Wright & Huang, 2012). These well-being-related dividends, namely, work performance, retention, and various cardiovascular health-related aspects, may also accumulate to street traders as self-employed/own-account workers and are most relevant for the study. Thus, assessment of work engagement is one of the many, available, and most commonly used ways of determining the affective elements of occupational well-being (Narainsamy & Van Der Westhuizen, 2013). Moreover, work engagement is associated with a personal worker's well-being (Mäkikangas, Kinnunen & Feldt, 2016). There is overwhelming evidence that work engagement enhances workers' performance and well-being, resulting in quality of services dedicated to end-user costumers (Sonnentag, Dormann & Demerouti, 2010; Tesi, Aiello & Giannetti, 2019). These benefits may also accrue for street traders, as self-employed/own-account workers in the informal sector, the focused population of the study. Street traders stand to benefit from improved quality of services dedicated to their customers through enhanced worker's well-being and performance.

The focus of study was on the well-being than on the unwell-being. There is enough literature on unwell-being and it associated consequences. Most are captured in burnout studies, which psychology was blamed for paying much attention on the negative side of work and over studying the phenomenon. It is the raised concern that gave birth to the study of the positive side of work, which the current study subscribe to. Burnout have predominately emphasised the negative aspects of work, such as job insecurity, high work demands, work-family conflicts, stress, high workload, work-life imbalance (Mudrak *et al*., 2018). Hence, the focus of the study was on the positive aspect of self-employed/own-account workers in the informal sector.

2.3. THE ORIGIN OF WORK ENGAGEMENT

The connection between work-related well-being and work engagement, the underpinning constructs of the current study, was discussed in the previous section. In the current section, the origin and role of work engagement on individuals are discussed. Most literature argues that work engagement was first used in the 1990s by the Gallup organisation in business/practitioner literature (Clifton & Harter, 2003). In the academic environment, the work of Kahn (1990) is always referenced. The construct came into existence as one of the ways of responding to concerns and criticisms labelled against the field of psychology, that it was primarily focusing on illness, fear, aggression, damage, disorder, disability, and other work-related ill-health variables, rather than on health, courage, love, and other work-related wellness variables (Bakker *et al*., 2008; Shimazu & Schaufeli, 2008). The need for change of focus in psychology was relevant and applicable to occupational health, safety, and well-being. Hence, the focus of the study, determining the occupational well-being of self-employed/own-account workers in the informal sector.

In addition, there are arguments supporting the extension of research focus and exploration of the positive aspects of work to gain a better understanding of the effects and meanings of working (Bakker, Schaufeli, Leiter & Taris, 2008; Leiter & Bakker, 2010; Schaufeli *et al*., 2019; Shimazu & Schaufeli, 2008). One of the most compelling arguments for the assertion on the negative bias of psychology was the overwhelming evidence in the literature with publications on unwellness exceeding publications on wellness by a ratio of 14:1 (by which treatment exceeded prevention) (Bakker *et al*., 2008). These validated the raised sentiments for psychology to extend the research focus area by exploring more fully the positive aspects of work seeking to better understand the meaning and effects of work (Seligman & Csikszentmihalyi, 2000). Moreover, many psychologists, sociologists and group theorists responded to the call by extending their interests by commissioning studies focusing on the wellness pole of workers' well-being (Schaufeli *et al*., 2002), reducing focus on the unwellness pole of workers. The focus of the current study was also on the wellness pole of workers, self-employed/own-account workers in the informal sector, who are often neglected, despite

their overwhelming majority of these workers as reported above.

The main aim of branching into the positive aspects in addition to the negative aspects of work was to help unlock complete human competence to benefit individuals, their work and societies by enhancing workers' well-being (Kahn, 1990). Work engagement, as one of the constructs used to assess occupational well-being, was among some of the earlier works on positive psychology that calibrated the notion that people are ambivalent about being members of progressing groups and systems and may seek to shield themselves from being isolated and invaded by either pulling away from or moving towards their membership (Kahn, 1990). Although the current study sought to determine the occupational well-being of street traders, who are mostly self-employed/own-account workers, there are available ways for these people to or not belong to groups or systems and may seek to protect themselves from being isolated or invaded by either pulling away or moving towards membership of groups in the informal sector (Hummel, 2017). Moreover, it is confirmed that street traders are able to organise, often encouraged by bureaucrats or politicians, to represent informal workers in most countries such as Bolivia, South Korea, India and South Africa (Hummel, 2017), with South Africa being the context where the current study is commissioned.

Following the call on psychology to focus on a positive state, a number of initiatives to improve the well-being of workers occurred (ILO, 2021; Schaufeli *et al*., 2002; Sparks, Faragher & Cooper 2001). Among such initiatives were the introduction of flexible working hours and health promotion schemes in workplaces (ILO, 2021; Schaufeli *et al*., 2002; Sparks *et al*., 2001), including the occupational safety, health and environment (Stoewen, 2016). These initiatives benefit individuals and organisations by reducing medical costs, disability costs, absenteeism and staff turnover and raising levels of worker health, which translate into enhanced productivity and profitability (ILO, 2021; Schaufeli *et al*., 2002; Sparks *et al*., 2001). The vast majority of these initiatives focused on workers in formal or conventional organisations (ILO, 2021; Leiter & Bakker, 2010; SEDA, 2019). Moreover, health is a construct that summarise of the physical, mental and social well-being enhanced by wellness (Stoewen, 2016). Given the dividends that accrue from well-being, it is a concern to the majority of the global labour

force, who are in the informal sector and are not covered by such provisions of labour law (ILO, 2016). The main aim of these initiatives are among others, to be proactive on matters that improve the occupational well-being of workers.

However, most of these initiatives benefit workers in real or conventional organisations, with some benefits becoming mandatory, such as some aspects of health and safety in the work place (Stoewen, 2016). In those mandatory initiatives, organisations must comply with minimum acceptable set standards recommended by governments of the day. These acceptable standards are mostly in line with recommendations by bodies such as the ILO (2021), a sister organisation accountable to the UN. The majority of workers in the informal sector, such as street traders, do not have access to most of these benefits, as they remain outside the provisions of the Occupational Safety, Health and Environment (OSHE) radar (LaDou, 2003; Tamin, Samuel, Suraya, Ebuenyi, Naicker & Rajput-Ray, 2021). Thus, part of the aims of the study is to address some of these concerns raised related to the knowledge gap between the formal and informal sectors. The study sought to reduce bridge the knowledge gap by determining the occupational well-being of self-employed/own-account workers in the informal sector, which the formal sector has greatly benefitted from through abundance of available knowledge. Moreover, today, healthy workplace includes health promotion and protection (Stoewen, 2016). However, these are impossible to administer in the informal sector like it is done in the formal sector as the environments are different.

Furthermore, these initiatives to improve the well-being of workers had to be developed, measured, and managed effectively to improve performance in contemporary workplaces. One of the ways of measuring occupational well-being is through the assessment of work engagement (Bakker & Oerlemans, 2019; Leiter & Bakker, 2010; Schaufeli *et al*., 2006). The popularity of the construct of work engagement, which may be equated or resonated to its value, is increasing exponentially. The work published by Schaufeli and Salanova (2011) shows that a Google search in June 2010 yielded 35,500 hits for ‘work engagement’ and 640 000 for ‘employee engagement’. In addition, different search results for different periods from other articles and a search done by the researcher are shown in Table 2.1 below:

Table 2.1: The popularity of 'engagement' search between 2008 and 2022

Periods	Internet search 2008	
2008	**Google search**	**Google scholar**
Employee engagement	626,000	1120
Work Engagement	21,400	785
2010		
Employee engagement	640 000	
Work engagement	35 500	
2021/01/26		
Employee engagement	441 000 000 (0,96 sec)	494 000 (0.06secs)
Work engagement	887 000 000 (0,88 sec)	2 100 000 (0.04secs)
2022/10/22		
Employee engagement	467 000 000 results (0,82 secs)	1 550 000 results (0,18 secs)
Work engagement	1 550 000 000 results (0,82 secs)	4 480 000 results (0,09 secs)

Source: (Schaufeli & Bakker, 2010; Schaufeli & Salanova, 2011; and researcher's own search/compilations)

The search results obtained and reported from earlier periods show fewer statistics than the search results obtained later or more recently. The interest and popularity of the constructs appear to be growing day-by-day. In addition, the instrument of measurement (UWES) is also available in more than 31 languages (Merino-Soto *et al*., 2022), which may be different if a search is conducted and reported in the same period in the future. The growing level of interest in work engagement is informed by accruing evidence suggesting that high work engagement levels are associated with a range of beneficial outcomes. These include occupational well-being improvements, performance, productivity and profitability, reduced rates of absenteeism or turnover, happier, productive workers, and better customer service (Bailey, 2016; Bakker & Oerlemans, 2019; Gifford & Young, 2021; Leiter & Bakker, 2010; Nienaber & Martins, 2015; Schaufeli *et al*., 2019; Stoewen, 2016; Taris, Schaufeli & Shimazu, 2010). These associated benefits for work engagement are reported mostly from workers in real organisations, and less is known about the work engagement of street traders, the most visible self-employed/own-account workers in the informal sector. Work engagement is positively associated with performance, and it also mediates the relationship between

various variables, such as leader-member exchange, workplace ostracism or job crafting, creative performance, knowledge-sharing or innovation, affecting work commitment and absence intentions (CIPD, 2021). Given that many street traders are self-employed/own account workers, by default do not have access to some of these variables that are related to work engagement as outlined above.

Moreover, Aon Hewitt (2017) reports a rebound in global work engagement to its all-time high of 65 percent. However, in 2019, 85 percent of workers' disengagement worldwide was reported (Gallup, 2019). These suggest that work engagement fluctuates high and low overtime. On the other hand, Aon Hewitt's (2017) assesses work engagement emphasising the three variables, namely, 'say', 'stay', and 'strive', wherein workers are asked if they:

- 'Say' positive things about their organisation and act as advocates.
- Intend to 'Stay' at their organisation for a long time.
- They are motivated to 'Strive' to give their best efforts to help the organisation succeed.

In the context of street trading, some research may assist in determining if street traders say positive things about street trading, intend to stay as street traders, or strive to give their best efforts to succeed as street traders.

On the other hand, Gallup (2021) assesses work engagement emphasising engaged workers who are highly involved in and enthusiastic about their work and workplace, are psychological 'owners', drive performance and innovation, and move an organisation forwards. Most if not all of these studies were focused on workers for organisations and not self-employed/own-account workers. Therefore, it is appropriate and most relevant to determine the well-being of street traders, the most visible self-employed/own-account workers in the informal sector, by assessing their work engagement. It is also recommended that more focus in research should be redirected to the informal sector, as there is an identified knowledge gap between the formal and informal sectors (UNDP/South Africa, 2020). The gap left the informal sector more

vulnerable, as fewer occupational initiatives are focused on the informal sector compared to those in the formal sector.

2.4. DEFINING WORK ENGAGEMENT

The origin and role of work engagement on individuals and organisations were discussed in the previous section. In the current section, the definition of work engagement was discussed. In engagement, people employ and express themselves based on three dimensions, namely, cognitively (mentally), emotionally (socially), and physically, during role performances (Kahn, 1990). These three dimensions, namely, physical, cognitive, and emotional, are important in role performance, whether the role is performed by individuals in the formal or informal sector for individuals or organisations. Although the popularity of work engagement is growing exponentially, there is no consensus on a single definition of the construct of work engagement (Aon Hewitt, 2018; Gallup, 2021; Gifford & Young, 2021; Gruman & Saks, 2011; Oh, Cho & Lim, 2018; Saks & Gruman, 2014; Schaufeli *et al*., 2019). The lack of common definition has resulted in the development and use of numerous definitions that are available in the literature.

Most of these definitions converge on the notion that work engagement is a desirable state, connoting positive outcomes such as commitment, energy, involvement, enthusiasm, focused effort, and passion, having both attitudinal and behavioural components (Aon Hewitt, 2018; Gallup, 2021; Gifford & Young, 2021; Gruman & Saks, 2011; Oh *et al*., 2018; Saks & Gruman, 2014; Schaufeli, 2017; Schaufeli *et al*., 2019). Most of these available definitions define work engagement in terms of the three dimensions, namely, physical, psychological and social (Aon Hewitt, 2018; Gallup, 2021; Gifford & Young, 2021; Grant *et al*., 2007; Gruman & Saks, 2011; Kahn, 1990; Maslach; 1997; Oh *et al*., 2018; Saks & Gruman, 2014; Schaufeli *et al*., 2002; Schaufeli, 2017; Schaufeli *et al.*, 2019). Various scholars use different terms to refer to these dimensions or elements, such as physical (vigour, high energy); psychological (dedication, cognitive, strong involvement); and social (absorption, emotional, a sense of efficacy), whereas the implications or meaning are the same.

Kahn (1990), as one of the pioneers of the work engagement construct in the field of positive psychology, realised that less attention was mostly given to different degrees of how people perform or occupy their work roles. In responding to a concern, the position is made that people use their different magnitudes of their physical, cognitive, and emotional resources in performing their tasks. These include the maintenance of their integrity in relations to the boundaries between individuals and the tasks they occupy. The use of varying degrees in task performances culminated in the definition of work engagement, defined as a simultaneous employment and expression of a worker's preferred self in task behaviours that promote connections to work and/or to others, personal presence (physical, cognitive, and emotional), and active, full role performances (Kahn, 1990). The definition is premised on the notion that workers have and apply elements of themselves that, provided appropriate conditions, they prefer to use in expressing themselves during task performances. To employ such elements is to physically, cognitively, and emotionally drive workers' energies into work (Kahn, 1990). Although a comprehensive theoretical model of psychological presence (work engagement) at work is presented by Kahn (1990), it was not operationalised. Consequent and subsequent to the work of Kahn (1990), various definitions were developed and operationalised the construct of work engagement, which some are presented in the following paragraphs.

To operationalise work engagement, Maslach (1997) revised and include the positive state (work engagement) on the other end of the burnout continuum. To the end, work engagement was then premised on the three dimensions of burnout, namely, exhaustion, feelings of cynicism and detachment from the job, and a sense of ineffectiveness and lack of accomplishment, which was on the negative side, with work engagement on the positive end of the continuum (Maslach, 1997). Work engagement consists of a state of high energy (rather than exhaustion), strong involvement (rather than cynicism and detachment from the job), and a sense of efficacy (rather than inefficacy and lack of accomplishment) (Maslach, 1997). The understanding of the approach was that work engagement is to be assessed concurrent with the burnout construct. In addition, engagement is also defined as a workplace approach designed to ensure that workers are committed to their organisation's goals and values, are

motivated to contribute to organisational success and are able at the same time to enhance their own sense of well-being (MacLeod & Clarke, 2011). The definition suggests that engagement may mean a variety of things, benefiting both individuals and/or their organisations (MacLeod & Clarke, 2011), but should be stimulated by the work environment or working conditions (Kahn, 1990). The focus of the study was on self-employed/own account workers in the informal sector, and the definition is most appropriate because it covers work engagement at an individual level.

Furthermore, Macey and Schneider (2008) investigated work engagement by focusing mianly on the following variables, namely, trait, state, and behavioural constructs, determining work and organisational conditions that are related to state and behavioural engagement. Although Schaufeli *et al.* (2002) agreed with the positioning of work engagement as the positive antithesis of burnout, their position was that each construct (either burnout or work engagement) can be measured and operationalised independent of each other. Moreover, the work of Schaufeli *et al.* (2002) was also inspired by the work of Kahn (1990). Schaufeli *et al.* (2002) took a slightly different position by defining work engagement as a positive, fulfilling job-related mental state characterised by vigour (high physical energy levels and mental resilience while working, the willingness to invest effort in one's work, and persistence in the face of difficulties); dedication (a sense of mental significance, enthusiasm, inspiration, pride, and thriving in challenges); and absorption (being fully social concentrated and happily engrossed in one's work, whereby time move quickly and a worker has difficulties leaving one's work). These dimensions are similar or related to the dimensions that were reported as the dividends of wellness by Stoewen (2016), namely, physical, mental, and social well-being and were summarised to mean health. Moreover, well-being is described as fulfilling and flourishing life resulting from people's ability to work, maintain positive relationships, and experience positive emotions (Wiklund *et al*., 2019). Moreover, work engagement is a construct in the well-being or wellness or health domain.

In addition, based on the above described position, Schaufeli and Bakker (2010) adopted two different schools of thought that consider work engagement as a positive,

work-related state of well-being or fulfillment. The first school of thought posits work engagement as characterised by a high level of energy, involvement, and efficacy, which are direct opposite of three dimensions of burnout, namely, exhaustion, cynicism, and lack of professional efficiency (Schaufeli & Bakker, 2010). The school of thought implies that work engagement is measurable through the engagement-burnout continuum, as already explained above. However, the second school posites work engagement as an independent, distinct construct that is negatively associated with burnout (Schaufeli & Bakker, 2010). Thus, the latter position ushered in the development of the UWES, a measuring instrument that assesses work engagement independent of burnout construct (Schaufeli *et al*., 2002). The current study is based on the latter school of thought, where work engagement of self-employed/own-account workers in the informal sector is assessed through the UWES, only focusing on the positive state independent of burnout. Moreover, the study determined the occupational well-being of street traders, the most visible own-account workers or self-employed in the informal sector, by assessing their work engagement using the UWES-9. The UWES is one of the few valid and most commonly used to assess work engagement at an individual level; whether an individual is self-employed/own-account worker for an organisation, it was appropriate for the present study. Moreover, in the current study, the focus was on the work engagement of self-employed/own account workers, with special reference to street traders.

2.5. MEASUREMENT OF WORK ENGAGEMENT

In the previous section, the definition of work engagement was discussed. In the current section, the focus is on the discussion of the instrument for assessing work engagement as adapted for the study. The identification and clear definition of a construct under investigation form the basis for its measurement and validity (Aillieta, Knola, Rubinsteina, de Veta, van Tuldera & Terwee, 2013; Flake, Pek & Hehman, 2017; Leedy & Ormrod, 2015; Mohajan, 2017). Moreover, the process of construct measurement and validity begins with identifying and clearly defining a construct, developing a theory about the structure of the construct (for example, how many dimensions or factors are present, how are they related), selecting a means of measuring the construct (for

example, Likert-type scales), and establishing that the measure appropriately represents the construct of interest (Aillieta *et al*., 2013; Flake *et al*., 2017). The process of construct validation is the means by which evidence is generated to support that scores reflect the target construct of interest (for example, have construct validity) (Aillieta *et al*., 2013; Flake *et al*., 2017). The process explained above also included a process followed when the instrument is developed.

However, some of the processes are applicable when the instrument is adapted and not newly developed for the study. In the current study, the instrument was adapted for the study, meaning that not all the validation processes were executed because the instrument was not newly developed. The instrument has been validated, and its structural composition or psychometric properties are known as suggested (Costello & Osborne, 2005). Moreover, work engagement is clearly defined in the above section. The definition that was used for the study, as there are various definitions of work engagement available in the literature, was specified. The stages of determining the validity of the instrument (UWES) are already addressed, as the instrument is borrowed for the study from Schaufeli *et al.* (2002); and Schaufeli *et al*. (2006). Moreover, work engagement has been extensively assessed in various contexts and countries, and the UWES is found to be of acceptable validity, including in South Africa, where the study is conducted. However, most of the studies were conducted involving workers in the formal sector (working for formal corporates). Thus, the focus of the current study was on self-employed/ownaccount workers in the informal sector. The informal sector is reported to be the largest employer in terms of the number of labour or people working in the informal sector, accounting for approximately 60 percent or more than 2 billion working in the sector.

Different instruments have been developed in relation to various definitions of work engagement available in the literature (Anthony-McMann, Ellinger, Astakhova & Halbesleben, 2017; Aon Hewitt, 2018; Gallup, 2021; Gruman & Saks, 2011; Nienaber & Martins, 2015; Nienaber & Martins, 2020; Schaufeli & Bakker, 2010; Gifford & Young, 2021). Although the list is not exhaustive, some of the instruments that were developed and used to assess work engagement include, among others, the following, as shown

in Table 2.2 (see Addendum B):

Table 2.2: Instruments for measuring work engagement

Author	Work engagement Instrument
Maslach (1997); Maslach, Schaufeli and Leiter (2001)	Maslach Burn-out Inventory (MBI); The Oldenburg Burnout Inventory (OLBI)
Hultell and Gustavsson (2010)	Scale of Work Engagement and Burnout (SWEBO)
Schaufeli *et al*. (2002)	Utrecht Work Engagement Scale (UWES)
Clifton and Harter (2003)	Gallup's Workplace Audit (GWA) or Q12
May, Gilson and Harter (2004)	Work Engagement Scale (WES)
Nienaber and Martins (2015)	The South African Employee Engagement Scale

Source: (Researcher's compilation)

However, some of the instruments were developed to assess employee engagement, which is the relationship a worker has with other facets of the organisation (Clifton & Harter, 2003; Nienaber & Martins 2015). Some instruments for assessing the work engagement of workers are briefly discussed, as identified in Table 2.2, starting with the Maslach Burn-out Inventory (MBI). Engagement was assessed by the opposite pattern of scores on the three MBI dimensions, wherein low scores in exhaustion, cynicism, detachment, inefficacy, and lack of accomplishment would suggest high scores on professional efficacy, whereby assessing energy, involvement and professional efficacy were the three engagement dimensions (Leiter & Maslach, 2017; Maslach; 1997). Through the MBI, burnout and engagement were dependent on each other on the continuum, whereby on the one end, burnout assessed the negative state (burnout), while on the other end, the continuum assessed the positive state (engagement) (Leiter & Maslach, 2017; Maslach; 1997). The initiative was a step in the right direction as both the negative and positive states were being assessed.

A subsequent alternative for the assessment of burnout and engagement was the development of the Oldenburg Burnout Inventory (OLBI) instrument. There has been a central claim that it is a reliable and valid measure for the assessment of burnout and work engagement (Demerouti & Bakker, 2010; Leiter & Bakker, 2010). Both the MBI and OLBI were designed to assess burnout and work engagement on a continuum,

wherein on the one end, the instrument measures burnout, and on the other end, work engagement is assessed (Demerouti & Bakker, 2010; Maslach *et al*., 2001). These instruments (OLBI and MBI), despite their validity in assessing burnout and engagement, are not appropriate for the study. The study determined the occupational well-being of street traders by assessing their work engagement at an individual level only and not simultaneous with burnout.

In an attempt to resolve the problems associated with the claim that work engagement is a cognitive-affective state, an alternative instrument called the Scale of Work Engagement and Burnout (SWEBO) was later developed (Hultell & Gustavsson, 2010). The instrument was developed with an idea that it would be able to capture both the state mood of burnout and state mood of work engagement using work-related items based on adjectives (Hultell & Gustavsson, 2010). These instruments (MBI, OLBI, and SWEBO) of measuring work engagement were developed and premised on the assumption that work engagement is an antipode or antithesis of burnout and can be dependently measured on a continuum (Hultell & Gustavsson, 2010; Schaufeli *et al*., 2002; Schaufeli *et al*., 2006). Although Schaufeli *et al*. (2002) agreed with the positioning of the work engagement construct as a positive antithesis of burnout, their position was that each construct could be operationalised and measured independently of each other (Schaufeli *et al*., 2002; Schaufeli *et al*., 2006; Schaufeli, Leiter & Maslach, 2009). To achieve independence through a theoretical analysis, two underlying dimensions of work-related well-being were identified, namely, activation which ranges from exhaustion to vigour, and identification which ranges from cynicism to dedication, leading to the development of the UWES (Schaufeli *et al*., 2002). The UWES went through the validation stage and was found to be one of the few reliable and valid instruments in assessing work engagement. The instrument assesses work engagement at an individual level independent of burnout compared to the MBI, OLMBI, or SWEBO.

The UWES is one of the few valid instruments for measuring work engagement at an individual level independent of other constructs, such as burnout (Schaufeli *et al*., 2002). There have been further improvements to the instrument since the original version,

which consisted of 24 items. When the psychometric properties of the 24 items instruments was conducted, 7 items that could not meet the threshold and were deleted, 17 items UWES instrument was retained and used (Vigour 6 (VI6); Dedication 5 (DE5); and Absorption 6 (AB6)) (Schaufeli *et al*., 2002). Furthermore, in a study by Fong and Ng (2011), two items of the UWES-17 were deleted for not meeting the minimum factorial validity test, and the UWES-15 was validated and used. In a study by Schaufeli *et al*. (2006), the UWES-9 was validated and used. The UWES-9 was found to have acceptable reliability and validity (Schaufeli *et al*., 2006) and was adapted for the current study. The reliability and validity test results of the UWES-9 in the current study were conducted and reported in the relevant sections. For example, the original version of the UWES-17 was found to be of acceptable validity and reliability, with internal consistency Cronbach coefficient alpha (α) ranging between 0.80 and 0.90 in the South African context (De Bruin & Henn, 2013), where the current study was conducted.

In addition, the UWES-9 was also found to have acceptable validity and reliability across 10 different countries, including South Africa, where the present study is carried out, with internal reliabilities through Cronbach alpha (α) coefficients ranging between 0.85 and 0.92 (de Bruin & Henn, 2013; Schaufeli *et al*., 2006). Moreover, the scales of the UWES-9 also reported acceptable internal reliability, with vigour (median α =.77), absorption (median α = 0.78), and dedication (median α = 0.85) (de Bruin & Henn, 2013; Schaufeli *et al*., 2006). The factorial validity of the UWES-9 was demonstrated using CFA, and the scores of the three scales were found to be acceptable in terms of their test and retest for internal reliability (Schaufeli *et al*., 2006).

Moreover, the UWES-9 is valid to measure well-being studies (Schaufeli *et al*., 2006; Mäkikangas *et al*., 2016). Hence, the UWES was used in the present study, which sought to determine the occupational well-being of self-employed/own-account workers in the informal sector. It is also recommended that there are specific practices that are used to establish evidence of the validity and reliability of measures (Hinkin, 1995), as discussed in the appropriate sections. These included demonstration of content validity, criterion-related validity, construct validity and internal consistency, which were used in the study at a late stage. Moreover, the UWES-9 was at a time the study was approved

perceived as the most viable shorter version and perhaps even preferable alternative to the longer UWES-17 version. However, the latest UWES, known as an ultrashort version, with only one item each for every dimension, namely, vigour (VI1), dedication (DE1), and absorption (AB1), was introduced and validated and is reported to work well when compared to its longer versions of UWES (Gifford & Young, 2021; Schaufeli *et al.*, 2019). The latest version of the UWES was developed while the current study was already approved and was underway; otherwise, it would have been considered for the current study, since it is reported to be working well as the other UWES versions with more items.

Moreover, shorter instruments are recommended compared to longer instruments due to their efficiency (Deeg, Van Tilburg, Smit & De Leeuw, 2002; Schaufeli *et al*., 2019; Vicente & Reis, 2010). In addition, evidence shows that long instruments or questionnaires with many items increase the likelihood of participant attrition from the study compared to instruments or questionnaires with few items (Deeg *et al*., 2002; Schaufeli *et al*., 2019; Vicente & Reis, 2010). Schaufeli *et al*. (2006) also recommend that researchers strive to include as few items as possible for measuring a particular construct where respondents may not be unnecessarily bothered, i.e., be parsimonious. In addition, the UWES-9 may be considered a parsimonious version of the UWES-17 that yields similar reliable and valid work engagement scores (Schaufeli *et al*., 2019). The latest ultrashort version (UWES-3), which is more parsimonious than the earlier versions, may stand to benefit studies, as participants may find it enticing to complete or participate in studies due to the shortness of the instrument (Schaufeli *et al*., 2019).

On the other hand, Gallup's Workplace Audit (GWA) (or Q12) was also developed and used to assess work engagement, but not at an individual level as does the UWES but at an organisational level (Clifton & Harter, 2003; Gallup, 2021; Schaufeli & Bakker, 2010). The Q12 is also used to measure work engagement based on three main elements, similar to other work engagement instruments, namely, physical (say), mental (stay), and social (strive) (Schaufeli & Bakker, 2010). Moreover, it assesses mostly attitudes towards an work, by saying positive things about work, staying in the work/job, and striving to make work a success. In addition, Gallup's personal life evaluation

assesses the difference between the best life and worst possible life using a simple two-parts questions, namely, the Best Possible Life Scale. The questionnaire assesses how a worker feels about one's life as of now ('best life present') and how a worker expects to feel about one's life in a determined future, say five years ('best life future') (Gallup, 2021). Moreover, thriving workers have fewer health problems; less worry, stress, sadness, depression and anger to report (associated outcomes of burnout); and are more hopeful, happier, energetic, have high interest and respect (associated outcomes of work engagement) towards others or work (Gallup, 2021). Thriving is one of the elements associated with engagement. Furthermore, the current study sought to determine the well-being of street traders, the most visible self-employed/own-account workers in the informal sector, by assessing their work engagement through the UWES. The nature and approach of the current study renders the Q12 questionnaire an inappropriate instrument for use in the study.

In addition, other instruments were also developed for assessing engagement in different contexts. For example, Nienaber and Martins (2015) developed and validated an instrument for measuring employee engagement (which is higher than at the individual level) in a diverse, and multicultural environment. Furthermore, May *et al*. (2004) developed and validated the Work Engagement Scale (WES) and Work Experience Scales (WES), instruments for measuring work engagement, which were later used by Olivier and Rothmann (2007) to assess work engagement at a multinational and multicultural level in South Africa, focusing to the organisational level, which is higher than at individual level. The most appropriate instrument for the present study was the UWES, which assesses work engagement at an individual level, focusing on street traders. Most street traders are self-employed/own-account and work for themselves. Moreover, it is reported that most informal employment is at an own-account level or self-employed (SEDA, 2019; SEDA, 2022), with street trading being reported as the most visible occupation in the informal sector (Chen, 2016; Chen, 2012; Roever & Skinner, 2016). The UWES can capture the essence of the study by assessing the work engagement of an individual independent of the organisation for which one works.

UWES, as adapted for a study, is reported as one of the few valid and most commonly used scales in assessing work engagement at an individual level in academia (Bakker *et al*., 2008; Byrne, Peters & Weston, 2016; Fong & Ng, 2011; Schaufeli *et al.*, 2019). Moreover, the instrument (UWES) is available in more than 31 languages (Merino-Soto *et al.*, 2022), showing more interest in the usefulness of the instrument. Moreover, the UWES is also one of the few validated instruments for the assessment of work engagement (in the formal rather than in the informal sector), including in the South African context (environment) (Rothmann & Rothmann Jr, 2010; Schaufeli *et al*., 2006; Storm & Rothmann, 2003). Furthermore, the UWES-9, as an adapted instrument for the study, is short and appropriate to achieve the purpose of the study. The instrument has also undergone validation processes and was found to be valid. The psychometric properties of the UWES are also established. However, highlighted above is the fact that the validation process of the UWES was done on workers in real or conventional organisations, where little or nothing is known about the validaty of the UWES assessing the work engagement of self-employed/own-account workers in the informal sector.

2.6. SELF EMPLOYMENT IN THE INFORMAL ECONOMIC SECTOR

The instrument of measurement adapted for the study, namely, the UWES, was discussed in the previous section. The theoretical background of the informal sector, economy and employment is the focus of and is discussed in the present section. To achieve the above, various aspects of the constructs were reviewed, including definitions of informal sector, economy and employment, and street trading (the most visible occupation in the informal sector). At least over the past two centuries, reports on the rate of unemployment and its social consequences continue to flood media spaces on a global scale, with both corporate articles and academic literature alike being part of the debate. The three constructs, namely, informal sector, informal economy, and informal employment, appear to be more popular in the corporate sector than in the academic sector, as shown in Table 2.3 below.

Table 2.3: The popularity of informal sector, economy, and employment

Description	Informal sector	Informal economy	Informal employment

Google search	167 000 000 (0,72 sec)	144 000 000 (0,69 sec)	159 000 000 (0,66 sec)
Google scholar	3 630 000 (0,03 sec)	3 670 000 (0,03 sec)	3 120 000 (0,07 sec)
Total	170 630 000	147 670 000	162 120 000

Source: (Researcher's compilation on 2022/10/24)

Despite various initiatives aimed at alleviating the challenges and consequences associated with unemployment, both at local, national, regional, and global levels, unemployment appears to be stubbornly on the increase and far from over or within the controllable level (Ahn & Hamilton, 2019; Bloom *et al*., 2018; Shutt, 2010; Closson, 1895; Tcherneva, 2017; ILO, 1972; OECD/ILO, 2019). In addition, the persistence of unemployment and its social consequences have led to some scholars to describe unemployment as a contagious, infectious disease, a virus, and a silent pandemic that negatively affects many countries, especially developing economies (Olotu, Salami & Akeremale, 2015; Tcherneva, 2017). The current study was undertaken in South Africa, which is still a developing country/economy, where unemployment has consistently been souring high at an alarming and uncontrollable rate over the past decade, as shown in Table 2.4 below.

Table 2.4: Unemployment rate by gender, Q2: 2014 to Q2:2022

Unemployment	2014	2015	2016	2017	2018	2019	2020	2021	2022
Women	27.5	27,3	29.1	29.8	29.5	31.3	24.8	36.8	35.5
Men	23.8	23.1	24.6	26	25.3	27.1	22.1	32.4	32.6
RSA	25.5	25	26.6	27.7	27.2	29	23.3	34.4	33.9

Source: (StatsSA, 2022)

In Table 2.4, unemployment, despite various initiatives, is shown to fluctuate high, with women being most affected in all the reporting periods compared to their men counterparts. On the one hand, the formal economy, which is by-and-large the major provider of formal or decent employment, was unable to create and provide enough jobs for everyone who is eligible to work (Chen, 2012; ILO, 2021a; OECD/ILO, 2019). To survive, some unemployed people find themselves taking informal employment in the informal economic sector (ILO, 2021a; Morris *et al*., 2020; OECD/ILO, 2019). The

number of people taking employment in the informal sector is reported to be on the increase in many countries, especially during periods of economic downturn (Chen, 2012; ILO, 2022; StatsSA, 2021). There are, however, various factors that lead to unemployment, for example, the daunting and unprecedented challenges associated with COVID-19 and wars/conflicts (especially between Russia and Ukraine), where people end up being displaced (IMF, 2022; ILO, 2022b). These factors limit economic growth, wherein it becomes difficult to create new and to keep existing jobs.

Some measures undertaken to alleviate the spread of the virus also had some devastating impacts on economies, particularly for self-employed/own-account workers in the informal sector. For example, global trade fell, supply chains were disrupted, investment decisions were reversed or postponed, remittances dwindled and tourism came to nearly a halt, affecting both enterprises and workers (ILO, 2021). The conflict between Russia and Ukraine continue to have devastating effects on the economies of the world, i.e., through higher prices for energy, basic commodities, weaker market and financial confidence, increased chances of global recession, and significantly stronger inflation (IMF, 2022). The results increased global unemployment rates and poverty. In addition, technology, being referred to as a double-edged sword, has a fair share in causing some disruptions by being both enabling and constraining for people and constructive and destructive for jobs (Peng *et al*., 2018). Technology can simultaneously create and killor jobs or markets. In South Africa, pressure has been mounting on government and its agencies to create jobs, since unemployment has been on a record high at 33.9 percent in the second quarter of 2022, with youth unemployment at 45 percent (StatsSA, 2022) (as shown in Table 1.3 and Table 2.4 above). There are, however, other reasons for being unemployed or self-employed as outlined above.

Despite the overwhelming majority of people taking work in the informal sector, not all were unemployed; some took it for reasons other than unemployment, such as supplementing their income or experimenting with some entrepreneurial innovated products or services prior to launching on a large scale either in the formal or informal sector (Chen, 2012; Morris *et al*., 2020; Mramba, Tulilahti & Apiola, 2016; Rojas, 2013). Moreover, there are a plethora of other reasons for participating in work in the informal

sector, where some do it for self-actualisation, fulfillment, or control of their lives (Wiklund *et al*., 2019). Thus, it cannot be overgeneralised that those who participate in work in the informal sector as self-employed/own-account workers were all unemployed. However, the sector was dissected, and some of the factors were appropriately considered.

2.7. INFORMAL WORK, SECTOR AND ECONOMY DEFINED

The background of informal work, sector and economy was discussed in the previous section and in section 1.2.3 in Chapter 1. In the current section, the definitions of these constructs, namely, informal work, sector, and economy, are provided. It is recommended to have clear definitions of the constructs that the study seeks to measure (Hinkin, 1995; Leedy & Ormrod, 2015:61). In defining a construct, the study provides clarity so that whatever the study seeks to measure is within the context of the problem and its subproblems as formulated for the study (Hinkin, 1995; Leedy & Ormrod, 2015:61). Definition of the construct assists in improving the validity and reliability of measuring the constructs, where errors of construct measurement in the study are alleviated, leading to acceptable research findings (Flake *et al*., 2017; Mohajan, 2017). Moreover, construct validity concerns the relationship of the measure to the constituting attributes that the construct seeks to measure (Hinkin, 1995). Thus, it is important that the constructs of informal work, sector and economy are thoroughly defined for the study.

In addition, construct validity is especially important for empirical measures and hypotheses testing for the formulation of theories (Mohajan, 2017). The hypotheses that were formulated for the study, which were tested for either supported or not supported, and the formulation of the relevant theories for the study were appropriately addressed. Similarly, measuring such constructs effectively must be both operationalised and synthetic through their definitions (Pallant, 2020). The origins of the constructs of informal work, sector and economy, which the current study sought to measure, are traced back to almost five decades ago (Charmes, 2012; Chen, 2012; ILO, 1972). These

concepts are mostly used imprecisely or interchangeably (Charmes, 2012; Chen, 2012). These three concepts are briefly defined and discussed in the following paragraphs.

ILO (1993) defined the informal sector as broadly consisting of units committed to the production of goods or rendering of services with the objective of creating work and making income for the respective persons. In addition, these production units work at a lower level of an organisation, where there is little or no difference between factors of production (for example, labour or capital) and on a smaller scale. On the negative side, labour relations do not exist, and where they exist is based on kinsmanship or personal or social relationships rather than formal contracts (ILO, 1993). Additionally, there are various definitions and explanations on what the informal sector includes or should include or is about, for which the current study can not exhaust. In the current study, most street traders are self-employed own-account/workers whose businesses are not incorporated or registered with any authority. It also becomes difficult to draw a line of distinction between the owner and factors of production, such as capital. The capital used in the running of the business is predominantly sourced from the savings of the owner, who in return works in the business as a sole worker or is assisted by family members who do not have a formal contract of employment. These businesses are mainly operated by fewer than five workers, usually family members, relatives or friends. In many cases, self-employed/ownaccount workers (street traders) work alone. When family members or fiends are involved, the work is mostly done based on verbal agreements that are mutually reached between parties.

Informal work is defined by the absence of social protection and lack of contributions of social protection funds for or by the workers concerned (Charmes, 2012; Chen, 2012; ILO, 1993; ILO, 2022). Most businesses run by street traders are not registered and/or are unregistered, and if workers are there, are not compelled to make any social protection contribution in the form of Unemployment Insurance Fund (UIF), or retirement fund, or life cover, and/or medical aid (ILO, 2022). In addition, social protection systems were identified to include income support for the unemployed and/or poor, pensions, income support and transfers for old age for poverty alleviation, child and eldercare, education, and embracing healthcare (Gammage *et a*l., 2020). However, many South

Africans qualify for different social grants available, such as child and old age grants (Patel & Hochfeld, 2011). It is also highlighted that social grants are an important source of income relief for individuals in low-income households before and during the national lockdown (Köhler & Bhorat, 2020). Some street traders are also beneficiaries of such social protection, depending on their status in the community.

The informal economy is identified to broadly encompass (both informal work and informal sector) all economic activities by workers and economic units that are, by law or practice, not covered or insufficiently covered by formal arrangements (OECD/ILO, 2019). These concepts are well summarised as follows, with the informal sector being referred to as all production and work that takes place in small unincorporated or unregistered enterprises, while informal work refers to work without contracts or legal and social protection, both inside and outside the informal sector (Chen, 2012). Moreover, an informal economy refers to all activities, units, workers and output from informal work or sector activities (Chen, 2012). It is difficult to draw a distinctive line among these concepts, and they are most commonly used interchangeably.

Moreover, the current study focused on such activities in the informal economy. Many street traders are involved in the production and work activities that take place in small unincorporated or unregistered enterprises, with self-employed/own-account workers without employment contracts or legal and social protection. They are also not registered the revenue for collection and payment of statutory tax. Although the majority may still qualify for some form of social protection due to their social standing in society, these grants are not directly linked to the work done or contributions by self-employed/own-account, as most do not contribute. Moreover, the study determined the occupational well-being of street traders, who were mostly self-employed/own-account workers, by assessing their work engagement. Many street traders create informal work in the informal sector, performing most economic activities informally, where they do not have formal employment contracts and their enterprises are not registered or incorporated, and do not make any social protection contribution. Although most of the economic activities performed by street traders are not legally recognised as they are performed by unincorporated institutions, most of these activities are not illicit or

forbidden, illegal and unacceptable, as some are available and regulated in the formal sector.

2.8. SELF-EMPLOYED/OWN-ACCOUNT WORKERS (STREET TRADERS)

In the previous section, the definitions of informal work, sector, and economy were discussed. In the current section, the focus is on the discussion of the self-employed/own-account workers (street traders) in the informal sector. When informal work or informality is subject to debate and scrutiny, the focus is mainly on street trading. However, street trading is not the only form of informal work, and its popularity stems from the fact that it is one of the most visible self-employed/own-account workers in the informal sector (Barsoum, 2015; Brown, Lyons & Dankoco, 2010; Charmes, 2012; Chen, 2012; ILO, 2022; Roever & Skinner, 2016; Rogan & Skinner, 2017; Shrestha, 2019). Moverover, some informal workers are identified to include casual workers in restaurants or hotels, subcontracted workers, day labourers in construction and agriculture, piece rate workers and temporary office workers, among others (Chen, 2012). However, the some of these informal workers, as identified above, work for incorporated enterprises in the formal sector.

The focus of the current study was on self-employed/own-account workers (street traders) in the informal sector. These terms, namely, street ‘vending’, ‘trading’ and ‘hawking’, are used interchangeably (Anjaria, 2006; Bhowmik, 2005; Potts, 2008; Racaud, Kago & Owuor, 2018; Suharto, 2002). In the present study, to ensure consistency, the term ‘street trader’ was used, as it appears to be more acceptable, recognised, and inclusive. According to Chen *et al*. (2016), a defining feature for street trading is that work takes place not in standard workplaces, namely, factories, firms, offices or shops. Rather, street trading tends to be carried out in private homes or public spaces (such as streets, open areas, natural markets, or construction sites) (Chen *et al*., 2016). The study focused on street traders who operate their businesses on streets or open areas in the City of Tshwane.

Moreover, two positions are identified through which street trading is generally defined,

namely, the location or place and the legalities of the activity (Brown *et al.*, 2010). First, street trading, when viewed from the location, includes both mobile and stationary traders, defining 'street trader' as a person trading from the street, offering goods for sale, or rendering services for income generation to the public. The place of trade does not have a permanent built-up structure but a temporary structure that may be collapsed and installed as and when to trade. In addition, many street traders work in natural markets, the areas in cities where traders congregate because the area has steady movement of pedestrians or prospective customers, on street pavements or in other public spaces (Bhowmik, 2005; Nkrumah-Abebrese & Schachtebeck, 2017; Shrestha, 2019). Mostly, street trading is dependent on steady economic activities happening on or along the street, such as the concentration of pedestrian traffic where markets are found around commercial centres, public transport terminals, residential areas or public institutions such as hospitals, schools, sport complexes or other areas with high pedestrian flow, or municipal services drawing prospective customers to the place (Chen, 2012; Chen, 2016; Chen *et al.*, 2016; Shrestha, 2019). These were the places that the study looked out for when doing data collection.

Many street traders operate their businesses in places that are not permanently built at streets, open areas, natural markets, or construction sites. The mode of trading could be stationary, where the trader occupies space on the pavements or other public/private space, or mobile, where the trader moves from one place to another carrying one's merchandise on one's own or on push-carts (Bhowmik, 2005; Shrestha, 2019). Sometimes, combining both stationary and mobile modes, depending on the targeted customers. For example, one trader could have a stall at the junction and move to traders for motorists and sell for passers-by on the stall. In the current study, stationary traders who occupy and sell at pavements and other public/private spaces are eligible to participate in the study. Most of the areas with high volumes of street traders due to steady movements of pedestrians were prioritised and visited, such places included parts of Church, Bloed and Bosman streets, and Marabastad areas. These areas steadily have high volumes of street traders due to economic activities at those areas, such as commercial centres, public transport terminals, schools, municipal services, and/or church-related activities that draw people together. Second, from the legality

point of view, street trading is defined as the production and exchange of legal goods or services that lack appropriate business permits, could violate zoning codes, do not report or account for tax liability, noncompliance with labour law regulations governing contracts and working conditions, and/or do not have legal guarantees in relation to suppliers and clients (Brown *et al*., 2010). Generally, street traders operate unregistered businesses, do not qualify for or account for tax liabilities due to their nature and size, operate in areas that could be prohibited or not allowed to do their trades, do not have employment contracts, or permanently build structures; some may have permits to trade, whereas many do not. These were the targeted group which were eligible to participate in the study.

Furthermore, informal workers are further classified into two categories, namely, most visible and least visible (Chen, 2012). The most visible informal workers are identified to include street traders; bicycles and motorcycle repair; furniture and metal parts; garbage collectors; jitney drivers; push-cart vendors; rickshaw pullers; roadside barbers; scrap metal recycling; tan leather and stitch shoes; polish diamonds and other gems; making and embroider garments; sorting and selling cloth, paper, and metal waste; weave, dye, and print cloth; and more. While the least visible informal workers, the majority of them being women, work from their homes and are found around the world to include assemblers of electronic parts; casual workers in restaurants; embroiderers; day labourers in construction and agriculture; garment workers; shoemakers; and hotels; piece-rate workers in sweatshops; subcontracted janitors and security guards; and temporary office helpers or off-site data processors (Chen, 2016). Some of these categories are not available at the area focused at for the study. In the current study, street traders who were trading in the open areas where the study was undertaken were eligible to participate, despite being categorised as least or most visible. In the study, street trader meant any person offering goods for sale or services in the street, public space, or natural markets.

Moreover, some schools of thought regarding the nature and composition of the informal economy are identified (Chen, 2012; Rojas, 2013), as follows:

- The *Dualist school* perceives the informal sector of the economy as being made up of less important activities (activities that are different from and are not related to those in the formal sector), which act as a source of income for the poor and are a safety net in times of economic crisis.
- The *Structuralist school* perceives informal employment is viewed as a trap whereby external conditions to the person end up pushing one to work in a informal low-quality work.
- The *Legalist school* perceivies the informal sector as comprising of microentrepreneurs choosing to work informally to escape costs, time, and effort of formal registration.
- The *Voluntarist/agency school* perceives informal entrepreneurs as seeking to escape regulations and taxation but does not avoid tiresome registration procedures.

Moreover, the current study focused on the two schools of thought summarised by Rojas (2013), namely, structural and agency motives workers. Furthermore, Chen (2012) identifies other categories of informal employment based on ownership as follows:

- *Owner employer* – those who employ few workers.
- *Own-account* workers are usually self-employed workers who work alone or with family members.
- *Dependent* workers are paid workers working in microenterprises.

In the current study, the focus was on the assessment of the work engagement of self-employed/own-account workers (street traders). These were workers who work alone or with unpaid family members. Their businesses were started either for structural or agency motives. Work engagement of own-account or self-employed workers (street traders) is related or associated with their wellness or well-being or health and was relevant and appropriate for the objectives and purpose of the study. In the next section, the potential of the informal sector to create employment was briefly reviewed. In the South African context, where the study was commissioned, SMMEs are classified as

either formal or informal, employer or self-employed/own-account workers (SEDA, 2022; SEDA, 2019), the classification is congruent with the definitions and explanations provided above.

These schools of thought are all important when the focus is on informal employment, providing ranging rationales for informal employment from cultural to tax evasions, high transaction costs emerging, a large bureaucracy and governmental corruptions (Rojas, 2013). Moreover, the entire informal economy is reported to be more diverse and complicated than the sum of these theories and perspectives (Chen, 2012). However, two schools of thoughts or theories about informal employment are emphasised, namely, structural and agency (voluntarist) motives (Charmes, 2012; Rojas, 2013), with the other two, namely, legality and dualist, are automatically not the focus of the study. From the structural motives point of view of informal employment, posit that a large segment of the population is forced to hold informal employment as a trap due to external economic conditions (Chen, 2012; Rojas, 2013). However, from an agency motives point of view of informal employment, people pursue their best interest by holding informal employment, which is relatively superior as a way to escape from low-quality conditions (Rojas, 2013). These two views were important in the study, as it was understood that the two motives might impact work engagement differently. Structural motives and agency motives were assessed if they were related to work engagement. Many street traders operate as self-employed/own-account workers, with their businesses not incorporated or registered with authority.

Furthermore, in the South African context, street traders are classified as part of the trade and accommodation (retail sector) of SMMEs (SEDA, 2022). In some contexts, SMMEs are referred to as micro, small, and medium enterprises (MSMEs) (Patnaik, Satpathy & Rachayeeta, 2016; Rana & Tiwari, 2014), whereas in some contexts, small, medium enterprises (SMEs) are used, where the ‘micro’ element is excluded (Ramasobana, Fatoki & Oni, 2017). In the current study, SMMEs were used throughout to ensure consistency. These included a broad range of businesses from established traditional family businesses employing over a hundred people to survivalist self-employed/own-account workers working in informal microenterprises (Inyang, 2013).

The study focused on survivalist enterprises operated as self-employed/own-account workers (street traders). Moreover, SEDA (2016) shows that approximately 2.2 million SMMEs in South Africa (944.5 thousands) operate in the domestic trade (wholesale and retail) and accommodation sector, and street trading is part of the sector. NPC (2011) reported that the retail and business services sectors together are the largest employers in most middle- and high-income economies. However, it is generally reported without looking at a specific sector that formal SMMEs account for more jobs than informal SMMEs (also see Table 1.1). The formal retail sector SMMEs account for approximately 2 million jobs, while the informal retail sector accounts for approximately 3 million jobs (NPC, 2011).

2.9. THE POTENTIAL OF THE INFORMAL SECTOR TO CREATE EMPLOYMENT

In the previous section, the focus was on the discussion of the street traders, the most visible self-employed/own-account workers in the informal sector. The capability of the informal sector to create jobs, alleviate poverty, and reduce inequality by focusing on the local, regional, and international levels is discussed in the present section. To embrace trends of increasing labor force participation (focusing especially among the female population as fertility rates are controlled and have declined), reducing high rates of youth unemployment to less than 8 percent, and reducing the rate of adult unemployment to less than 4 percent, approximately three-quarters of a billion new jobs are estimated as required to be created globally between 2010 and 2030 (Bloom *et al*., 2018). These equate to over 600 million new jobs or approximately 40 million new jobs per annum (pa) that must be created to keep pace with all these trends in the growth of the working-age population (Bloom *et al*., 2018; ILO, 2018). However, new trends such as the impacts of circumstances as the unexpected outbreak of the COVID-19 pandemic in 2019, technological innovations, a high rate of inflation in developed economies, increasing interest rates and strict financing conditions for emerging and developing economies, and conflict between Ukraine and Russia, accelerated and widened inequalities across and within economies (ILO, 2022; IMF, 2022b). These suggest that the estimates may have been negatively affected as more jobs may be needed. In addition, load shedding or energy insecurity is reported to negatively impact

on the economic growth (Gevaert *et al*., 2018).

In addition, even when general economic conditions start to improve as pandemic-related restrictions are lifted, owing to the lack of sufficient jobs, global unemployment remains elevated throughout 2021 and 2022 at 220 and 205 million unemployed people, respectively (ILO, 2021b). These affect most economic sectors and industries, whether formal or informal sectors or the economy. The current study sought to determine the occupational well-being of street traders, the most visible self-emploed/own-account workers in the informal sector, which, according to Chen (2012); StatsSA (2021), are reportedly on the increase during times of economic downturn. The global economy is generally in distress, and many people are losing jobs rather than entering or re-entering the job market. Thus, the informal sector is expected to increase, as the unemployment rate in South Africa fluctuates upward at an alarming rate of 33.9 percent, as shown in Table 1.7 above. Furthermore, some people are also displaced due conflicts related to political instability and other factors, as mentioned above. Moreover, South Africa is reported to be one of the highest migration destination countries.

In addition, those factors classified as economic megatrends (ILO 2022b), have led to devastating consequences towards a global economic recession, with high possibilities of reversing some gains of globalisation known as deglobalisation (Sułkowski, 2020). Global gross domestic production (GGDP), due to economic megatrend factors, was reported to be contracting by approximately 0.42 percent in the first quarter (January to April) of 2020 (Ayittey, Ayittey, Chiwero, Kamasah & Dzuvor, 2020). For example, South Africa, where the study was conducted, reported a significantly higher shift in the inflation rate (South African Reserve Bank (SARB), 2022), as shown in Table 2.5 below, underpinned by soaring fuel prices, elevated food inflation, and loadshedding due to energy insecurity, among other factors.

Table 2.5: Average Inflation (Consumer Price Index) between 2020 and 2022

Period	2020	2021	2022
CPI	3.3	4.5	5.8

Source: (South African Reserve Bank (SARB), 2022)

In Table 2.5, the sharp increase in the consumer price index (CPI) over time has the potential to erode consumers' available income as the prices of commodities and necessities continue to increase. Despite the high CPI, an increase in CPI of between 3 and 6 percent is recommended to be crucial for economic growth in the short term but detrimental for economic growth in the long term (Hlongwane, 2022). Therefore, it is recommended that countries strive to have a balance in relation to short-term or long-term CPI targets. Some of these global factors are rapidly changing the world of work, with increasing trends in unemployment, low economic growth, high rates of labour market withdrawals, and low labour force participation of women, leading to an increase in informal economic sector participation (ILO, 2019; OECD, 2016). The labour force that was compelled to take employment in the informal sector grew at a faster rate (ILO, 2019). Therefore, determining the occupational well-being of street traders, the most fast-growing sector, provided an opportunity to generate new knowledge that would be used to forge ahead new economic prospects. Moreover, countries are also encouraged to harness the informal sector for job creation and economic growth because the formal sector alone is unable to meet these demands (ILO, 2019), especially through job creation initiatives. Moreover, the informal sector appears to have capacity for job creation compared to formal sector.

Table 2.6: The distribution of informal workers by gender in different regions

Regions		**South Asia**	**Sub-Saharan Africa**	**East and South-East Asia (Excluding China)**	**Latin America and the Caribbean**	**Middle East and North Africa**	**China**	**Eastern Europe and Central Asia**
% Gender:	Male	82	61	65	48	47	30	13
	Female	83	74	64	54	35	36	7
Total		82	66	65	51	45	33	10

Source: (ILO, 2018:1)

Moreover, as already outlined above, some reports show that approximately 2 billion or more than 60 percent of the global workforce works in an informal sector (Bloom *et al*., 2018; Jütting & de Laiglesia, 2009; ILO, 2016:1; ILO, 2022b; UN, 2019). In sub-Saharan

Africa, between 66 percent and 72 percent of the labour force works in the informal sector (ILO, 2022b; Mramba *et al*., 2016). Moreover, many informal workers are own-account or self-employed workers operating their enterprises in the informal sector of the economy (ILO, 2022c). The informal sector has more potential than the formal sector. In Table 2.6, the regional distribution of workers in the informal sector by gender is presented. The information shows that sub-Saharan Africa is in a second position at 66 percent after South Asia at 82 percent when focusing on the number of jobs created in the informal sector. In addition, regarding the distribution of workers in the informal sector by gender, the majority were female at 74 percent, again sub-Saharan Africa is second after South Asia at 83 percent, as shown in Table 2.6. The male counterparts were in the third position in sub-Saharan Africa at 61 percent. sub-Saharan Africa, where the study is commissioned, is part of the sub-Saharan Africa region and is included in the above reports. Thus, it is evident in the table above that regions with developing economies account for the highest number of workers in the informal sector compared to developed regions. Moreover, developed economies accounted for a lower percentage of workers in the informal sector, as shown in Table 2.6 above (ILO, 2018:1). South Africa, where the study was commissioned, is part of the sub-Saharan Africa, and was part of the report.

In addition, it is beyond the scope of the current study to find the cause of the imbalance in the distribution of work in the informal sector by gender. The capacity of the informal sector to create jobs, reduce poverty and alleviate inequality is emphasised (ILO (1972), and it differs according to regions (Chen, 2012; ILO, 2018; ILO, 2022). Moreover, the informal sector received more recognition for its ability to create jobs and contribute to economic development and as part of the economic agenda at the level of the UN (OECD/ILO, 2019). The promotion of job creation and alleviation of poverty through the informal sector is part of the NDP 2030, which is South Africa's driving economic policy (NPC, 2011), and it is aligned with the UN Agenda 2030 on SDG#8 (ILO, 2018a). The study sought to determine the occupational well-being of own-account or self-employed workers, focusing on street traders (the most visible own-account or self-employed workers in the informal sector) by assessing their work engagement.

Moreover, SMMEs in South Africa are reported to contribute approximately 42 percent of the gross domestic product (GDP) to the country and approximately 38 percent of all jobs to the economy (SEDA, 2022). These are positive contributions in alleviating poverty and reducing the scourge of inequality through the creation of jobs. Despite the mixed reports, the share of SMMEs operating in the informal sector stood at 69 percent, with 29 percent operating in the formal sector (SEDA, 2022). Moreover, the trade and accommodation industry or sector accounted for the higher distribution of SMMEs distribution by industry by at least 38 percent in 2021Q3, and it was the largest industry (SEDA, 2022), as shown in Table 2.7.

Table 2.7: The distribution of SMMEs by industry 2021Q1

Industry	Percentage share (%) in 2021Q3
Agriculture	3
Community	14
Construction	13
Electricity, gas & water	0
Finance & bus. services	16
Manufacturing	8
Mining	0
Trade & accommodation	38
Transport & communication	7
Other	1

Source: (SEDA, 2022)

In addition, many street traders, the focus of the study, operate in the trade and accommodation industry (many in retail industry), which accounts for the highest distribution of SMMEs per industry. The sector shows some potential to positively contribute through job creation and economic growth, which are the pillars in the country's GDP. Although some initiatives were introduced to support the sector, more support is still needed. Support may also benefit street traders, as they are the most visible component of the informal sector. Moreover, compared to the formal sector, the number of jobs created by SMMEs in the informal sector is 68.3 percent, whereas SMMEs operating in the formal sector were 28.2 percent (SEDA, 2022), as shown in

Table 2.8 below. In addition to the number of jobs provided by SMMEs operating in the informal sector, many were self-employed/own-account workers, as shown in Table 2.8 below.

Table 2.8: SMMEs by formal and informal sectors in 2021Q3

Type	Formal	Informal
An employer	465 575	348 595
Own-Account worker	212 211	1 293 264
Total	677 786	1 641 859
% Distribution per sector	28.2%	68.3

Source: (SEDA, 2022)

The distribution of self-employed/own-account workers per formal and informal sector by SMMEs showed that more jobs were created in the informal sector, as shown in Table 28 (also see Table 1.1.). Street traders are mostly self-employed/own-account workers and are thus the focus of the study. The potential of the informal sector for job creation and other economic contributions is affirmed by the presented figures in Table 2.8. Moreover, in South Africa, SMMEs are characterised by a sharp divide between the formal and informal sectors, as shown in Table 2.8, with the majority of SMMEs concentrated in the informal sector (DSBD, 2018; SEDA, 2022); thus, they contribute more to the provision of jobs than their formal counterparts. According to Fourie (2018), the informal sector is and should be an integral player in responding to problems of unemployment, poverty, or inequality. Thus, the informal sector should be taken seriously, addressed explicitly and properly (Fourie, 2018; ILO, 2019; NPC, 2011). The initiatives meant to support and promote the contribution by the informal sector, accessible to such initiative, should be for all. The sector appears to be different from the formal sector in that the labour absorption rate of the informal sector appears to be unlimited. Anyone with a viable business idea and resources to implement it, may try it in the informal sector. Thus, with good and accessible support, the sector could provide more benefits to society.

Moreover, there is a general consensus that SMMEs are an economic engine that is

capable of moving the economic growth, job creation, good health and well-being vehicle for everyone, reducing poverty and alleviating high levels of inequality (Chimucheka & Mandipaka, 2015; OECD/ILO, 2019; Welter, Smallbone & Pobol, 2015). The SMMEs' resulting outputs to economies are consistent and congruent with the UN SDG#8 agenda 2030, which has the basic premise of enduring economic growth per capita together with decent work for everyone who is eligible, leading to indiscriminatory growth (ILO, 2019). All these points to the fact that there is some uncharted potential in the informal sector or that the potential of the sector has not been fully realised. Moreover, the call to increase research in the informal sector to reduce the existing knowledge gap between the informal and formal sectors (UNDP/South Africa, 2020) is most relevant in alleviating mismanagement and misunderstanding of the internal dynamics of the sector as well as their role and significance in the overall economic development. It was envisaged that the current study would bridge the knowledge gap between formal and informal sectors in the field of positive psychology in a small possible way by assessing the work engagement of street traders in the informal sector.

Furthermore, the distribution of SMMEs by province in South Africa shows that the majority are operational in Gauteng Province, as shown in Table 2.9 below:

Table 2.9: Distribution of SMMEs per province

Provinces in South Africa	Number of SMMEs 2021 Q3	% Distribution	Formal % Distribution	Informal % Distribution
Gauteng	917 043	38.1	34.4	64
KwaZulu-Natal	392 283	16.3	22.3	74.4
Limpopo	199 680	8.3	8.4	86.8
Western Cape	260 207	10.8	54.4	39
Mpumalanga	194 831	8.1	11.9	85.7
Eastern Cape	172 333	7.2	19.2	78.3
North West	125 790	5.2	17	77.7
Free State	123 269	5.1	23.3	66.2
Northern Cape	19 129	0.8	52.6	37.1
Total	2 404 564	100		

Source: (SEDA, 2022)

The information in Table 2.9 shows that most of the SMMEs operated in Gauteng at approximately 38 percent, which is twice the number of the SMMEs in the provice at a second place. The current study was conducted in Gauteng, in the City of Tshwane.

Despite the important role informal sector plays, there are still a number of challenges the sector faces in South Africa and in other contexts, such were the focus and are discussed in the following section. Knowledge about the occupational well-being of street traders would tap into the enchanted knowledge, assisting in redirecting resources areas where it matters the most.

2.10. CHALLENGES FACING INFORMAL SECTOR (STREET TRADING)

The potential of the informal sector in addressing social ills associated with factors such as unemployment, poverty and inequality was brought on to the spotlight and discussed in the previous section. Similarly, in any other sector, the informal sector faces dozens of challenges, ranging from support to sustainability of enterprises in the sector, where many do not survive for long after being established. Thus, the focus of the current section is on the discussion of some of these challenges. Despite the contribution made by the informal sector to the economy, businesses in the informal sector continue to experience different enormous challenges (Anyidoho, 2013; Roever & Skinner, 2016; UNDP/South Africa, 2020). For example, operational challenges may range from harassment, arbitrary confiscations of goods, hostile evictions, theft, poor working conditions, lack of or saturated spaces, lack of research on informal work, municipal red tape for doing business, lack of information about funding, questions about the quality, health and safety of products or quality of services as provided by informal enterprises, and lack of social benefits and voice due to union absence, and banishments from operating at some places they used to trade, being limited by the access to proper facilities with proper electricity and sanitation, being regarded as nuisance, and low self-esteem (Anyidoho, 2013; DTI, 2013; Fatoki & Odeyemi, 2010; ILO, 2021; ILO, 2022b; Mosupye & von Holy, 1999; Roever & Skinner, 2016; UNDP/South Africa, 2020), among other challenges. Some of the challenges end up in legal battles through the courts, where some street traders or their representatives fight municipalities for their right to sell (Meneses-Reyes & Caballero-Juárez, 2014).

Most often, street trading is reported to be associated with poor earnings prospects; lack of social protection; poor occupational safety, health, and working conditions; linked

to higher poverty rates; characterised by greater instability, with a greater proportion of people doing odd jobs in a more unstructured way; inconsistent and indirect contribution to GDP; lack of career growth prospects, and employability; prevalence in sale of contraband, or illicit goods, such as illegal cigarette and alcohol, resulting in uncollectable taxes, which are major challenge to the SDG#8 goal for decent work for all agenda (Bhowmik, 2005; Petersen, Thorogood, Charman & DuToit, 2019; UN, 2019). These challenges, of course, appeal for authorities and various role players to be all-hands-on-deck, as recommended by ILO (2019). There is a stigma associated with street trading, such as being labelled as a failure or an outcast, which should be addressed.

The harsh environments under which street traders operate have a tendency to contribute to occupational stress and ill-health, while they are likely to erode occupational well-being (Sassen *et al*., 2018), which is associated with illhealth or unwellness. Moreover, restrictive conditions tend to hinder some street traders with their ability and freedom to achieve and enhance their well-being (Sassen *et al*., 2018). Other challenges associated with street trading include lack of proper control of space allocation due to an overbooming sector; poor planning or implementation of regulatory policies thereof; lack of attractive or appealing trading spaces; unemployment and poverty; lack of access to funding; poor awareness of relevant legislation; poor education; poor unfulfillment of entrepreneurial ambitions; and issues of dwindling survival (Morris *et al*., 2020; Nkrumah-Abebrese & Schachtebeck, 2017). On the other hand, the alarming increasing rates of street trading activities may pose some health-related threats and hazards in terms of available public sanitary facilities, which may be put on strain, rivalry or loss of lives among street traders fighting for or for possible contending for spaces (Nani, 2020). For example, shop owners who pay rentals and utility bills may feel obstructed by street traders selling related goods on the pavements in front of their shops.

In contrast, some factors act as stimulants for the booming of street trading, such as rampant increasing rates of unemployment and poverty, increasing rates of urban migration and urbanisation, a large prevalence of survivalist entrepreneurship types,

and the nature of predominant entrepreneurial intentions (Morris *et al*., 2020; Nkrumah-Abebrese & Schachtebeck, 2017). Despite all these challenges, the number of street traders is reported to be on the increase at alarming rates (Maluleke, 2019; Nani, 2020; Sassen *et al*., 2018; SEDA, 2019; SEDA, 2022). Thus, dimensions of work engagement, namely, vigour, which is described as perseverence under difficult circumstances, are likely to be most dominant dimension for street traders given their increasing persistence in the face of enormous challenges, as outlined and discussed above. Although unions are partially present, the sector appears to be a survival of the fittest, in which case a sense of belonging to a group is important for collective bargaining against issues or attacks. Assessing the work engagement of street traders, who were reported to be on the increase globally, is important, with work engagement being associated with positive work-related outcomes. The study was one of the ways of giving attention to the sector, which has been ignored for too long, with most well-being studies being commissioned in and enriching the formal sector, while the informal sector suffers, despite its growth and number of jobs it is able to create.

Some forms of government intervention are proposed, namely, access to education, health care systems and housing, as money alone is not the only indicator of poverty affecting the occupational well-being of street traders (Yeboah, Owusu, Arhin & Kumi, 2015). Moreover, some hidden costs of informal work, such as lack of social security (health, pension, unemployment, and other job-related benefits), contribute to the lower occupational well-being of workers in the informal sector compared to workers in the formal sector, where such work is provided (Hurtado, Hessel & Avendano, 2017). The provision of such social security coverage among workers and the removal of red tape in doing business in the informal sector, while properly managing it, may increase their occupational well-being, wellness and health (DTI, 2013; Hurtado *et al*., 2017). These interventions, however, are not the casting stone or one size fits all, and some proper assessment should be applied first before their introduction. The assessment of the work engagement of street traders may have long been overdue, given the nature of the sector and the positive outcomes associated with work engagement. The study may appear to be a health check, which is recommended for all individuals to know their health, it may be encouraged in the business environment, especially street traders,

self-employed/own-account workers. Moreover, the resilience of the informal sector, as it survived many challenges, for example, evictions, demolition of structures setup by street traders, prohibited trade in certain areas, arrests, confiscation of goods, poor working conditions, stress, and being despised, could be negatively associated with the elements of well-being (work engagement, namely, perseverence under difficult circumstances).

There are high entrance and attrition rates of street traders (in the informal sector), resulting in most informal businesses not growing or progressing to become sustainable or formal businesses (SEDA, 2019). Approximately 70 percent of SMMEs fail between their first and five years of operation, and the sector is unable to contribute meaningfully in creating sustainable jobs and economic growth (Botha, Smulders, Combrink & Meiring, 2021; Bushe, 2019; Chimucheka & Mandipaka, 2015; Fatoki & Odeyemi, 2010). The high failure rate of SMMEs in the earlier stage of their operation is generally attributable to factors such as lack of support mainly, be it financial, or access to market (Chimucheka & Mandipaka, 2015). The lack of support can also be attributable in part to concerns raised about the existing gap in research and literature about informal enterprises, which has led to less attention, a lack of insight or a limited understanding of the internal dynamics thereof (UNDP/South Africa, 2020).

Despite the high mortality and birth rates of businesses in the informal sector, the informal sector plays a significant role by addressing some of the socioeconomic challenges facing many nations around the world, with a reported GDP contribution of between 10 and 20 percent in developed economies and up to 60 percent in developing economies (Musara & Nieuwenhuizen, 2020). Moreover, in South Africa, businesses operating in the informal sector account for at least between 15 and 17 percent of total jobs and/or approximately 5.2 percent of the GDP in the country (Musara & Nieuwenhuizen, 2020). It contribution is low compared to other developing economies. It is estimated that the informal sector contributes 5 to 6 percent of GDP in the country (Ligthelm, 2006), which rose by approximately 42 percent (SEDA, 2022), almost a decade and half later. Thus, the contribution of between 15 and 17 percents is remarkably acceptable.

Much of the contribution in the informal sector is on job creation, where the sector is reported to be employing more than 2 billion globally (ILO, 2022). Similarly, approximately 2.5 million people, from whom approximately 1.5 million were self-employed/own-account workers, reported working in the informal sector in South Africa (Ligthelm, 2006; Musara & Nieuwenhuizen, 2020; Rogan & Skinner, 2017). Moreover, there were over 2.4 million SMMEs in South Africa operating in the economy, where the majority of these were self-employed/own-account workers at 64 percent, with employers at 36 percent (SEDA, 2022) (also see section Table 2.8 above). Moreover, street trading contributes to the economy by helping the poor thrive and providing the population with services and goods at cheap affordable prices that most larger retailers are unable to provide (Shrestha, 2019). Moreover, thriving workers are full of hope, happiness, energy, interest, and respect (Gallup, 2021). Thriving is one of the elements associated positively with occupational well-being, wellness and health.

2.11. CHAPTER SUMMARY

Chapter 2 presented a literature study focusing on various themes, namely, occupational/work-related well-being and work engagement; the origin, definition, and measurement of work engagement; the discussion of informal sector, economy, and employment; the definitions of the informal sector, economy, and employment; street traders, the most visible self-employed/own-account workers in the informal sector; the potential of the informal sector to create employment; and, last, challenges facing the informal sector (street trading). In addition, the discussions included definitions of the key constructs, paving the way for their measurements.

The chapter provided the findings of various studies and corporate reports on key constructs. These findings from various studies were used for benchmarking against the results of the study to make them more contextualised and meaningful. The literature study was also used to validate and justify the research gap, that the present study aimed to bridge, affirm the importance of the study in the domain of occupational well-being. The chapter was important by grounding the study.

CHAPTER 3: RESEARCH DESIGN AND METHODOLOGY

3.1. INTRODUCTION

In the previous chapter, the study focused on and critically reviewed the literature for the study. The present chapter focuses on and discusses the research design and methodology of the study. Mostly, attention was on how best the problem of the study were systematically solved. In addition, various activities, namely, research philosophy and paradigm, research design, and research methodology, were discussed in the following sections. Moreover, the research methodology section were discussed, including how several activities were executed, including the sampling strategy, data collection and analysis, reporting and ethical implications of the study. To contextualise the study, the chapter starts off by revisiting the research objectives and hypotheses of the study in the following section.

3.2. RESEARCH OBJECTIVES AND HYPOTHESES

The current section, focuses on discussing the research objectives and hypotheses for the operationalisation of the study. The purpose of the study was to determine the occupational well-being of street traders, the most visible self-employed/own-account workers in the informal sector, by assessing their work engagement through the UWES-9. The study was conducted in the field of operations management, focusing on the domain of occupational well-being. The purpose of the study also cuts across the provisions of occupational well-being, wellness, health, and safety in the workplace, which mainly focuses on the well-being of workers. Thus, work engagement is one of the constructs mostly used to assess or determine occupational well-being. To achieve the purpose of the present study, the problem of the study was identified and stated as follows: the assessment of work engagement (determining of occupational well-being) of workers is mostly done on workers in real or conventional organisations, with no or little attention to self-employed/own-account r workers in the informal sector. Thus, it is a concern, as most literature reports that globally, majority of the labour force work in the informal sector. In addition, the literature also quantifies that at least 60 percent of

the labour force works in the informal sector, mostly as self-employed/own-account workers (ILO, 2022a). The informal sector is described and discussed in the previous chapter to include activities that are not protected by the formal provisions of labour laws/policies, especially policies associated with occupational health and safety. The concern is substantial, with so much of the labour force working in the sector, yet occupational well-being studies is on workers in the formal sector, the informal sector being understudied.

On the other hand, the UWES, one of the few valid and most commonly used instrument for assessing work engagement, is reported to be available in more than 31 languages (Merino-Soto *et al*., 2022), and is only validated in the formal sector (Schaufeli & Bakker, 2010). The situation alone, shows that there a research gap between the formal and informal sectors. Moreover, the knowledge gap between the formal and informal sectors is also raised as a concern, with appeals being made that research in various fields in the informal sector must be commissioned and prioritised (UNDP/South Africa, 2020). In addition, Fritsch *et al*. (2019) recommended that to broaden the research knowledge base, those micro-individual level enterprises must be part of research. Therefore, the objectives of the study are identified and divided into two main parts, namely, the primary and secondary objectives. The primary objective was stated and linked to the main purpose of the study as follows:

- Assessing work engagement of street traders, the most visible self-employed/own-account workers in the informal sector, through the UWES-9 (one of the few valid and most commonly used instruments in assessing work engagement).

To achieve the primary objective as stated above, the secondary objectives of the study were formulated as follows:

- To determine the factorial invariance of the UWES-9 in assessing the work engagement of street traders.
- To assess the reliability and validity of the UWES-9 in assessing work engagement in the informal sector.

- To determine if demographic variables, i.e., Age, gender, education, nationality, working with or without family member(s), membership in informal social groups and membership in formal groups, employment status, namely structural or agency motives are related to the work engagement of street traders.

In addition, the hypotheses of the study were also formulated as one of the ways of systematically resolving the problem of the study. The hypotheses of the study were stated and linked to the primary objectives of the study as follows:

- $H1_0$ Street traders are not engaged in their work.
- $H1_1$ Street traders are engaged in their work.

Moreover, the following hypotheses were linked to the secondary objectives of the study:

- $H2_0$ UWES is not internally consistent (reliable) and valid for assessing the work engagement of street traders, the most visible own-account workers in the informal sector.
- $H2_1$ UWES is internally consistent (reliable) and valid for assessing the work engagement of street traders, the most visible own-account or self-employed workers in the informal sector.
- $H3_0$ There is no factorial invariance in the UWES-9 in assessing the work engagement of street traders.
- $H3_1$ There is factorial invariance in the UWES-9 in assessing the work engagement of street traders.
- $H4_0$ There is a significant difference between the work engagement of street vendors based on their demographic characteristics (i.e. age, gender, education, nationality, working with or with no family member(s), membership in informal social groups and membership in formal groups, employment status, namely, structural and agency motives).
- $H4_1$ There is no significant difference between the work engagement of street vendors based on their demographic characteristics (i.e. age, gender, education,

nationality, working with or with no family member(s), membership in informal social groups and membership in formal groups, employment status, namely, structural and agency motives).

The purpose, problem, objectives, and hypotheses of the study were outlined and used to determine the direction study ought to take. The purpose and objectives of the study were achieved once the problem of the study was solved, and the hypotheses were tested.

3.3. PHILOSOPHY, PARADIGM AND APPROACH TO THEORY DEVELOPMENT

In the previous section, the research objectives and hypotheses were outlined and briefly explained. The section focused on and discussed the research philosophy, paradigm, and approach to theory development applicable to the study. Moreover, Saunders *et al.* (2016); Saunders *et al*.(2019); identify:

- Research philisophy to include positivism, critical realism, interpretivism, postmodernism and pragmatism;
- Research paradigm to include functionalist, interpretive, radical humanist and radical structuralist; and
- Approach to theory development to include deductive, abduction, and induction.

However, there are different research philosophies and approaches to theory development proposed in the literature. Other scholars outline and stress or emphasise other variety of philosophies (Denicolo & Becker, 2012; Freytag & Young, 2017; Leedy & Ormrod, 2015; Neuman, 2014). The research philosophy, paradigm and approach to theory development applicable to the study were discussed in separate sections below, starting with research philosophy.

3.3.1. Research philosophy

The research philosophy is described as a system of assumptions and beliefs about the

process of knowledge and theory development (Leedy & Ormrod, 2015; Saunders *et al*., 2016; Saunders *et al*., 2019). There are, however, different definitions of research philosophies available in the literature (Creswell, 2003; Creswell & Creswell, 2018; Dane, 1990:21; Neuman, 2014; Žukauskas, Vveinhardt & Andriukaitienė, 2018). The nature of the present study is that the problem has been identified, and relevant data should be collected to objectively solve the problem of the study. The process of doing so is known as the philosophy of the study, which is explained as the beliefs and assumptions that are necessary to solve the isolated problem and contribute new knowledge to the body of existing knowledge/literature. Hence, according to Dane (1990:25), any set of rules that defines what acceptable knowledge is may be referred to as a philosophy of science. It was assumed that the set of procedures taken to systematically solve the identified problem of the study ultimately lead to acceptable solutions in the form of new knowledge that may be added to the body of existing literature.

Moreover, given the nature of the study, the most appropriate research philosophy out of the identified list of research philosophies is positivism. In positivism, the study investigated and explained the relationships between phenomena. The relationship may either be causal or correlated. It involves determination and manipulation of variables involved in the situation of the study (Denicolo & Becker, 2012). Positivist philosophy is premised on the research's point of views of scientific inquiry. The point of view of a scientific inquiry is described as series of logically related steps, believing in multiple perspectives from participants, espousing rigorous methods of data collection and analysis (Creswell, 2003; Creswell & Creswell, 2018). Moreover, in the study, a series of logically appropriate related steps included the application of ethical certificates, performing pretest and pilot studies, collecting data from participants, analysing the data, and reporting the results. Furthermore, Creswell (2003:24); Creswell and Creswell (2018) argue that in positivism, data analysis are multiple levels for rigor, which employ computer programs to assist in analysis, to promote validity and reliability, and to writie the study in the form of scientific reports with appropriate and relevant structures.

In the present study, there were various levels used for data analysis for rigor, such as

frequency analysis, internal consistency reliability analysis, CFA analysis and group analysis. These systems provided the study to adopt a particular structure, which the final report took. To that effect, the entire work is arranged into appropriate chapters that gave the report a solid structure, such as the introductory chapter, Chapter 1, which is followed by the literature/scholarly review, Chapter 2; research design and methodology, Chapter 3; quality assurance: pretest and pilot studies report, Chapter 4; data analysis and reporting, Chapter 5; and conclusion, and recommendations, Chapter 6. There are also many activities that are carried out in the study that outline a systematic approach to solving the identified problem of the study. All these are the characteristics of and are associated with positivist philosophy (Denicolo & Becker, 2012). All these activities were meant to improve the validity of the study.

Furthermore, in positivism, the study provides possible explanations, refines them to propose an explanation in the form of hypotheses. In addition, the hypothesis is a statement about relationship between two or more variables that is measurable in an objective manner (Denicolo & Becker, 2012). In addition, the nature of collected data tends to be quantitative in positivist philosophy (Denicolo & Becker, 2012). The study determined the occupational well-being of self-employed/own-account workers in the informal sector (street traders) by assessing their work engagement, hypotheses are formulated. Quantitative data were collected to test whether the formulated hypotheses were supported or not supported. The results either support or do not support the formulated hypotheses in a manner that is objective. The process of testing the hypotheses for support or not supported contributed valuable knowledge to the body of existing literature through theory development. Therefore, the activities of the study were guided by these basic sets of beliefs and assumptions, which were described as the positivist philosophy of the study.

Moreover, positivists believe that, with measurement tools that are appropriate for the study or scientific inquiry, scientists are able to objectively learn the absolute, tested truths about cause-and-effect relationships within the physical world and human experience (Leedy & Ormrod, 2015). In the study, the UWES adapted and is appropriate as one of the few validat and mostly common used instruments for assessing work

engagement used in different contexts and countries, including South Africa. The instrument is also available in more than 31 languages (Merino-Soto *et al*., 2022) and was most appropriate to objectively learn about absolute, tested truths about cause-and-effect of work engagement of street traders in the City of Tshwane.

3.3.2. Approach to theory development

In addition, all these approaches discussed above follow a positivist philosophy and deductive paradigm in knowledge or theory development. A deductive approach requires the study to identify a clear theoretical position when the study drafted the research question (Saunder *et al*., 2016). The deductive reasoning approach to knowledge or theory development occurs when the conclusions of the study are logically derived from a set of premises and the conclusions are true, as all the premises are true (Saunder *et al*., 2016). Moreover, if the research starts with theory, often developed from the literature, and the research strategy to test the theory is designed, the study uses a deductive approach (Saunder *et al*., 2016). The study determined the occupational well-being of street traders, the most visible self-employed/own-account workers in the informal sector, by assessing their work engagement through the UWES-9. Work engagement is the underlying theory, which is underpinned by the broader theory of occupational well-being, wellness and health, a positive psychology domain, guiding the study. Work engagement is one of the constructs that is often used to assess occupational well-being at the individual or personal level.

The research project was designed to test a theory by adopting a theoretical position that was clear and tested through the collection of data. In addition, the research project is theory driven and uses a deductive approach (Saunder *et al*., 2016). Moreover, how theory is developed also provides a crucial and valid reason for recognising it when writing the research objectives (Neuman, 2014). The theory that the study tested is work engagement, which is a subtheory of occupational well-being, a domain of positive psychology, developed based on quantitative studies. In fact, work engagement as a theory is used to assess occupational well-being at the individual level. Therefore, the research problem statement was formulated for the study. The problem of the study was

followed by the formulation of the hypotheses, which must test a theoretical position of the study. Data were collected and reported in the subsequent chapters using the UWES instrument. The UWES was developed based on the well-defined theory, namely work engagement. The collected data were analysed to determine if the hypotheses are either supported or not and reported in the appropriate sections.

3.4. RESEARCH DESIGN AND METHODOLOGY

In the previous section, the focus was on the discussion of research philosophy, research paradigm and approach to knowledge and theory development. The focus of the present section is on the discussion of the research design and methodology underpinning the study. The literature reveals that researchers or scholars use these concepts interchangeably, namely, 'research design' or 'research methodology' (Mouton, 2001:55). Each of these concepts were discussed in separate sections below, starting with the research design.

3.4.1. Research design

The focus of the current section is on the discussion of the research design underlining the study. Mouton (2001:55) argues that these concepts do not mean the same thing and describe research design as a plan or blueprint details of how the study is intended to be conducted, whereas research method is described as how a study will be conducted, including issues such as literature study, sampling design, measurement, data collection, data analysis and interpretation. Furthermore, Mouton (2001:56) distinguished research design from research method by stating that a research design:

- Explains the kind of study and results being planned and aimed at, respectively.
- The research design is informed by the chosen research problem.
- Explains the kind of required evidence to adequately solve the research problem.

Whereas research method:

- Focuses on specific research processes, tools, and procedures to be used.
- The points of departure are on specific tasks, for example, data collection or sampling process.
- Focuses on the individual (not linear) steps in the research process and most objective (unbiased) procedures to be employed.

In contrast, a research design is described as involving a set of decisions regarding what topic should be studied, among what population, with what research methods, and for what purpose (Babbie, 2008). A research design is also described as a choice of a research method and a research methodology as a step-by-step process or key activities in the implementation of a chosen research method (Cassim, 2017). A choice of a particular research design is informed or based on the type of research problem it is able to solve (Cooper & Schindler, 2014; Mouton, 2001:56). In addition, as a plan, research design contains clear objectives that re derived from the research problem, specifies the sources from which data must be collected, and provides details on how the proposed data will be collected and analysed (Saunder *et al*., 2016; Saunders *et al*., 2019). The plan also discusses ethical issues and outlines some of the constraints that are inevitable in the study and ways in which those will be dealt with (e.g., access to data, time, rising cost of conducting research) (Saunder *et al*., 2016; Saunders *et al*., 2019). There is, however, no clear description of research design or research methods in the literature.

Therefore, with all these explanations of what constitutes the research design and the nature of the present study, the research design for the study is described as an empirical, (cross-sectional) survey, and explanatory study. Each of these descriptive elements was briefly explained, starting with the empirical study element. Empirical survey studies are quantitative in design, aiming to provide a broader overview of a sample that is representative of a large population (Mouton, 2001:49). The present study was quantitative and collected quantitative primary data on a once-off basis (cross sectional survey) from a sample of a specified population (street traders) to broadly answer the questions of the study. The study has an explanatory element, as it sought to determine the occupational well-being of street traders, the most visible self-

employed/own-account workers in the informal sector, by assessing their work engagement.

In addition, the study explained whether the UWES can be used to assess work engagement in the informal sector. The study was based on the theory of work engagement and tests the formulated hypotheses. The sampling, as one of the elements for describing the research design, is nonprobability, wherein convenience sampling were used. Data were collected on a face-to-face interviewer-administered structured survey questionnaire (UWES-9) to explain the work engagement of street traders. In addition, the data were used to test and explain whether the UWES is valid for assessing work engagement in the informal sector. Data were analysed using descriptive and inferential statistics through SPSS version 28, where frequencies, reliability tests, CFA, and group analysis were conducted and results reported in the relevant section. Most of the activities outlined in the section were explained in relevant sections or chapters.

Furthermore, Mouton (2001:49) argues that the main aim of the research design is to:

- Explain the type of study that will be undertaken to provide acceptable solutions to the research problem.
- Explain why a particular design has been chosen; and
- Explain the possible challenges or limitations that must be managed.

The research problem of the present study determines and guides the choice of research design as recommended in the literature (Babbie, 2008; Cooper & Schindler, 2014; Mouton, 2001; Saunders *et al*., 2016; Saunders *et al*., 2019). The nature of the research problem of the study has prompted the need for quantitative data to be collected from street traders to solve the problem of the study. Most work engagement studies using the UWES are quantitative studies. Quantitative data were collected from the participants (street traders) through a survey questionnaire (UWES). Due to the nature of the work of street traders, which is not structured and lack of reliable records of street traders, a face-to-face interviewer administered survey questionnaire for data

collection were used. The participants were recruited to participate in the study using a nonprobability (convenience) sampling method. The convenience sampling was explained in details in section 3.4.3 below. Thus, all these summarises the reasons for conducting empirical, cross-sectional, interviewer-administered quantitative surveys and explanatory study. In the following section, the research methodolody of the study is discussed.

3.4.2. Research Methodology

In the previous section, the rationale for choosing a research design followed in the study was discussed. Having provided a clear discussion of and various elements that constitute the research design for a study, the next step in the research process involves identifying and explaining the rationale for using a particular research methodology in the study. It has already been acknowledged above that there is always lack of clarity in the use of concepts of 'research design', 'research methods' and 'research methodology', and are always used interchangeably (Cassim, 2017; Freytag & Young, 2017; Mouton, 2001; Saunders *et al*., 2016; Saunders *et al*., 2019). Moreover, Saunders *et al*. (2016); Saunders *et al*., 2019); and Mouton (2001) summarise the research methodology by outlining the following elements:

- The focus of research methodology is on the research process, kind of tools, and procedures used in various stages of the study.
- The tasks at hand are the points of departure for the research methodology, such as literature study, data collection or sampling.
- The focus of the research methodology is on individual steps in the research process, ensuring the most objective or unbiased procedures.

There are, however, different explanations available in the literature about these terms 'research method' and 'research methodology' (Cooper & Schindler, 2014; Neuman, 2014; Saunders *et al*., 2016; Saunders *et al*., 2019). The study drew from the wisdom provided by various scholars or authors, such as Mouton (2001), among others. The section of the research methodology was by no means going to exhaust all the different

explanations of what research methodology is or is not. However, congruent with the above provided description, the research methodology of the current study was described to include the following steps, procedures, and techniques necessary for answering the identified research questions. These included the following:

- Description of the population.
- Ethical implication.
- Sampling (sampling techniques; sample size) process.
- Data collection process (data collection instrument).
- Data analysis and interpretation.

All these steps constituted the research methodology of the study. These steps are discussed in more explicit detail in the sections that follow.

3.4.2.1. Study population

The present section focuses on the discussion of the population of the study. The study determined the occupational well-being of street traders, the most visible self-employed/own-account workers in the informal sector, by assessing their work engagement using the UWES in the City of Tshwane. The population of a study is described as a homogenous group of individual units or people on which the study aims to make some inferences (Cooper & Schindler, 2014; Leedy & Ormrod, 2015). There are, however, many different definitions or descriptions of the population of the study (Cassim, 2017; Freytag & Young, 2017; Mouton, 2001; Neuman, 2014; Saunders *et al.*, 2016; Saunders *et al*., 2019). The population of the present study was described as the street traders working in the City of Tshwane. Street traders are the most visible self-employed/own-account workers in the informal sector. These include persons trading from the street pavements offering goods for sale to the public without having a permanent, built-up structure or outside enclosed premises or covered workspace from which to sell. Many street traders sell at public axes or places, bus stops, other public places (next to shopping complexes, factories, construction sides, hospitals), alleyways, avenues, boulevards, street pavements and sidewalks.

The people may be trading in different goods or offering different services, and the homogeneity or commonality is that their trades were conducted in the streets, were not registered, have no permanent build-up structure and were mostly run by self-employed/own-account workers. The many visible street traders trade as retailers, selling food (where customers would buy, sit and eat or takeaways, bread (quarters/sphatlos), precooked or braai mielies or chicken feet, heads, gizzards, and hearts); baking fat-cakes, selling scorns, fruits and vegetables and some snacks, cigarettes, eggs, barbers, sewing clothes, and jumble sales in open spaces or at junctions, next to malls, factories, taxi ranks, schools and churches, on pavements along some main streets. These areas covered for the study include Stanza Bopape street, former Church Street, and many adjacent areas such as Marabastad. Those were the areas that were targeted for maximum participation by participants in the study. Street traders doing their business within the demarcated areas of the study were eligible to participate in the study. The area to be covered for the study was the city of Tshwane central and surrounding areas, where there are many street traders. The areas covered are shown on the map in Figure 1.1, covering parts of the following streets, namely, Pretorius, Francis Baard, WF Nkomo, Nana Sita, Schubert, M18, Paul Kruger, Bosman streets and some surrounding areas. There were areas with bus and train stations and shopping complexes found in the area covered, as shown in Figure 1.1.

3.4.2.2. Ethical implications of the study

The focus of the section is on the discussion of the ethical implications applicable to the study in its entirety. Having explained the target population of the study, which was revealed in the previous section, the current section discusses the ethical implications in relation to various activities that were undertaken for the study, including data collection involving the target population. Research ethics is the question of honesty in the way data are collected, analysed, interpreted, and reported (Leedy & Ormrod, 2015; Unisa, 2016; Walliman, 2017). In addition, Leedy and Ormrod (2015), Unisa (2016), and Walliman (2017) summarise that by explaining exactly how a study arrived at certain

conclusions, it eliminates accusations of cover-ups or false reasoning by ensuring that these two fundamental aspects of ethical issues were adhered to, namely:

- Values of the study associated with frankness, honesty, and personal integrity.
- Fair treatment of objects or participants in the study by respecting their informed consent, confidentiality, and anonymity.
- Protecting participants from harm, participation should be voluntary, informed participation, right to privacy, and honesty with professional colleagues.

Moreover, the application of the principles underpinning ethical practice may be quite difficult, despite being fairly clear or easily understandable (Walliman, 2017). In cases where it becomes difficult to make a trade-off between the demand of the study and ethical dilemma, the researcher turned to Unisa (2016) policy on research ethics and the supervisor(s) for their wisdom and advice. The Unisa (2016), policy on research ethics is kept at hand all the times in all the stages or steps of the study for reference and counselling. Proper guidance was sought from the research policy on ethics on how to conduct research involving human participants. All decisions that were arrived at are grounded on ethical principles. Some of the ethical activities were outlined as follows:

- Applying for ethical clearance.
- Requesting permission to use the UWES-9 research instrument.
- Requesting permission to conduct study from the City of Tshwane municipality.
- Requesting consent to participate in the study during the data collection exercise (informed consent).
- Maintaining honesty and integrity in the reporting of results.

All these activities are briefly discussed in the following sections.

3.4.2.2.1. Permission to use the research instrument (UWES-9)

Mouton (2001:100) identifies two main options for collecting data, namely, the study may either use existing or design or construct new instruments. In the current study, the

first option is used, namely, the use of an existing instrumentation. In addition, according to Mouton (2001:100), the option taken for the study offered advantages such as saving time and costs, as the instrument is one of the few valid and reliable and most commonly used in assessing work engagement. However, there were some risks relating to the choice of the current study, which included legal and ethical access to instrumentation due to copyright, as some of the instruments are registered with copyright protection (Mouton, 2001:101). Permission to use the research instrument (UWES-9) was requested and is granted, as the instrument is copyright protected. In addition, the permission is part of the ethical application process. The accompanying condition for permission to use the instrument was that it must be used for academic purposes was be adhered to.

3.4.2.2.2. Permission to conduct study involving gatekeepers

Permission to conduct a study involving gatekeepers is discussed in the current section. According to Unisa (2016), policy on research ethics is the first activity that a study has to request prior to the application of ethical clearance. Gatekeepers are described as persons/institutions/departments that by the right of their position of authority are recognised as a channel of access to a research site and/or participants (McSweeney & Williams, 2019; Unisa, 2016). In the study, the City of Tshwane municipality was perceived as the gatekeeper. The City of Tshwane was approached and permission was applied for and is granted. Although the City of Tshwane had some challenges in maintaining a proper reliable database, street traders operate in their jurisdiction, some permission was requested and granted. The city of Tshwane further requested the sharing of knowledge once the study was completed, which will be done in the form of a report or presentation. The request will be honoured once the study is completed. The sharing of knowledge will be in the form that is most acceptable to both the City of Tshwane and University of South, for which the study was conducted. Contacts will be kept open for further communication with the City of Tshwane.

3.4.2.2.3. Application for ethical clearance

In the current section, the focus is on the discussion of the importance of the ethical clearance certificate and the processes followed in the study for application. In the study, human participants were involved. Therefore, ethics involving human participants are considered appropriate for ethical clearance. Ethical clearance was applied and awarded for the study by the Department of Operations Management (OPS), in the College of Economic and Management Sciences (CEMS) with a reference number ERC reference #:OPS/2020/003. It included an explanation of how issues of informed consent, privacy, confidentiality, and anonymity were addressed in the study. One of the conditions for the application of an ethical clearance certificate is that permission from the gatekeepers must have been obtained; permission to use the instrument must have been granted. In the current study, all these processes were adhered to in compliance with the university policy on research ethics at Unisa (Unisa, 2016). The ethical clearance application was approved by the relevant body at the University of South Africa's Department of Operations Management, and an ethical clearance certificate was obtained. The study assured that all conditions in the ethical clearance certificate was adhered to or complied with.

3.4.2.2.4. Informed consent

The policy on research ethics emphasises that informed consent for studies involving human participants should be complied with (Unisa, 2016). Informed consent is an ethical obligation in which a researcher provides information about the possible risks involved in participating in the research project to allow participants to base their participation on volition (Babbie, 2008:69). There are, however, many different definitions of informed consent available in the literature (Cooper & Schindler, 2014; Denicolo & Becker, 2012; Leedy & Ormrod, 2015; Mouton, 2001; Neuman, 2014; Saunders *et al*., 2016; Saunders *et al*., 2019; Unisa, 2016). The commonality about most of the definitions of informed consent is that, in most of them, potential participants must receive full disclosure about the procedure of the study before requesting permission to proceed with the study.

Moreover, in the present study, consent was requested from the participants on the verbally encounter with potential participants, that was, upon introduction to the potential participants. If participant agreed from the verbal requests to participate in the study, the study was allowed to proceed. If the potential participant rejected to participate in the study, the research respected that and move on to recruit other participants. The information sheet provided an explanation of the issues of informed consent, anonymity, confidentiality, volition, and other rights enshrined in the Unisa (2016), policy on research ethics, was provided and was given to the participants after the interwiews were completed for their future reference. In summary, these were not the only ethical principles applicable to the study, and the study were conducted within the confines of various policies at the Unisa. Compliance were ensured that the study was mainly conducted in a manner that did not bring the university (Unisa) into disrepute.

3.4.2.2.5. Measures taken to ensure anonymity and confidentiality

In the previous section, the process that was followed to obtain informed consent from participants was clearly discussed. In the current section, the focus is on the discussion of the process of ensuring protection of the confidentiality of information and anonymity of participants. The study took guidance and implemented the recommendations as contained in the Unisa (2016) policy on research ethics. The policy on research ethics compels studies to preserve research records for a minimum period of five years for audit purposes after the submission of the report or the results of the study (Unisa, 2016).

In the study, the personal information that were collected from participants was when participants were requested to sign the informed consent form and to indicate if they may be contacted at a later stage to alert them about the readiness and availability of the report, where participants provided or declined to provide their cell phone numbers or email addresses. In addition, Unisa (2016), policy on research ethics, requires that informed consent be signed as a confirmation that all the necessary information related to the study was disclosed, and the associated risks of participation were explained to

the participants. The information were treated with a high level of confidentiality in the study. Anonymity is guaranteed in research when neither the researcher nor the readers of the report (findings) of the study can identify a given response leading to the identification of a particular respondent/participant (Babbie, 2008:69; Denicolo & Becker, 2012; Mouton, 2001). The report of the study was written on aggregate responses, and not on the individual participants, anonymity and confeditiality were guaranteed.

Paper-based signed informed consent forms that contain the names and signatures of respondents and the questionnaires that contain the responses of participants and their contact numbers/email addresses are kept in a secured location and are only accessible to the main researcher in the study. The personnel involved in the study included the researcher, the supervisors, and statistician, who were made aware of the obligation to protect the confidentiality and anonymity of the data as provided by the respondents as recommended by Mouton (2001) and Unisa (2016). The report does not contain any name of respondents or personal identifiers. To achieve the above, all individuals who worked on the collected data, namely, the researcher, survey interviewers or fieldworkers, are aware of the issues of ethics.

3.4.2.2.6. Data storage and procedures for disposal

In the previous section, the anonymity and confidentiality of the participants were discussed, and the data storage and procedures for disposing data when the storage time had elapsed were explained in passing. In the current section, the focus was on the provision of detailed discussion on how data were stored and would be disposed. These were also part of the ethical implications in the study. The paper-based records relating to the study were stored in a locked safe place for a minimum period of five years as stipulated by the policy on research ethics (Unisa, 2016). Since participants consented, the documents included the informed consent, which were in hard copies where some contained names and contact details of participants.

In addition, soft copies, which were computer-based records, were only be available to the researcher, supervisor(s), and statistician involved in the study using access privileges such as passwords. The researcher controls access to all electronic records and is the custodian of administration of all the research activities. Thus, the promotion of the confidentiality of participants was ensured. The data was transferred from hardcopies into a spreadsheet, the electronic version of data storage in a computer file. The researcher was responsible for transferring data from the paper base into the computer file on the spreadsheet. On the spreadsheet, the numbers were used to label respondents. Moreover, a computer spreadsheet file was created, and participants were allocated pseudonames, such as Respondents 1, 2, and 3. It was one of the steps for ensuring privacy, anonymity, and confidentiality.

Furthermore, neither the statistician nor supervisor have access to the hard copies, but such might be made available to them for audit, should such be required or requested for at a later stage. Moreover, most of the study-related work were done remotely, with the aid of computer and internet gadgets. Most communications between the role players were based on emails. Once it was established that the data captured were clean and free of any material errors, the hardcopies were taken to a safe place with lock or access control and stored for a minimum period of five years, which is a standard operating procedure according to policy on research ethics (Unisa 2016). The data are kept in a safe place for at least five years for audit purposes. Once the minimum period of five years has elapsed, the hard copies (questionnaires and informed consent forms) and soft copies of data files will be destroyed. The evidence of destroyed hardcopies and electronic files will be captured either by camera, wherein such will be kept as evidence that data or data files are destroyed or deleted. In each stage or step in the study, some ethical implications related to the activity in question will be complied with, as recommended in the Unisa (2016), policy on research ethics.

In summary, having all these ethical documents available, namely, permission from the City of Tshwane, permission for use of instruments, and ethical clearance certificates, served as stimulants in the data collection process. Participants would see that the

preparation of the study covered most important areas, thus legitimising and improving the credibility of the study.

3.4.3. Sampling strategy or design

In the previous sections, the study provided a clear discussion of the population and ethical implications of the study. In the current section, the study focuses on the discussion of the sampling strategy or design. Sampling is defined as the process associated with the selection of participants from a well-identified population of the study (Dane, 1990; Saunders *et al.*, 2016; Saunders *et al*., 2019). There are, however, different definitions or explanations available in the literature on what sampling is about (Cooper & Schindler, 2014; Neuman, 2014). Moreover, when sampling is chosen, a determination is made on which and how many people must be interviewed (Cooper & Schindler, 2014). There are different sampling designs available in the literature, namely, probability (random selection of the sample from the overall population is made, examples are simple random sampling, systematic sampling, stratified sampling, proportional stratified/random-digit dialling sampling, and cluster sampling) and nonprobability (members of the population have little or no chance of being chosen as a sample, examples are convenience sampling, quota sampling, purposive sampling), which may be more or less appropriate in different situations and for different research questions (Leedy & Ormrod, 2015:177; Neuman, 2014). In the study, the nonprobability convenience sampling technique was used. Convenience sampling technique is also referred to as accidental or availability sampling (Curtis & Curtis, 2011; Dane, 1990; Leedy & Ormrod, 2015:177).

In addition, Saunders *et al*. (2016) recommend that in some business research, it may either be possible or not be appropriate to use probability sampling in solving the research problem or test for the formulated hypotheses. Moreover, it is argued that social research is often conducted in situations that do not permit or allow for the kinds of probability samples to be used, especially when there is no available list of potential participants (Babbie, 2008:203). These results suggest that the sample may be selected in some other ways, where nonprobability sampling provides a range of alternative

techniques to select samples, the majority of which are elements of subjective judgement (Saunders *et al.*, 2016:295; Saunders *et al*., 2019). It is the case in the study, where factors such as the lack of a credible database or list from which to draw a sample frame is also one of the main reasons for opting for convenience sampling.

In addition, in the study, attempts were made to use probability sampling, which was preferred for the study, by requesting the list of street traders from the City of Tshwane who were operating in their jurisdiction, from which a sample frame would have been drawn. However, practicalities as mentioned above made it impossible to use probability sampling; thus, an alternative convenience sampling is used. Although there are some criticisms about convenience sampling, if the sample reflects the population, the convenience sampling technique is appropriate, the outcomes of the study may be acceptable (Bono & McNamara, 2011). A convenience sampling technique, which is one of the nonprobability sampling techniques, is appropriate, applied, and used in the study. Convenience sampling is preferred because it allowed samples to be selected based on their availability, provided the study with the opportunity to directly recruit and interact with traders on the ground in a real social environment.

3.4.3.1. Sample size and its relation to data analyses

In the previous section, the focus of the study was on the discussion of the sampling design process, with special attention given to the sampling technique. In the current section, the focus of the study is on discussing a size of sample. A size of a sample implies the degree of precision with which the study wants to draw conclusions or make predictions about the population being investigated (Cooper & Schindler, 2014; Leedy & Ormrod, 2015). There are various complimentary factors that influence decisions on the sample size, for example, the greater the dispersion or variance within the population, the larger will be the sample size to provide estimation precision; a sample size is informed by the research objectives of the study, in particular, what the study seeks to assess, what will be useful, credible and what can be done with the available resources; a sample size is dependent on type of data analysis to be carried out, and the degree of confidence in sample accuracy needed for research purposes (Cooper &

Schindler, 2014; Neuman, 2014; Pallant, 2016; Saunders *et al*., 2016:295; Saunders *et al*., 2019). In the study, various factors came into play, namely, the homogenous nature of the population (street traders), the sampling technique used (convenience sampling), and the degree of precision with which to draw conclusions (reliability test, validity test, CFA tests). A necessary precaution was taken to ensure adequate sample size and appropriate to answer the research questions by performing the measures that were needed.

There are various tests that needed to be performed for the study, namely, reliability tests, validity tests, CFA tests, and ultimately group analysis tests. There are a number of recommendations available in the literature about the number of cases required to perform both CFAs, namely, at least 200 completed questionnaires for CFA (Hinkin, 1998; Pallant, 2011). Alternatively, it is argued that it is not the overall sample size that is of concern but rather the ratio of participants to items, wherein there is a 10:1 ratio, that is, ten cases for each item to be factor analysed (Pallant, 2020; Pallant, 2011). However, Burns and Burns (2008) only recommend 5:1 cases for each item to be adequate for factor analyses. In the study, the notion of the larger the sample the better was applied, and not the cases of responses per item. Considering the cost and time implications, the recommended completed questionnaires, the study collected anything above 200 completed questionnaires.

3.4.4. Data Collection Process

Once the target population for the study was clearly identified and described and the sampling strategy explained, the next step in the research process involved the discussion of the data collection process. In the current section, the study focuses on the discussion of the data collection process.

3.4.4.1. Data collection instrument - UWES-9

The focus of the currect section is on the discussion of the data collection instrument for the study. Quantitative data was required for the study, and the UWES was the

correct instrument and was adapted for the study. The UWES is a survey questionnaire collecting quantitative data. Furthermore, the questionnaire has only 9 items, with other few items for demographic information for the present study. It is recommended that shorter surveys are easier to complete and have higher response rates and levels of participation than longer instruments (Levenson, 2014; Schaufeli *et al*., 2006). The psychometric properties of the instrument is known, and the reliability and validity of the instrument are established. Fo example, the report of internal reliabilities of the UWES-9 through the Cronbach alpha (α) coefficient statistics across 10 different countries (Australia, Belgium, Canada, Finland, France, Germany, The Netherlands, Norway, South Africa, and Spain), with South Africa included, varied between 0.85 and 0.92, with a median of 0.92, and were satisfactory (Schaufeli *et al*., 2006). The UWES is one of the few valid and most commonly used instruments for assessing work engagement and is also available in more than 31 languages (Gifford & Young, 2021; Merino-Soto et al., 2022; Schaufeli *et al*., 2019).

3.4.4.2. Preprest and pilot studies

The focus of the current section is to briefly explain rationale for conducting the pretest and pilot study. The study were conducted on the self-employed/own-account worker in the informal sector. It is recommended that either pretest and/or pilot study be conducted for all surveys(Fink, 2017:8). In the survey study, both the pretest and pilot studies were conducted. The purpose of the tests included improving the quality of the data collection instrument and the presentation of the instrument. These ensured that the instrument collected the relevant data needed for solve the problem of the study. The details of the pretest and pilot studies were explained in Chapter 4.

3.4.4.3. Data collection process

In the previous section, the data collection instrument that was used for data collection for the study was briefly discussed. Once the refinement of the instrument through the pretest and pilot studies was completed, the instrument was ready for data collection. In addition, the Unisa (2016) policy on research ethics cautions that data collection must not be commenced before all ethical processes have been completed, were complied

with. Most of the main ethical aspects pertaining to the study complied with prior to the commencement of the data collection process as explained in section 3.4.2.2. The area where the data were collected was identified and was already described. The fieldworkers were recruited and trained for the data collection process shortly after the pretest and pilot study reporting. Efforts were made to recruit fieldworkers internally at the Unisa, wherein flyers were distributed at Sunnyside Unisa Campus and Main Campus a month and half prior to the data collection process. The recruitment process was only consider for candidates from outside when none from inside Unisa was interested.

Potential participants were recruited to take part in the study using convenience sampling methods or on availability. The fieldworkers, including the researcher, approached potential participants (street traders) face-to-face (in person). A brief introduction was initiated with street traders, where the main reason for the visit was verbally summarised, and afterwards, a request to participate in the study was made. When the request was granted, other details of how the study was conducted was explained to the potential respondents, including their rights and how the data was managed to ensure confidentiality. The process of interview was only carried with potential participants after they verbally consented. Participation in the study was voluntary, and participants could withdraw at any stage of the data collection process without penalty. However, the main approach was to administer the questionnaire to potential participants by reading out the questions and recording the responses; only when they insist on completing the questionnaire on their own were allowed to do so. Once all the quality assurance process was completed, namely, pretest and pilot studies and reporting thereof, the data collection process in the main study commenced.

3.4.5. Data Analysis Process

In the previous section, the focus was on the discussion of the process of data collection for the study. The section included explaining the technical aspects of the data collection process, ranging from recruitment of participants right through to the stage where a survey was completed or data were collected. In the completion of the data collection

process, the next step involved the preparation of data for analysis, interpretation, reporting and discussion. The process was important since it focused on using the data to solve the research problem of the study by testing the formulated hypotheses. The data analyses process involved other processes of data preparation, analyses, interpretation, reporting and discussion. Each of these steps were briefly discussed in separate sections, starting with data preparation.

3.4.5.1. Data preparation (data editing and capturing)

The focus of the current section focuses on the explanation of the data preparation process. Moreover, data preparation activity included other subactivities, namely, data editing, data coding and data capturing (Mouton, 2001:108). All completed questionnaires was collected on a daily basis by the researcher from the fieldworkers. The questionnaires was quality assured and checked for proper completion and usability. Once the questionnaires were cleared for any material errors, data were transferred from the questionnaire to a spreadsheet computer file or soft file. Thus, assigning codes made it easy for the data to be transferred from questionnaires to computer spreadsheet files. The numbers or figures were used as codes. The data capturing of a small quantity of completed questionnaires contributed in part to the quality improvement of the data capturing process through data editing. The data capturing process was gradually continued as and when questionnaires were completed until the data collection process was completed. Data capturing and editing were concluded shortly after data collection. The coding manual were prepared during the pretest and pilot studies with refinements for the main study. Moreover, Neuman (2014) recommends organising data into a form suitable for computer entry. The gradual data capturing process into spreadsheet computer files or soft files as and when the questionnaires were completed reduced the burden of having to wait for the entire data collection process to be completed, then start with data preparation and capturing. Quality assurance flowed throw the entire data collection, preparation and capturing processes.

The spreadsheet computer files and coding manual were shared with the statistician,

who were performed some quality assurance process. Once the data passed the quality assurance assessment process, the next step was then uploaded into IBM SPSS version 28 for analysis. The counsel for team members, namely, the supervisor, researcher, and statistician, was solicited to improve all the processes. Once consensus was reached about the quality of the data capturing process, the data were subjected to the analysis process.

3.4.5.2. Data analysis and interpretations

In the previous section, the data preparation process, that is, the process of getting data ready for analyses, was discussed. The focus of the present section is on the explanation of the processes of data analysis. There are different approaches that researchers may follow or apply in data analysis process. Each process is chosen based on appropriateness to analyse data to achieve the purpose for which data were collected for for the study. Moreover, it is recommended that data analysis should always be considered when determining a data collection method and data sources (Grinnell & Unrau, 2011). All these recommendations were considered well in advance during the earlier stages problem statements through to research design and methodology for the study.

Moreover, the data analysis process for the present study was chosen to be a descriptive quantitative data analysis process. The data from the spreadsheet electronic file were uploaded to IBM SPSS version 28 for analysis. SPSS provides access to various types of statistical applications for data analysis (Pallant, 2016). Different tests were conducted as partially explained in the preceding sections, such as frequency analysis; the internal consistency reliability test of the scale through Cronbach coeeficient alpha, summary item statistical test, and item-total statistical test; validity test, such as unidimensionality in assessing, validity in assessing, the construct model fit, convergent validity test, discriminant validity test, nomological validity and face validity test; factor analysis, such as factor loading tests and CFA. The supervisors and statistician were brought on board to offer some advices while the researcher drove the process in solving the problem by testing the hypotheses for the study. A team approach

would be valuable, necessary, and important in the study. The importance of each of these statistical tests is discussed below.

3.4.5.2.1. Frequency tests

The discussion of the frequency tests is the focus of the current section. Frequency tests are used to check for errors in each of the variable on the instrument. Moreover, to check for errors, frequencies are recommended and used to check the distribution of each variable, for which errors must be corrected before total scores for the scales are calculated (Pallant, 2020). It is further recommended to keep notes of all the errors detected and the changes made (Pallant, 2020), which was adhered to and followed as recommended.

3.4.5.2.2. Internal consistency reliability tests

Once the errors check process through the frequency tests, the total scores of the scales were calculated. The focus of the current section is on the discussion of the internal consistency reliability tests of the instrument for the study. The internal consistency reliability test of the instrument and its scales were determined once the study was satisfied about the frequency distributions of the variables of the instrument. Thus, it is important to find instruments and scales that are of acceptable reliability (Pallant, 2016:116). An internal consistency reliability test is one of the necessary but not the only sufficient condition for validity, where the study should first demonstrate that the scales have an acceptable level of internal consistency reliability (Brahma, 2009; Hair Jr *et al*., 2014). Moreover, the scales' internal consistency reliability implies the degree to which the items or indicators on the scale or instrument hang together (Hair Jr *et al.*, 2014; Pallant, 2016:116), in measuring the same contsrut. The Cronbach alpha coefficient was used to determine the internal consistency reliability, with the alpha (α) minimum score of $\alpha = 0.70$ recommended as the most acceptable (Nunnally, 1968). However, in situations where the instrument or scale has few items, items less than 10, the minimum acceptable alpha (α) score may be lowered to $\alpha = 0.50$ or $=0.60$ (Pallant, 2016, 2020).

In addition, if the scale has a lower alpha (α) value of below $\alpha = 0.50$, the summary item statistical test and item-total statistical tests may be considered for the internal consistency reliability test (Hair Jr *et al*., 2014; Pallant, 2020). The recommended acceptable mean value for item-total correlations statistical test of the summary item statistical test are between 0.20 and 0.40 are regarded to be acceptable (Hair Jr *et al*., 2014; Pallant, 2020). In the item-total statistical test, the corrected item-total correlation mean value of 0.30 and above is acceptable (Hair Jr *et al*., 2014; Pallant, 2020). In situations where the item has a mean value below 0.30 on the corrected item-total correlation, such an item must be deleted, as it is suggested it does not hang well together with other items in the scale or intrument (Hair Jr *et al*., 2014; Pallant, 2020). Moreover, such an item is considered to be measuring something other than what the other items in the scale and/or the scale or instrument is/are measuring (Hair Jr *et al*., 2014; Pallant, 2020). These tests were conducted and reported in appropriate sections.

3.4.5.2.3. Factor Analysis (FA)

Once the reliability of the instruments has been established in one way or the other as indicated in the above section, the next step in data analysis includes factor analysis. The focus in the section involves the determination and explanation of factor analysis. Factor analysis is used to test for the unidimensionality of data, measuring one coherent construct (Neuman, 2014:225). In addition, factor analysis allows for the condensation of a large set of variables or scale items down to a smaller, more manageable number of dimensions or factors (Hair Jr *et al*., 2014; Pallant, 2020). Factor analysis is performed by combining several specific pieces of information into a single score or measure, and all of the pieces should measure the same thing (Neuman, 2014:225). Furthermore, it is an iterative process that is performed by summarising the underlying patterns of correlation and looking for clumps or groups of closely related items (Hair Jr *et al*., 2014; Pallant, 2020). Two main approaches to factor analysis are identified in the literature, namely, EFA and CFA (Hair Jr *et al*., 2014; Pallant, 2020). Each of these analyses was briefly discussed below:

EFA in the study

The focus in the current section is on the explanation of the EFA. According to Costello and Osborne (2005), EFA is used for a variety of applications, including when developing a new instrument. In addition, EFA is often used in the early stages of research or study to gather information about the psychometric properties or interrelationships among a set of variables in a scale or instrument (Hair Jr *et al*., 2014; Pallant, 2011; Pallant, 2020). EFA provides insight into the structure of the items on a scale and may be helpful in proposing the measurement model; however, it does not test a theory (Hair Jr *et al.*, 2014). There are various explanations associated with EFA available in the literature (Cooper & Schindler, 2014). Moreover, in the study, EFA were not conducted as the psychometric properties of the study are known.

CFA in the study

The focus in the current section is on the explanation of the CFA in the study. The study hypothesised, among others, that street traders are engaged in their work, which should be tested if data support or not support the hypotheses through some form of CFA. Moreover, CFA as well as other latent variable modelling techniques may be used to test or confirm specific hypotheses or theories concerning the structure constituting a set of variables (Pallant, 2011; Pallant, 2020) via inferential techniques and may provide more informative analytic options (Costello & Osborne, 2005). In the current study, to test and confirm (if hypotheses are either supported by data or not supported by data) the formulated hypotheses, various inferential statistics were conducted through CFA as recommended in the literature (Costello & Osborne, 2005; Hair Jr *et al*., 2014; Pallant, 2020), in the study. CFA is iterative in nature, wherein the processes are conducted by summarising the underlying patterns of correlation and looking for clumps or groups of closely related items (Pallant, 2011; Pallant, 2020). Thus, in conducting the CFA for the study, which is an iterative process, clumps or groups of closely related items were done, and the results of the statistical analysis process were reported and presented in the relevant sections.

Moreover, according to Pallant (2020), the term ‘factor analysis’ includes a variety of different related techniques. One of the main differences is between factor analysis (FA) and principal component analysis (PCA). These two sets of techniques are more similar and are often used interchangeably. A smaller number of linear combinations of the original variables are attempted to be produced, explaining most of the variability in the pattern of correlations. PCA and FA also differ in several ways. In PCA, the original variables are disintergrated into a smaller set of linear combinations, with all the variances in the variables being used. In FA, a mathematical model is used to predict factors, whereby only the shared variance is analysed (Pallant, 2020). In the current study, FA were be used as already explained above. The process of summarising the underlying patterns of correlation and looking for clumps or groups of closely related items were conducted, and clumps or groups of closely related items were determined and reported accordingly. The next step in the factor analysis process performing procedures such as the assessment of unidimensionality, assessing fit, and construct validity of the instrument. These were reported in separate sections below.

Factor loadings

The size of the factor loading is one important consideration for construct validity assessment. In the case of high convergent validity, high loadings on a factor indicates that items or indicators converged on a common point, the latent construct. At a minimum, all factor loadings should be significant, with a good rule of thumb recommending standardised loading estimates of a minimum mean value of 0.50 or higher (Hair Jr *et al.*, 2014:618). However, some analysts recommend the retention of items with minimum mean values of item loading of 0.30 and with those below 0.30 being deleted (Brahma, 2009). In the current study, the factor loading were computed and reported in the relevant sections.

Unidimensionality test

The focus of the current section is on the discussion of the unidimensionality of the scale or instrument. A unidimensional measure means that a set of measured variables

(indicators) can be explained by only one underlying construct (Brahma, 2009; Hair Jr *et al.*, 2014). In addition, an internal consistency reliability measure (Cronbach's alpha), item-total correlation, and factor analysis are frequently used to assess the unidimensionality of the instrument (Brahma, 2009; Hair Jr *et al.*, 2014). Although there are many other ways that are used to assess unidimensionality, as recommended in the literature (Hair Jr *et al.*, 2014), in the current study, the reliability test, item-total correlation, and factor analysis were used to assess the unidimensionality of the instrument, and the reports were presented in the relevant section.

3.4.5.2.4. Validity test of the instrument

In the current section, the focus is on the discussion of the validity of the instrument. The validity of the scale or instrument refers to the degree to which the scale or instrument measures what it is supposed to measure (Hair Jr *et al*., 2014; Pallant, 2020). In addition, validity determines whether the concept is defined well by the measure or scale (Hair Jr *et al*., 2014). Moreover, internal consistency reliability is a necessary but not the only sufficient condition for validity; thus, the study should first demonstrate that the scales or instruments have achieved acceptable reliability (Brahma, 2009; Hair Jr *et al*., 2014). Internal consistency reliability was be determined and demonstrated prior assessing the validity of the instrument. The construct validity, with its family of validity indices or components as identified by Hair Jr *et al.* (2014) to include convergence, discriminant, nomological and face validities, and content validity tests were conducted in the study as deemed appropriate.

Construct validity is described as the extent to which a group of measured items captures the theoretical latent construct which the group of items are designed to measure (Hair Jr *et al.,* 2014). In the study, the construct validity assessment is relevant for the study and captured already in various aspects of the study, namely, measuring instrument, literature study. The dimensions of the UWES-9, namely, vigour, dedication, and absorption, were tested if they support the latent variable, namely, work engagement, they were meant to measure and results were reported or presented in the relevant sections.

Convergent validity assessment

The focus of the current section is the discussion of the convergent validity assessment. Convergent validity refers to the notion that a scale correlates with other scales of the instruments (Hair Jr *et al*., 2014; Pallant, 2020). In addition, several ways are available to estimate the relative amount of convergent validity among the items of the measure. These include *factor loadings*, *average variance extracted* (AVE), and *construct reliability* (CR) (Brahma, 2009; Hair Jr *et al.*, 2014:618). In convergent validity, the items that are indicators of a specific construct converge or share a high proportion of variance in common (Brahma, 2009; Hair Jr *et al.*, 2014:618; Neuman, 2014). In addition, construct reliability between α = 0.60 and α = 0.70 may be acceptable (Hair Jr *et al.*, 2014). Furthermore, high construct reliability indicates that internal consistency exists, meaning that the measures all consistently represent the same latent construct (Hair Jr *et al*., 2014). In the study, construct reliability were determined and reported in the relevant sections.

It is also a norm to report the average variance extracted (AVE) of latent constructs as a supplementary measure of construct reliability (Brahma, 2009). An AVE of α =0.50 or higher is a good rule of thumb suggesting adequate convergence (Hair Jr *et al.*, 2014:619). Both the factor loadings, CR, and AVE, were appropriately used for the study to determine the construct validity. The results were be presented in the relevant section.

Discriminant validity assessment of the scales/instrument

According to Hair Jr *et al.* (2014:619), the measure of the extent to which a scale is truly distinct from other scales is known as discriminant validity. The discriminant validity assessment of the instrument was considered when feasible for the study. However, computing both a one-factor model or a three-factor model, whichever was feasible for the study, was considered, implemented, and reported accordingly. Multicollinearity, which occurs when two independent variables correlate highly, causing estimated regression coefficients to fluctuate widely, resulting in the difficulties of interpretation

(Cooper & Schindler, 2014), was eliminated by not computing one or two factor analysis simultaneously.

Nomological and face validity

According to Hair Jr *et al.* (2014:619), constructs should also have *face validity* and *nomological validity*. Whether using CFA or EFA, the processes for testing these *validity* (*face* or *nomological validity)* properties are the same. *Face validity* should be established before any theoretical testing when using CFA. In the absence of understanding every item's content or meaning, it is difficult if not impossible to express and correctly determine a measurement theory. Thus, face validity is one of the most important validity tests because it relates to construct validity. In addition, *nomological validity* is then tested by examining whether the correlations among the constructs in a measurement theory make sense. The matrix of construct correlations can be useful in the assessment (Hair Jr *et al.,* 2014:619). In the current study, both face and nomological validity were addressed and reported in appropriate sections.

Content validity tests (model fitness assessment)

The focus of the current section is on the discussion of the content validity test of the instrument. Scales in the instrument must display adequate construct validity as discussed above; whether constructs are measured by new scales or scales taken from previous research, even previously established scales should be carefully assessed for content validity (Hair Jr *et al.,* 2014:589). Moreover, Hair Jr *et al.* (2014:589) argue that multiple fit indices are available in the literature, and such indices are used to assess a model fit in the study, and the results are presented in the relevant sections. The indices include such the chi-square (x^2) and its related degree of freedom (df), one absolute fit index (i.e., goodness-of-fit index (GFI), root mean square error of approximation (RMSEA), and/or standardised root mean residual (SRMR); one incremental fit index (i.e., comparative fit index (CFI) or Tucker Lewis Index (TLI); one goodness-of-fit index (GFI), (CFI), (TLI); and one badness-of-fit index ((RMSEA), (SRMR). In addition to the x^2df, the basic acceptable measure's model fit is that the study should rely on at least

one absolute fit index and one incremental fit index (Hair Jr *et al.* 2014:579). These indices were used to assess the content validity in the study where different minimum acceptable values were considered and reported per class of indices used for the study.

Table 3.1: The validity fit indices-absolute fit indices

Description:	***χ2/df***	**GFI**	**RMSEA**	**RMR/SRMR**	**TLI/CFI/RNI**	**AGFI**	**CFI**
Minimum acceptable value	≥2.0≤5.0 or 3:1	.90	<.07 with CFI of above .92 or higher	.08 or less with CFI above .92	.90	≥2.0≤5.0	.90

The minimum acceptable values were used to determine model fitness in the study, guided by the minimum acceptable values of each class of indices, as shown in Table 3.4 above.

3.4.5.3. Group Analysis

Once the instrument has been validated to measure the construct of the study, through various tests such as reliability tests, factor analysis, assessment of unidimensionality, and construct and content validity tests, the next step is to measure the construct against various sample groups. Pallant (2020:224) shows that there is a whole family of techniques that may be used to test for significant differences between sample groups against the construct of measurement. Moreover, Pallant (2020) recommends that the *t* test group statistics allow the study to verify the sample per group and provides the mean and standard deviations for the group being tested. Once the accuracy of the information is confirmed, the next step is to analyse the independent sample test results of Levene's test for equality of variance. Pallant (2020) indicates that Levene's test for equality of variances seeks to demonstrate whether the variance of scores for the two sample groups is the same. If the Sig.value of Levene's test is larger than p = 0.05 (0.07, 0.10), the first line in the table should reported on, which refers to equal variances assumed. In contrast, if the significance level of Levene's test is p = 0.05 or less (e.g., 0.01, 0.001), it suggests that the variances for the two sample groups are not the same,

meaning that the data violated the assumption of equal variance (Pallant, 2020). In the study, these tests were conducted and reported as recommended in the relevant sections.

In addition, in assessing whether there is a significant difference between the sample groups, Pallant (2020) indicates that a reference should be made to the column labelled Sig. (2-tailed), which is reported under the section labelled *t* test for Equality of means. Two values are provided, one for equal variance and the other for unequal variance, and the study should report on the one suggested by Levene's test results (Pallant, 2020). Thus, according to Pallant (2020), if the value of the Sig. (2-tailed) is equal to or less than p = 0.05 (e.g., 0.030, 0.010, 0.0010), there is a significant difference in the mean scores for the dependent variables for each of the two groups in the study. In contrast, if the values are above 0.050 (e.g., 0.060, 0.10), there is no significant difference between the two groups (Pallant, 2020). All these tests were carried out and reported in appropriate sections.

The next step is to determine the effect size for the independent-samples *t* test, which provides an indication of the size of the differences between the sample groups (Pallant, 2020). Moreover, there are several different effect size statistics, the most commonly used being eta squared and Cohen's d. Eta squared ranging from 0 to 1 represents the proportion of variance in the dependent variable that is explained by the independent (group) variable. On the other hand, Cohen's d presents the difference between groups in terms of standard deviation units (Pallant, 2020. Both statistics were considered and used in the present study. For Cohen's d, 0.2 = small effect, 0.5 = medium effect, and 0.8 = large effect (Pallant, 2020). The procedure was used in reporting group variance analysis and reported in appropriate sections in the study.

3.5. POTENTIAL SHORTCOMINGS AND SOURCES OF ERROR

The data was collected through convenience face-to-face interviewer-administered survey questionnaires. The nature of the data collection has some limitations of generalisation to the entire concerned population of the study. The operational

dynamics compelled the study to use a convenience sampling strategy as explained above, such as the lack of a reliable database or list of street traders from which to randomly draw samples. However, some studies used a similar sampling strategy and arrived at acceptable results, as long as the population represents the target population of the study. Thus, the recommendation by Bono and McNamara (2011) that most studies used convenience samples and the results were acceptable. Moreover, Saunders *et al*. (2016); Saunders *et al*. (2019) report that in some business research, it might neither be possible nor appropriate to use probability sampling in solving the research problem or test for the formulated hypotheses. The conditions underpinning the present study rendered it impossible to use probability sampling in solving the problem of the study by testing the formulated hypotheses.

In addition, to alleviate the problems associated with multicollinearity of scales, either one- or three factor(s) UWES was used or computed in the study. It was in line with recommendations of the first study of the UWES-9 by Schaufeli *et al.* (2006), which recommended that researchers should be alert of not computing both one-and two factor models to alleviate multicollinearity. Moreover, the study was the first to determine the occupational well-being of street traders, the most visible self-employed/own-account workers in the informal sector, by assessing their work engagement through the UWES in the City of Tshwane. Therefore, a gradual approach of attending to issues was most important in the study. It enables the researcher to isolate any material problem and attend to them as soon as they arose. It allowed other important elements of the study to be phased-in and be attended to at a later stage in ubsequent studies. Most of these potential for errors were managed in the manner that the objectivity of the study was upheld.

3.6. CHAPTER SUMMARY

The focus of the present chapter was on the discussion of the processes that were systematically executed to address and solve the problem of the study. These included reflecting on the research objectives and hypotheses; research philosophy, paradigm, and approach to development of a theory; research design and methodology; and

potential shortcomings and sources of error. The problem of the study was restated as the determination of the occupational well-being of the self-employed/own-account workers in the informal sector with a special focus on street traders by assessing their work engagement through the UWES. Little or no evidence exists in the literature about the assessment of work engagement of self-employed/own-account workers in the informal sector through the UWES. It is odd because the informal sector constitute the largest provider of job, where more that 60 percent of the global labour force work. The UWES is one of the few valid and most commonly used instruments in the assessment of work engagement. Moreover, the UWES has mostly been used to assess the work engagement of workers in real or conventional organisations, where little or no assessment of work engagement of self-employed/own-account workers in the informal sector exists.

The research philosophy, paradigm, and approach to theory development were also discussed. The choice of the paradigm for a study is informed by the systems or processes that are used to generate new knowledge by solving the research problem by testing the hypotheses of the study. To achieve these goals, research design and methodology of the study were discussed, and the rationale for such choices was discussed. The research design is only implementable through the appropriate choice of the research methodology. The research methodology outlines and explains a series of activities. These activities included the explanation of the target population, ethical activities applicable to the study, sampling design or strategy, the data collection process, and finally sharing some light on the data analysis process. All these activities were assumed to enable the study in solving the problem of the study and contribute new knowledge that is mostly lacking for decision making by interest groups, with special reference to the informal sector. There is overwhelming evidence that the world of work in the formal sector exists site-by-site with the informal sector, with a concern raised about the research gap between the formal and informal sectors. The gap needed to be partly addressed in one way or the other, hence the present study. It is also recommended that to broaden knowledge and understanding of different phenomenon, the micro-level individuals must be part of the research agenda.

CHAPTER 4: PRETEST AND PILOT STUDIES (UWES-9)

4.1. INTRODUCTION

The focus in the present chapter is on reporting the quality assurance report emanating from conducting the pretest and pilot studies for the study entitled 'Assessing work engagement of street traders in the City of Tshwane'. The background and rationale for both the pretest and pilot studies; objectives for both pretest and pilot studies; how both the pretest and pilot studies were conducted; the outcomes of both the pretest and pilot studies; and the action taken to improve the quality of the instrument (UWES-9), and presentation of the study based on these studies were part of the report and discussion. Each of the above outlined activities is reported in separate sections below, starting with the background and rationale for conducting pretest and pilot studies.

4.2. BACKGROUND AND RATIONALE FOR PRETEST AND PILOT STUDIES

The current section presents a report for pretest and pilot studies conducted for the study. It is recommended that to improve the quality of a study, pretest and pilot studies are among the methods that are used for testing and refining the feasibility of the methodology and processes of the main study prior to its launch (Schachtebeck, Groenewald & Nieuwenhuizen, 2018). Moreover, there are concerns raised about poor or lack of reporting of results of pretest or pilot studies, which does not provide opportunity for growth where its contribution in literature is limited *(Schachtebeck et al*., 2018). Reporting of the results of pretest or pilot studies of the main study is aimed at bridging the identified gap associated with poor or general lack of reporting of results of either pretest or pilot study by contributing to the improvement of the quality of the study and in the literature.

The study is undertaken to meet some of the requirements for a Doctor of Philosophy (PhD) degree registered with the University of South Africa (Unisa) in the Department of Operations Management, at the College of Economic and Management Sciences (CEMS). The study determined the occupational well-being of street traders, the most

visible self-employed/own-account workers own-account workers in the informal sector, by assessing their work engagement using the UWES-9. Moreover, it is in the formal sector where the instrument (UWES-9) has been tested and reported acceptable reliability and validity in assessing work engagement. However, nothing has been reported about reliability and validity of UWES in assessing work engagement of street traders, the most visible sel-employed/own-account worker in the informal sector. To solve the problem and achieve the purpose of the study, the study goes through different stages, including conducting pretest and pilot studies, which are some of the fundamental and important phases or stages of the study, hence the focus of the study report. The rationale and purpose for conducting both the pretest and piloto of the study are presented in the following subsections:

4.3. PRETESTING OF THE STUDY

The focus of the current section is on the discussion and reporting on the rationale on why a pretest study was conducted. A pretest study is described as an administration of the research instrument under special conditions, usually before the full-scale administration of such instrument in the main study, which involves giving a draft of the instrument to a relatively small group of people (Dane, 1990:127). In addition, pretesting is a method of checking if the questionnaire (instrument for data collection) works as intended and is understood by those individuals who are likely to respond to it (Hilton, 2017). Moreover, Ornstein (2013:100) recommends that the interview, which is the meeting between the world of the researcher and of the lay person, is first tested through a pretest of the study and is reconciled. Moreover, there has been an increased emphasis on building the quality of the existing questions and not necessarily developing new ones (Ikart, 2018; Ornstein, 2013:100). The pretest has indeed provided an opportunity to improve the presentation of some of the items on the instrument (questionnaire) by detecting and remedying problematic questions before data collection in the main research project (Hilton, 2017; Ornstein, 2013). A pretest can improve the questionnaire response rate. It is therefore a good method to evaluate whether a measure would perform in the field as planned (Hilton, 2015). The pretest

study should result in actions being taken to make the instrument work better by refining the language used in the questionnaire.

Furthermore, whether developing a new instrument (questionnaire) or revising an existing instrument, through a pretest study, a researcher may confirm whether the instrument uses clear, appropriate, and understandable language, has no obvious errors or omissions, and has adequate psychometric properties (Ikart, 2018). In the present study, the UWES is used, which is an existing instrument. However, the UWES was developed in developed countries, and the study is conducted in a developing country. Moreover, according to Merino-Soto *et al.* (2022), the UWES-9 is reported to have been translated into more than 31 languages, and it may change due to increasing interest in the usefulness of the instrument. The increasing interest in the instrument is confirmed by a study published in 2021 that reported that the UWES-9 was available in 11 (eleven) languages (Güzide & Oğuz, 2021), showing a marked increase in the interest and use of the UWES-9 within a short space of time. Although a pretest study may not necessarily guarantee the success of an instrument, it does improve the likelihood of success in the main study (Ikart, 2018). Thus, the purpose for conducting a pretest on the questionnaire in the study does not fall far from the rationale as presented above, namely, seeking to confirm if the instrument uses clear and appropriate language, checking if the questionnaire works as intended, and it is understood well by those individuals who are likely to respond to it, has no obvious or material errors or omissions. Some of the concerns that led to conducting the pretest study for the present study include, among others, the following: the instrument has been developed and widely used in developed economies, as already mentioned above. These developed countries are significantly different from the developing country in which the current study is conducted.

Although the instrument has also been used and found to be valid in the South African context, where the current study is undertaken, it was validated with blue and white collar workers in or attached to the formal sector (De Bruin & Henn, 2013; Olivier & Rothmann, 2007; Rothmann & Rothmann Jr, 2010). However, the current study is conducted in the informal sector. It is recommended that whether revising the existing

instrument or developing a new instrument, a pretest study is always necessary to improve quality or determine quality assurance for the main study. To better prepare, as the area where the study is undertaken, namely, the informal sector, the instrument has never been used at that context, a pretest study is therefore always necessary. Moreover, there are different descriptions of what a pretest study is about, as well as the rationale for conducting one for the study (Babbie, 2008:247; Ornstein, 2013:100). It is generally recommended that all surveys must conduct pretest or pilot studies, whether the instrument is being developed or revised (Fink, 2017:8). In the current study, although the instrument is neither revised nor developed, the pretest was conducted. Ikart (2018) further identified other purposes of conducting a pretest study of a questionnaire, which include the following:

- Seeking to detect problems on the questions in the questionnaire as a form of appraisal system.
- Identify problems in a questionnaire associated with its understandability through cognitive interviewing.
- Evaluating the draft questionnaires through expert interviews.

There are, however, plenty of objectives in pretest study of a questionnaire in a study (Cooper & Schindler, 2014; Leedy & Ormrod, 2015; Saunders *et al*., 2016; Saunders *et al*., 2019). Most of these objectives that are related to the nature of the present study were addressed and reported in the study. It is envisaged that these were going to improve the quality of the main study. The face-to-face interviewer administered survey is used and presented the study with the opportunity to have a clear picture of what to expect in the main study. Thus, the saying ‘forewarned is forearmed’, meaning better knowledge of something leads to a better preparation for the course of an activity, improving the outcomes thereof. Moreover, the instrument is pretested for language understandability by and debriefing of the respondents. The aim of ensuring the understandability of the language used in questionnaire and the processes to be used in the data collection process improves the quality of responses on the questions.

4.3.1. Procedure and reporting pretest study

In the previous sections, the rationale for conducting pretest and pilot studies was discussed. The focus of the current section is on the discussion of the procedure and reporting of the pretest study. At least 10 questionnaires were administered for the pretest study to similar participants as in the main study through personal face-to-face interviewer administered survey interviews. It is recommended that the pretest study should be administered through personal face-to-face survey interviews, even if the questionnaire will ultimately be administered by other forms of data collection such as mail or telephone (Bolton, 1993). In addition, the outdated database of street traders as provided by the authority, namely, the City of Tshwane, also prompted personal face-to-face interviewer survey interviews to be conducted and was most appropriate, as the main study was done the same way.

Moreover, to accommodate for the disparities in access to computers or smartphones by the target population/participants, personal face-to-face interviewer administered interview is most appropriate for the study. All ethical protocols are observed prior to the pretest study, namely, obtaining ethical clearance (see Annexure A), permission to use the UWES (see Annexure), permission letter to conduct a study from the City of Tshwane (see Annexure B). The database of street traders from the City of Tshwane has already been provided to the researcher. At the time of conducting the pretest and pilot studies, all the core ethical documents were obtained.

To alleviate contamination of the area for main research by double interviewing, pretest was conducted at a different at Lotus, situated at the outskirts of the City of Tshwane, the area where the main study was conducted. The area (Lotus) is in Pretoria West, which is adjacent to the area where the main study took place. Potential participants, namely, street traders, were approached at their places of work (known as stalls), which also confirmed that the correct people were surveyed. Sampling was possible; hence, convenience sampling was used for the pretest study and ultimately for the main study. The questionnaire was administered by the interviewer, and questions were read to the participants, and responses were recorded by the interviewer.

Moreover, according to Hilton (2017), it is typical that 5 to 10 potential participants are recruited for the purpose of a pretest study. In the pretest study, 10 (ten) participants were recruited to participate in the study as already explained above. There are however different approaches on the number of participant for pretest study (Ikart, 2018). There were up to 19 participants recruited and recommended as enough for a pretest study (Ikart, 2018). In addition, in some studies, there were between 10 and 66 pretest participants (Wright, Moghaddam & Dawson, 2021), making the sample size for the pretest study within the acceptable range. Participation in the pretest study was voluntary. Participants were free to continue, withdraw or decline participation in the study at any stage prior or after they have consented. Data were treated with a high level of anonymity, confidentiality, and privacy. The pretest study was conducted by the researcher through personal face-to-face interviewer-administered survey interviews.

Prior to the pretest study, the questionnaire was language edited by the language practitioner. Street traders, as participants, were approached and recruited at their stalls. The participants were similar to participants who would be in the main study. Upon a brief introduction by the interviewer to the participant, some participants agreed to participate in the pretest study, with the condition that their work must not be disrupted. Others declined or refused to participate in the study. Participants were interviewed based on their availability and acceptance to take part in the study. The interviewer read the instructions on the instrument to the consented participants, and participants were asked questions, while the interviewer recorded their responses. Mostly, all instructions on the instruments were clearly explained and were understandable. The complex words were identified for explanation and simplification through the services of the language practitioner. Participants were allowed to ask questions at any stage of the survey. They were also requested to sign an informed consent, which many preferred to sign at the end of the survey, after having signal consent to participate. The demographic descriptions of the participants are shown in Table 4.1 below:

Table 4.1: The demographic description of the respondents in a pretest study

Description	Number

Gender:	Female	6
	Male	4
Age:	18-34	4
	35-64	6
Nationality:	South African	7
	Zimbabweans	3
Population Group:	Africans	9
	Indians	1
Residential Province:	Gauteng Province	2
	Mpumalanga	2
	North West	3
	Other	3
Home language:	English	1
	Siswazi	1
	Sesotho	2
	Xitsonga	2
	Zulu	1
	Other/Shona	3
Education level:	Secondary school	8
	College	2
Employment status:	Agency	7
	Structural	3
Belonging to informal group of street traders:	No	9
	Yes	1
Belonging to formal group of street traders:	No	9
	Yes	1
Description of main products:	Fast food	2
	Fruits & Vegetable	6
	Snacks	2

It is evident that descriptions of participants were diverse, ranging from differerent nationalities, provincial jurisdictions, ethnic groups, and language backgrounds. The questionnaire was designed using English language, and upon pretesting, it was identified that some question required different level of understanding by participants. The different levels of understanding by participants was noted, where some questions were explained using the services of the language parctitioner. It is already explained above that the instrument is available in various languages. However, only the English version was used for the study, which accommodates all participants. It was not be feasible and practical to use different languages for the present study due to the cost implications for using different languages. Although only ten participants took part in the pretest study, almost six different languages were spoken as home languages by the participants. It indicates how diverse participants were in the study. Thus, retaining and

conducting the study in the English language was feasible and practical for the study. Moreover, in the main study, the English language was used on the instrument.

Moreover, English is a language of business in South Africa (Coetzee, Schmulian & Kotze, 2014). It is recommended that in multilingual South Africa, one should be at least bilingual, with a multilingual mindset (Coetzee-Van Rooy, 2021). The pretest study also revealed that there were foreign nationals who were part of the target population. Thus, the retention and use of the English version for the study was most practical and appropriate. Moreover, Musara and Nieuwenhuizen (2021) report that most foreigners operating in SMMEs struggle with diverse cultures and the use of many languages in South Africa.

In addition, the educational background of street traders was also diverse, with many having completed different high school grades and one with college qualification. The participants' different educational background is of interest in the study. Hence, Ornstein (2013:100) warns that most survey respondents are often less interested in or knowledgeable about the survey topic and might have less education and weaker understanding (cognitive) skills of the topic under study. In addition, during the survey interviews, participants were also allowed to ask questions on the purpose and content of the study, and notes were taken. The notes that were taken during the pretest were discussed by the principal researcher with the supervisor for an improvement of the understanding of the questions in the questionnaire. The pretest data were coded and transferred into a spreedship file as shown in Table 4.2. The table shows the distribution of how the questions in the study were responded.

Table 4.2: Participants' responses per question on the questionnaire

Respondent	Questions abbreviated by Q								
	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9
1	2	3	6	6	3	6	5	6	4
2	6	3	5	6	6	6	5	6	3
3	6	6	6	6	5	6	5	5	5
4	6	6	6	6	6	6	6	6	6
5	6	6	5	5	6	6	6	6	5
6	5	3	6	5	6	2	5	6	4
7	3	3	5	5	6	6	5	6	6

8	6	6	6	6	6	6	6	6	6
9	6	5	5	3	3	6	6	1	1
10	4	6	6	4	5	5	6	6	6

The table shows that data were captured correctly. The coding manual was developed and it put to the test as shown in Table 4.2.

The nature of street trading is hectic and provides little or no room to accommodate any other outside responsibility. For example, sitting down and complete a questionnaire or having storage space for drop-off surveys that could be completed at a later stage was a challenge. Most work done by street traders is not structured. Moreover, their types of customers are mostly passers-by who just grab something, pay for it, and pass. Many customers not have time to waste by waiting for someone who is addressing other tasks other than attending and helping customers, such as completing a questionnaire. The interviewer-administered approach is good and allows participants to answer questions while working and servicing their customers. In that case, both parties were accommodated as the street traders' time was respected, while the researcher completed the questionnaires.

Moreover, the instruments' answering format in the questionnaire, for example, 'never, a few times a year, once a month, a few times a month, once a week, a few times a week, and every day', was not changed and was used as in the original instrument. In a study by Vallières, McAuliffe, Hyland, Galligan and Ghee (2017), for example, where similar instrument was used, the answering format was changed from the original, where format such as 1 (strongly disagree) to 5 (strongly agree) was used. Due to the number of respondents for the pretest, the data were not statistically analysed. The purpose for pretest was to determine whether the words were clear, the questions followed in a logical sequence, and participants could easily answer the questions with better understanding.

4.4. SUMMARY OF THE PRETEST STUDY

It is recommended that when a main study is conducted in areas where an instrument has barely been used or in new focus areas, pretest of a study is recommended necessary to better prepare for the main study. All the procedural protocols were adhered to, such as obtaining ethical clearance certificate, permission to use instrument (UWES), and permission letter from the City of Tshwane prior to conducting the pretest of the study. The proper procedure for recruiting participants for the survey was also observed as per ethical clearance certificate. Data were collected, during the process, notes were taken for consideration in the quest to improve the data collection instrument and processes in the main study. The data collected for the pretest study were also statistically analysed. They were observed for unnecessary trends based on which actions to improve the instrument were executed. In all the activities performed, a team approach was observed. The language used in the instrument was later revised and edited by the language practitioner. Both the researcher and supervisor were part of the improvement for the questionnaire. The process necessitated for the pilot study to be conducted, which served as a complementary process for quality improvement. The procedure and results for the pilot study are reported in the following section.

4.5. PILOTING OF THE STUDY

The present section focuses on reporting the rationale for, method and procedures, and the results of the pilot study. These include the recruitment of participants; procedures followed for conducting survey interviews; measurements undertaken; data analyses and reporting; summary, discussions, conclusion, and recommendations emanated from the results of a pilot study. These may also include reporting some of the actions undertaken resulting from the outcomes of the pretest study.

4.5.1 Rationale for conducting a pilot study

A report on the rationale for conducting a pilot study is the focus of the current section. The pretest study, as reported in the previous section, provided an opportunity to

preliminarily test and refine the instrument (UWES-9) as adapted for the study. The outcomes of the pretest study resulted in the questionnaire being refined as reported in the above section. The improvements effected on the instrument for the current study resulted from an iterative process, inputs from team members, namely, researcher, supervisor, language practitioner and statistician.

A pilot study, which is referred to as a feasibility or a preliminary study (Dźwigoł, 2020), or a trial run of a study (Fink, 2017). In addition, a pilot study is conducted before the launch of the main study on conditions that a problem, process, phenomenon or mechanism specific to a given community, environment, population, object or society is scarcely studied or where very little is known about it (Dźwigoł, 2020). In addition, a pilot study is an opportunity for a researcher to test and refine the methodology and processes used prior to conducting a full-scale study, with the aim of alleviating confusion in erroneously devised data collection instruments (Dźwigoł, 2020; Saunders *et al*., 2016; Saunders *et al*., 2019; Schachtebeck *et al*., 2018).

Moreover, when designing large-scale studies, it is always recommended to first conduct a pilot study. The study allows the researcher to test how well the problem under investigation is delimited or (demarcated), the relevance and feasibility of the research plan, and implementability of the chosen methodological procedures for data collection (Fink, 2017:8; Freytag & Young, 2017). In addition, a pilot study must be conducted with respondents who are similar to those who will answer questions in the main study (Saunder *et al*., 2016). Moreover, it is recommended that pilot studies be conducted for all surveys (Dźwigoł, 2020; Freytag & Young, 2017; Fink, 2017:8; Leedy & Ormrod, 2015:118; Saunders *et al.*, 2016:474; Saunders *et al*., 2019). There are, however, many explanations or definitions of what pilot studies are, or should be, or does for the research project (Cooper & Schindler, 2014:199; Dane, 1990:336; Leedy & Ormrod, 2015; Saunders *et al*., 2016:473; Saunders *et al*., 2019). Given all the complementary reasons or rationales for conducting a pilot study.

In the current study, the pilot study was conducted for more similar reasons or rationales, which include the following:

- Little or nothing is known about work engagement of street traders, the most visible self-employed/own-account workers in the informal sector.
- Little or nothing is known about the validity of the UWES-9 in assessing the work engagement of self-employed/own-account workers in the informal sector.
- Testing for the feasibility of the research strategy and technicalities in the use of the chosen methodological procedures for data collection, namely, interviewer-administered survey interviews.
- Testing the environment or location where and how street traders operate and testing the recruitment process, where participants are conveniently recruited through face-to-face interviewer administered survey based participant's availability, were requested to participate in the study on the spot or on the time convenient to them.
- To learn about the dynamic nature of conducting a study in an informal sector environment for the study, which helps for better and proper preparation for training of fieldworkers for the main study.

Pilot study further enables the researcher to obtain some assessment of the questions related to reliability and validity of the data that were collected. The analyses for both individual questions and at an aggregate level of scales and instrument. The pilot study was carried out prior to the main study as a problem (work engagement), process, phenomenon, or mechanism specific to a given community (informal sector/street traders), location, object or society s scarcely studied, or where little or very little is known about it (work engagement of self-employed/own-account workers in the informal sector). It includes testing how well the problem under investigation is delimited, the relevance and feasibility of the research plan and the usability of the chosen methodological procedures and processes for data collection and analyses for the study. The convenience sampling, interviewer administered survey, and the validity of the UWES-9 in assessing work engagement in the informal sector were tested for the main study through a pilot study.

The nature of the study has prompted a pilot study to be conducted to determine if the instrument is reliable and valid for the purpose of the main study. The pilot study was conducted using face-to-face interviewer-administered survey interviews. The database of street traders as provided by the City of Tshwane was not updated or reliable or credible for use. For example, at the time of receipt of the database, a person who was born in 1975, the age was still captured as 40 years, instead of 47 years in 2022. Based on the information on their website, the trading permit is renewable after every 3 months. Upon renewal, traders updates their details with the City of Tshwane, which the City of Tshwane appear to be struggling.

In addition, after a random test was completed by the researcher on the database or list of traders to check if the numbers were still correct as on the database, some contact (cell-phone numbers) numbers were not updated. Many people who answered the researcher's random phone calls indicated that they had never worked as street traders, not even elsewhere besides the City of Tshwane. Therefore, it was difficult to reach the sample in any other way, accept through face-to-face contact. Therefore, a decision was made that the pilot and main studies are carried out using face-to-face interviewer-administered survey interviews. Brace (2018) argues that face-to-face interviewer-administered surveys have some advantages, which include the following:

- Inquiries relating to the meaning of questions were attended to, and complex questions are asked.
- Questions that are misunderstood were corrected.
- Ability to test how show cards and stimulus materials work.
- How long it took to complete the survey.

4.5.2. Procedures and methods for data collection

The pilot study was conducted in Pretoria West, the area adjacent to the area where the main study would be conducted. The area was not the same as where the pretest study was be conducted. Moreover, it is recommended that the participants in the pilot study must be similar to those in the main study (Saunder *et al.*, 2016). The participants

in the pilot study were street traders operating in the various areas in Pretoria West, trading in diverse products. Many were retailers. The reason for performing pilot studies in different areas as the main study, was to preserve the area for the main study by alleviating chances of multiple testing. Moreover, it is a mixed also argument in literature that the sample used in the pilot study may be included in the main study with caution, with the goal of avoiding potential bias due to multiple testing (Thabane, Ma, Chu, Cheng, Ismaila, Rios, Robson, Thabane, Giangregorio & Goldsmith, 2010). To alleviate some form of bias arising from multiple testing, in the current pilot study and in the main study, respondents who participated in the pretest and pilot studies were not eligible to participate in the main study. Moreover, it is recommended that the respondents who participated in the pilot study must not participate in the main study (Dźwigoł, 2020).

Participants were personally recruited at their stalls (shops), where a few minutes of their time was requested to participate in the study. The show card were used as stimulus for participation, these included the ethics clearance certificate, permission letter from the City of Tshwane, permission letter to use the UWES, and the university name identity tag. These also legitimised the study whenever participants were in doubts. They aslo served as stimulus and validated the authenticity of the study. The interviewer/researcher read the questions, while the respondent listened and provided answers, which the researcher used to complete the survey.

The other value of a pilot study includes confirmation of the time required for the completion of the survey and observation of any discomfort or confusion experienced by participants as well as the interviewer (Fink, 2017; McSweeney & Williams, 2019). Moreover, due to the few number of items on the instrument, it was estimated and envisaged that it would take approximately 10 to 30 minutes to complete the survey, as also indicated on the cover sheet. However, in practice, it appears impossible to generalise the amount of time took to complete the questionnaire, especially when dealing with street traders whose work is unstructured. Moreover, the time was affected by each trader's circumstances and interruptions experienced during data collection. In most cases, these participants work alone, are bound to multitask. For example, they clean, sell, prepare stock, and attend to other urgent matters as they arise. In general,

there is a high rate of interruption; for example, a customer may just come and must be attended to. Sometimes customers come one after the other, others come to stay, or for some social discussions or visits, or for social talks. All the time, when issues such as these occurred, the interviewer/researcher was patient with the participant and continued once the participant was ready and comfortable to do so. It was also outlined during the briefing with potential participants that customers come, they must first be attended to as and when they come to buy, but must not forget about the researcher. The experience in pilot study gave confidence to the researcher on how the main study.

In relations to discomfort, for participation and interviewer, by showing participants show cards as explained above, participants' level of trust was improved, and most were stimulated to participate in the study. Although not all potential participants who were approached participated in the study, some along the way decided to drop the interview for reasons only known to them. However, many participated in the study, and some preferred to reschedule the interview for a specified future time or date, which was honoured. Others preferred to complete the questionnaire on their own and in their own time. The researcher was trained not to take matters personal and was emotionally ready to deal with any setback of any nature due to the different behaviours of the participants.

Some of the demographic items on the instrument made potential participants uncomfortable, including questions such as their age, nationality, and marriage status, but many answered most questions without any difficulty. It is also appropriate to report that not all questions were responded to, and some participants were not comfortable with some of the personal related questions as already reported above. The pilot study also provided an opportunity to thoroughly prepare for the main study. A survey has low response rate problem, the shorter questionnaire was used as recommended. The shorter questionnaire stimulate participation, facilitate answering of questions, and the layout showe some professionalism (Dalati & Marx Gómez, 2018). Moreover, it has been reported that shorter questionnaires have a higher rate of return than longer questionnaires (Schaufeli *et al*., 2019; Vicente & Reis, 2010).

In addition, as recommended by Morselli, Le Goff & Gauthier (2018), an face-to-face interviewer-administered questionnaire was used as in the pretest study. Circumstances around the potential participants (street traders) were important to comprehend prior to the main study. There is generally low rate of return from the drop-off surveys. Some participants requested to complete a survey in their own time, many could not complete, some misplaced the questionnaires or kept of postponing. Moreover, the mixing of the administration of the questionnaire was in line with the recommendations by Dane (1990:135), who argue that certain circumstances may lead to intentionally mixing the administration of data collection strategies. All these were meant to ensure maximum participation in the study by accommodating the participant's circumstances. Thus, out of ten (10) questionnaires that were drop-off to respondents on their request to complete them in their own time, only two (2) were returned, making it to be more than 80 percent, which were not ready on the agreed times for collection. The two (2) or 20 percent of the returned completed questionnaires, it took longer to have them back and required some form of elasticities, hardwork, and patience as one kept on making follow-ups and accommodating the participants' excuses. When all was happening, alerts kept on ringing that time was of essence in the study and costly to make follow-ups. Some participants disappeared from their stalls, even when the researcher made visits at different times to make follow-up. They were not found for most of the time allocated for the pilot study as per tehir appointments. Time in the academic research project is of essence, while they were giving excuses, time was not waiting, and those questionnaires ended-up being wasteful expenditures to the research project. Thus, a decision was and had to be made to use face-to-face interviewer-administered survey interviews. It confirmed the low return rate of the drop-off surveys and were not encouraged for the main study.

In addition, some traders began to operate in midday towards the afternoon, whereas others were operational only from the early hours of the morning. The time of operation was dependent on the type of products or goods they sell and their target customers. For example, most fat-cakes street traders indicated that they start preparation for work as early as 04:00, start working at 05:00 in the morning, and knock-off at approximately between 09:00 and 10:00 in the morning daily from Monday to Friday, targeting those

who are going to work in the morning for their breakfast snack. On the other hand, vegetable trader may come late in the afternoon, targeting customers who may be preparing for dinner or take-aways, fast-food traders would be there targeting workers for breakfast in the morning and lunch in the afternoon. The street trading industry is diverse, and only through the pilot study were some of the information possible. The information provided the ideal planning for the main study, among other things. Moreover, some traders, depending on their location or environment, for example, those that are located closer to blocks of flats, operate their business until late, prompting the survey to make some sacrifice if the study truly needed to make the most out of it. For the main study, the pilot study was very helpful and assisted in improving the quality of the data collection process.

The data analysis to determine the reliability and validity test of the instrument for study is reported below. Although some scholars do not draw any distinction between the pretest and pilot studies, it is recommended that whether constructing a new scale or revising an existing scale, through pilot study, researchers are able to confirm whether the scale has acceptable reliability and validity (Hilton, 2017; Ikart, 2018). In addition, field testing or reliabilty and validity testing can be useful in identifying items with a high item nonresponse rates (Buers, Triemstra, Bloemendal, Zwijnenberg, Hendriks & Delnoij, 2014). However, all questions in the instrument were responded to in the pilot study and the pattern of responses were viewed. Each of these was carried out to accomplish some specific purposes as already outlined above. The outcomes of pilot study are presented below.

4.5.3. Data Analyses and reporting

Participation in the pilot study was voluntary, similar to pretest and mian studies. There were 30 participants who voluntarily participated in the study. Recruitment, as in the main study, was performed through a convenience sampling strategy and was based on the availability of participants. The analysis of the pilot study is presented in the following section.

Various data analysis activities were performed and reported in the current section. It included data preparation, coding, editing, and capturing and analyses. All these activities are briefly reported in separate sections below, starting with data preparation, coding, editing, capturing and analyses.

4.5.3.1. Data preparation, coding, editing, capturing, and analyses

When the data collection process was concluded, data analyses were conducted. The data collected for the pilot study were transferred from the hardcopy questionnaire into a spreadsheet computer file. There was an activity of putting the data capturing into test. The statistician assisted and advised on the data coding manual. Coding involved designing a coding manual by using numbers or other symbols to answers so that the responses can be grouped into a limited number of categories (Cooper & Schindler, 2014). In the current study, the numbers were used and were distributed depending on the number of responses on the item. The data were also checked for errors. Since the pilot study had few completed questionnaires or was short, it was easy to double check for errors. The statistician also ran the data coding check with the aid of a coding manual, which was finalised from the input of the pretest study. Upon confirmation that data coding was free of any material errors, the spreadsheet computer file with data (assigned numbers) was uploaded into the IBM SPSS version 28 program for analysis. The analysis focused on the frequencies, descriptive analysis, and reliability test of the instrument and its scales. The frequencies, descriptive, and reliability analyses are reported in the following sections.

4.5.3.2. Participants' demographic analyses

The demographic profile of the participants is analysed and presented below in Table 4.4. The information indicated that there were more female than male street traders, with one indicted other on the gender. The gender report, where women were reported to be more than men in the informal sector, corresponded with the regional report, which also reported that in Sub-Saharan Africa, there were more women at 74 percent than men at 61 percent working in the informal sector, as reported in Table 2.6 in Chapter 2.

In addition, there are various nationals, where 17 of the participants were migrant workers from other countries, such as the Democratic Republic of Congo (DRC), Congo Brazzaville, Malawi, Nigeria, Tanzania, and Zimbabwe, while 13 of the participants were South Africans. The indication is that in the main study, the number of migrant workers is likely to correspond with the numbers in the pilot study or even higher.

The education level of participants ranged between grade 6 and postgraduate qualification, with a high distribution of those who had secondary school education, with few having primary or tertiary education. Regarding marital status, as shown in Table 4.4, 13 participants were single, 14 were married, 2 were divorced, and 1 was a widow. Furthermore, when looking at those working alone or with family member(s), 21 of the participants reported working alone, with 9 reporting working with a family member(s). In addition, 27 of the participants reported trading food items, including fast food, fruits, veg, snacks and refreshments, with 3 respondents reporting rendering services such as haircut (barbers). Furthermore, when looking at the age of participants, their age distribution was between (were born between 1969 to 2004), 18 years and 53 years, with the youngest street trader being 18 years and the oldest being 53 years, showing some generational mix. However, those who were between 18 years and 34 years were 14 compared to 13 who were between the ages of 35 years and 64 years. The report on age corresponded slightly well with the high percentage of youth unemployment (between 15 years and 34 years) at 45 percent, and the general unemployment at 33.9 percent in South Africa (StatsSA, 2022).

Table 4.3: The demographic description of the respondents in a pilot study

Description		Number
Gender:	Female	16
	Male	13
	Other	1
Age:	18-34	14
	35-64	13
	Other	3
Nationality:	Congolese/Brazzaville	2
	Malawian	4
	Nigerians	1
	South African	13
	Tanzanians	2
	Zimbabweans	8
Population Group:	Africans	30

Residential Province:	GP	3
	LP	6
	Mpumalanga	2
	North West	2
Home language:	Sesotho/Sepedi	8
	Xitsonga/Venda	3
	Zulu/Xhosa/Swati/Siswazi	2
Marital status:	Divorced	2
	Married	14
	Single	13
	Widow/widower	1
Parent Status:	All alive	13
	One alive	11
	Both deceased	6
Education level:	Primary School	3
	Secondary School	22
	Tertiary education	5
Working with family member:	No	21
	Yes	9
Employment status:	Agency	26
	Structural	7
Informal group of street traders:	No	27
	Yes	3
Formal group of street traders:	No	30
	Yes	0
Description of products:	Fast food	8
	Fruits & Vegetable/Snacks	19
	Services: barber/hair cut	3

Among street traders, 13 of the respondents reported still surviving with all parents (meaning that both their parents were alive), 11 of the respondents survived with one parent (meaning that either father or mother was still alive), and 6 respondents reported being orphans (meaning that both parents were deceased). Moreover, many were not unionised or belonged to a union. The information gave a good picture of how the main study would be.

4.5.3.3. Response frequencies per item on the instrument/Scales

When analysing the response statistics per indicator, it was also confirmed based on the responses that all respondents participated and responded well in the items. For example, in UWES-1, The statement required respondents to rate themselves on how often they felt bursting with energy, where most respondents/participants indicated ‘everyday’ at 50 percent, followed by ‘a few times a week at 20 percent, ‘never’ and ‘once a week’ at 10 percent, while a few times a month was at 7 percent, the lowest

being ‘a few times a year’ at 3 percent. All the responses per item are shown in Table 4.5.

Table 4.4: The participants’ frequency distribution on the UWES-9

Description	Percentage Distribution	never	A few times a year	Once a month	A few times a month	Once a week	A few times a week	Every day	Total
UWES.1	Frequency	3	1		2	3	6	15	30
	Percent	10	3.3		6.7	10	20	50	100
UWES.2	Frequency	2	1		4	1	4	18	30
	Percent	6.7	3.3		13.3	3.3	13.3	60	100
UWES.3	Frequency	1	1		1	2	4	21	30
	Percent	3.3	3.3		3.3	6.7	13.3	70.	100
UWES.4	Frequency	0	1		1	4	7	17	30
	Percent	0	3.3		3.3	13.3.	23.3	56.7	100
UWES.5	Frequency	1	0		2	2	3	22	30
	Percent	3.3.	0		6.7	6.7	10	73.3	100
UWES.6	Frequency	0	1		1	2	3	23	30
	Percent	0	3.3		3.3	6.7	10	76.7	100
UWES.7	Frequency			3	4		6	17	30
	Percent			10	13.3		20	56.7	100
UWES.8	Frequency	1	1		2	1	3	22	30
	Percent	3.3	3.3		6.7	3.3	10	73.3	100
UWES.9	Frequency	1	1		1	5	5	17	30
	Percent	3.3	3.3		3.3	16.7	16.7	56.7	100

Moreover, the questions were presented in the form of statements, for example, UWES 1: At my work as a street trader, I feel bursting with energy. (Energy overflow, for example: I feel like taking extra work-related activities, such as expanding or adding product) (see Addendum C).

In summary, all the indicators were completed, meaning that respondents did not skip any statement without providing their answers. In all indicators, most participants indicated experiencing some feelings of either vigour, dedication or absorption, as

‘every day’ was most likely selected in all indicators. UWES-6 (Absorption item) received the highest score in ‘every day’, with UWES-1 (vigour) scoring the highest on ‘never’. It might be concluded that respondents understood the statements, and the answers provided may be the true reflection of how they felt about their work. In the next section, the focus is on reporting the results of descriptive statistics.

4.5.3.4. Descriptive statistics

In the above section, it was shown and reported that all the items were well responded to by participants. The next step in the analysis process, involves reporting and discussing the descriptive statistical analysis. The main aim of the descriptive statistical analysis is to assess for some errors or missing cases on the data by analysing the total number of cases (n), minimum and maximum scores, mean, distribution of scores (skewness) and peaked of the distribution of scores (kurtosis) (Pallant, 2016). The information in Table 4.6 shows the data distribution scores per item and indicator in relation to the number of respondents who participated in the study (n = 30). In addition, it is again a way of confirming that all respondents participated well in all the items. The table also shows the spread of the indicators per item, ranging from 0 to 6. It can be confirmed that all items were currently represented by the same number of indicators. Moreover, the minimum and maximum scores per participation on the indicators are shown. The mean scores showed items that received the lowest or highest mean scores. For example, the UWES-1 received the lowest mean score value, while the UWES-6 received the highest mean score value. Moreover, the interpretation of these score values is that the highest mean shows that more respondents were positively associated with the indicators of the item, and the distribution of responses is more on the positive side of the items, whereas the lowest mean shows that many respondents were less associated with the item by choosing more on the negative side of the indicators of the items (Pallant, 2016).

Table 4.5: Descriptive statistics

Descriptive Statistics							
	n	**Min**	**Max**	**Mean**	**SD**	**Skewness**	**Kurtosis**

	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	SE	Statistic	SE	Ratio (K/SE)
UWES.1	30	0	6	4,63	1,974	-1,525	0,427	1,203	0,833	1,4
UWES.2	30	0	6	4,83	1,859	-1,604	0,427	1,592	0,833	1,9
UWES.3	30	0	6	5,17	1,642	-2,089	0,427	3,487	0,833	4,2
UWES.4	30	1	6	5,07	1,413	-1,541	0,427	1,434	0,833	1,7
UWES.5	30	0	6	5,37	1,351	-2,705	0,427	8,143	0,833	9,8
UWES.6	30	1	6	5,50	1,137	-2,789	0,427	8,354	0,833	10,0
UWES.7	30	2	6	5,00	1,438	-1,192	0,427	-0,127	0,833	0,2
UWES.8	30	0	6	5,27	1,552	-2,376	0,427	5,159	0,833	6,2
UWES.9	30	1	6	5,10	1,322	-1,634	0,427	2,392	0,833	2,9
Valid n	30									

In addition, the minimum (min) and maximum (max) assist in the verification process if the data were captured correctly by identifying outliers if available. In the information presented in Table 4.6, all the data capturing did not show any outliers, confirming that respondents and data capturing were within the acceptable ranges as determined by the indicators. In addition, according to Pallant (2016), the skewness value provides an indication of the balance (symmetry) of the distribution, whereas kurtosis values provide information about the ‘peakedness’ of the distribution. Furthermore, positive skewness values indicate that scores were clustered to the left at low values, whereas negative skewness indicates a clustering of scores at the high end (right-hand side of a graph) (Pallant, 2016). The skewness values, as shown in Table 4.6, are mostly on the negative side, which shows that the distributions are more towards the high end at the right hand side in almost all the scales. It is consistent with the high distribution of scores above 50 percent on ‘every day’, which is on the positive right-hand side of the scales, for all the UWES items (UWES-1; -2; -3; -4; -5; -6; -7; -8; and -9). ‘Never’ and other items on the scales received the lowest distribution of scores. Table 4.6 above shows that the data were captured correctly and are a true reflection of the distribution of participants’ responses.

Positive kurtosis values indicate that the distribution is rather peaked (clustered in the centre), with long thin tails towards both ends, whereas Kurtosis values below 0 indicate a distribution that is relatively flat (too many cases in the extremes, either on the left or right) (Pallant, 2016). The kurtosis, as shown in Table 4.6, is mostly positive, which explains why the distribution peaked, except for item 7, which has values below 0, indicating a distribution that is relatively flat. The highest peak is evidence on items such as UWES-3, UWES-5, UWES-6, and UWES-8. The peakness is consistent with the highest scores above 70 percent, as shown in Table 4.5 above on 'every day' for UWES-3, UWES-5, UWES-6, and UWES-8. It confirms that statistical analysis was run on the correct data, and many of the respondents chose the positive indicators of the items. In general, the positive end of the scale shows that respondents were associated with the indicators.

4.5.3.5. Reliability tests

Once the descriptive and frequency analyses were conducted, reported, and discussed, the next step in data analysis invoves determining the validity of the instrument. Thus, the focus in the current section is on reporting and discussion of the reliability assessment. Reliability is an important but not a sufficient condition for instrument validity (Hair Jr *et al*., 2014). The reliability coefficient assesses the consistency of the entire instrument and its scales, with Cronbach's alpha being the most widely used measure for internal consistency coefficient reliability. The most accepted minimum Cronbach's coefficient alpha value is $\alpha = 0.70$ (Nunnally, 1968). It may be reduced to $\alpha = 0.50$ on instrument with items less than 10 and still be considered as acceptable (Hair Jr *et al.*, 2014:123; Pallant, 2016). In addition, with short scales (scales with fewer than ten items), it is common to find quite low Cronbach alpha values, for example, $\alpha = 0.50$, which is acceptable (Hair Jr *et al*., 2014:123; Pallant, 2020). In cases where low Cronbach alpha values have achieved values below the minimum acceptable level, it is relevant to report the mean inter-item correlation value for the items, with recommended acceptable values ranging between 0.20 and 0.40 (Briggs & Cheek, 1986; Pallant, 2020). In addition, to further assess the relationship behaviour of items among themselves in the scale, the corrected item-total correlation in the item-total statistics

gives an indication of the degree to which each item correlates with the total score. Items scoring values below the minimum acceptable values may be deleted because they are regarded as measuring something else (Pallant, 2016:100). The Cronbach alpha coefficient values for the three scales of the UWES-9 in the current pilot study were conducted and reported as shown in Table 4.7 below:

Table 4.6: Reliability Statistics

Scales	Items	N of Items	Cronbach's Alpha Coefficient
(Vigour)	UWES.1 UWES.2 UWES.5		
		3	0,682
(Dedication)	UWES.3 UWES.4 UWES.7	3	0,628
(Absorption)	UWES.6 UWES.8 UWES.9	3	0,586

The reliability report is shown in Table 4.7. The reliability alpha of the scales was reported as, vigour α = 0.68, dedication α = 0.63, and absorption α = 0.59. These Cronbach coefficient alpha values are within the minimum acceptable α = 0.50 for scales with fewer than 10 items, as recommended (Hair Jr *et al.*, 2014:123; Pallant, 2020). Moreover, it is recommended that the analysis scores confirm that the items in each subscale of the UWES in the study are internally consistent, measuring what they must measure in the scales. Each scale, namely, vigour, dedication, and absorption, has three items, making the 9-item UWES.

In addition to the internal consistency reliability test, the inter-item correlations on the summary item statistics and corrected item-total correlations on the item-total statistics were conducted. However, these reliability tests are only be used once the Cronbach alpha values of the instrument are below the minimum acceptable values. In the study, these reliability tests are also conducted and reported and discussed below.

Table 4.7: Vigour Scale: Summary Item Statistics

	Mean	Min	Max	Range	Max/Min	Variance	N of Items
Item Means	4,944	4,633	5,367	0,733	1,158	0,144	3
Inter-Item Covariances	1,276	0,932	1,661	0,729	1,782	0,107	3
Inter-Item correlations	0,431	0,349	0,492	0,142	1,408	0,004	3

The summary item statistics on the vigour scale are shown in Table 4.8, and the reported inter-item correlations have a mean value of 0.43, which is acceptable. Moreover, it is recommended that in addition to the low internal reliability assessment, the inter-item correlations mean values between 0.20 to 0.40 are acceptable and good indication of internal consistency (Briggs & Cheek, 1986; Pallant, 2020). Therefore, with the mean value of 0.43 in the items of the scale of vigour, the internal consistency of the items is acceptable.

In addition to the inter-item correlations on the summary item statistics, the corrected item-total correlation was also used to observe the relationship of items in the scale, as presented below in Table 4.9. It is further recommended that in cases where the Cronbach coefficient alpha value of the scale/s is below the recommended $\alpha = 0.70$, the corrected item-total correlation on the summary item correlation values may be used to observe the relationship of individual items to the item-total statistics (Pallant, 2020. The statistics give an indication of the degree to which each item correlates with the other items, where if the item correlation score to the total correlations is above 0.30, it is considered acceptable. In a situation where the item correlation score/value is below 0.30, the item in question must be deleted because it does not measure what the scale should be measuring (Pallant, 2020). The item-total statistics test was conducted, and the report is presented and discussed below.

Table 4.8: Vigour Scale: Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
[UWES.1] At my work, I feel bursting with energy.	10,20	7,752	0,472	0,226	0,638

(Confident/lively/active; thus, full or overflowing)					
[UWES.2] At my job, I feel strong and vigorous. (Determined; having lots of energy; vitality)	10,00	7,586	0,566	0,332	0,492
[UWES.5] When I get up in the morning, I feel like going to work. (I look forward to go to work)	9,47	10,671	0,491	0,262	0,623

In the information in Table 4.9, it is observable that all the items had a score values above 0.40 on the column titled corrected item-correlation, and the score values were far above the minimum acceptable score value of 0.30. It can be concluded based on these results that all the items in the scale of vigour are correctly measuring what the scale of vigour is measuring and are all acceptable. The same tests continued to be carried out at other scales. In the dedication scale, the inter-item correlations score on the summary item statistics and the corrected total-item correlation on the item-total statistics scores were analysed. The inter-item correlations mean value of 0.36 was reported among the items of the scale of dedication, as shown in Table 4.10.

Table 4.9: Dedication Scale: Summary Item Statistics

	Mean	Min	Max	Range	Max/Min	Variance	N of Items
Item Means	5,078	5,000	5,167	0,167	1,033	0,007	3
Inter-Item Covariances	0,812	0,655	1,092	0,437	1,667	0,047	3
Inter-Item Correlations	0,362	0,292	0,471	0,179	1,612	0,007	3

Thus, it is recommended that any inter-item correlation score between 0.20 and 0.40 is a good indication of internal consistency among the items of the scale (Briggs & Cheek, 1986; Pallant, 2020). Therefore, with a mean value of 0.36 in the items of the scale of dedication, the internal consistency of the items is acceptable. In addition to the inter-item correlations on the summary item statistics, the corrected item-total correlation was also used to assess the relationship of items in the scale, as presented below in Table 4.11. It is further recommended that in cases where the Cronbach coefficient alpha value of the scale/s is below $\alpha = 0.70$, it is also recommended to assess the corrected item-total correlation on the summary item correlation values to observe the relationship of individual items to the item-total statistics (Pallant, 2020). It is already explained

above that the statistics give an indication of the degree to which each item correlates with the total correlation score, where if the item correlation score to the total correlations is above 0.30, it is considered acceptable. In a situation where the item correlation score/value is below 0.30, the item in question must be deleted because it does not measure what the scale measures (Pallant, 2020).

Table 4.10: Dedication Scale: Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
[UWES.3] I am enthusiastic about my job. (Strong feeling of excitement)	10,07	5,375	0,468	0,244	0,488
[UWES.4] My job inspires me. (Feel positive; that is like motivation)	10,17	6,144	0,499	0,259	0,449
[UWES.7] I am proud of the work I do. (Feel pleasure of achievement)	10,23	6,875	0,357	0,129	0,635

In the information presented in Table 4.11, all the items in the scale of dedication achieved acceptable corrected item-total correlation values above 0.30. However, one of the items has a score far below the other items, a score just above the minimum acceptable value, which may draw further attention in the main study. Above all, all the items of dedications correlated well at above minimum acceptable values.

The reliability assessment of the scale of absorption was further assessed below, as in the other scales. The reports are presented and discussed in the following paragraphs.

Table 4.11: Absorption Scale: Summary Item Statistics

	Mean	Min	Max	Range	Max/Min	Variance	N of Items
Item Means	5,289	5,100	5,500	0,400	1,078	0,040	3
Inter-Item Covariances	0,583	0,259	1,000	0,741	3,867	0,115	3
Inter-Item Correlations	0,326	0,172	0,567	0,395	3,294	0,036	3

An inter-item correlation of 0.33 is reported for the items of the scale of absorption. Thus, it is recommended that inter-item correlation scores between 0.20 and 0.40 are a good indication of the internal consistency among the items of the scale (Briggs & Cheek, 1986; Pallant, 2020). Therefore, with a score of 0.33 in the items of the scale of absorption, the internal consistency of the items is acceptable, as shown in Table 4.12.

In addition, the corrected item-total correlation in the item-total statistics on the items of absorption is assessed as shown in Table 4.13, the results are presented and discussed below.

Table 4.12: Absorption Scale: Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
[UWES.6] I feel happy when I am working intensely. (Very hard)	10,37	5,137	0,488	0,322	0,381
[UWES.8] I am immersed in my work. (Involved deeply)	10,60	3,559	0,509	0,342	0,291
[UWES.9] I get carried away when I'm working. (Bringing some good motions; feel 'lost')	10,77	5,702	**0,237**	0,059	0,701

It is shown that one item on the corrected item-total correlation column has a score of 0.24, which is below the recommended value of 0.30. In situations such as that, the item must be deleted, as it is said to be measuring something other than absorption. The internal consistency assessments of the individual dimensions of the UWES, namely, vigour, dedication and absorption were conducted, as reported and discussed above.

In the following section, the internal reliability assessment of the UWES-9 composite sacel/instrument is presented below in Table 4.14.

Table 4.13: The internal reliability test for the UWES-9 composite scale

Reliability Statistics		
Cronbach's Alpha	**Cronbach's Alpha Based on Standardised Items**	**N of Items**

0,759	0,765	9

The internal reliability assessment for the UWES-9 composite scale is determined, and the results are presented in Table 4.14 above. The Cronbach coefficient alpha value is within the minimum acceptable value of $\alpha = 0.70$, as recommended by (Nunnally, 1968), at a value of $\alpha = 0.76$. The UWES-9 achieved better internal consistency at $\alpha = 0.76$, the value better than the individual scales, where vigour was at $\alpha = 0,68$, dedication was at $\alpha = 0,63$, and absorption was at $\alpha = 0,59$. Despite having achieved acceptable internal consistency alpha values, the inter-item correlations of the items in the composite scale of UWES-9 were also determined, and the report is presented in Table 4.15, as discussed below.

Table 4.14: The composite scale of UWES-9 Summary Item Statistics

	Mean	Min	Max	Range	Max/Min	Variance	N of Items
Item Means	5,104	4,633	5,500	0,867	1,187	0,070	9
Inter-Item Covariances	0,617	-0,241	2,132	2,374	-8,833	0,276	9
Inter-Item Correlations	0,266	-0,085	0,699	0,784	-8,219	0,041	9

The inter-item correlations of the items achieved a minimum acceptable mean value of 0.20 to 0.40 at a mean value of 0.27, as shown in Table 4.15. Thus, the inter-item correlation mean value between 0.20 and 0.40 is a good indication of internal consistency (Briggs & Cheek, 1986; Pallant, 2020). In addition to Cronbach alpha coefficient values for the single composite model, the corrected item-total correlation of the item-total correlations was conducted as one of the recommended procedures, and the results are presented in Table 4.16 and discussed below:

Table 4.15: The Corrected Item-Total Correlation on the one-factor UWES-9

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
[UWES.1] At my work, I feel bursting with energy. (Confident/lively/active;	41,30	48,838	0,473	0,608	0,734

thus, full or overflowing)					
[UWES.2] At my job, I feel strong and vigorous. (Determined; having lots of energy; vitality)	41,10	50,162	0,462	0,741	0,734
[UWES.5] When I get up in the morning, I feel like going to work. (I look forwards to go to work)	40,57	54,530	0,473	0,526	0,733
[UWES.3] I am enthusiastic about my job. (Strong feeling of excitement)	40,77	48,461	0,640	0,652	0,702
[UWES.4] My job inspires me. (Feel positive; that is like motivation)	40,87	53,844	0,480	0,524	0,731
[UWES.7] I am proud of the work I do. (Feel pleasure of achievement)	40,93	55,513	0,383	0,717	0,745
[UWES.6] I feel happy when I am working intensely. (Very hard)	40,43	55,289	0,544	0,722	0,728
[UWES.8] I am immersed in my work. (Involved deeply)	40,67	55,954	0,320	0,545	0,755
[UWES.9] I get carried away when I'm working. (Bringing some good motions; feel 'lost')	40,83	59,316	0,232	0,601	0,764

The corrected item-total correlation of statistics of item-total statistics gives an indication of the degree to which each item correlates with the total correlation score, where if the item correlation score to the total correlations is above the mean value of 0.30, it is considered acceptable (Hair Jr *et al*., 2014; Pallant, 2020). In a situation where the item correlation score/value is below the mean value of 0.30, the item in question must be deleted because it does not measure what the scale seeks to measure (Hair Jr *et al*., 2014; Pallant, 2020). In the composite scale of UWES-9, one item has a mean value of less 0.30 at a mean value of 0.23. It is recommended that such an item, for achieving a mean value of less than 0.30, must be deleted. Therefore, going forwards with the assessment of the validity of the UWES, the item that scored a mean value of less than

0.30 are deleted. It was the same item, namely, item 9, which was phrased as ‘I get carried away when I’m working as a street trader. (Example: feel I can extend working time)’, which was also problematic when assessing the internal consistency for the indidual scale.

The internal consistency reliability of the scales of the UWES-9 in assessing the work engagement of street traders, the most visible self-employed/own-account workers in the informal sector, was determined and reported as acceptable. The other tests were also conducted, namely, inter-item correlation on the summary item statistics and the corrected item-total correlation. It can be concluded based on the results of these tests that the UWES-8, instead of the UWES-9, has acceptable internal consistency reliability in assessing the work engagement of street traders, the most visible self-employed/own-account workers in the informal sector. One item could not meet the minimum acceptable internal reliability when a rigorous internal reliability test was conducted on the corrected item-total correlation statistical test. The internal reliability test measures the degree of a set of indicators of a latent construct’s internal consistency based on how interrelated the indicators are with each other (Hair Jr *et al*., 2014). Moreover, reliability is also an indicator of the convergent validity of a construct, which is the extent to which a set of measured variables represents the theoretical latent construct of those variables designed to measure (Hair Jr *et al*., 2014). Although internal reliability is necessary, it is not a sufficient condition for instrument validity (Hair Jr *et al*., 2014). It only provides some positive pointers in the right direction that the instrument is on its way towards achieving acceptable validity.

Moreover, work engagement is one of the constructs used to determine occupational well-being. The study is a ground-breaking one because the occupational well-being of self-employed/own-account workers in the informal sector is scarcely measured. The results of the study will help close the concern raised about the research gap between the formal and informal sectors in the field of positive psychology, where occupational well-being was studied or involved. In addition, the UWES has been widely validated and used to assess work engagement in the formal sector. The results of the current study may validate and use the UWES in assessing work engagement of self-

employed/own-account workers in the informal sector. The UWES is one of the few validated and widely used instruments in the field of positive psychology and is available in more than 31 languages.

4.6. CHAPTER SUMMARY: PRETEST AND PILOT STUDIES

The focus of the present chapter was on the pretest and pilot studies for the study, with the discussion and reporting of the results. A pretest study was conducted with 10 participants who were similar to those in the pilot and main studies (street traders). However, the pretest study was not statistical analysed. The study was meant to address the quality of the instrument by assessing presentation and understandability of the language used in the study. The outcomes of the pretest study revealed that the presentation of the instrument to the potential respondents needed some adjustments. In addition, the pretest study revealed something about the data collection interview process, which included the following:

- The clarity of the language used if participants were able to follow the instruction.
- Interviewers can easily administer the data collection process.
- If the spaces on the questionnaire form were large enough for recording responses.
- It also revealed how much time it could take to complete the survey.

The feedback from the pretest study assisted in the refinement of the questionnaire while maintaining its original intended purposes. Moreover, there was an outcry and a concern in the literature about the lack of reporting of the results of both pretest and pilot studies, which mainly limits their contributions in the literature. It is recommended that a pilot study must first be conducted for all surveys before being launched into a larger-scale study (Fink, 2017:8). The value of a pilot study includes determining the time it took to complete the questionnaire and some discomfort or confusion that may be experienced by the participants (McSweeney & Williams, 2019:56). The time it took to complete the questionnaire was initially estimated for the study and was also revised after testing it in the pretest and pilot studies. The pretest study was more valuable for the study, as other technical and quality aspects were also implemented to improve the

quality and presentation of the questionnaire. Such include explanation of big words on the scales and bring some work-related examples to make the instrument even more understandable.

A pilot study, as identified in the literature, has its own purpose, which is complimentary to the purpose of the pretest study. The pilot study was conducted on 30 participants who were similar to those in the pretest and main study as recommended. The data for the pilot study were put into formal statistical data analysis. The rationale for conducting these studies included, among others, the improvement of the quality and presentation of the instrument for the data collection process.

The data from the pilot study were subjected to reliability and validity tests. The tests were conducted and results of the pilot study gave a clear picture of what to expect in the main study. The descriptive analyses of the participants and their demographic profiles painted another picture on the types of participants to expect and prepare for in the main study. Although the reliability test is not the only sufficient condition for validity, it has some elements of validity assessment. Both the pretest and pilot studies are commendable for any study focusing on new processes, communities, or techniques.

CHAPTER 5: RESULTS: PRESENTATION AND DISCUSSIONS

5.1. INTRODUCTION

The current chapter focuses on the presentation and discussion of the results. There are different categories used to classify studies (Leedy & Ormrod, 2015:191; Mouton, 2001:122). The current study was classified as an empirical, quantitative cross-sectional survey study (Leedy & Ormrod, 2015:191; Mouton, 2001:122). In survey research, information must be acquired about one or more groups of people in relation to their characteristics, opinions, attitudes, or previous experiences. The group may be asked questions while tabulating their answers. The purpose of surveying a sample is to ultimately learn about a large population (Leedy & Ormrod, 2015:191). In addition, a researcher should decide on a population; choose a technique for sampling; develop a valid means of collecting the desired data; minimise the potential for bias in the study; and then actually collect, record, organise, and analyse all the necessary data (Leedy & Ormrod, 2015:191).

The activities associated with survey study may be complex, time-consuming, and occasionally distracting, exposing researchers to much risks (Leedy & Ormrod, 2015). Thus, a researcher was conscious or alerted when conducting such a study to not lose sight or focus of the problem and subproblems a study was conducted to solve or the precise purpose the entire study was meant to achieve. There are, however, various explanations available in the literature on what an empirical, quantitative cross-sectional survey should or should not be done when conducting such a study, including the associated advantages and disadvantages (Cooper & Schindler, 2014; Freytag & Young, 2017; Gournelos, Hammonds & Wilson, 2019; Hammond & Wellington, 2020; Leedy & Ormrod, 2015; Neuman, 2014; Saunders, *et al*., 2016; Walliman, 2017; Weathington *et al*., 2012). Moreover, Mouton (2001:122) classified studies differently, whereas the present study is classified as an empirical survey study.

Furtherover, to maintain focus, in each chapter of the study, the purpose, objectives, and hypotheses were always restated. The study sought to determine the occupational

well-being of street traders, the most visible self-employed/own-account workers in the informal sector, by assessing their work engagement using the UWES-9. The UWES has been validated and widely used in the formal sector measuring engagement at the individual level, with the study also seeking to validate the UWES in assessing work engagement of self-employed/own-account workers (street traders) in the informal sector. The UWES assesses engagement at an individual level. Hence, the study was also undertaken to determine if the UWES is valid for assessing the work engagement of self-employed/own-account workers in the informal sector.

Data analysis to solve the problem of the study was completed, wherein in the following section, each section reports on specific aspects of the data analysis activity undertaken. Therefore, the focus of the current chapter is on reporting and discussing the results of the data analyses. According to Mouton (2001:122), data analysis reporting includes the discussion of the sample profile, presentation of results through tables or graphs, discussions of results in relation to the formulated hypotheses or themes and drawing conclusions. The conclussions report if the study has resolved the formulated problem of the study and if the study has achieved the objectives. The results in the current chapter are presented below in accordance with the formulated hypotheses.

5.2. DATA COLLECTION PROCESS

The focus of the section is to briefly report on the actual data collection process. The data collection process started on 03/05/2022 and was completed on 03/06/2022 . It started after completion of reports of the pretest and pilot studies. The data collection was scheduled for a month. It was estimated that if one fieldworker was able to complete at least 10 surveys a day, 420 questionnaires would be collected when the project ended (21 days x 20 completed questionnaires a day by 2 fieldworkers = 420). Moreover, in the first two weeks of the data collection, the researcher assisted in the data collection process. Given that the study operated under a tight budget, to avoid wasteful expenditure, questionnaires were printed in batches of 100 per week over a period of 5 weeks, as the process overlapped to the 5th week. There were 450

questionnaires that were printed for the study, and at the end of the data collection project, only 405 questionnaires were completed, and the project ran out of time.

Moreover, on some days, the targets of at least 10 completed questionnaires per fieldworker were met, and on some days, it was difficult. Some of the contributing factors were fieldworkers' ill-health, time, and costs associated with data collection, which were the main contributing factors for having collected 405, a quantity little from the projected quantity of completed questionnaires. When one fieldworker was sick, it was difficult for the other to carry out work alone, and the researcher was always on stand-by to cover for such work. It was also difficult for the researcher to cover work which was done by two people. It was done to maintain a go slow in the process. Moreover, given that it was a winter month, illnesses associated with cold were prevalent. The cost allocated for the fieldworkers was exceeded by almost 50 percent, making it difficult to negotiate for contract extension with fieldworkers. Despite some of these challenges, the number of completed questionnaires was sufficient to perform the statistical analyses, meeting the objectives, and solving the problem of the study.

5.3. DATA CODING AND CAPTURING

The focus of the current section is on the reporting and discussion of the data coding and capturing processes. The coding manual developed during the pilot phase was slightly revised on a small scale and used in the main study. Data were transferred from hard copies into the spreadsheet Excel computer file. The process of data capturing gradually started after reaching 100 completed questionnaires. The researcher realised that since the fieldworkers were then able to work independently of the researcher, the researcher had to recuse himself from assisting in fieldwork to focus on other projects of the study, for example, data capturing and revision of chapters of the study. The codes were in the form of figures/numbers. However, the management of the data collection sites was still performed, where fieldworkers were transported from the bus stop to and from the sites back to the bus stop. Completed questionnaires were fetched daily for capturing from the fieldworkers while transporting them from the data collection site to the bus station. When the data collection process was completed, the capture

was also completed a few days later.

Quality assurance on the completed questionnaires was performed on a number of stages, namely, in the field, during capturing, and prior to sharing the spreadsheet computer file to the statistician for analyses. When all data were certified for correctly captured, the spreadsheet was shared with the statistician, together with the coding manual. Once the data were further checked or quality assured and certified by the statistician for correctness, the data were then ready for analyses. IBM SPSS version 28, the latest version at a time, was used for data analyses. The first phase of data analysis process focused on the frequency distribution, which is reported below.

5.4. FREQUENCY DISTRIBUTIONS

The focus of the current section is the reporting and discussion of the frequencies and rationale for performing such analyses. Frequency distribution in the study is the first and simple way used to describe the numerical data of one variable in descriptive statistics (Neuman, 2014:396). Moreover, in the current study, univariate statistics were used to determine the frequency and percentage distribution of all the UWES-9 variables and 14 demographic variables in the measuring instrument. According to Neuman (2014:396), in univariate statistics, one variable is described in isolation of other variables. In addition, it is recommended that it is essential to discuss the sample profiles to understand the nature of the findings (Mouton, 2001:122). The frequencies and percentage distribution of each variable of measurement are reported in the following sections.

5.4.1. UWES-9 Frequencies and percentage distributions

The frequencies and percentage distributions are the focus and are discussed in the current section. Furthermore, the instrument was divided into two sections, namely, Section A and Section B. Section A was more about the instrument of work engagement, namely, items of the three dimensions of work engagement, vigour, absorption, and dedication. Each dimension has three items. Section B was about

demographic information (see Addendum C). In Table 5.1, the information about how participants rated the statements on work engagement is reported, with frequencies and percentage distribution on all the responses made by the participants.

Table 5.1: The response frequencies and percentage distributions

Description	Percentage distribution of scores	Never	A few times a year	Once a month	A few times a month	Once a week	A few times a week	Every day	Total
UWES 1: At my work as a street trader, I feel bursting with energy	Frequency	17	1	1	42	9	76	259	405
	Percentage	4.2	0.2	0.2	10.4	2.2	18.8	64	100
UWES 2: At my job as a street trader, I feel strong and vigorous	Frequency	12	5	4	43	13	86	242	405
	Percentage	3.0	1.2	1.0	10.6	3.2	21.2	59.8	100
UWES 3: I am enthusiastic about my job as a street traders	Frequency	3	1	3	9	5	46	338	405
	Percentage	0.7	0.2	0.7	2.2	1.2	11.4	83.5	100
UWES 4: My job as a street traders inspires me	Frequency	30	7	0	76	7	51	234	405
	Percentage	7.4	1.7	0	18.8	1.7	12.6	57.8	100
UWES 5: When I get up in the morning, I feel like going to work as a street trader	Frequency	21	3	0	43	7	102	229	405
	Percentage	5.2	0.7	0	10.6	1.7	25.2	56.5	100
UWES 6: I feel happy when I am working intensely as a street trader	Frequency	75	5	4	42	11	52	216	405
	Percentage	18.5	1.2	1.0	10.4	2.7	12.8	53.3	100
UWES 7: I am proud of the work I do as a street trader	Frequency	23	6	0	62	5	43	266	405
	Percentage	5.7	1.5	0	15.3	1.2	10.6	65.7	100

UWES 8: I am immersed in my work as a street trader	Frequency	7	2	5	66	10	85	230	405
	Percentage	1.7	0.5	1.2	16.3	2.5	21.0	56.8	100
UWES 9: I get carried away when I am working as a street trader	Frequency	123	11	4	44	8	140	75	405
	Percentage	30.4	2.7	1.0	10.9	2.0	34.6	18.5	100

Table 5.1 shows the percentage distribution of the responses. The statements accompanying the UWES are stated as shown in Table 5.1 (see Addendum C). The three indicators of vigour were UWES.1, UWES.2, and UWES.5; for dedication were UWES.3, UWES.4, and UWES.7; and for absorption were UWES.6, UWES.8, and UWES.9. When taken together, they were the indicators of the UWES.

In addition, the frequencies show the number of respondents who have chosen a particular indicator on the scale of UWES, for example on UWES-1, the highest chosen indicator was ‘everyday’ at 259 frequencies or 64 percent, followed by ‘A few times a week’ at 76 frequencies or 18.8 percent. The least chosen indicators on the UWES-1 were ‘A few times a year’ and ‘Once a month’ at 1 each or 0.20 percent. In addition, it show how many respondents have participated in the item at a total of 405 frequencies or 100 percent. All the frequencies and percentage distributions of the items of the UWES were compressed and presented in Table 5.1 and were analysed as per the example above. In the following sections, the frequencies and percentage distributions of the demographic variables are presented and discussed. These are presented in separate sections in the following sections.

5.4.2. Gender

The gender profile of the sample is reported, discussed, and presented below with the aid of Table 5.2.

Table 5.2: Gender profiles of participants

Gender	Frequency	Percent
Female	176	43,5
Male	229	56,5
Total	405	100,0

There were 176 or 43.5 percent female participants compared to 229 or 56.5 percent male participants in the study. It was not the case in the pilot study, where there were 53 percent female participants compared to 43 percent male participants in the study. However, in the Sub-Saharan region, more females were reported to be more involved in the informal sector as self-employed/own-account workers than their male counterparts. In South Africa, males were reported to participate more than their female counterparts in SMMEs. There were, however, mixed reports on participating in the informal sector by gender. Moreover, the study was conducted based on availability or convenience sampling, the distribution is acceptable.

5.4.3. Age profile of the participants

The age profile of the participants is reported and discussed in the present section. The age profile of the participants was divided into three categories, as shown in Table 5.3.

Table 5.3: Age distribution of participants

Age group	Frequency	Percent
18-34	150	37,0
35-64	224	55,3
65+, Not specified	31	7,7
Total	405	100,0

The gender profile of participants was divided into three main groups, namely, 18 to 34 years; 35 to 64 years; and 65 years and more, and not specified. The grouping is in line with StatsSA (2022), where 18 to 34 years old are regarded as youth and were at 150 or 37 percent; 35 to 64 were adults working age at 224 or 55 percent; and 65+ are pensioners and those who did not specify their age at 31 or 7.7 percent. There were those who did not specify their age group, and it was within their rights to do so. The two groups collapsed and were combined into one group due to numbers. In the pilot

study, there were more participants between the ages of 18 and 34 years than in the other groups. However, in the main study, there were more participants between the ages of 35 and 64 years than in the other groups. The distribution is in line with the report by SEDA (2022), where the highest distribution of SMMEs in the informal sector by age was between those aged between 35 and 55 years. In addition, it was reported that at that age, people have responsibilities and families and are willing to own businesses (SEDA, 2022), as a secure source of income.

5.4.4. Nationality of participants

The nationalities of the participants were grouped into two main groups, as presented in Table 5.4.

Table 5.4: Nationality of participants

Nationality	Frequency	Percent
South Africa	209	51,6
Migrant worker (Senegalese/Nigerians/Cameroonians/Burundians/Malawian/Mozambican / Tanzanian/Zanzibar/Zimbabwean)	196	48,4
Total	405	100,0

The participants were grouped into two groups according to their nationalities, namely, South Africans and migrant workers (street traders). Migrant street traders included traders from countries such as Burundi, Cameroon, Malawi, Mozambique, Nigeria, Tanzania/Zanzibar, and Zimbabwe. South Africans were 209 or 52 percent compared to 196 frequencies or 48 percent of migrant traders. In the pilot study, there were more migrant workers than South African workers. The number of migrant workers in both studies was in line with the report that South Africa is one of the leading migration destinations, as reported above. Migrant traders take informal work as they were displaced from their home countries due to different factors, such as wars.

5.4.5. Education status of participants

The education status of the participants was analysed, reported, and presented in Table 5.5 below:

Table 5.5: Education status of participants

Education group	Frequency	Percent
None or Primary School grade completed/Not specified	90	22.2
Secondary school grade completed	272	67,2
Graduates: College/University	43	10,6
Total	405	100,0

The education status of participants was divided into three groups, namely, none or primary school education, and not specified at 90 or 22 percent; secondary school grades at 272 or 67 percent; and graduates at 43 or 11 percent. Many participants, at 272 or 67.2 percent, had a secondary school education, which in the South African context are the grades between grade 8 and 12. It was also the case in the pilot study, where many of the participants had secondary school education, few graduates, and least participants had primary school education. The distribution of participants' education was in line with the report by SEDA (2022), where the highest distribution was between those who had attended or completed secondary education.

5.4.6. Street traders working with or not working family members

Some street traders working with or not working with family members were profiled as presented in Table 5.6 below.

Table 5.6: Street traders working with or not working with family member(s)

Working with or not with family members	Frequency	Percent
No	322	79,5
Yes	83	20,5
Total	405	100,0

There were street traders who reported working with family member(s) at 83 or 21

percent of participants compared to those who worked alone or not with any family member(s) at 322 or 80 percent. In the pilot study, few participants also indicated working with member(s) of the family, whereas the majority reported not working with anyone or family member(s). The report was in accordance with the report by SEDA (2022) that many work as self-employed/own-account workers in the informal sector.

5.4.7. Employment status of participants

Information on respondents was collected to profile according their employment status, namely, either agency or structural motives, informed by their choices/decisions to be a street trader, as shown in Table 5.7 below.

Table 5.7: Employment status of participants

Employment status	Frequency	Percent
Agency motive (I enjoy being independent/entrepreneurship)	204	50,4
Structural motive (I cannot find job I am qualified for)	201	49,6
Total	405	100,0

In Table 5.7, there were 204 or 50 percent of participants who were reported working as street traders influenced by agency motives; that is, they enjoyed being independent or entrepreneurs. On the other hand, 201 or 50 percent of participants reported working as street traders influenced by structural motives; that is, they could not find jobs they were qualified for. In the pilot study, more street traders reported working as street traders influenced by agency motives at 87 percent compared to 23 percent being influenced by structural motives. However, given the high rate of unemployment, it was appropriate to assess the motives of becoming a street trader.

5.4.8. Street traders belonging to other groups, e.g., stokvels

The street traders belonging to informal groups, for example, ‘stokvel’ or social groups, were profiled in the study as presented in Table 5.8.

Table 5.8: Street traders belonging to other groups, e.g., stokvels

Belonging to informal group	Frequency	Percent
No	285	70,4
Yes	120	29,6
Total	405	100,0

It is reported that 120 or 30 percent of street traders belonged to social groups with other traders. However, 285 or 70 percent of street traders did not belong to any social group with other street traders. The report of membership in an informal group in the study in line with reports in literature that suggest that it is difficult to organise workers in the informal sector (ILO, 2016).

5.4.9. Street traders belonging to formal groups, e.g., trade unions

Street traders were also profiled according to their membership in formal groups, such as unions or associations, as presented in Table 5.9.

Table 5.9: Street traders belonging to formal groups, e.g., trade unions

Membership in a union or association	Frequency	Percent
No	249	61,5
Yes	156	38,5
Total	405	100,0

It is reported that at least 249 or 61.5 percent of street traders were not members of any formal association or trade union or formation. However, it is also reported that 156 or 38.5 percent of street traders were reported to be members of the association or union, as shown in Table 5.9. Moreover, it is reported that it is difficult to organise in the informal sector.

These demographic characteristics were used to determine some relationships with the work engagement of street traders. The report is presented in separate sections. Moreover, to understand the nature of the findings, it is recommended that a discussion of the sample and its variables be completed (Mouton, 2001:122). When reporting the sample's demographic variables, relating the percentages of who they are and any

other pertinent identifier, roles, categories, and any checkbox questions help tell the story about the sample to the readers (Gournelos *et al*., 2019). Moreover, age, gender, education, nationality, working with or alone (not with family member(s)), employment status (agency or structural motives), membership in informal social groups, and membership in formal groups were variables used to explain the story about the characteristics of the sample of the study. The frequencies are discussed, reported, and presented comprehensively in the present section.

5.5. PRESENTATION OF RESULTS

In the present section, the focus is on the presentation of the results as analysed. Moreover, it is recommended that once the demographic characteristics of the sample have been presented, analysed, and reported, the main results obtained in the study must be described and summarised with the aid of tables and/or graphs (Cooper & Schindler, 2014; Leedy & Ormrod, 2015:23; Mouton, 2001:48; Saunders *et al*., 2019). The frequencies and demographic characteristics of the sample have already been reported. Presenting the results of the study is the communication process, wherein the aim is to clearly make important points about the findings of the study to a specific audience (Freytag & Young, 2017). The results of the study were presented using tables and graphs, clearly making some important points about the findings of the study to the academic community.

The presentation of the results is guided by the hypotheses formulated for a study, which were premised on the purpose or aim of the study. Moreover, the study determined the occupational well-being of street traders, the most visible self-employed/own-account workers in the informal sector, by assessing their work engagement through the UWES-9. The informal sector is reported as the largest global employer, yet occupational well-being is understudied in this informal sector compared to the formal sector. Moreover, the UWES-9, one of the few valid and widely used instruments with sound psychometric properties for assessing work engagement at an individual level, was only validated with workers in the formal sector. Moreover, vast workers' support resulting from recommendations from the literature is focused on

workers in the formal sector. Thus, the study bridged the research gap that exists between the formal and informal sectors and was identified as a concern in the literature. To achieve the outlined purpose, the objectives of the study are formulated as follows:

The primary objective is stated and linked to the main purpose of the study as follows:

- Determining occupational well-being of street traders, the most visible self-employed/own-account workers in the informal sector, by assessing their work engagement through UWES, one of the few valid and most commonly used instruments in assessing work engagement at an individual level.

To achieve the primary objectives as stated above, the secondary objectives of the study are formulated as follows:

- To assess the factorial invariance of the UWES-9 in assessing the work engagement of street traders.
- To assess the internal consistency and validity of the UWES-9 in assessing work engagement in the informal sector.
- To determine if demographic variables, i.e., age, gender, education, nationality, working with or with no family member(s), membership in informal social groups and membership in formal groups, employment status, namely structural or agency factors, relate to the work engagement of street traders.

In addition, the hypotheses of the study, as one of the ways of systematically resolving the problem of the study, were also formulated. The hypotheses were stated and linked to the primary objectives of the study as follows:

- $H1_0$ Street traders are not engaged in their work.
- $H1_1$ Street traders are engaged in their work.

In addition, the following hypotheses were linked to the secondary objectives of the

study and are stated as follows:

- $H2_0$ There was no factorial invariance in the UWES-9 in assessing the work engagement of street traders.
- $H2_1$ There was factorial invariance in the UWES-9 in assessing the work engagement of street traders.
- $H3_0$ UWES is not internally consistent and valid for assessing the work engagement of street traders, the most visible self-employed/own-account workers in the informal sector.
- $H3_1$ UWES is internally consistent and valid for assessing the work engagement of street traders, the most visible self-employed/own-account workers in the informal sector.
- $H4_0$ There is a significant difference between the work engagement of street vendors based on their demographic characteristics (i.e. age, gender, education, nationality, working with or with no family member(s), membership in informal social groups and membership in formal groups, employment status, namely, structural and agency motives).
- $H4_1$ There is no significant difference between the work engagement of street vendors based on their demographic characteristics (i.e. age, gender, education, nationality, working with or with no family member(s), membership in informal social groups and membership in formal groups, employment status, namely, structural and agency motives).

These hypotheses were statistically tested, and the results are presented in the following sections.

Netemeyer *et al.* (1996) outline the procedure followed in the development of the scales as described in the psychometric literature, namely, construct definition, item generation and judging, examination of dimensionality and internal consistency, factorial invariance testing, and construct validity. In the current study, some of these procedures were followed, although the instrument was not newly developed but adapted for the study. These included the reliability and dimensionality test, invariance test (convergence

validity and divergent validity), and construct validity. These are in relations with recommendations by (Hair Jr *et al*., 2014; Netemeyer *et al*., 1996; Pallant, 2020). These procedures are reported in the following sections.

5.5.1. Reliability assessment of the UWES-9

In the current section, the focus is on the reporting and discussion of the rationale for conducting the internal reliability analyses of the instrument. The internal reliability test of the instrument was conducted using Cronbach's alpha coefficient statistics, and the results are presented in Table 5.10.

Table 5.10: UWES-9 Reliability Statistical test

Cronbach's Alpha *α*	Cronbach's Alpha Based on Standardised Items	N of Items
0,735	0,752	9

In Table 5.10, the internal consistency reliability test results are reported, with the alpha value of the UWES-9 being $\alpha = 0.74$. The internal consistency alpha value of the study is slightly lower than the internal consistency alpha value of the pilot study of $\alpha = 0.76$. Moreover, the internal consistency alpha of the studies used for the validation of the UWES-9 instruments ranged between $\alpha = 0.85$ and $\alpha = 0.92$ (Schaufeli *et al*., 2006). However, the internal consistencies (Cronbach's alpha) of the studies used for the validation of the UWES-9 were higher than those in both the pilot and present studies. The minimum acceptable alpha value for an instrument is recommended at $\alpha = 0.70$ (Nunnally, 1968). The results further show that the instrument has acceptable internal consistency reliability for assessing the work engagement of street traders, the most visible self-employed/own-account workers in the informal sector. Moreover, internal consistency reliability is argued to be a necessary but not the only sufficient condition for validity (Brahma, 2009; Hair Jr *et al*., 2014). Moreover, the study had to first demonstrate that the instrument or scales achieved acceptable reliability. In addition, other tests were conducted to determine the reliability of the UWES-9 in the study, including a summary item total statistical test and item-total statistical test. The results of the two tests are presented in Table 5.11 and Table 5.12 respectively.

Table 5.11: UWES-9 Summary Item Statistical test

	Mean	Min	Max	Range	Max/Min	Variance	N of Items
Item Means	4,832	3,291	5,709	2,417	1,734	0,474	9
Inter-Item Covariances	0,700	0,024	2,099	2,075	88,426	0,226	9
Inter-Item Correlations	0,252	0,006	0,674	0,667	105,732	0,019	9

In the summary item total statistical test, the value that is considered for internal consistency is the mean value of inter-item correlations row, where the acceptable mean value ranges between $X = 0.20$ and $X = 0.40$ (Hair Jr *et al*., 2014; Pallant, 2020). The mean value of the inter-item correlations, as presented in Table 5.11 for the study, is $X = 0.25$. The results show that the UWES-9 has acceptable reliability in assessing the work engagement of street traders.

A further internal consistency reliability test on the UWES-9 was conducted through the item-total statistical test. The item-total statistical test measures the contribution of each item in the scale to the total correlation. The acceptable mean values of $X = 0.30$ and above (Hair Jr *et al*., 2014; Pallant, 2020). In addition, the internal reliability test was further assessed through the corrected item-total correlation on the item-total statistical test. Any item with a corrected item-total correlation mean value below $X = 0.30$ must be deleted (Hair Jr *et al*., 2014; Pallant, 2020). The results of the item-total statistical test are presented in Table 5.12.

Table 5.12: UWES-9 Item-Total Statistical test

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
[UWES.1] At my work as a street trader, I feel bursting with energy.	38,30	64,014	0,464	0,334	0,705
[UWES.2] At my job as a street trader, I feel strong and vigorous.	38,36	64,142	0,472	0,309	0,704
[UWES.5] When I get up in the morning, I feel like going to work as a street trader.	38,43	64,825	0,399	0,259	0,714

[UWES.3] I am enthusiastic about my job as a street trader.	37,78	72,906	0,237	0,089	0,736
[UWES.4] My job as a street trader inspires me.	38,74	56,455	0,620	0,539	0,671
[UWES.7] I am proud of the work I do as a street trader.	38,48	58,834	0,596	0,521	0,679
[UWES.6] I feel happy when I am working intensely as a street trader.	39,19	54,760	0,492	0,305	0,698
[UWES.8] I am immersed in my work as a street trader.	38,41	66,287	0,402	0,209	0,714
[UWES.9] I get carried away when I'm working as a street trader.	40,20	64,098	0,184	0,063	0,771

The internal reliability results through the corrected item-total correlation test, as presented in Table 5.12, showed that 2 items could not achieve the minimum acceptable mean value of $X = 0.30$ on the corrected item-total correlation column. Items with mean values below $X = 0.30$ must be deleted; thus, these two items, namely, 'UWES.3] I am enthusiastic about my job as a street trader' and '[UWES.9] I get carried away when I'm working as a street trader', were deleted. In the pilot study, the item UWES-9 could also not meet the minimum acceptable mean of $X = 0.30$; however, item UWES-3 is acceptable.

The deletion of these two items prompted for the internal consistency reliability test on the remaining UWES-7 items to be conducted, starting with the internal consistency test, followed by summary item statistics, and last by item total statistics. These tests are conducted, and the results are presented in the following sections. The internal consistency reliability test is conducted and presented in Table 5.13.

Table 5.13: UWES-7 Reliability Statistical test

Cronbach's Alpha α	Cronbach's Alpha Based on Standardised Items	N of Items
0,778	0,783	7

The results of the internal consistency test of the UWES-7 show an alpha value of α =

0.78. The coefficient alpha value is better than the alpha values for the UWES-9 and for the pilot study. The alpha value for the UWES-7 is slightly closer to the ranges of the alpha values of the various studies used in the validation of the UWES-9 (Schaufeli *et al*., 2006). In addition, Cronbach coefficient alpha values were within the minimum acceptable range of $\alpha = 0.50$ for scales with fewer than 10 items, as recommended (Hair Jr *et al*., 2014:123; Pallant, 2020). Therefore, the UWES-7 reported some acceptable internal consistency reliability to assess the work engagement of street traders, the most visible self-employed/own-account workers in the informal sector.

Table 5.14: UWES-7 Summary Item Statistical test

	Mean	Min	Max	Range	Max/Min	Variance	N of Items
Item Means	4,927	4,294	5,183	0,889	1,207	0,097	7
Inter-Item Covariances	0,960	0,392	2,099	1,707	5,360	0,185	7
Inter-Item Correlations	0,340	0,199	0,674	0,474	3,381	0,012	7

In addition, a summary item statistical test was conducted to test the reliability of the UWES-7. The results are presented in Table 5.14. It is already explained in the above sections that the minimum acceptable mean value in the inter-item correlations statistics ranges between $X = 0.20$ and $X = 0.40$ (Hair Jr *et al*., 2014; Pallant, 2020). The results presented in Table 5.14 above show an inter-item statistical mean value of M = 0.34. The results show that the UWES-7 items has acceptable internal consistency reliability to assess the work engagement of street traders. A further UWES-7 internal consistency reliability test is conducted by assessing the item-total statistical test, and the results are presented in Table 5.15.

Table 5.15: UWES-7 Item-Total Statistical test

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
[UWES.1] At my work as a street trader, I feel bursting with energy.	29,30	48,281	0,490	0,332	0,753
[UWES.2] At my job as a street trader, I feel strong and vigorous.	29,36	48,588	0,488	0,306	0,754

[UWES.5] When I get up in the morning, I feel like going to work as a street trader.	29,43	48,479	0,448	0,251	0,760
[UWES.4] My job as a street trader inspires me.	29,74	42,123	0,621	0,522	0,724
[UWES.7] I am proud of the work I do as a street trader.	29,48	43,809	0,619	0,518	0,726
[UWES.6] I feel happy when I am working intensely as a street trader.	30,19	40,240	0,502	0,298	0,761
[UWES.8] I am immersed in my work as a street trader.	29,41	50,882	0,395	0,192	0,769

It has already been explained in the above sections that the minimum acceptable mean value of the corrected item-total correlation is $X = 0.30$ and above (Hair Jr *et al*., 2014; Pallant, 2020). All the mean values of the corrected item-total correlation are above $X = 0.30$. The results show that the UWES-7 has acceptable reliability in assessing the work engagement of street traders, the most visible self-employed/own-account workers in the informal sector.

5.5.2. Summary of the section

In the section, the process of data collection is explained. The process needed, above all, request for consent from participants to take part in the study. The study was voluntary where participants could take part in or abort participation in the study at any stage of the process without penalties. In the data collection process of the main study, the knowledge acquired from both the pretest and pilot studies was helpful when training the fieldworkers. Two female postgraduate students were hired to assist with data collection process. Some street traders cooperated, and data were collected as reported above. When the data collection process was completed, data were coded, captured, and analysed. Quality assurance of the data collection and capturing process was performed. Data analyses were a vigorous process involving several tests. To alleviate the challenge associated with multicollinearity as explained in Chapter 3, composite factor analysis was computed/performed for the study.

Data analysis involved the frequency analyses and reliability test of the instrument as reported above. Both reliability tests, such as internal consistency (Cronbach's alpha), summary item statistical tests, and item-total statistical tests were analysed and reported respectively. However, instead of the UWES-9, two items were deleted for not meeting the minimum acceptable corrected item-total correlation mean value of X = 0.30. The UWES-7 reported to have acceptable reliability in the study as recommended by Hair Jr *et al*. (2014); Pallant (2020). Thus, the study continued to report on the UWES-7. The null hypothesis that was formulated relating to the UWES not having acceptable reliability for assessing the work engagement of street traders is not supported (rejected). In addition, the alternative hypothesis that was formulated relating to street traders not being engaged in their work is also not supported (rejected). Thus, their alternative hypotheses associated with these null hypotheses were supported (accepted) by data. These include, namely, UWES has acceptable reliability for assessing work engagement of street traders, and street traders are engaged in their work as street traders.

5.6. FACTOR ANALYSIS

Once the reliability of the instruments has been established, the next step in data analyses includes factor analysis. The focus in this section involves the discussion of factor analysis. Factor analysis is used to test for the unidimensionality of data, measuring one coherent construct (Costello & Osborne, 2005; Hair Jr *et al.*, 2014; Hinkin, 1995; Neuman, 2014:225). In addition, factor analysis assists in the condensation of a large set of variables or items of a scale down to a smaller, more manageable number of dimensions or factors (Hair Jr et al., 2014; Pallant, 2011; Pallant, 2020). Factor analysis is conducted by combining several specific pieces of information into a single measure or score, and all of the pieces should measure the same thing (Neuman, 2014:225). Furthermore, it is an iterative process that is performed by summarising the underlying patterns of correlation and looking for clumps or groups of closely related items (Hair Jr *et al*., 2014; Pallant, 2020). There are generally two main approaches to factor analysis identified in the literature, namely, CFA and EFA factor

analysis (Hair Jr *et al*., 2014; Pallant, 2020). Despite confirmatory being undertaken in the study due to its nature, each of these analyses is briefly explained below:

5.6.1. EFA in the study

The focus in the current section is on the explanation or discussion of the EFA processes. According to Costello and Osborne (2005), EFA is used for a variety of applications, including when developing a new instrument. In addition, EFA is used always in the early stages of study to collect information about the interrelationships among a set of variables (Hair Jr *et al.*, 2014; Pallant, 2020). EFA provides knowledge about the structure of the items on a scale and may also be helpful in proposing the measurement model; however, it does not test a theory (Hair Jr *et al.*, 2014). Moreover, there are various explanations associated with EFA available in the literature (Cooper & Schindler, 2014). In the current study, the UWES, the instrument adapted and used to assess the work engagement of street traders, the most visible self-employed/own-account workers in the informal sector, is not a newly developed instrument for the study but a borrowed one for the study. It has already been explained above (see section 2.5 in Chapter 2) that the UWES is one of the validated few and extensively used instruments in measuring the work engagement of workers in formal organisations in different countries, including South Africa (Schaufeli & Bakker, 2010; Schaufeli, *et al*., 2006). However, it has not been validated or used in assessing the work engagement of street traders (self-employed/own-account workers) in the informal sector. Despite using the UWES to assess the work engagement of street traders, which has never been done before, EFA was not employed for the current study. The validity and structure of items of the UWES are known and it was not necessary to perform EFA.

Moreover, through the internal reliability test, namely, Cronbach's alpha test, summary item statistical test, and item-total statistical tests, it is reported that instead of the UWES-9, the UWES-7 was found to have acceptable reliability and validity for the study. Although reliability tests were argued that it is not the sufficient condition for validity, it pointed towards the right direction, and other tests were possible to conduct. The instrument structure was not affected in reliability tests, accept that instead of 3 items

in each scale making up the instruments, the scale or dimension of vigour retained the 3 item indicators, while both dedication and absorption dimensions have lost 1 item each and remained with 2-item indicators each, and in total they were 7 item indicators or UWES-7. The structure of the instrument was intact; hence, it was not necessary to conduct EFA for the study. Hence, UWES-7 was subjected to and used for further analyses in the current study.

5.6.2. The CFA in the study

The focus in the current section is on the explanation and discussion of the CFA processes in the study. Moreover, CFA together with other latent variable modelling techniques are also used to test (confirm) specific hypotheses or theories concerning the structure underlying a set of variables (Pallant, 2011; Pallant, 2020) via inferential techniques and may provide more informative analytic options (Costello & Osborne, 2005). In the study, hypotheses were formulated that should be supported (confirmed) or not supported (rejected) by data through CFA. The are other statical tests that were considered for the study, such as the Rach. The CFA was found to be yielding the best results for the study. It is in line with the statistical test used by De Bruin *et al*. (2013), where the results were in aggreement with those of Schaufeli *et al*. (2006). The reports recommend that work engagement should be treated as a unidimensional construct, where individual scores should be interpreted in a summative manner, giving a single global score (De Bruin *et al*., 2013; Schaufeli *et al*. 2006). In addition, to test or confirm the formulated hypotheses, various inferential statistics were conducted in CFA as recommended in the literature (Costello & Osborne, 2005; Hair Jr *et al.*, 2014; Pallant, 2020). The CFA was iterative in nature, wherein the processes were conducted by summarising the underlying patterns of correlation and determining for clumps or groups of closely related items (Pallant, 2011; Pallant, 2020). Thus, in conducting the CFA for the study, which was an iterative process, clumps or groups of closely related items were determined for, and the results of such a statistical analysis process are presented and discussed in the following (sub) sections.

Moreover, according to Pallant (2020), the term ‘factor analysis’ encompasses a variety

of, although related, techniques. One of the main distinctions is PCA from FA. PCA and FA are similar in many ways, and researchers mostly use them interchangeably. They all attempt to produce a smaller number of linear combinations of the original variables in a way that explains variability in the pattern of correlations. In addition, PCA and FA also differ in several ways. In PCA, a smaller set of linear combinations are generated from the original variables, with all the variances in the scale being used. In FA, a mathematical model are used to estimate factors, and the analysis is on the shared variance. In the current study, FA was used as already explained and discussed above. The process of summarising the underpinning patterns of correlation, involving identifying clumps or groups of closely related items, was conducted, and clumps or groups of closely related items were found and reported. The next step in the process included the assessment of unidimensionality, assessing model fit, and construct validity of the instrument or scale (UWES-7). These are reported in separate sections below.

5.6.2.1. UWES-7 dimensionality in assessing the work engagement of street traders

The unidimensionality of the instrument or scale measures suggests that a set of measured variables (indicators) can be explained by only one underlying construct (Brahma, 2009; Hair Jr *et al.*, 2014). In addition, an internal consistency reliability measure (Cronbach's alpha), the summary item statistical test, item-total statistical tests, and FA are frequently used to assess the unidimensionality of the instrument or scale. Although there are many other ways that are used to assess unidimensionality as available in the literature (Hair Jr *et al.*, 2014), in the current study, internal consistency reliability measure (through the Cronbach alpha), the summary item statistical test, and item-total statistical tests, and FA were used to assess for the unidimensionality of the instrument (UWES-7). Moreover, a unidimensionality test is recommended, whether the scales or instruments are new or taken from previous research, including scales previously established, must be carefully checked for unidimensionality either with EFA or CFA (Hair Jr *et al.*, 2014). Although the UWES is adapted for the study, unidimensionality was conducted through various techniques.

Moreover, the internal reliability of the UWES-7 composite scale is reported to have

acceptable reliability, with a Cronbach alpha value of $\alpha = 0.78$, as shown in Table 5.13 above. The UWES-7 alpha value was well above the recommended minimum Cronbach alpha value of $\alpha = 0.70$ (Nunnally, 1968). In addition, the mean value of the inter-item correlations in the UWES-7-items composite scale was $X = 0.34$, where the minimum acceptable mean value ranges from $X = 0.30$ and higher as recommended (Hair Jr *et al*., 2014). Thus, the unidimensionality of the UWES in the context of the informal sector was established through the reliability statistical test, item-total correlations and summary item correlations statistical test. In factor analysis, items with high loadings of a minimum 0.30 were retained (Brahma, 2009). Thus, instead of the UWES-9, the UWES-7 is found to be unidimensional, where the reliability test is acceptable, and item-total correlation and summary item correlations statistics were acceptable for the UWES-7. However, the FA results are reported and discussed below (see Figure 5.1).

5.6.2.2. UWES-7 validity in assessing the work engagement of street traders

The focus in the section was on the assessment of the validity of the UWES-7. It is recommended that with unidimensionality and reliability established, validity should be assessed. The construct validity, with its family of validity components as identified by Hair Jr *et al.* (2014), to include convergence, discriminant, nomological and face validities, and content validity tests were conducted in the study. Construct validity is described as the extent to which a set of measured items reflect the theoretical latent construct these set of items were designed to measure (Hair Jr *et al.,* 2014). Construct validity assessment was relevant for the study, as the UWES-7 has several indicators (three dimensions, namely, vigour, dedication, and absorption), and the results of construct validity assessment were reported and presented in the relevant sections. Validity is assessed by conducting various activities, namely, assessing the model goodness-of-fit and construct validity. Moreover, Hair Jr *et al.* (2014:124) recommended that once the measurement model was correctly specified, a structural equation model (SEM) is estimated to provide an empirical measure of the relationships among variables and constructs represented by measurement theory. The results enable the researcher to compare the theory against reality as represented by the sample data, enabling the researcher to determine how well data fits the theory (Hair Jr *et al.*

2014:124). In the current study, as the UWES is used in a context outside its usual context, namely, the informal sector, validity assessment is important. Work engagement is well defined, and the UWES is one of the few valid and mostly used instruments for assessing work engagement.

5.6.2.2.1. Construct validity assessment for a study

The focus of the current section is on reporting and discussing the results of the construct validity assessment conducted for the study. According to Hair Jr *et al*. (2014:124), having ensured that the scale (1) conforms to conceptual definition, (2) is unidimensional, and (3) meets the necessary levels of reliability, one final assessment should be made, namely, testing for the scale's validity. In the current study, the UWES-7, as a well-established instrument, conforms to the conceptual definition of work engagement; its unidimensionality has been established; and the instrument meets acceptable reliability.

Validity is defined as the extent to which research is accurate for assessing what it is supposed to measure (Hair Jr *et al*., 2014; Pallant, 2020). In addition, the primary objective of CFA in SEM is to determine the construct validity associated with the proposed measurement theory (Hair Jr *et al*., 2014). Moreover, there is no clear-cut indicator of a scale's validity, and validation of a scale involves the collection of empirical evidence concerning its use (Pallant, 2020). Furthermore, the main types of validities are identified in the literature to include content validity, criterion validity, and construct validity (Pallant, 2020). In construct validity, the focus of the section, several components for construct validity are identified in the literature to include convergence, discriminant, nomological and face validity (Hair Jr *et al.,* 2014; Neuman, 2014). Construct validity is described as the extent to which a set of measured items actually reflects the theoretical latent construct that those items are designed to measure (Hair Jr *et al.,* 2014). Construct validity addresses the accuracy of measurement, with its evidence providing confidence that item measures taken from a sample represent the actual true score that exists in the population (Hair Jr *et al.,* 2014). Although different explanations of how construct validity should be approached appear to be available in

the literature (Neuman, 2014). The current study assesses the construct of work engagement using the UWES-7. The UWES-7 has three indicators that are used to determine the work engagement construct, namely, vigour (3 items), dedication (2 items), and absorption (2 items). The validity assessment of the UWES-7 was conducted, and the report is presented in the following sections:

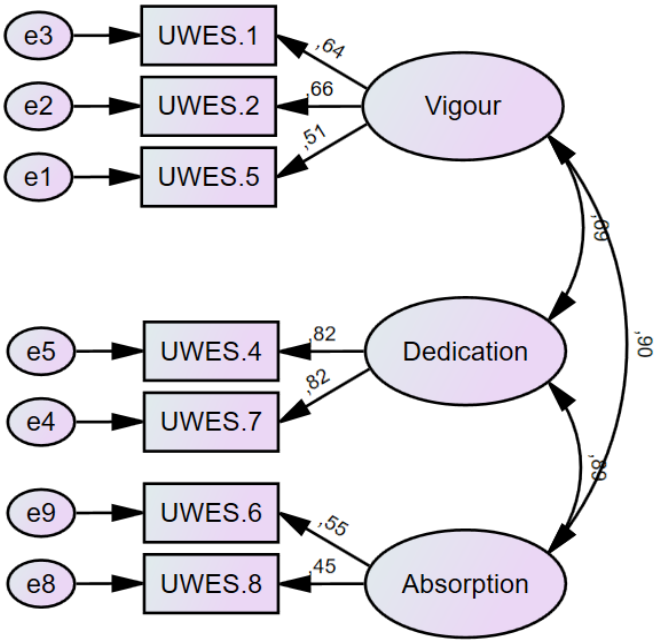
UWES-7 convergent validity assessment in assessing work engagement for a study

The convergent validity was determined by assessing the following variables: CR, AVE, MSV, and maximum reliability (Max R(H)). In addition, several methods are proposed and available in the literature to estimate the relative amount of convergent validity among item measures. These include factor loadings, AVE and CR (Brahma, 2009; Hair Jr *et al.*, 2014:618). In convergent validity, the items that are indicators of a specific construct converge or share a high proportion of variance in common (Brahma, 2009; Hair Jr *et al.*, 2014:618; Neuman, 2014). In addition, several ways are proposed and available to estimate the relative amount of convergent validity among item measures. These are discussed below starting with a demonstration of factor loading on the UWES-7.

Factor loadings of the single composite (UWES-7) work engagement construct

The discussion of the factor loadings is the focus of the current section. The size of the factor loading is one important consideration for construct validity assessment. In the case of high convergent validity, high loadings on a factor indicate that items or indicators converged on a common point, the latent construct. At a minimum, all factor loadings are significant, with a good rule of thumb recommending standardised loading estimates of a minimum mean of value $X = 0.5$ or higher (Hair Jr *et al.*, 2014:618). However, some analysts recommend the retention of items with minimum mean values of item loading of $X = 0.30$ and above, where items with mean values below $X = 0.3$ are deleted (Brahma, 2009). In the current study, the factor loadings for the composite work engagement construct were presented and discussed as follows:

Figure 5.1: UWES-7: Factor model- Factor loadings



The minimum recommended factor loading has mean values of $X = 0.30$ and above, as shown in Figure 5:1. All 7 items loaded well on their respective scales of the instrument (UWES-7), namely, 3 items of vigour, 2 items of dedication, and 2 items of absorption. Some convergent validities were established through the factor loading indices. To minimise challenges associated with mutlicollinearity, only the individual indicators are reported. These are summarised in Table 5.16.

Table 5.16: Summary of factor loading for UWES-7

Scales	Indicators	Min acceptable mean	Actual factor loading mean
Vigour	UWES-1	$X = 0.30$	$X = 0.64$
	UWES-2	$X = 0.30$	$X = 0.66$
	UWES-5	$X = 0.30$	$X = 0.51$
Dedication	UWES-4	$X = 0.30$	$X = 0.82$
	UWES-7	$X = 0.30$	$X = 0.82$
Absorption	UWES-6	$X = 0.30$	$X = 0.55$
	UWES-8	$X = 0.30$	$X = 0.45$

All these items have acceptable factor loadings. In the following section, other validity test are performed and reported.

The CR and AVE are assessed, and the results are presented in the following sections. In the section, the focus was on the assessment of the CR. A CR between $\alpha = 0.60$ and $\alpha = 0.70$ is considered acceptable (Hair Jr *et al*., 2014). Since this is the supplementary assessment index for convergent validity as indicated by Brahma (2009), it is presented in Table 5.17. The CR alpha values were as follows: vigour with $\alpha = 0.63$ and dedication with $\alpha = 0.81$ were acceptable, whereas absorption was $\alpha = 0.4$ and was below the minimum acceptable alpha value of $\alpha = 0.60$. The cut-off and the actual indeces values for the study are presented in Table 5.17.

Table 5.17: The average variance extracted: UWES-7 validity analysis

Description	Min acceptable values	Actual values of the dimensions		
		Vigour	Dedication	Absorption
CR	≥0.6 and 0.70	0.630	0.805	0.402
AVE	≥0.50	0.365	0.674	0.253
MSV	Should be less than AVE to establish discriminant validity	0.807	0.790	0.807
MaxR(H)	≥0.80	0.641	0.805	0.807

Source: (Pishghadam, Yousofi, Amini & Tabatabayeeyan, 2022)

Note: Construct Reliability (CR), Average Variance Extracted (AVE), Maximum Shared Squared Variance (MSV); Maximum Shared Variance Rho (MaxR).

Some of these indices were acceptable to determine the reliability, convergence, and discriminant validity of the UWES-7. Therefore, as shown in Table 5.17, the CR values in the study were inconsistent with the minimum acceptable values of $\alpha = 0.6$, where vigour and dedication were $\alpha = 0.63$ and $\alpha = 0.81$. The CR value for absorption was below the minimum accepptabie $\alpha = 0.6$ at $\alpha = 0.40$. Furthermore, high construct reliability indicates that internal consistency exists, meaning that the items consistently represent the same latent construct (Hair Jr *et al*., 2014). When using the CR to assess convergent and discriminant validity, in some scales, namely, vigour and dedication, the minimum acceptable alpha values were reported, whereas on the scale absorption, the minimum acceptable alpha value of $\alpha = 0.60$ was not achieved.

In addition, the AVE of the latent construct as a supplementary measure of the construct

validity is used to determine the convergent validity of the UWES (Brahma, 2009; Pishghadam *et al*., 2022). An AVE of $X = 0.50$ or higher is a good rule of thumb suggesting adequate convergence (Hair Jr *et al.*, 2014:619). In the study, the value of AVE for vigour was $X = 0.34$, and absorption was $X = 0.30$, which are halfway towards the minimum acceptable mean value of AVE $X = 0.50$, suggesting some challenges associated with convergent validity. However, the AVE value for the scale of dedication was $X = 0.67$, indicating some form of convergent validity. The convergent validity was partially established by some indices such as CR, whereas it was not established on some scales with indices such as AVE on scales such as vigour and absorption. These are in line with the challenges of multicollinearity associated with computation of the items at once.

Discriminant validity assessment of the UWES-7

In the current section, the focus is on reporting on the discriminant validity results of the UWES-7 in assessing the work engagement of street traders. According to Hair Jr *et al.* (2014:619), discriminant validity is the extent to which items in the scale are truly distinct from other items. The MSV and MaxR(H) are used to test the discriminant validity. The rule of thumb suggests that any mean value above $X = 0.80$ is acceptable (Pishghadam *et al*., 2022). Some of the MaxR(H) values, as shown in Table 5.17, met the minimum acceptable mean value of $X = 0.80$, where in vigour, $X = 0.61$; dedication $X = 0.81$; and absorption $\leq .0.41$. In all the scales, namely, vigour, dedication, and absorption, the MSV compared to AVE, the mean values of MSV were greater than the mean values of AVE in all the scales, suggesting that discriminant validity could not be proven. It was the procedure followed by (Pishghadam *et al*., 2022), where MSV mean values were compared with the mean values of AVE, and MSV mean values were less than AVE, suggesting that discriminant validity was proven. In summary, discriminant validity was not sufficiently supported by data in the study.

Nomological validity and face validity

The focus of the current section is to report on the nomological validity and face validity

of the instrument. According to Hair Jr *et al.* (2014:619), constructs should supported for face validity and nomological validity. The processes for testing these properties are the same whether using CFA or EFA. Face validity must be established prior to any theoretical testing when using CFA. Poor understanding of every item's content or meaning makes it impossible to express and correctly specify a measurement theory. Thus, in a very real way, face validity is the most important validity test in the study. In addition, nomological validity is then tested by examining whether the correlations among the constructs in a measurement theory make sense. The matrix of construct correlations can be useful in the assessment of construct validity (Hair Jr *et al.,* 2014:619).

Moreover, both face validity and nomological validity are addressed appropriately in the current study. Work engagement has a rich literature available; therefore, various studies are reviewed to gain a full understanding of the face validity of the theory of work engagement. Correlation analysis was also used to determine the relationships among the variables or indicators making up the measurement. These three indicators, namely, vigour, dedication and absorption, were validated as the correct indicators for assessing work engagement. This is demonstrated by the definition of work engagement, which, according to Schaufeli *et al.* (2006), is defined as a positive, fulfilling work-related state of mind that is characterised by vigour, dedication, and absorption. Thus, the literature on work engagement provides a background foundation for both face validity and nomological validity. UWES, as an instrument for assessment, is one of the few valid and widely used instruments for assessing work engagement. However, the UWES is validated in the formal sector and is available in more than 31 languages, and interest in the use of the instrument continues to grow. Thus, face validity and nomological validity were already established through a literature study. The indices in Table 5.18 also show that the items on the instrument correlate very well.

CFA model goodness-of-fit (GOF) in assessing the work engagement of street traders

The current section focuses on reporting the model goodness-of-fit. Scales must display adequate construct validity, whether constructs are measured by new scales or scales

taken from previous research, and even previously established scales should be carefully assessed for content validity (Hair Jr *et al.* 2014:589). In addition, Hair Jr *et al.* (2014:589) suggested multiple fit indices available in the literature, and such indices were used to assess a model fit and reported below.

The chi-square (x^2) and its related degree of freedom (*df*) are some of the available indices that are used to determine the model fit. The acceptable values for chi-square divided by degrees of freedom is a ratio of 3:1 or any values between X = 2.0 and X = 5.0 (Hair Jr *et al.* 2014:589). The chi-square ($x^{2)}$ value in the study was 76.44, with degrees of freedom (*df*) values at 11. The value of chi-square (x^2) divided by degree of freedom (*df*) in the study, as shown in Table 5.18, is 6.95. The value is above the maximum recommended value of 5. The results show that the indices may be used with other indices to further determine the model goodness-of-fit and may not be used alone. The indices used in the study to determine model goodness-of-fit are shown in Table 5.18 below:

Table 5.18: Goodness-of fit of the UWES-7: work engagement of street traders

CFA **Description**		**Minimum acceptable values**	***Actual results***
CMIN (x^2)		.0000	76.44
df			11
CMIN (x^2/df)		≥2.0≤5.0 or 3:1	6.95
Absolute Fit Index:	RMSEA	<.07 with CFI of above 0.92 or higher	0.12
	GFI	0.90	0.95
	SRMR	.08 or less with CFI above .92	0.06
One Incremental Ft Index:	CFI	0.90	0.91
	TLI	0.90	0.83
Parsimony Fit Indices: AGFI		≥2.0≤5.0	0.87

The model fit indices conducted in the study, their abbreviations and full names: The chi-square (χ^2) value and the associated degree of freedom (df); Absolute Fit Index (Goodness-of-fit index(GFI)/Root mean square error of approximation (RMSEA)/Root mean square residual(RMR)/Standardised root mean residual(SRMR); One Incremental Ft Index (Tucker Lewis Index (TLI)/comparative fit index (CFI)/Relative fit index RFI); Parsimony Fit Indices (Adjusted goodness-of-fit index (AGFI).

The *p*-value associated with these results is 0.0000. Thus, the x^2 model fit indices do

not indicate that the observed covariance matrix matches the estimated covariance matrix within the sampling variance. In addition, the value of x^2/df is also influenced by various factors, such as larger samples or extenuating circumstances such as a high degree of model complexity. The results x^2/df value in the study is just slightly above the range and almost demonstrate model goodness-of-fit, given the complexity of the composition of the sample, for example, educated and noneducated, multinationals, and samples from different cultural backgrounds. Moreover, given the problems associated with using this test alone and the effective sample size of N=405, other model goodness-of-fit indices were used, as shown in Table 5.18. In addition to x^2, the rule of thumb suggests that the study should rely on at least one absolute fit index and one incremental fit index (Hair Jr *et al.* 2014:579).

The next step in the process of determining the model goodness-of-fit involves any one of the absolute fit indices, as shown in Table 5.18 (Hair Jr *et al.* 2014:579). The GFI is one of the absolute fit indices that the study used and given that it shows a model goodness-of-fit as shown in Table 5.18, with a mean value of $X = 0.95$, which is above the minimum acceptable mean value of $X = 0.90$. The GFI showed some model fit for the study. In addition, another absolute fit index is SRMR, which has an acceptable maximum mean value of any value below $X = 0.08$. In the current study, the mean value of SRMR is M = 0.06, as shown in Table 5.18. The value shows that the model has some goodness-of-fit for the study.

The other step in determining the model goodness-of-fit includes choosing one of the incremental fit indices (Hair Jr *et al.* 2014:124). The incremental fit indices and their minimum acceptable values are also shown in Table 5.18. In the study, the CFI has a mean value of $X = 0.91$, demonstrating some model goodness-of-fit, whereas TLI has a mean value of $X = 0.83$, slightly below the minimum acceptable value or $X = 0.90$. The values for the incremental indices were reported below with the minimum acceptable values and showed a model goodness-of-fit, as the values were close to $X = 0.90$, which is the minimum acceptable value. It is shown in Table 5.18, the AGFI is $X = 0.87$, meeting the minimum acceptable value of $X = 2$ and 5. Therefore, the model demonstrated model goodness-of-fit. Moreover, it is recommended that with samples

with complex characteristics, the minimum indices should not be strictly applied (Hair Jr *et al.,* 2014:124); however, most indices met the strictly minimum acceptable requirements, with the understanding that not all indices may be able to meet acceptable minimum values.

Furthermore, Hair Jr *et al.* (2014:589) reported that for the fit indices, there is no magical single value that separates good from poor models. Moreover, to apply a single cut-off rule to all measurement models is not practically advisable, and for that matter to all SEMs of any type. The quality of fit depends mostly on model characteristics, including sample size and model complexity (Hair Jr *et al*., 2014:584). Too complex models with larger samples should not be held to the same strict standards, and so when samples are large and the model contains a large number of measured variables and parameter estimates, cut-off values of 0.95 on key goodness-of-fit (GOF) measures are unrealistic (Hair Jr *et al.,* 2014:584). In the current study, the sample size is 405 and is a complex sample that has educated/uneducated and different nationals of different ages, which, according to Hair Jr *et al.* (2014:584), is a large and complex sample. Considering all the above explanations and conditions of the study, the model goodness-of-fit indices as reported above show that the model is fit to be further assessed and used in the study.

5.6.3. Summary of the section

The section focused on reporting about the factor analysis, which included reporting on the construct validity tests. Various construct validity tests were reported, such as the unidimensionality report, discriminant validity, convergent validity, nomological validity and face validity. Some of the tests are supported by data, whereas some are not supported. Although other indices could not achieve the minimum acceptable values, they were very close to or within the range. Finally, the model goodness-of-fit was also reported, wherein most of the indices were acceptable and supported by data, some were closer to acceptable minimum mean values. Hence, it is recommended that when the sample is complex, the strictness should be relaxed, and the sample of the study was complex, with issues ranging from different nationalities, cultural backgrounds, and

education levels. Such factors were considered, and the model was deemed fit for the study. Therefore, the null hypotheses that suggested that the UWES is not valid for assessing the work engagement of street traders is rejected.

5.7. GROUP ANALYSIS

Chapter 3 discussed a broad family of techniques that may be used to test for significant differences between sample groups against the construct of measurement (Pallant, 2016:224). Since work engagement has not been measured for street traders using the UWES, the study was a quantitative survey study. The following sample groups were assessed for some relationships with work engagement: gender; age; nationality; education; street traders working with or not with family member(s); employment status (agency or structural group); belonging to any informal group of street traders; and member of an association of street traders, e.g., street traders' union. The analyses were conducted from various statistical applications, and the results are reported as follows.

5.7.1. Gender and work engagement

The study hypothesised that work engagement is related to gender. To determine whether data support or not support the hypothesis, an independent-sample *t* test was conducted to compare work engagement scores against gender, namely, females and males. Fewer females participated than males in the study. Pallant (2020) recommend that the *t* test group statistics allows the study to verify the sample per group and provides the mean and standard deviations for the group being tested, as shown in Table 5.20.

Table 5.19: *t* test group statistics for gender in influencing work engagement

***t* Test**					
Group Statistics					
Gender		**N**	**Mean**	**Std. Deviation**	**Std. Error Mean**
UWES-7	Female	176	4,8433	1,18540	0,08935
	Male	229	5,0162	1,25717	0,08308

The information in Table 5.20 shows the distribution of the sample group per gender, the mean and standard deviation, allowing the researcher to confirm its accuracy. There were more male participants at *N* = 229 than female participants at *N* = 176. The mean value for females is smaller than the mean value for males at *X* = 4.84 and *X* = 5.02, respectively. Once the accuracy of the information was confirmed, the next step was to analyse the independent sample test results of Levene's test for equality of variance, as shown in Table 5.20. Since the Sig.value of Levene's test was larger than *P* = 0.05 (0.07, 0.10), the first line on the table should be used, which referred to Equal variances assumed as explained in Chapter 3.

Table 5.20: Independent Samples Test for Gender in relation to work engagement.

Independent Samples Test											
		Levene's Test for Equality of Variances		*t* test for Equality of Means							
						Significance				95% CI of the Difference	
		F	Sig.	t	df	One-Sided p	Two-Sided p	Mean Difference	Std. Error Difference	Lower	Upper
UWES7	Equal variances assumed	0,062	0,803	-1,406	403	0,080	0,160	-0,17288	0,12295	-0,41458	0,06883
	Equal variances not assumed			-1,417	386,593	0,079	0,157	-0,17288	0,12201	-0,41275	0,06700

Levene's test for equality of variances as in the *t* test and analysis of variance was conducted, as it was assumed that samples were obtained from populations of equal variances (Pallant, 2020). In the current study, as shown in Table 5.21, Levene's Sig. value is *P* = 0.080, which was above the cut-off of *X* = 0.05; in this case, the assumption of equal variance has not been violated, as recommended by Pallant (2020). In the current study, as shown in Table 5.21, the Sig. (2.tailed) value is *P* = 0.16, which is above *P* = 0.05. It can be concluded that although males were more engaged than females. However, there was no statistically significant difference in the mean scores of work engagement for the two groups, namely, males and females.

Thus, according to Pallant (2020), as already explained in Chapter 3, if the value of the

Sig. (2-tailed) is equal to or less than *P* = 0.05 (e.g., 0.03, 0.01, 0.001), there is a significant difference in the mean scores for the dependent variables for each of the two groups in the study. The procedure of determining the magnitude of the differences in the means (mean difference = -0.17, 95% CI: -0.41 to 0.07) was small, (*eta* squared =0.005), with 5 percent of the variance in work engagement explained by gender. For Cohen's d, 0.20 percent shows a small effect, 0.50 percent shows a medium effect, and 0.80 percent shows a large effect (Cohen, 2016; Pallant, 2020). In addition, according to Pallant (2020), with a sufficiently large sample (in this case, *N* = 405), quite small differences can become statistically significant, even if the difference between the groups is of little practical importance. The study found no relationship between work engagement and gender, reporting that 5 percent of the variance in work engagement is explained by gender.

5.7.2. Age and work engagement

The current section focuses on reporting the relationship between work engagement and the age of participants. Age was also one of the demographic variables hypothesised to be related to work engagement. Participants were divided into three age groups, namely, (Group 1= 18 to 34 years; Group 2= 35 to 64 years; and Group 3= 65 years and above, and those who did not specify their age). In South Africa, Group 1- those aged between 18 and 34 years, are youth; Group 2- those aged between 35 and 64 years, are adults; and Group 3 - those aged between 65 years and above, are pensioners (StatsSA, 2022). As recommended by Pallant (2020), a one-way descriptive analysis between groups was used to determine the accuracy of the information by providing the distribution of participants by age, providing the mean and standard deviation, as shown in Table 5.22. The information in the table reports the distribution of participants, mean, and standard deviations.

Table 5.21: Oneway descriptive analysis: age and work engagement

Oneway								
Descriptive								
UWES7								

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
18-34	150	4,7676	1,31895	0,10769	4,5548	4,9804	0,86	6,00
35-64	224	4,9943	1,18410	0,07912	4,8383	5,1502	0,00	6,00
65+ | Not specified	31	5,3963	0,92708	0,16651	5,0563	5,7364	2,86	6,00
Total	405	4,9411	1,22800	0,06102	4,8211	5,0610	0,00	6,00

In addition, the information in Table 2.22 shows the accuracy of the distribution of the participants, respective mean, and standard deviations. It is part of the quality assurance check. Moreover, the mean values among the groups were not evenly distributed, and the older age group showed higher mean values than the adult working age and youth groups. The youth reported the lowest mean value of all the groups, as shown in Table 5.22.

In addition, in Table 5.23, the ANOVA for the age group of street traders is presented and reported. The Sig.value was statistically significant at the p = 0.05 level of work engagement scores for the three groups: F (2, 402) =3.9, p = 0.02. The effect size, calculated using eta squared, was 0.02, suggesting that 2 percent of the variance in work engagement could be explained by age, which was small. Thus, Cohen's d 0.20 percent shows a small effect, 0.50 percent shows a medium effect, and 0.80 percent shows a large effect (Cohen, 2016; Pallant, 2020). Although reaching statistical significance, the actual difference in mean scores between the groups was quite small. The older group (Group 3), those aged between 65 years and older, were more engaged in their work than the other categories.

Table 5.22: ANOVA for the age group of street traders

ANOVA					
UWES7					
	Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Between Groups	11,571	2	5,786	3,892	0,021
Within Groups	597,656	402	1,487		
Total	609,227	404			

Thus, the second group (Group 2), those aged between 35 and 64 years, were also

better engaged than the younger aged group (Group 1), those aged between 18 and 34 years. However, the difference was statistically significant between the younger and older groups. The results suggest that the older age group, those aged between 65 years and older, was more engaged than the younger age group, those aged between 18 and 34 years. There was no statistically significant difference between those aged between 35 and 64 years and any other age group.

Post hoc comparisons using the Tukey HSD test indicates that the mean score for Group 1 (X =4.77, SD = 1.32) is significantly different from Group 3 (X = 5.40, SD = 0.93). Group 2 (X = 4.99, SD = 1.18) did not differ significantly from either Group 1 or Group 3, where the difference is moderate. Post hoc comparisons are employed when the study seeks to conduct a set of comparisons, determining the differences between each of the groups in the study (Pallant, 2020). In addition, according to Pallant (2020), with a sufficiently large sample (in this case, N = 405), quite small differences can become statistically significant, even if the difference between the groups is of little practical importance. Thus, with the Sig.value at P = 0.021, the difference is significant enough to conclude that there was a relationship between work engagement and age, where the older aged group were more aged than the youth. However, the relationship of work engagement with adult age was statistically significant. In summary, the older age group was the most engaged of all groups.

5.7.3. Nationality and work engagement

The focus of the section is on reporting on the relationship between participants' nationality and work engagement. Nationalities were hypothesised to have some relationship with work engagement. The nationality group is divided into two groups, namely, South Africans and migrant street traders (including traders or participants such as Burundians, Cameroonians, Malawians, Nigerians, Mozambicans, Senegalese, Tanzanians/Zanzibar, and Zimbabweans). An independent-sample t test was conducted to compare the work engagement scores for the groups of South African and migrant street traders. The accuracy of data was verified through t test group statistics, which also provided the mean and standard deviation statistics, as shown in Table 5.24.

Table 5.23: *t* test group statistics for nationality and work engagement

***t* Test**					
Group Statistics					
Nationality		**N**	**Mean**	**Std. Deviation**	**Std. Error Mean**
UWES7	South Africa	209	5,0554	1,18109	0,08170
	Migrant worker (Senegalese, Nigerians, Cameroonians, Burundians, Malawian, Mozambican, Tanzanian, Zanzibar, Zimbabwean)	196	4,8192	1,26781	0,09056

The information in Table 5.24 shows the sample distribution, mean differences, and standard deviations between South Africans and migrant workers. The mean value of the South African nationals is slightly higher than the mean score value of the immigrant workers. Moreover, there is a difference in mean scores between South African and migrant street traders. The mean score values show that South Africans were more engaged than migrant street traders.

Moreover, Levene's test is used as explained above to determine which information to report on, as shown in Table 5.25. The Sig value is $p = 0.05$, and there is a statistically significant difference between the nationality groups, as recommended (Pallant, 2020). Once it is determined, the next step is to determine the effect size for the independent-sample *t* test, providing an indication of the magnitude of the differences between the groups. The differences in scores between South African street traders ($X = 5.06$, SD = 1.18) and migrant street traders ($X = 4.82$, SD = 1.27, t (403) = 1.94, $P = 0.05$ (two-sided). The magnitude of the differences in the means (mean difference = 0.24, 95% CI: -0.0031 to 0.475) was small, with eta squared = 0.009. The small effect size suggests that 1 percent of the variance in work engagement is explained by street traders' nationality. Thus, Cohen's d 0.20 percent shows a small effect, 0.50 percent shows a medium effect, and 0.80 percent shows a large effect (Cohen, 2016; Pallant, 2020). The eta squared =0.009 is far less to explain any relationship.

Table 5.24: Independent Samples Test for nationality and work engagement.

Independent Samples Test

		Levene's Test for Equality of Variances		*t* test for Equality of Means							
						Significance				95% Confidence Interval of the Difference	
		F	Sig.	t	df	One-Sided p	Two-Sided p	Mean Difference	Std. Error Difference	Lower	Upper
UWES7	Equal variances assumed	2,902	0,089	1,940	403	0,027	0,053	0,23612	0,12169	-0,00310	0,47534
	Equal variances not assumed			1,936	395,794	0,027	0,054	0,23612	0,12196	-0,00366	0,47590

Thus, the effect size was small, and as recommended, it was concluded that South Africans are more engaged than migrant street traders. Although the effect size was small, there was a relationship between work engagement and nationality. However, there was no statistical difference between South African and migrant traders.

5.7.4. Education level and work engagement

The focus of the current section is on reporting and discussing the relationship between education level and work engagement of participants. Education level was also one of the demographic variables hypothesised as related to work engagement. In South Africa, there are generally three main levels of education, namely, primary, secondary and tertiary education (StatsSA, 2022). In the study, the level of education of the participants is divided into three groups, namely, Group 1: none/not specified/only primary school grades completed; Group 2: secondary school grades completed; and Group 3: college/university graduates, as shown in Table 5.26. In groups that are more than three, a one-way descriptive analysis is used to determine the accuracy of the data or information by providing the number of participants per group, means and standard deviations of the groups as recommended (Pallant, 2020).

Table 5.25: One-way descriptive analysis of education and work engagement

Oneway							
Descriptive							
UWES7							
	N	Mean		Std. Error	95% Confidence Interval for Mean	Minimum	Maximum

			Std. Deviation		Lower Bound	Upper Bound		
None or Primary School grade completed | Not specified	90	5,0222	1,28757	0,13572	4,7525	5,2919	0,00	6,00
Secondary school grade completed	272	4,9181	1,18886	0,07209	4,7761	5,0600	0,86	6,00
Graduates: College/University	43	4,9169	1,36178	0,20767	4,4978	5,3360	1,57	6,00
Total	405	4,9411	1,22800	0,06102	4,8211	5,0610	0,00	6,00

The distribution of participants was accurate. There are slight differences in the mean scores among the groups, with those with less education where the primary deucation grade was completed showing more engaged than the other groups. The next step is to determine the effect size of the difference, as shown in Table 5.27.

Table 5.26: Education analysis through ANOVA and work engagement

ANOVA					
UWES7					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	0,762	2	0,381	0,252	0,778
Within Groups	608,466	402	1,514		
Total	609,227	404			

The results showed that the Sig. value of *P* = 0.78 was above the minimum acceptable Sig. value of *P* = 0.05 or less, as recommended (Pallant, 2020). Therefore, the difference was not statistically significant at the *P* = 0.78 level of work engagement scores for the three groups: *F* (2, 402) = 0.25, *P* = 0.78. It has already been explained above that when is more than *P* = 0.05, there is no statistical significance among the groups being investigated (Pallant, 2020). Post hoc comparisons using the Tukey HSD test reported the mean value for Group 1 (M = 5.02, SD = 1.28), Group 2 (*X* = 4.91, SD = 1.19), and Group 3 (*X* = 4.92, SD=1.36) was not significantly different between groups at Sig. value *P* = 0.78, with Welch at Sig. value of *P* = 0.79, and B-Forsythe at Sig.value of *P* = 0.80. In addition, with eta at *P* = 0.001, none of the indices support any difference

to be reported. Therefore, it was concluded that level of education is not related to work engagement.

5.7.5. Working with or with no family member(s) and work engagement

The focus of the current section is on reporting and discussing the relationship between work engagement and street traders working with or without family member(s). Working with or with no family member(s) was hypothesised to relate with work engagement. The group was divided into two groups, namely, those working with and those not working with family member(s). An independent-sample *t* test was conducted to compare the work engagement scores for the groups of street traders working with family member(s) and not working with family member(s). The *t* test group statistics provided the total number of street traders working with family member(s) and those not working with family member(s) and the mean and standard deviations, as shown in Table 5.28.

Table 5.27: Street traders working with or not working with family member(s)

***t* Test**					
Group Statistics					
Family member(s) working with street trader		**N**	**Mean**	**Std. Deviation**	**Std. Error Mean**
UWES7	No	322	4,9157	1,25039	0,06968
	Yes	83	5,0396	1,13878	0,12500

In Table 5.28, mean distribution and standard deviation are provided and reported. The mean score value of those who reported working with family member(s) was slightly higher than for those who reported not working with family member(s) but alone.

Table 5.28: Independent Samples test: working or not with family member(s)

Independent Samples Test		
	Levene's Test for Equality of Variances	***t* test for Equality of Means**

		F	Sig.	t	df	Significance		Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
						One-Sided p	Two-Sided p			Lower	Upper
UWES7	Equal variances assumed	1,189	0,276	-0,819	403	0,207	0,413	-0,12388	0,15123	-0,42118	0,17342
	Equal variances not assumed			-0,866	137,493	0,194	0,388	-0,12388	0,14311	-0,40686	0,15910

The next step involved determining the statistically significant difference between the groups (street traders working with family member(s) and those not working with family member(s)) by assessing the Sig. (2 Tailed) value under *t* test for Equality of Means. The Sig. (2-tailed) value was *P* = 0.41. Above the recommended *P* = 0.05, there was no statistically significant difference between the groups (street traders working with family member(s) and those not working with family member(s)) as the Sig. value was above the recommended value of *P* = 0.05 (Pallant, 2020). The differences in scores between the groups of street traders not working with family member(s) (*X* = 4.92, SD = 1.25) and street traders working with family member(s) (M = 5.04, SD = 1.14, t (403) = -.82, *P* = 0.41 (two-sided). The magnitude of the differences in the means (mean difference = 0.12, 95% CI:-0.42 to 0.17) was small (eta squared = 0.0017), suggesting that only 0.020 percent of the variance in work engagement was explained by street traders working with or not working with family member(s). In addition, Cohen's d was 0.20 = small effect, 0.50 = medium effect, and 0.80 = large effect (Pallant, 2020). Despite the mean difference that exists between these two groups, it is not statistically sufficient for a conclusive position about the difference. Therefore, working with or without family members is not related to work engagement of street traders.

5.7.6. Informal group (stokvels) and work engagement

The focus of the current section is on reporting and discussing the relationship between street traders belonging or not belonging to any informal group of street traders and work engagement. Membership in any informal group with other street traders, such as 'stokvels', was hypothesised as related to work engagement. The category was divided into two groups, those who belonged and those who did not belong to any informal

group. The accuracy of the information was assessed through *t* test group statistics, which provided sample distribution, means and standard deviations of the groups being analysed as shown in Table 5.30.

Table 5.29: Informal groups (stokvels) and work engagement

T- Test					
Group Statistics					
Belonging to any group of other street traders, e.g. stokvel of street traders		N	Mean	Std. Deviation	Std. Error Mean
UWES7	No	285	4,9273	1,30301	0,07718
	Yes	120	4,9738	1,03248	0,09425

The distribution of the data was verified and confirmed to be correct. The mean values between the groups were very close to each other, with those who belonged to group showing a slightly better mean value than those who did not belong. The next step involved determining which statistics to report on through *t* test independent-samples scores, in which Levene's test was used to ascertain the significance of the difference, as shown in Table 5.31.

The information on the first line in Table 5.31, referring to equal variances assumed, was used and has a Sig.value of 0.73. The next step involved determining the statistically significant difference between the groups (street traders belonging to informal groups and those who do not belong to informal groups) by assessing the Sig. (2 Tailed) value under *t* test for Equality of Means. The Sig. (2-tailed) value was 0.73. Since the Sig. value is 0.73, a value above the recommended $P = 0.05$, there is no statistically significant difference between the group of street traders belonging to any informal groups and those who do not belong to any informal groups.

Table 5.30: Independent Samples Test and informal groups (stokvels)

Independent Samples Test								
	Levene's Test for Equality of Variances		*t* test for Equality of Means					
	F	Sig.	t	df	Significance	Mean Difference	Std. Error	95% Confidence Interval of the Difference

						One-Sided p	Two-Sided p		Difference	Lower	Upper
UWES7	Equal variances assumed	7,366	0,007	-0,348	403	0,364	0,728	-0,04649	0,13378	-0,30948	0,21650
	Equal variances not assumed			-0,382	279,460	0,352	0,703	-0,04649	0,12182	-0,28630	0,19332

However, the group that belongs to the informal group shows more engagement compared to those who do not belong to any informal group. The last step in the process involves determining the effect size for the independent-sample *t* test, which provides an indication of the magnitude of the differences between the groups. There is no statistically significant difference in scores for those who do not belong to any informal group of street traders (X = 4.93, SD = 1.30) and those who belong to informal group of street traders (X = 4.97, SD = 1.03; t(403) = -0.35, P = 0.73 (two-sided). The magnitude of the differences in the means (mean difference = 0.73, 95% CI: -0.31 to 0.22) was very small (eta squared =0,007), wherein only 0.01 percent of the variance in work engagement is explained by belonging or not belonging to an informal group of street traders. The study concluded that there is no relationship between groups of street traders' membership in informal groups such as stokvels and work engagement.

5.7.7. Unions/associations and work engagement

The focus of the current section is on the reporting and discussion of the relationship between members of the association of street traders and work engagement. Membership in a union or associations of street traders was hypothesised as one of the factors that influence work engagement. The group was divided into two groups: those who belonged to a union or association and those who did not belong to a union or association. The *t* test group statistics were conducted, which showed the sample distribution, the mean and standard deviation as shown in Table 5.32.

Table 5.31: *t* test group statistics: street trading and formal groups (unions)

***t*- Test**
Group Statistics

Member of an association of street traders, e.g., Street traders' union		N	Mean	Std. Deviation	Std. Error Mean
UWES7	No	249	4,9684	1,19718	0,07587
	Yes	156	4,8974	1,27835	0,10235

Once the information was confirmed, the next step involved determining which information to report on through Levene's test for equality of variances, as shown in Table 5. 33. The information in the first line of Table 5.33, referred to as equal variances assumed, was used for reporting and has a Sig. value above *P* = 0.05. There is a difference in the mean values between those who belong to an association and those who do not, where those who did not belong to any association were more engaged than those who did not belong to any association or union, as shown in Table 5.33.

Table 5.32: Independent Samples test: street trading and formal group (unions)

Independent Samples Test											
		Levene's Test for Equality of Variances		*t* test for Equality of Means							
						Significance				95% Confidence Interval of the Difference	
		F	Sig.	t	df	One-Sided p	Two-Sided p	Mean Difference	Std. Error Difference	Lower	Upper
UWES7	Equal variances assumed	0,694	0,405	0,566	403	0,286	0,572	0,07101	0,12550	-0,17570	0,31772
	Equal variances not assumed			0,557	313,060	0,289	0,578	0,07101	0,12740	-0,17967	0,32168

The next step involves determining the statistically significant difference between the groups by assessing the Sig. (2 Tailed) value under *t* test for Equality of Means as shown in Table 5.33 above. There is no statistically significant difference between street traders who do not belong to a union or association (*X* = 4.97, SD = 1.20) and those who belong to a union or association (*M* = 4.90, SD = 1.28; *t* (403) = 0.57, *P* = 0.57 (two-sided). The magnitude of the differences in the means (mean difference = 0.07, 95% CI: 0.18 to 0.32) was small (eta squared = 0,008), suggesting that only 0.01 percent of the variance in work engagement is explained by belonging to or not belonging to a union or association, as shown in Table 5.33. The effect size was small, and P = 0.50, which was above the minimum acceptable level. Thus, the study could not conclude that belonging to and not belonging to any association or union may be related to work

engagement.

5.7.8. Agency and structural motives street trading and work engagement

The focus of the current section is on reporting and discussion of the relationship between motivation to be a street trader and work engagement. The motives to be street traders, namely, agency group (I enjoy being independent/entrepreneurial) and structural group (I cannot find a job I am qualified for), were hypothesised to relate to work engagement. The motivations to be a street trader group were divided into two groups, namely, agency (I enjoy being independent/entrepreneurial) and structural (I cannot find a job I am qualified for). The *t* test group statistics were used to determine the accuracy of the data by providing the total number of street traders on both agency and structural groups and the mean and standard deviations, as shown in Table 5.34.

Table 5.33: Agency or structural motives street trading

***t* Test**					
Group Statistics					
Employment status		**N**	**Mean**	**Std. Deviation**	**Std. Error Mean**
UWES7	Agency (I enjoy being independent/entrepreneurship)	204	5,3894	0,80329	0,05624
	Structural (I cannot find job I am qualified for)	201	4,4861	1,40648	0,09921

In Table 5.34, all the data were verified to be correctly entered through analyses of sample distribution, mean and standard deviation. Second, Levene's test was used to determine which information to report on, as shown in Table 5.35 below. The information on the first line of the table, referred to as equal variances assumed, was used because it has a Sig. value of 0.000, a value within the recommended minimum value of $P = 0.05$ (Pallant, 2020). The information suggested that there was a statistically significant difference between agency and structural motives street traders. The agency motives had a better mean value than the structural motives.

Moreover, Pallant (2020) indicates that if the Sig. (2-tailed) value is equal to or less than $P = 0.05$ (e.g., 0.03, 0.01, 0.001), there is a significant difference in the mean scores for

the dependent variables for each of the two groups in the study. Once that was determined, the next step, as recommended by Pallant (2020), was to determine the effect size for the independent-sample *t* test, providing an indication of the magnitude of the differences between the groups. There is a difference in scores for the agency group of street traders (*X* = 5. 39, SD = 0.80) and structural group of street traders (*X* = 4.49, SD = 1.41, t (403) = 7.95, P = 0.000 (two-sided). The magnitude of the differences in the means (mean difference = 0.90, 95% CI: 0.68 to 1.13) was large, (*eta* squared = 0.000), with 14 percent of the variance in work engagement explained by agency and structural groups of street traders.

Table 5.34: Independent sample test: agency or structural motives street trading

Independent Samples Test											
		Levene's Test for Equality of Variances		*t* test for Equality of Means							
						Significance				95% Confidence Interval of the Difference	
		F	Sig.	t	df	One-Sided p	Two-Sided p	Mean Difference	Std. Error Difference	Lower	Upper
UWES7	Equal variances assumed	64,063	0,000	7,950	403	0,000	0,000	0,90322	0,11361	0,67987	1,12656
	Equal variances not assumed			7,920	316,962	0,000	0,000	0,90322	0,11404	0,67885	1,12758

Furthermore, according to Pallant (2020), with a sufficiently large sample (in this case, N = 405), quite small differences can become statistically significant, even if the difference between the groups is of little practical importance. The agency group (I enjoy being independent/entrepreneurial) of street traders was more engaged than the structural (I cannot find job I am qualified for) group. Therefore, the study concluded that motivation to be a street trader was related to work engagement.

5.8. SUMMARY

In the current chapter, the focus was on reporting and discussing the results of data

analysis. Various statistical tests were conducted to analyse data that were meaningful and suitable to solve the problem of the study. According to the statistical tests, the reliability and validity of the instrument were acceptable. Thus, the instrument can be used to measure the work engagement of street traders as an indicator of their occupational well-being. Street traders, the most visible self-employed/own-account workers, were reported to be engaged, with agency motives street traders as well as older-aged street traders being more engaged than the other groups.

Despite the UWES being valid for assessing the work engagement of workers in the formal sector, it is also valid for assessing the work engagement of or self-employed/own-account workers in the informal sector. The occupational well-being of workers in the formal sector is most reported in the literature. However, the study also reported the occupational well-being of self-employed own-account/workers in the informal sector.

CHAPTER 6: CONCLUSION AND RECOMMENDATION

6.1. INTRODUCTION

In the current chapter, the focus is on the discussion of the conclusion and recommendations of the study entitled 'Assessing Work Engagement of Street Traders in the City of Tshwane'. The chapter discusses the conclusion and recommendations of the study, accounting for the results achieved of all the activities that were completed from the first to the last phase of the study. The linkage of the results and literature and various activities executed in the study are discussed in this chapter. It is recommended that the chapter, among others, provides summaries and discussions of salient points of the study; interpret the results of the study in relation to the literature; provides discussions on gaps, anomalies, and/or deviations in the data; makes the broad significance of the results explicit; and provide policy and other recommendations (Kraus *et al*., 2020; Mouton, 2001; Paul & Criado, 2020; Snyder, 2019; Trafford & Leshem, 2008). These recommendations are the blueprint of the chapter.

6.2. PURPOSE, OBJECTIVES, AND HYPOTHESES OF THE STUDY REVISITED

The purpose of the study was to determine the occupational well-being of street traders, the most visible self-employed/own-account workers in the informal sector, by assessing their work engagement using the UWES. Occupational well-being was widely reported on workers from conventional organisations in the formal sector. It is odd because many people who work do so in the informal sector at more than 60 percent (ILO, 2022a). In addition, the UWES, one of the few valid and widely used instruments, was only valid to assess the work engagement of workers (blue and white collar) in conventional organisations in the formal sector. Moreover, there was a concern raised about the research gap between the formal and informal sectors (UNDP/South Africa, 2020), which the current study addressed in part. In addition, there is recommendation about broadening knowledge by including micro level individuals in research (Fritsch *et al*., 2019). Moreover, the study solved the research problems by means of the (a) factual (results from the empirical study) and (b) conceptual (in relation to theory and literature)

conclusions. The primary objective was stated and linked to the main purpose of the study as follows:

- Assessing work engagement of street traders, the most visible self-employed/own-account workers in the informal sector, through UWES (one of the few valid and most used instrument in assessing work engagement).

To achieve the primary objectives as stated above, the secondary objectives of the study were formulated as follows:

- To assess the factorial invariance of the UWES-9 in assessing the work engagement of street traders.
- To assess the internal consistency and validity of the UWES-9 in assessing work engagement in the informal sector.
- To determine whether demographic variables, i.e., age, gender, education, nationality, working with or with no family member(s), membership in informal social groups and membership in formal groups, employment status, namely agency or structural motives, are related to the work engagement of street traders.

In addition, the hypotheses of the study, as one of the ways of systematically resolving the problem of the study, were also formulated. The hypotheses are stated and linked to the primary objectives of the study as follows:

Table 6.1: The link among hypotheses, empirical findings, and literature study.

Hypotheses of the study	**Empirical findings**	**Literature review**
$H1_0$ Street traders are not engaged in their work.	Chapter 5 Sections: 5.4	Chapter 2 Sections: 2.6. Chapter 1 Section 1.2.1; 1.2.3
$H2_0$ There is no factorial invariance in UWES in assessing work engagement of street traders.	Chapter 5	Chapter 2

$H3_0$ UWES is not internal consistent and valid to assess work engagement of street traders, the most visible own-account workers in the informal sector.	Chapter 5 Sections: 5.5.1	Chapter 1 Section 1.2.2. Chapter 2 Sections: 2.5
$H4_0$ There is no significant difference between the work engagement of street vendors based on their demographic characteristics (i.e. age, gender, education, nationality, working with or with no family member(s), membership in informal social groups and membership in formal groups, employment status, namely, structural and agency motives). $H5_0$ There is no difference in work engagement levels between agency motives street traders and structural motives street traders.	Chapter 5 Sections: 5.7 Sections: 5.7.6	Chapter 1 Section 1.2.3 Chapter 2 Sections: 2.9

Part of the purpose of the study has already been restated. In addition, the study sought to determine the occupational well-being of street traders, the most visible self-employed/own-account workers in the informal sector, by assessing their work engagement through the UWES. UWES is one of the few valid and most commonly used instruments in assessing work engagement. Occupational well-being in the formal sector has been well studied, and many reports are available in the literature. However, little is known about the occupational well-being of own-account or self-employed workers in the informal sector. It is recommended that the main findings obtained in the study be discussed by drawing together the results (Kraus *et al.*, 2020; Mouton, 2001; Paul & Criado, 2020; Snyder, 2019; Trafford & Leshem, 2008). The discussion of the findings and results of the study addressed in the following section.

6.3. DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

It is indicated in the research ethics that the collected data were only be used to solve the problem of the study. Moreover, it was indicated in the research ethics that the data collected for the study must only be used for the purpose of the study. In addition, the

findings are made available through a thesis, or journal articles, or conference papers, or book chapters, which are accessible by the interest groups. All the participants in the study were street traders operating their businesses in the City of Tshwane; therefore, the findings and recommendations are in the domain of self-employed/own-account workers in the informal sector (SMMEs). The focus of the current section is on the discussion, conclusions, and recommendations of the study. The findings of the study involve several activities performed in relation to the formulated hypotheses. The discussion, conclusion, and recommendations are presented in the relevant sections below, starting with the reliability assessment of the UWES in assessing the work engagement of self-employed/own account workers in the informal sector.

6.3.1. The Reliability and vadility assessment

It was hypothesised that street traders, who are reported to be the most visible self-employed/own-account workers in the informal sector, are engaged in their work. Complementary to this hypothesis, it was also hypothesised that the UWES, one of the few valid and most commonly used instruments in assessing work engagement, is reliable and valid for assessing the work engagement of self-employed/own-account workers in the informal sector. The assertion was informed by the available evidence in literature that most studies on work engagement using UWES were done on workers (blue and white collar) in the formal sector. To determine if the hypotheses were supported (accepted) or not supported (rejected), various activities were performed on the collected data, including testing the reliability and validity of the UWES. The UWES-7 is found to have acceptable reliability, with Cronbach's alpha for the UWES composite score higher than the individual scales at $\alpha = 0.76$ (see Sections 1.2.1; 1.2.2; 1.6.4; 2.2; 2.3; 2.4; 2.5; 2.6; 2.7; 2.8; 2.9; 2.10; 3.4.2.1; 3.4.5.2.2; 3.4.5.2.3; 3.4.5.2.4; 4.7; 5.5.1; 5.6; 5.6.2; 5.6.2.1). In addition, the inter-item correlations of the summary item statistics and corrected item-total correlation showed that the scales and the instrument have acceptable reliability. Most of the alpha values were VI at $\alpha = 0.68$, DE at $\alpha = 0{,}63$, and AB at $\alpha = 0{,}59$. The UWES has acceptable reliability and validity for assessing the work engagement of street traders, the most visible self-employed/own-account workers in the informal sector.

6.3.2. Group Analysis

The demographic variables were hypothesised to relate to work engagement. The groups that were identified, analysed, and reported were informed by the complexity of the sample, namely, gender; age; nationality; level of education; working with or not with family member(s); motives to be street traders (agency or structural motives); belonging to informal group; and belonging to formal group (see Section 5.7). The informal sector is complex and unstructured; therefore, it is characterised by several aspects. These variables were analysed to determine their relationship with work engagement. For the following groups, their relationship to work engagement is reported:

The two groups that are reported and are related to work engagement are age (see Section 5.7.2), and motives for becoming a street trader (agency or structural motives) (see Section 5.7.8). In addition, the older age group reported more engagement than the other age groups. The agency motives group reported more engagement than the structural motives group. Therefore, these two groups were reported to be related to occupational well-being.

However, on the other groups that were also assessed, namely, gender and work engagement (see Section 5.7.1); nationality (See Section 5.7.3); education level and work engagement (see Section 5.7.4); street traders working with or not with family member(s) and work engagement (see Section 5.7.5); belonging to any informal group of street traders and work engagement (see Section 5.7.6); member of an association of street traders, e.g., unions and work engagement (see Section 5.7.7). Despite some relationships being established with some groups and work engagement, the relationship was not statistically significant.

6.4. IMPLICATIONS OF EMPIRICAL RESULTS TO CONCEPTUAL CONCLUSSIONS

The focus of the current section is to demonstrate the implications of the findings and conclusions of the study to the literature or conceptual conclusions. Moreover, it is recommended that the relationships of the results and conclusion of the study must be

demonstrated to the literature or theory in the domain for conceptaul conclusions. These may be done by showing the connections between the results and literature reviewed in the earlier chapter (Chapter 2) (Kraus *et al*., 2020; Mouton, 2001; Paul & Criado, 2020; Snyder, 2019; Trafford & Leshem, 2008). These are demonstrated first by looking at the validity of the UWES in assessing the work engagement of self-employed/own-accoun workers in the informal sector.

The study reported and concluded that the UWES-7 has acceptable reliability in assessing the work engagement of self-employed/own-account workers in the informal sector. Although two of the original nine items were lost during the initial validation phase, the remaining 7 items were of acceptable reliability. UWES comes in different versions, including UWES-17, UWES-9, UWES-15, and lately UWES-3 (Fong & Ng, 2011; Gifford & Young, 2021; Schaufeli et al., 2019). All the UWES versions are valid, and their psychometric structures are acceptable. Data in the current study supported the UWES-7 instead of UWES-9. Most of the validity and fitness tests of the UWES-7 were acceptable. At this stage of the study, the recommendations by Schaufeli *et al*. (2006) were adhered to. These include the use of the total item score as an indicator of work engagement. The study has contributed a version in the pool of available validated versions of UWES to choose when assessing work engagement of any interest group. Moreover, the UWES has now been validated in assessing the work engagement of self-employed/own-account workers in the informal sector. The research gap between informal and formal sector was attending to in the domain of occupational well-being. The knowledge base is broadened by including the micro level individual in research as recommended.

The convergence validity and discriminant validity were a challenge in the study. The data suppoted the absorption scale in both convergence validity and discriminant validity. Vigour was slightly better fitted with data compared to absorption. Moreover, it was reported that the correlations between VI and AB are always high, and a recommendation was made for future studies to determine if AB and VI have similar antecedents and consequences (Schaufeli *et al*., 2002). Moreover, VI and AB in the

study could not achieve acceptable means in some of the indices for convergent validity and discriminant validity, thus supporting the recommendation in literature.

The potential for the informal sector in creating jobs for different groups has been discussed. The groups include the youth, groups by gender, and nationality. The literature indicates that more than 60 percent of the global labour force work in the informal sector (ILO, 2022c). Most of the participants in the study are full-time workers in the informal sector; however, their economic distribution varies. In the study, the number of youths participating in the informal sector compared to the adult group shows that entrepreneurship among youth is lagging behind those of the other groups. Moreover, the unemployment rate of females is reported to be higher than that of their male counterparts; however, there were more males who participated in the study. Moreover, participation in the study was based on convenience sampling, or accidental sampling or sampling by availability. It is again reported that education increases the prospects of job opportunities, and more participants in the informal sector have only gone to or completed a grade in the secondary education level (StatsSA, 2022). Almost half of the participants were of foreign national origin, which confirms the reports by ILO (2022b) and IMF (2022) that displaced people end up taking work in the informal sector in the foreign country for survival. These were people being displaced from their home countries by various factors. In addition, South Africa is one of the leading migrant destination countries in Africa as reported in literature. Moreover, the study was conducted based on convenience or availability or accidental sampling.

It has been reported in the literature that the social work context may provide sources of knowledge and emotional and material support and activate a motivational pathway leading to work engagement and better well-being (Knight *et al*., 2019; Sassen *et a*l., 2018). Moreover, well-being is stimulated by opportunity and choice to participate in meaningful work that supports an individual's needs, aspirations, and potential for development (Sassen *et al*., 2018; Schaufeli & Bakker, 2010). In the context of self-employed/own-account workers in the informal sector, such groups included working with family member(s); being part of the formal group(s) (being a member for a union), or informal groups (being member of social club) were hypothesised to influence work

engagement. Although the results showed some differences in favour of those who either work with family members or belong to informal groups or formal groups, the results were not statistically supported. However, agency motive traders were more engaged than structural motive traders. These is the group that is entrepreneurial compare to structural. The older age traders were more engaged than the other age groups, as already reported above. For example, peer pressure dissipates as people mature and get older.

Furthermore, entrepreneurship is positively associated with work engagement (Steffens, Yang, Jetten & Haslam, 2017). It was hypothesised in the study that agency motives group (those who enjoy being independent/entrepreneurial) and structural (those who cannot find job they are qualified for) were related to work engagement. The agency motives group is more entrepreneurial than the structural motives group, which works because there are no available opportunities. The results confirm that entrepreneurship is associated with work engagement, where the agency motives group reported more engagement than the structural motives group. In summary, street traders are engaged in their work, with the agency motives group being more engaged than the structural motives group. Moreover, well-being is associated with wellness or good health, resulting from physical, psychological and social outcomes.

6.5. RECOMMENDATIONS FOR POLICY MARKERS

Unemployment is a hard reality that pushes people to different activities for survival. The current rate of unemployment in South Africa is high at more than 33 percent of inclusive unemployment and at more than 45 percent of youth unemployment, as reported above. The high rate of youth unemployment is odd, and those who are in street trading are less engaged than the older age group. The occupational well-being of the older age and agency motive group is much better than that of the other groups. However, there was no difference in engagement between South African and migrant street traders.

Thus, people take different initiatives, including creating work by being intentional or unintentional entrepreneurs. A conducive work environment must be created to harness these initiatives. Currently, it appears not to be the case; people are just trading everywhere, creating tensions for space among fellow traders and with authority. The government/municipality may offer support to self-employed/own-account workers in the informal sector by creating access to the market, managing space by allocating it properly and not allowing people do as they wish. Proper sanitation and protection of traders should be prioritised and afforded to traders.

Governments may be implementing their slogan of ‘people shall govern’ by extending support to self-employed/own-account workers in the informal sector. Services that lead to congestion in the city may be taken out of the city to places where street traders may also be accommodated. It is reported that traders are concentrated in places where anchor services are provided. New development initiatives must always be implemented, with both formal and informal sectors being involved, to allow for the development of proper infrastructure.

Proper and up-to-date databases of street traders or self-employed/own-account workers must be established, which may promote research and knowledge development in the informal sector. The lack of reliable database limit knowledge development through research.

The study further recommends initiatives that may promote or improve the occupational well-being of street traders or self-employed/own-account workers in the informal sector. The call by the ILO must be implemented and not be left to chance, that informal sector must be supported for job creation and economic growth and development. Due to the high rate of unemployment and the formal sector constrained in creating jobs for all, a shift of focus and attention should be on the informal sector. The sector has indeed proven that it has some potential as the largest provider of work; it only needs some support from policy makers.

Migrant street traders must be afforded their own space as well, where from time-to-time may be checked for the kind of support appropriate to them. The reports indicate that displaced people (migrants) who end up taking work in the informal sector in foreign countries should also must be manged through some policy initiatives. Policy should be strengthened, and aid should be made available to ensure that the occupational well-being of the displaced people is taken care of.

6.6. RECOMMENDATION FOR FUTURE RESEARCH

There are opportunities for further studies on the work engagement of self-employed/own-account workers in the informal sector. The studies may be commissioned, where the UWES may be translated into some official South African languages. These might be phase-in in stages of comprehensive studies. The use of home language would facilitate understanding and proper expression by the participants. Moreover, the UWES has been reported to be available in more than 31 languages, and none of those accounted languages was a home language in South Africa. English may be a home language, but it is spoken by a fraction of the population as a home language. A study may also be commissioned looking at different groups, namely, language, youth, and educated, just to focus the efforts of the study. The study may also be enrolled to examine a particular culture of people. The study may also use different sampling methods or different data collection techniques. These will enable the development of all-round knowledge that may be used to develop the informal economic sector.

Other studies may focus on groups, such as South Africans or migrant traders only, ensuring that there is an integration of knowledge and different experiences in the field. The study may be commissioned in provinces, regions, and districts or in rural and urban areas, which may also benefit interest groups at different levels. The same study may be repeated in a different context for different purposes. The other area where the recommendations could be made is on the time factor. The study was cross sectional, wherein it was conducted only once off. A longitudinal study may be recommended in

this area, given the reported high mortality rate of street trading businesses. Through longitudinal study, different knowledge may be acquired.

In addition, in the study, the total UWES-7 item score is used as an indicator of work engagement. In so doing, challenges associated with multicollinearity were avoided when, for instance, the VI, DE, and AB were simultaneously computed as independent indicators. For example, in Figure 5.1, VI and AB were highly correlated at $X = 0.90$. Moreover, the use of a single composite engagement score versus three composite scores still stands as recommended (Schaufeli *et al*., 2006). However, interested researchers may investigate whether VI, DE, and AB have different effects on work engagement in the informal sector in the future. These recommendations were made at an early stage of the development of the UWES-9, in which case, the study is at an early stage in validating the UWES in assessing work engagement of self-employed/own-account workers in the informal sector.

6.7. LIMITATIONS OF THE STUDY

The study only focuses on and was limited to street traders, the most visible self-employed/own-account workers in the informal sector. Many were from different cultural backgrounds and spoke different home languages. It has been reported that the UWES is available in more than 31 languages, and it is the most commonly used instrument in assessing work engagement, hence determining occupational well-being. Languages are associated with uniformity. The education level of the participants added another stretch in the diversity of participants. More than 85 percent of the participants indicated that they had completed either the primary or secondary education level, with 15 percent having completed the postgraduate education level. The current study was conducted in English, which is the language of business in South Africa. Some traders do not speak English, such as some people from Mozambique. The instrument was developed in the academic setting, and although attempts were made to simplify some words in the instrument, English, as used in the instrument, is still the second language to almost all participants. It is a well-known fact that people express themselves well in their home languages.

The other limiting factor in the study was a time factor. The study was conducted for academic purposes, which had some strict deadlines. The study was cross sectional, meaning it was conducted once-off for the purpose of the study and needed to meet deadlines. Data collection was allocated a period of a month, which may have been a limitation, as things might have been rushed to make the most out of the allocated time. Since the study is cross sectional, the opportunity to go back and reinterview the participants is not available, which might have provided indepth knowledge. The approach used was similar to a hit-and-run study. In addition, the administrative costs associated with the study provided no room for errors. The services of fieldworkers and travel costs were costly, given the limited research grant allocated for the study. The study had to maximise the output from the few resources available.

The study used convenience sampling methods to recruit participants. The method has its own limitation of generalising the findings outside the confines of where the study was conducted. However, it was the best method because there was no credible list from which to draw the sample frame. It is a policy requirement area which City of Tshwane municipality appears not to be getting it right. The lack of credible databases limits research on the group about the choices for research methods available. Due to the method used, the findings of the results may not be overgeneralised. However, the sample resembled the population, and the results were acceptable as recommended (Bono & McNamara, 2011).

The other limitation was that since two items were lost from the instrument, the results of the study may not be wholistically compared with studies that have used a different instrument as recommended (Hair Jr *et al*., 2014; Pallant, 2020). However, the results of the study are credible and may be useful for improvement. The recommendations may be helpful to local authorities or authorities with similar settings to the one where the study was undertaken. The study was commissioned on groups from different nations, provinces, people who have different home languages and cultures, making it difficult to report any cultural relationship with work engagement. However, it was a good study to undertake.

6.8. DISCUSSION OF GAPS, ANOMALIES AND DEVIATIONS IN THE DATA

The focus of the current section is to discuss the gaps, anomalies or deviations as presented by the data. It is recommended that any anomalies and surprising results, must be honestly reported; and it must be shown if the results confirm or deviate from the expected results (Cooper & Schindler, 2014; Leedy & Ormrod, 2015:23; Mouton, 2001:48; Saunders *et al*., 2019), hence, the focus of the section. It was within the purpose of the study to assess the work engagement of street traders, the most visible own-account or self-employed workers in the informal sector, using the UWES. UWES is one of the few valid and most commonly used instruments in assessing work engagement. Moreover, the UWES-9 is the most commonly used instrument in assessing work engagement in different contexts and for different groups. In addition, the instrument is reported to be available in more than 31 languages, making it the most popular instrument in assessing work engagement. Moreover, the UWES is only validated to assess work engagement on workers working for conventional organisations in formal work settings.

In the study, the UWES-7, instead of the UWES-9, was validated to assess the work engagement of street traders. In the current study, two items were deleted from the UWES-9, namely, one item of dedication (UWES-3 (I am enthusiastic about my job as a street trader)) and one item of absorption (UWES-9 (I get carried away when I'm working as a street trader). These items were lost during the validation phase of the instrument. These two items were low in the corrected item-total correlations mean score and became candidates for deletion as recommended by Hair Jr *et al*. (2014) and Pallant (2020). Hence, UWE-7 is validated and used (see Section 5.5.1). The UWES-7 could not pass some of the validity tests, namely, convergent validity and discriminant validity. The two scales, namely, vigour and dedication, are the scales that were found to be discriminant, wherein absorption had some challenges (see Section 5.6.2.2). In convergence validity, only one scale achieved all the convergence validity test indices, namely, the scale of dedication. The scales of vigour and absorption were staggering, where in some tests indices they achieved acceptable convergence validity and some, that was not the case. However, the rest of the validity tests were acceptable. It was

within the interest of the study to determine which dimension, namely, vigour, dedication, or absorption, accounted for more work engagement. It is recommended that to avoid multicollinearity, it is advisable not to compute both tests at once (Schaufeli *et al*., 2006), as the study wanted to achieve everything and end-up losing everything. The study only computed the single composite scale as the indicator of work engagement without determining which scales or dimensions accounted for work engagement.

6.9. CONTRIBUTION TO KNOWLEDGE

The study determined the occupational well-being of street traders, the most visible self-employed/own-account workers in the informal sector, by assessing their work engagement through the UWES. The UWES is validated and can be used in the context of informal sector, such as assessing the work engagement of street traders, the most visible self-employed/own-account workers in the informal sector. Street traders were reported to be engaged in their work. The agency motives group (motive to be street trader) is more engaged than the structural motives group (motive to be street trader) in their work as street traders. In addition, the older group of street traders is reported to be more engaged than the younger group. Hence, it is positively related to occupational well-being, wellness and health. The other groups, such as gender, nationality, membership in informal street trader groups, formal membership in associations or unions, and working with or with no family member, were found not related with work engagement and ultimately, their contribution in occupational well-being of self-employed/own-account workers in the informal sector.

In addition, the informal sector accounts for more workers than the formal sector, yet knowledge about occupational well-being through research or study is mostly in the formal sector. The study bridged some of the knowledge gap between formal and informal sectors by contributing occupational well-being knowledge in the informal sector. There is a concern raised that due to a lack of knowledge of occupational well-being in the informal sector, most development initiatives are channelled through to the formal sector rather than to the informal sector. The informal sector is deprived of some

developments due to such a lack of knowledge; for example, in the field of work engagement (occupational well-being), the study was focused on. In addition, the recommendation that micro level indivuals must be included in broadening the knowledge base, was meaningful in the study.

Moreover, the UWES, the most commonly used instrument in assessing work engagement, was only validated and mostly used to determine occupational well-being in the formal sector. In the study, instead of the UWES-9, the UWES-7 was validated to assess work engagement in the informal sector, hence determining the occupational well-being of own-account or self-employed workers in the informal sector. The study made some ground-breaking findings by validating the UWES in assessing work engagement in the informal sector, thus determining their occupational well-being of self-employed/own-account workers in the informal sector. The UWES is also reported to be the most commonly used instrument in assessing work engagement, and it is also available in more than 31 languages. The findings of the study are historical findings, which may also benefit workers in the informal sector through knowledge production, among others.

Moreover, the informal sector is reported to be the largest provider of work, wherein most of the global labour force work in the informal sector, with self-employed/own-account workers being the most visible workers in the informal sector. Therefore, the work engagement of workers in the informal sector is as important as the work engagement of workers in formal sector. Due to the inability of other economic organs of society to create jobs, where unemployment is very high, most labour turned to the informal sector, as they were unable to find any work in the formal sector. The informal sector is also regarded as an economic engine, which appears not to have any limitations. If one has a viable idea and the skill to execute the idea, the sector is always ready to embrace it.

The importance of pretest and pilot studies is also discusssed in the study. The pretest and pilot studies are conducted as they are more important for studies, however, they are not often reported. In the study, the process for undertking the pretest and pilot

studies are report. Moreover, there is a concern raised that, little knowledge available in literature about the processes of pretest and pilot studies. The lack of reporting of the pretest and pilot studies limit knowledge broadening. The current study contributed by bridging the reporting gap of the pretest and pilot study.

6.10. CONCLUDING REMARKS

Most work engagement studies were done and reported on workers in conventional organisations. In addition, the UWES, one of the few valid and the most commonly used instrument in assessing work engagement, has been validated to assess the work engagement of workers in conventional organisations. Work engagement is one of the constructs used to assess occupational well-being. Well-being is associated with wellness and health. The construct gained popularity, with other positive psychology-related well-being constructs such as job satisfaction, organisational commitment, and work motivation, as one of the ways of responding to the concerns raised against psychology for focusing more on the negative aspect than on the positive side of work life. Through these initiatives, positive psychology also gained popularity. The study was conducted focusing on the work engagement of street traders, the most visible self-employed/own-account workers in the informal sector. Conducting a work engagement study in the informal sector is also one of the ways of addressing some concerns raised about the knowledge gap between the formal and informal sectors. Lack of knowledge resonates with lack of development, whereas the opposite implies development.

In addition, due to the high rate of unemployment and the incapacity of the formal sector to create enough decent work for all, policy makers are recommended to harness and support the informal sector. The informal sector is again reported to be the largest provider of work, where more than 60 percent of the global labour force works in the sector. The informal sector has proven that it is unlimited compared to the formal sector in terms of labour force absorption or job creation. It is just a matter of an individual's willingness to create a business that can offer some services or products for sale. However, policy makers are encouraged to change their approach in managing informal sector and start supporting and harnessing the sector, which is the call and

recommendation by the ILO. The findings of the study are not a one-stop solution but a step in the right direction. The social challenges that are there are more, one contribution or one study cannot alone be able to address all of them. The study also validated the UWES to assess work engagement in the informal sector. Moreover, the hypotheses were tested, and the results are summarised in the table below:

Table 6.2: The null hypotheses and the empirical results

Null hypotheses	**Supported/not supported**
$H1_0$ Street traders are not engaged in their work.	Null hypothesis was rejected
$H2_0$ UWES is not internal consistent and valid to assess work engagement of street traders, the most visible own-account workers in the informal sector.	Null hypothesis was not supported
$H3_0$ There is no factorial invariance in UWES-9 in assessing work engagement of street traders.	Null hypothesis was supported
$H4_0$ Demographic variables are not related to work engagement of street traders:	
Work engagement and gender;	Null hypothesis was supported
Work engagement and age;	Null hypothesis was not supported
Education level and work engagement;	Null hypothesis was supported
Street traders working with or not with family member(s) and work engagement;	Null hypothesis was supported
Belonging to any informal group of street traders and work engagement;	Null hypothesis was supported
Member of an association of street traders, e.g., unions and work engagement	Null hypothesis was supported
Employment status, namely agency motives street traders and structural motives street traders.	Null hypothesis was not supported

The study achieved most of its objectives. The data were collected, analysed, and reported in the manner that was explained. The main study contributed new knowledge in the body of existing knowledge.

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ADDENDUMS:

ADDENDUM A: UWES IN THE FORMAL SECTOR

Authors	Sample
Leiter and Bakker (2010)	Work engagement book with 13 articles based on formal organisations.
Hoole and Bonnema (2015)	Gauteng, South Africa, Organisations within Gauteng, South Africa, Workers from seven different companies in Poland, Romania, Lithuania, and The Netherlands.
Faskhodi and Siyyari (2018)	Teachers.
Viljevac, Cooper-Thomas and Saks (2012)	Auckland, Call centres of two finance Organisations.
Balducci, Fraccaroli and Schaufeli (2010)	Italy and Dutch, White collar.
Littman-Ovadia and Balducci (2013)	Israeli, White collar workers
Schaufeli et al. (2019)	Employees and managers; dentists; dental nurses; fire-fighters; nuclear safety engineers; workers in the forest industry; school teachers, administrative staff, cooks, and cleaners; business and financial services; manufacturing and construction; wholesale and retail; health care; public administration; education; white collar and blue collar workers; tile workers; technological workers; physicians.
Fong and Ng (2011)	Support staff, with examples such as care workers, workmen, and program workers. Professional staff, such as social workers, nurses, and occupational therapists.

ADDENDUM B: INSTRUMENTS FOR ASSESSING WORK ENGAGEMENT

Author	Work engagement Instrument
Rothbard (2001)	Developed a 9-item scale that consists of 4 items that measure attention and 5 items that measure absorption;
Saks (2006)	Developed a 6-item scale to measure job engagement and a 6-item scale to measure organization engagement;
Rich, Lepine and Crawford (2010)	Developed an 18-item scale that includes 6 items to measure each of Kahn's three dimensions of engagement (physical, emotional, and cognitive);
Soane, Truss, Alfes, Shantz, Rees and Gatenby (2012)	Developed a 9-item scale that includes 3 items to assess intellectual engagement, affective engagement, and social engagement, respectively;
Stumpf, Tymon and van Dam (2013)	Developed a two-dimensional measure of engagement for professionals in technically oriented work groups that measures felt engagement (5 items) and behavioural engagement (9 items)

ADDENDUM C: RESEARCH INSTRUMENT CODING MANUAL

COVER LETTER - QUESTIONNAIRE – ASSESING WORK ENGAGEMENT OF STREET TRADERS (VENDORS) IN THE CITY OF TSHWANE, SOUTH AFRICA.

Dear participant,

You are invited to participate in a survey conducted by Dumisani Mabasa under the supervision of Prof Hester Nienaber, a professor in the Department of Operations Management towards a Doctor of Philosophy degree at the University of South Africa (Unisa).

The research was reviewed and approved by Unisa Department of Operations Management Ethics Review Committee, ERC Reference #: OPS/2020/003. The primary researcher, Dumisani Mabasa, can be contacted at mabasdg@unisa.ac.za, and the study leader, Professor Hester Nienaber at nienah@unisa.ac.za

The questionnaire you have received has been designed to assess work engagement (well-being) of street traders (vendors) in the City of Tshwane. You were selected to participate in this survey because you are one of the street traders (vendor) working in the City of Tshwane. Therefore, you have the information that I need to complete my study.

The information you provide is voluntary and will be kept anonymous and confidential; nobody will know who said what. By providing the requested information, you agree that the information will be used for research purposes, i.e. conference proceedings, peer-reviewed articles and thesis. It is anticipated that the information obtained for this study will help us to better understand the work engagement (well-being) of street traders (vendors).

You are, however, under no obligation to complete the questionnaire and you can withdraw from the study prior to submitting the questionnaire. The information collected will be confidential, private and anonymously managed. Researchers will ensure that the information is provided in line with research ethics and protected.

If you choose to participate in this survey it will take approximately ten minutes of your time. You will not directly benefit from participating in the study. However, it is envisioned that the findings of this study will contribute towards the body of knowledge of work engagement (well-being) of street traders (vendors).

The researcher will safely keep the records in a safe place with access control (locked place) for audit purposes for five years as per university policy. The records will thereafter be permanently, with hard copies shredded and electronic copies deleted from the hard drive stored on.

You are free to withdraw from the study at any time prior or after the completion of survey interview. Should you have concerns about the way in which the research has been conducted, you may contact Professor Hester Nienaber at nienah@unisa.ac.za

Thank you for taking time to listen to me and for participating in this study.

UNISA university of south africa

CONSENT TO PARTICIPATE IN THIS STUDY

I, _____ (participant name), confirm that the person asking my consent to take part in this research has told me about the nature, procedure, potential benefits and anticipated inconvenience of participation.

I understand the study as explained to me in the information sheet.

I have had sufficient opportunity to ask questions and am prepared to participate in the study.

I understand that my participation is voluntary and that I am free to withdraw at any time without penalty (if applicable).

I am aware that the findings of this study will be processed into a research report, journal publications and/or conference proceedings, but that my participation will be kept confidential unless otherwise specified.

I have received a signed copy of the informed consent agreement.

Participant Name & Surname…….. (please print)

Participant Signature……..Date……

Researcher's Name & Surname……...(please print)

Researcher's signature……..Date……

UNISA university of south africa

SURVEY QUESTIONNAIRE

Section A: Work & Well-being Survey (UWES) ©

The following nine statements are about how you feel at work. Please read each statement carefully and decide if you ever feel this way about your job. If you have never had this feeling, cross the "0" (zero) in the space after the statement. If you have had this feeling, please indicate how often you feel it by crossing the number (from 1 to 6) that best describes how frequently you feel that way.

0	1	2	3	4	5	6
Never	A few times year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day

1. _____ At my work, I feel bursting with energy.

0	1	2	3	4	5	6
Never	A few times year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day

2. _____ At my job, I feel strong and vigorous.

0	1	2	3	4	5	6
Never	A few times year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day

3. _____ I am enthusiastic about my job.

0	1	2	3	4	5	6
Never	A few times year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day

4. _____ My job inspires me.

0	1	2	3	4	5	6
Never	A few times year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day

5. _____ When I get up in the morning, I feel like going to work.

0	1	2	3	4	5	6
Never	A few times year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day

6. _____ I feel happy when I am working intensely.

0	1	2	3	4	5	6
Never	A few times year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day

7. _____ I am proud of the work I do.

0	1	2	3	4	5	6
Never	A few times year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day

8. _____ I am immersed in my work.

0	1	2	3	4	5	6
Never	A few times year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day

9. _____ I get carried away when I'm working.

0	1	2	3	4	5	6
Never	A few times year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day

SECTION B: DEMOGRAPHIC/BIOGRAPHIC INFORMATION

We request for the demographic information as it serves as a control variable. This information is still subject to ethical principles (Please note, your information will not be sold or given to any outside entity without your consent). Kindly provide answers to the following biographical/demographical information: Indicate with an X next to what is applicable to you:

1. **Gender:**

Female	
Male	
Other	
Do not want to specify	

2. **How old are you?**

3. **What is your nationality?**

Not applicable

4. **Population and ethnic group (if South African)**

5. **Residential Province**

6. **Home Language**

7. **Highest education completed**

8. **Employment status:**

Agency (I work here because I enjoy being independent/entrepreneur)	Structural (I do this job because I cannot find any other job)

9. **Do you belong to any group of other street traders, e.g. stokvel of street traders/?**

No	Yes

10. **Are you a member of an association of street traders, e.g. street traders' union?**

No	Yes

May we contact you about your input at a later stage after the data collection process has been concluded? If so, please provide your preferred means of contact: _____.

Do you have any question concerning the study: purpose, design, objectives, or questionnaires? You are welcome to ask: _____.

If you want the copy of the results, where can we send it: _____.

Thank you for your contribution and for being part of this survey.

ADDENDUM D: ETHICAL CLEARANCE CERTIFICATE

COLLEGE OF ECONOMIC AND MANAGEMENT SCIENCES

DEPARTMENTAL ETHICS REVIEW COMMITTEE OPERATIONS MANAGEMENT

Date: 1 November 2020

NHREC Registration # : (if applicable)

ERC Reference # : OPS/2020/003

Name : DG MABASA

Staff #: 90179293

Dear Mr DG Mabasa

Decision: Ethics Approval from 01 November 2020 until 01 November 2025

Researcher(s): Mr DG Mabasa
Department of Business Management
College of CEMS
Email address: mabasdg@unisa.ac.za
Contact number: 012 4292988

Supervisor(s): Prof H Nienaber
Department of Operations Management
CEMS
E-mail Address: nienah@unisa.ac.za
Tel number: +27824536818

Title: Assessing work engagement of street traders (vendors) in the City of Tshwane, South Africa

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Thank you for the application for research ethics clearance by the Unisa Department of Operations Management Ethics Review Committee for the above-mentioned research. Ethics approval is granted for 5 years (**see period mentioned above**).

*The **minimum risk application** was **reviewed** by the Department of Operations Management:*

The proposed research may now commence with the provisions that:

1. The researcher(s) will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.

2. Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study should be communicated in writing to the Department of Operations Management Ethics Review Committee.
3. The researcher(s) will conduct the study according to the methods and procedures set out in the approved application.
4. Any changes that can affect the study-related risks for the research participants, particularly in terms of assurances made with regards to the protection of participants' privacy and the confidentiality of the data, should be reported to the Committee in writing, accompanied by a progress report.

Note:
The reference number ERC Reference number OPS/2020/003 should be clearly indicated on all forms of communication with the intended research participants, as well as with the Committee.

Yours sincerely,

Signature

Ethics Chair : Department : Operations Management

E-mail: vanans@unisa.ac.za

Tel: (012) 429 4988

Prof RT Mpofu
Deputy Executive Dean, CEMS

Signature

Executive Dean : CEMS

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ADDENDUM E: PERMISSION LETTER FROM CITY OF TSHWANE

CITY OF TSHWANE
IGNITING EXCELLENCE

City Strategy and Organizational Performance

Room CSP22 | Ground Floor, West Wing, Block D | Tshwane House | 320 Madiba Street | Pretoria | 0002
PO Box 440 | Pretoria | 0001
Tel: 012 358 4209
Email: IsaiahE@tshwane.gov.za | www.tshwane.gov.za | www.facebook.com/CityOf Tshwane

My ref: **Research Permission/ Mabasa**
Contact person: **Pearl Maponya**
Section/Unit: **Knowledge Management**

Tel: 012 358 4559
Email: PearlMap3@tshwane.gov.za
Date 15 December 2021

Mr Dumisani Mabasa
219 Umfumbane Street
Atteridgeville
0008

Dear Mr Mabasa,

RE: ASSESSING WORK ENGAGEMENT OF STREET TRADERS IN THE CITY OF TSHWANE, SOUTH AFRICA

Permission is hereby granted to Mr Dumisani Mabasa, Doctor of Philosophy in Management Studies degree candidate at the University of South Africa (UNISA), to conduct research in the City of Tshwane Metropolitan Municipality.

It is noted that the primary objective of the study is to determine the well-being of street traders in the City of Tshwane by assessing their work engagement using Utrecht Work Engagement Scale (UWES)-9. The City of Tshwane further notes that all ethical aspects of the research will be covered within the provisions of UNISA Research Ethics Policy. You will be required to sign a confidentiality agreement with the City of Tshwane prior to conducting research.

Relevant information required for the purpose of the research project will be made available as per applicable laws and regulations. The City of Tshwane is not liable to cover the costs of the research. Upon completion of the research study, it would be appreciated that the findings in the form of a report and or presentation be shared with the City of Tshwane.

Yours faithfully,

PEARL MAPONYA (Ms.)
DIRECTOR: KNOWLEDGE MANAGEMENT

ADDENDUM F: PERMISSION LETTER TO USE UWES-9 INSTRUMENT

Schaufeli, W.B. (Wilmar) <w.schaufeli@uu.nl>
Sat 2020/05/30 11:42
To: Mabasa, Dumisani
Cc: Schaufeli, W.B. (Wilmar) <w.schaufeli@uu.nl>

Dear Mabasa,

Thank you very much for your interest in my work.
You may use the UWES free of charge, but only for non-commercial, academic research. In case of commercial use, we should draft a contract.
Please visit my website (address below) from which the UWES can be downloaded, as well as all my publications on the subject.
Good luck with your research.

With kind regards,

Wilmar Schaufeli
Wilmar B. Schaufeli, PhD | Professor emeritus of Work and Organizational Psychology | *Social, Health & Organizational Psychology* | Utrecht University | P.O. Box 80.140, 3508 TC Utrecht, The Netherlands | Phone: (31) 6514 75784 | Site: www.wilmarschaufeli.nl | citations|

Op 21 mei 2020, om 20:25 heeft Mabasa, Dumisani <mabasdg@unisa.ac.za> het volgende geschreven:

Dear Prof,

I am hereby request for a permission to use UWES 9 for my PHD study. I appreciated the fact that you granted me with a permission to use UWES 17 during my master study. I thank you in advance for granting me the permission to use UWES 9, as you are a copy right holder.

Looking forward for your positive response.

Kind Regards
Mabasa Dumisani
Lecturer: Department of Business Management
University of South Africa

Mabasa, Dumisani
Thu 2020/05/21 20:25
To: w.schaufeli@uu.nl

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