

**The relationship between job embeddedness and psychological ownership
within a unionised manufacturing sector in South Africa**

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Abstract

This research intends to prove that there are significant relationships between the job embeddedness and psychological ownership constructs. This will be done by statistically analysing data from surveys based on defined constructs and questionnaires, administered to 300 employees in the manufacturing sector in Johannesburg, Gauteng, South Africa. The research further wishes to understand if unionisation has an effect on these relationships.

The Job Embeddedness construct is one that is leading the movements in the last decade on the new approaches to employee retention. The Job embeddedness construct identified three sub-constructs that effects retention positively, that is Fit, Link and Sacrifice. Fostering these sub-constructs facilitates an employee to become more embedded in an organisation.


Psychological Ownership has five-dimensions; accountability, belongingness, self-efficacy, self- identity and territoriality. The Psychological ownership construct relates to an employee's own drive to take personal ownership of a role within an organisation. If ownership is adopted correctly an employee's performance and outlook is affected positively. Creating psychological ownership within employees will enable them to feel and perform like owners, further positively enhancing their roles by taking an ownership view of the task at hand, and persevere through completion. Further acknowledging that the organisations success will ultimately benefit them in the long run.

Keywords

Job embeddedness, Psychological Ownership, Fit, Link, Sacrifice, Accountability, Belongingness, Self-efficacy, Self- identity, Territoriality

Declaration

I declare that this research project is my own work. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination in any other University. I further declare that I have obtained the necessary authorisation and consent to carry out this research.

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Contents

Abstract.....	2
Keywords.....	2
Declaration.....	3
Contents.....	4
Chapter 1: Introduction to the research problem.....	6
Research Questions.....	11
Purpose statement.....	12
Chapter 2: Literature Review.....	13
Job Embeddedness.....	16
Links.....	17
Fit.....	19
Sacrifice.....	20
Negative impact of Job Embeddedness.....	21
Psychological Ownership.....	22
Unionisation.....	25
Chapter 3: Research Hypotheses.....	27
Research Question 1.....	28
Research Question 2.....	28
Research Question 3.....	28
Research Question 4a, b, c.....	28
Chapter 4: Research Methodology.....	29
Population.....	31
Unit of analysis.....	32
Sampling method and size.....	33
Measurement instrument.....	33
Questionnaire Design.....	38

Chapter 5: Results.....	43
Kruskal-Wallis H Test and Crosstabs	55
Mann-Whitney U Test and Crosstabs.....	65
Spearman's rank order correlation	67
Chapter 6: Discussion of Results.....	70
Sample Demographics.....	71
Analysis	72
Research Question 1	77
Research Question 2	78
Research Question 3	79
Research Question 4a, b, c.....	80
Chapter 7: Conclusions and Recommendations.....	82
Implications for management and other relevant stakeholders.....	85
Limitations.....	85
Suggestions for future research	86
Reference	87
Appendices	96

Chapter 1: Introduction to the research problem

As research progresses within the organisational behaviour field, specifically in the realm of employee retention and why employees' leave an organisation (Mitchell & Lee 2001), practitioners have started focussing on how to stop employees from leaving their organisation.

Researchers began to move away from asking the question of why employees leave the organisation but rather, why do employees stay in an organisation, as discussed by Hom, Lee, Shaw, & Hausknecht, (2017), Peltokorpi, Allen, & Froese, (2015) and Hom, Mitchell, Lee & Griffeth, (2012). Their research looked at the employee, and related correlating aspects from similar human and organisational behaviour literature to their observed or measured findings. This stoked the flames for researchers to populate the body of knowledge around the levers that positively or negatively affect an employee's desire to stay in an organisation.

This paradigm shift in thought and academic research was needed to create literature that could be used by organisations to create sound retention strategies and drive positive behaviours relating to performance, commitment and citizenship in organisations and their employees (Lee, Mitchell, Sablinski, Burton & Holtom, 2004). The research further, contributes to the body of knowledge mentioned above, whereby creating new links with constructs, observations and measured behaviours, which were identified in the last decade. Additionally, linking beneficial behavioural traits that are desired in organisations globally and in South Africa (Olckers & van Zyl, 2018; Van Dyne & Pierce, 2004).

The research aims to understand what makes employees stay or be retained in an organisation, and whether this relates to desired behaviours or not? Further to this, if an employee is considered to be retained, what are the factors influencing this retention? As well as, how do these factors correlate to other desired organisational behaviours, discussed by Dawkins, Tian, Newman & Martin (2017). These could either strengthen retention or foster other aspects of organisational citizenship behaviours (Lee, Mitchell, Sablinski, Burton & Holtom, 2004).

With the move towards why employees stay, researchers have touched on a relevant concern on the “Dark side” of employee retention or embeddedness, where employees consider themselves stuck or unable to leave an organisation, they have negative attachments too (Allen, Peltokorpi, & Rubenstein, 2016)

Allen, Peltokorpi, & Rubenstein (2016) research underpins insight on the negative effects of retention, describing why some employees could not leave an organisation even if they wanted to, considering themselves as “stuck”. This is concerning, as Allen, Peltokorpi, & Rubenstein (2016) further explained that if an employee is so embedded in an organisation that the sacrifices, they would make to leave forces them to stay. This may result in the employee becoming counterproductive, negative and demotivated.

If this occurs, what can an organisation do to foster desirable attitudes and behaviours? Research by Dawkins, Tian, Newman & Martin (2017) and Olckers & van Zyl (2015, 2018) looks at the antecedents, outcomes and measurement of psychological ownership. This research goes on the request of further investigation in its influence on culture and individual differences, providing further progress in the

development of the field (Dawkins, Tian, Newman & Martin, 2017).

Dawkins, Tian, Newman & Martin (2017) distinguish similar constructs such as organisational commitment and organisational identification from psychological ownership. These are based on the factors that influences organisational commitment and organisational identification developments, measurement and theoretical underlining, due to the construct still in debate in the literature. This makes psychological ownership a relatively new topic with limited research (Dawkins, Tian, Newman & Martin, 2017).

The researcher uses the psychological ownership construct described by Van Dyne & Pierce (2004), Dawkins, Tian, Newman & Martin (2017) and Olckers & van Zyl (2015, 2018) as the desired behaviours that will be correlated to the Job embeddedness construct described by Mitchell & Lee (2001), Hom, Lee, Shaw, & Hausknecht, (2017), Peltokorpi, Allen, & Froese, (2015) and Hom, Mitchell, Lee & Griffeth, (2012). Further to this, the research will look at the effect that unionisation in the workforce has on the relationships to these constructs and gauging whether unionised or non-unionised employees would require a separate retention strategy.

In an organisational context, psychological ownership described by Dawkins, Tian, Newman & Martin (2017) and Kaur & Kumar (2013), is an employee's own drive to take personal ownership of a role in an organisation. If ownership is adopted correctly, an employee's performance and outlook is affected positively. Research suggests, creating psychological ownership within employees will enable them to feel and perform like owners, further positively enhancing their roles by taking an ownership view of the task at hand, and persevere through completion, knowing that

the organisation's success will ultimately benefit them in the long run (Avey, Wernsing, & Palanski, 2012).

Since Mitchell and Lee (2001) With the introduction of the concept of job embeddedness nearly two decades ago, researchers have been trying to connect the fit, link and sacrifice constructs to business scenarios across the globe to improve job retention (Hom, Lee, Shaw, & Hausknecht, 2017; Peltokorpi, Allen, & Froese, 2015; Hancock, Allen, Bosco, McDaniel, & Pierce, 2013).

The job embeddedness model related to the fit, link and sacrifice are factors an employee has to consider losing, when deciding to leave an organisation (Lee, Hom, Eberly, Li, & Mitchell, 2017). Therefore, the more enhanced or integrated an employee becomes the more they are affected by these factors, and the more embedded the employee becomes. Originally, Peltokorpi, Allen, & Froese (2015) discussed in their research, highlighting that embedding an employee can also lead to negative effects where the employee is so attached to a company, that leaving is not an option as the sacrificing of these factors are too great, discussing this further and in depth a year later in the research of Allen, Peltokorpi, & Rubenstein (2016). Inferencing that the job embeddedness model has a vast spectrum of effectiveness which can be entuned to achieve an organisations desired effect.

This study wishes to build on the construct of embedding an employee within an organisation to gain positive effects, subsequently, driving psychological ownership. It further contributes to the literature of job embeddedness by looking at the construct and taking into account both South African norms and a working population within the private manufacturing sector. The study further develops the job embeddedness

model originally researched by Mitchell and Lee (2001) and most recently adapted by Hom, Lee, Shaw, & Hausknecht, (2017) further exploring the literature of psychological ownership and its relation to embeddedness and gaining an understanding of job embeddedness and its five-dimensional factors.

The findings in this study has the potential to positively address business issues currently experienced by organisations, by enhancing psychological ownership and ultimately creating a culture of accountability within organisations, government sectors and civil society which has been an issue raised frequently (Mansouri & Roney, 2014; Pearson & Sutherland, 2017). Pearson & Sutherland believe that accountability is where individuals take ownership, making them responsible for their actions, further linking ownership to be one of the constructs of accountability. Therefore, improving psychological ownership will create self-accountable employees which is fundamental to the success of an organisation (Singh, Darwish, Costa, & Anderson, 2012).

Research Questions

Does an employee whom correlates with the job embeddedness model, also develop a sense of psychological ownership? Further to this, if employees relate to these constructs, does unionisation have an effect? Does unionisation increase or decrease the effect of these constructs?

Job embeddedness will be the independent variable while psychological ownership will be the dependent variable. Unionisation will be a moderator between the two constructs gauging its effect.

Research Question 1

- Does the job embeddedness variable of “Fit” show a positive relationship to psychological ownership?

Research Question 2

- Does the job embeddedness variable of “Link” show a positive relationship to psychological ownership?

Research Question 3

- Does the job embeddedness variable of “Sacrifice” show a positive relationship to psychological ownership?

Research Question 4a, b, c.

- Does unionisation have an effect on the relationship of Psychological Ownership and the job embeddedness variable of “Fit”?

- Does unionisation have an effect on the relationship of Psychological Ownership and the job embeddedness variable of “Link”?
- Does unionisation have an effect on the relationship of Psychological Ownership and the job embeddedness variable of “Sacrifice”?

Purpose statement

The purpose of the research is to broaden the knowledge base on job embeddedness and psychological ownership. Further, linking these two constructs while moderating unionisation to understand the effect it has on the constructs. This will further enable decision making of an organisation’s management to develop psychological ownership in scheduled workers in South Africa by studying the relationship between job embeddedness and psychological ownership whilst considering the moderating effect of unionised and non-unionised employees. Further allowing managers to have a greater influence on employees by improving performance, productivity and behaviour (Pearson & Sutherland, 2017; Syverson, 2010).

This understanding will provide researchers further insight on what fosters psychological ownership in terms of the job embeddedness model. The second goal of the research is to gain a more in-depth understanding of the diverse needs of scheduled workers, by highlighting and creating nurturing environments for employees to grow and take ownership of the organisation’s mission and vision (Cappelli & Tavis, 2016).

Chapter 2: Literature Review

The literature around Job embeddedness has grown over the past years since the introduction of the unfolding model (Michell & Lee 2001; Hom, Lee, Shaw, & Hausknecht, 2017; Peltokorpi, Allen, & Froese, 2015; Hancock, Allen, Bosco, McDaniel, & Pierce, 2013). The research revolved around aspects of retention and how job embeddedness plays a role in strengthening the employee's relationship with their organisation.

Further, in the research by Michell & Lee (2001) the effect of "shocks" where an employee is forced into an event where they consider leaving because of the magnitude of the negative or sometimes positive effects of the event. In such a case, an embedded employee is less likely to leave due to this event. Proving that some form of resilience is developed with an employee that identifies with the job embeddedness construct (Crossley, Bennett, Jex & Burnfield, 2007).

Hom, Lee, Shaw, & Hausknecht (2017) discussed in their research the last one hundred years of employee turnover theory and research, stating that if employees became unsatisfied with their jobs and if they could find another, they would leave. The employees would take no consideration other than if the pay was correct while it did not exceed their effort given, if the job or task was one that was desirable and if the organisation was within a practical commute (Michell & Lee, 2001).

The unfolding model created understanding of what organisations needed to do to create the necessary levers that create embeddedness in an employee, thereby fostering desirable behavioural traits (Coetzer, Inma & Poisat, 2017). In Coeter, Inma

& Poisat (2017) research findings showed that job embeddedness displayed a significant positive relationship towards innovative behaviours by employees in their embedded organisation. Inferencing that additional behavioural traits are needed in increasing economic viability and competitive advantage in any organisation. Their research inferred that employees in smaller organisations who showed high on job embeddedness was more likely to enact innovative behaviours. However, this finding is opposed or less likely to occur in employees that are not embedded or within larger organisations (Coetzer, Inma & Poisat, 2017).

Similar Lee, Mitchell, Sablinski, Burton & Holtom (2004) paper, which included the original authors of the unfolding model, showed that job embeddedness had a significant positive effect on organisational citizenship, job performance, and a negative effect on volitional and voluntary absence.

Lee, Mitchell, Sablinski, Burton & Holtom (2004) empirically linked and conceptualised how the major components of job embeddedness correlated with organisational citizenship behaviour and increases job performance. The two behaviour traits, again regarded as positive behavioural attributes that adds significant weight on an organisation's competitive advantage.

In March and Simon (1958) book on Organisations, performance and participation is clearly differentiated. They explain the performance decisions are driven in relation to goal setting, team dynamics, peer pressure and reward structures. While participation is driven by job satisfaction and or organisational commitment. The latter is controlled more in the employees' psyche (Lee et al., 2004).

Inferencing that the implications of their study (Lee et al., 2004) statistically showed that job embeddedness, should create links, fits and sacrifices in an employee psyche. Subsequently creating a sense of belonging, stronger relationships in the workplace, creating a sense of social wellbeing in the organisation and driving strong positive relationship with their supervision. This Positively effects retention, attendance, organisational citizenship behaviour and on the job performance. Further suggesting that the job embeddedness construct can be studied to not only enrich the knowledge base of retention but also build on the broader perspective on employee participation, productivity and performance (Hom, Mitchell, Lee & Griffeth, 2012).

Alluding to Lee et al., (2004) work on participation and performance, Kiazad, Kraimer, Seibert & Sargent (2020) empirically show that employees with traits of organisational / job embeddedness are more likely to believe they have a possible career path in their organisation and strongly believe that if they work consistently, they will progress within the organisation. They will therefore assimilate themselves into their roles ensuring their performance and taking on more responsibilities to show their ability. Further believing that the harder they work the greater the chance of a promotion or career success.

Job Embeddedness

The unfolding model of voluntary turnover and job embeddedness model was introduced by Mitchell & Lee (2001) and Hom, Lee, Shaw, & Hausknecht, (2017). In their work they describe the factors that embed employees within an organisation, which are the factors that increase retention and curb turnover of said employees. Lewin (1951) suggested that for embedding to occur one needs to immerse or link oneself into an environment or function creating complex bonds. Previous studies explained by Mitchell, Holtom, Lee, Sablinski, & Erez (2001) mainly consider employees choice to stay in an organisation as a result of job satisfaction, commitment, having limited or no options of job alternatives and job attitudes. These are still widely considered as valid factors (Karatepe & Shahriari 2012).

To embed an employee, as per Mitchell & Lee (2001) is to create an environment, relationships and wants for the employee to not want to leave. These are described as sub-constructs “Links”, “Fits” and “Sacrifice” by Mitchell & Lee (2001), Hom, Lee, Shaw, & Hausknecht, (2017), Peltokorpi, Allen, & Froese, (2015) and Hom, Mitchell, Lee & Griffeth, (2012). They believed that employees relate to these sub-constructs and the more they relate, the more embedded they become. This drives a number of desirable outcomes, such as increased productivity, an ability to absorb negative occurrences without becoming disgruntled, the want to create change and the desire for the organisation to succeed (Hom, Lee, Shaw, & Hausknecht, 2017; Peltokorpi, Allen, & Froese, 2015; Hom, Mitchell, Lee & Griffeth, 2012).

Further to this Michell & Lee (2001) developed the composite measure of job embeddedness, where the three sub-constructs of job embeddedness are measured

with the equal weighting together to make up the overall Job embeddedness construct. The composite measure uses both the contextual and perceptual factors (Crossley, Bennett, Jex & Burnfield, 2007). This relies on the three sub-constructs links, fits and sacrifice to measure how embedded an employee is.

The embeddedness model described by Mitchell & Lee (2001) elaborates that an employee's willingness to stay is determined by these contextual and perceptual factors (Hom, Lee, Shaw, & Hausknecht, 2017). They also stress that these contextual and perceptual factors create a high correlation to retention and Hom, Mitchell, Lee & Griffeth (2012) inferred that it may even foster other desirable behavioural traits.

Links

Links are described as formal or informal attachments to colleagues or groups of colleagues in the same organisation to which strong work relationships have developed. The more links that are present, the stronger the desire to stay in an organisation. These bonds with other individuals in the organisation prevent people from leaving and starting off afresh (Hom, Lee, Shaw, & Hausknecht, 2017).

Links are the connection that are made formally and informally with the employee, co-workers, managers, groups in the organisation and projects, on and off the job (Hom, Mitchell, Lee & Griffeth, 2012). These links are built over a period of time, making it difficult for an employee to consider leaving as they would break or give up these links when leaving an organisation (Mitchell & Lee 2001). Links to family and having children can also play a part when considering to leave. Meaning the

employee will look at the impact on themselves and the impact on their family before considering to leave an organisation.

In addition, Michelle and Lee (2001) believe that links have a major impact on retention. Whereby, employees are pressurised to stay by simply considering all the links they have with the people, team members and the relationships they have built over their tenure. Further considering the link they have with their family and what these links either provide or need to provide, significantly impacting an employee's decision to leave. Additionally, adding more reasons to stay (Peltokorpi, Allen, & Froese, 2015).

Price & Mueller (1981) first looked at relationships developed in the workplace, inferring that there was a negative correlation between happiness with their colleagues and employee retention. This was related to how the relationship made the employee feel. Reicher (1985) believed that the commitment to teams, groups and individuals, was related to overall commitment which in turn increased retention. While Becker, Randall and Riegal (1992) furthered the contribution on commitment, building on Reicher (1985) work adding elements of commitments to supervisors, top management and trade unions (Pillay, 2009).

Links may be considered as the human element that employees need to consider when leaving an organisation. This could be on the job and off the job, formal and informal relationships that drive the link sub-construct. Eluding that mentors, managers, work colleagues or even a group of people in the organisation may be the reason that employees stay. This is because they have created a bond that they are not willing to give up (Hom, Lee, Shaw, & Hausknecht, 2017).

Fit

Fit is defined by how well an individual is able to align with an organisation and its culture, how well the individual “fits” within an organisation. External factors of “Fit” has strong correlation with location of the organisation, distance from one’s home and desirable facilities within its locale (Mitchell & Lee 2001). Ultimately, if an individual perceives that they fit in with an organisation they are more likely to stay.

Schneider (1987) introduced the topic of person-organisational fit, stating that organisations develop character over time, in line with the employees and the management work ethics and styles. Therefore, generally if an individual does not fit in with the dominant characteristics of the organisation, they will leave the organisation. Kristof (1996) believed that when a mis-fit occurs, an employee has an increased chance of voluntary turnover. These findings are similar to other fit constructs, such as, person-job fit, person-organisational fit and person-occupation fit. The authors further allude that perceived fit is different from actual fit in these constructs, where the perception is that of the employees (Mitchell & Lee, 2001).

Michell & Lee (2001) align the fit sub-construct with tenure, introduced by O’Reily, Caldwell and Barnett (1989) also concurring that fit increases tenure. While Van Vianen (1999) observed that if newly appointed employees perceived that they resonated with their organisations cultural fit and their supervisors, their intention to stay increased more than when no fit was evident. The research of Michell & Lee (2001) further alluded that increasing training opportunities have a positive correlation with increased fit and in turn increase retention.

The fit subconstruct has significant correlation with the on the job focused embeddedness as stated by Lee, Mitchell, Sablinski, Burton & Holtom (2004). However, some off the job criteria have an effect on the job embeddedness as well, like distance or location an individual's work is from their home, or whether the organisation is in a city with close by amenities / conveniences. In addition, social after work group activities, such as sports or closed circle of friends. These further adds weight for the fit sub-construct.

Sacrifice

Sacrifice, talks about the implicit and explicit losses when leaving an organisation and the reluctance or unwillingness to give these up. Losses could be seen as financial, future promotions, company perks, and other material or psychological losses (Mitchell & Lee 2001). The employee is less likely to leave if their perceived opportunity gain is lower than what they already have in their existing organisation.

The job embeddedness model, brings to light other prevalent constructs that effect employee retention, and gives better understanding to what factors drive retention (Hom, Lee, Shaw, & Hausknecht, 2017). Subsequently allowing organisations to create policies, environments and cultures that will foster embeddedness and drive employee retention positively.

Shaw, Delery, Jenkins & Gupta (1998) observed that having to give up material or psychological effects have been known to increase retention. The stronger the sacrifice perceived, the higher the weighting is on the sub-construct and the overall job embeddedness construct, where its tiered in (Mitchell & Lee 2001).

Sacrifice can be on the job related, such as, loss of tenure, having to restart their reputation in the new company, learning new systems, and losing certain unique benefits where applicable. Even simple offerings like inhouse canteens, subsidised meals or leisure perks like sporting event tickets, play a significant part in the decision-making process, when employees envisage leaving their organisation (Hom, Lee, Shaw, & Hausknecht, 2017).

Negative impact of Job Embeddedness

Allen, Peletokorpi & Rubenstein (2016) researched and observed employees that were perceived as stuck, rather than embedded. They believed that some employees, become embedded or stuck in an adverse working environment. Where employees are subjected to either an abusive management style, job insecurity, bullying, threats and harassment (Duffy, Ganster & Pagon, 2002)

This creates a toxic environment that is related to behaviours of withdrawal in effected employees, however they choose to not leave their jobs (Allen, Peletokorpi & Rubenstein, 2016). This can reduce commitment, increase counterproductivity and reduce citizenship behaviour as described by Greene, Mero and Werner (2017). This is referred to as the “Dark Side” of job embeddedness.

If an employee is considered stuck, it would become difficult to motivate these employees with similar job embeddedness sub-constructs. As the employees are already embedded, but negatively. A new additional construct is needed to once again stimulate the areas like commitment, accountability, organisational citizenship

behaviour and belongingness (Allen, Peletokorpi & Rubenstein, 2016; Olckers & van Zyl, 2018).

Psychological Ownership

Around the same time Mitchell & Lee (2001) first introduced the unfolding model, Pierce, Kostova & Dirks (2001) released their framework, building on individuals' feeling of ownership towards organisations. Inferencing that employees can develop feelings of ownership from a set of related constructs, defining the origins and processes in developing psychological ownership (Olckers & Du Plessis, 2012).

Olckers and van Zyl (2018) alluded that the psychological ownership construct is that of a cognitive-affective construct based on an individual's perception towards a target, where the individual may be psychologically attached or tied. Their research brings new concepts into how psychological ownership can be influenced by contextual factors of the organisation at both micro and macro levels (Olckers and van Zyl, 2015).

Pierce, Kostova & Dirks (2001) go on to state that showing possessiveness and the feeling of being tied to an object or target is the crux of psychological ownership, tangible or intangible in nature. Drawing from the wealth of past literature, Pierce et al. (2001) suggest antecedents to psychological ownership resulting in three key motivating factors, efficacy and effectance, self-identity and "having a place".

Psychological ownership is driven by these factors through understanding one's own self-worth and ability while being able to control one's own environment. Further using ownership as a sense of identity, defining oneself while expressing self-identity to others and finally gaining ownership by possessing a territory or space. Fulfilling these basic human motives will instil a sense of psychological ownership (Pierce et al. 2001). In the context of the organisation, employees displaying these motives will believe in the organisation as "Mine" and start taking possession of it. This will lead to a felt responsibility towards the organisation while being protective and displaying a sense of stewardship towards it (Pierce et al. 2001).

Olckers & van Zyl (2018) and Chung and Koo Moon (2011) goes on to state that employees whom experience feelings of psychological ownership tend to be more innovative and develop new ways of working, ultimately increasing the effectiveness of the organisation. To add to this Avey, Wernsing, & Palanski (2012) believes that these employees feel so vested in their roles, that they experience above normal levels of job satisfaction.

Avey, Avolio, Crossley, & Luthans (2009) add to the literature, linking psychological ownership to positive organisation behaviour. They again speak of self-efficacy, self-identity, and a sense of belonging. However, they bring in a fourth dimension of accountability. In addition to this, Van Dyne & Pierce (2004) in their extension of the literature also compared and linked other important constructs such as commitment and satisfaction. Likewise, Avey, Avolio, Crossley, & Luthans (2009) believed that if psychological ownership is invested in, developed, measured and managed, it can be considered as a competitive advantage, forming part of an organisational strategy. To add to these positive work behaviours and predictors of citizenship,

Avey, Avolio, Crossley, & Luthans (2009) and Van Dyne & Pierce (2004) hypothesised that, there is a positive relationship between Psychological Ownership and organisational citizenship behaviour, which ultimately proves the effective relationship job embeddedness and psychological ownership can theoretically have.

To understand the psychometric properties of psychological ownership Olckers and van Zyl (2018) work on a questionnaire design, showing that Psychological ownership has a five-dimensional factor structure. The five dimensions are accountability, belongingness, self-efficacy, self-identity and territoriality (Avey, Avolio, Crossley, & Luthans, 2009).

Accountability – The want and desire to directly or indirectly, justify one’s actions, belief or feeling, couple by an acceptance of responsibility, self -openness and to be able to answer for said actions (Olckers, Geogre & van Zyl, 2017; Mansouri & Roney, 2014; Pearson & Sutherland, 2017).

Belongingness – the extent that an individual perceives comfort in a team or organisation, where they can be oneself and feel “At Home” (Olckers, Geogre & van Zyl, 2017).

Self-efficacy – when an individual has belief in one’s own ability to understand, adapt and achieve goals or tasks with great satisfaction (Olckers, Geogre & van Zyl, 2017).

Self-identity – to have a clear understanding of one’s self and the aspects that make up their identity which drives their actions and choices. Further, being able to link

their identity with other targets (Olckers, Geogre & van Zyl, 2017).

Territoriality – A negative behavioural trait, where individuals believe they have ownership of space or objects in their work area (Olckers, Geogre & van Zyl, 2017).

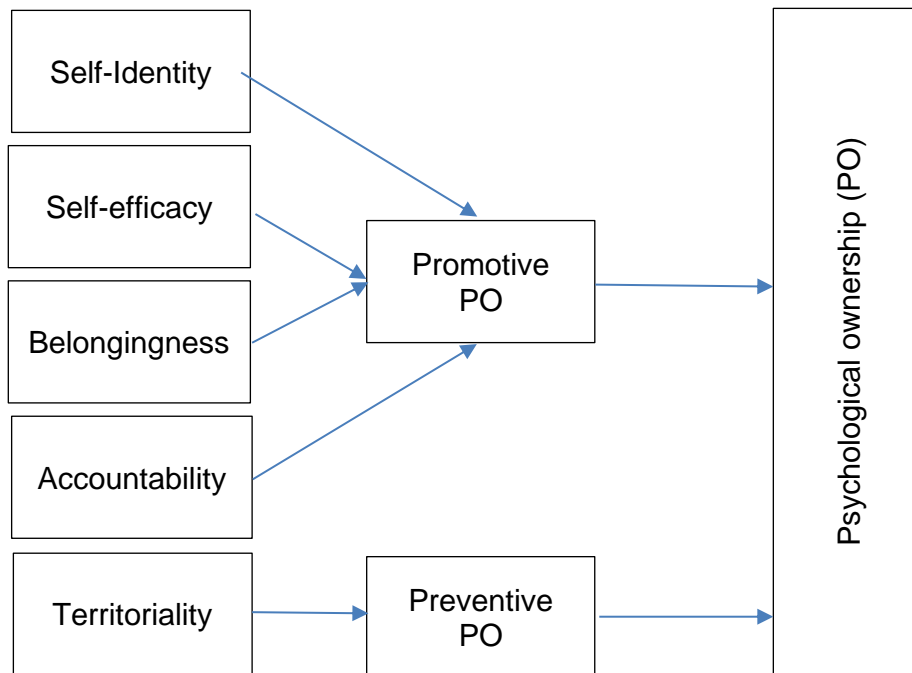


Figure 2: The five dimensions of psychological ownership construct (Olckers, Geogre & van Zyl, 2017).

Unionisation

Pillay (2009) research highlighted the crucial role that trade unions play in the workplace, describing a “mission attachment” employees have in the trade union sector. This attachment created, as described by Jegers and Lapsley (2001), by South Africa’s history and past successful negotiations by the Unions including unfair labour practices in the workplace. As a result, government has instituted, the Labour

Relations Act, no 66 of 1995, which protects and addresses labourers in the manufacturing sector in South Africa falling under the bargaining council agreement. The act provides a framework within which employers and employees through their trade union can collectively bargain to determine minimum wage, annual wage increases, terms of employment and drawing up industrial policy (DOL, 2002).

The collective agreement between organisations and the trade unions is called the Main Agreement (SEIFSA, 2019), which stipulates the conditions of employment for scheduled workers that are employed in the industry. "Scheduled workers" are employees that are covered by the technical scheduled in the main agreement (SEIFSA, 2019). Scheduled workers that fall within the bargaining council receive the same annual incentives regardless of their performance in the organisation. This removes the managers conceived power that is normally used to coerce an employee to perform and be more productive in their job (Steinbauer, Renn, Taylor, & Njoroge, 2014). As a result, understanding the factors that can create an environment that fosters job embeddedness and psychological ownership would be beneficial to the organisation and drive a positive change in culture. An embedded employee would take ownership of their role, performing at their peak, working as if it were their own company.

Chapter 3: Research Hypotheses

The two constructs discussed in the literature survey above, of job embeddedness and psychological ownership both drive desirable traits that can be useful in the business environment. Both have links to retention and belonging and both are linked to creating positive inferences in the culture of an organisation. The researcher wishes to identify relationships between the independent sub-constructs of job embeddedness to the dependent construct of psychological ownership, while moderating between unionised and non-unionised employees.

This will facilitate an understanding of the effect unions have on job embeddedness and psychological ownership in an organisation and whether there is a difference between scheduled and non-scheduled workers in an organisation in the context of the two constructs. Further, each of the three dimensions of job embeddedness, fit, link, and sacrifice will be assessed against the key factors of psychological ownership.

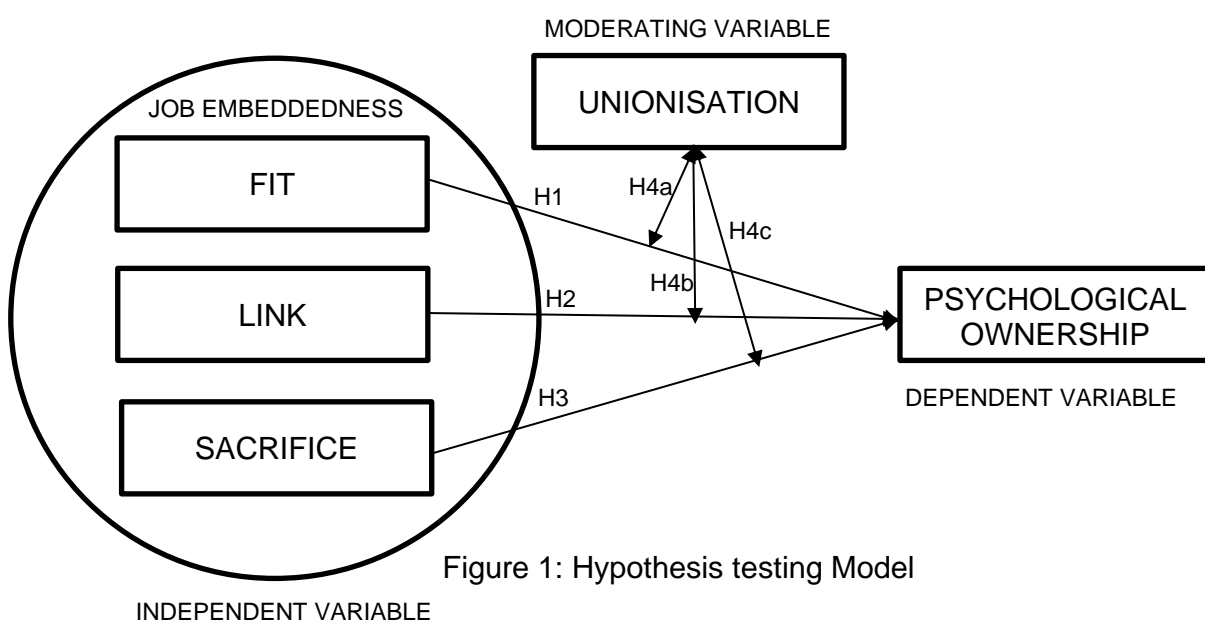


Figure 1: Hypothesis testing Model

Research Question 1

- Hypothesis H1: Psychological Ownership is positively correlated to the job embeddedness variable of “fit” for employees in an organisation.

Research Question 2

- Hypothesis H2: Psychological Ownership is positively correlated to the job embeddedness variable of “link” for employees in an organisation.

Research Question 3

- Hypothesis H3: Psychological Ownership is positively correlated to the job embeddedness variable of “Sacrifice” for employees in an organisation.

Research Question 4a, b, c.

- Hypothesis H4a: Unionisation plays a moderating role in the relationship of Psychological Ownership and the job embeddedness variable of “Fit” for employees in an organisation.
- Hypothesis H4b: Unionisation plays a moderating role in the relationship of Psychological Ownership and the job embeddedness variable of “Link” for employees in an organisation.
- Hypothesis H 4c: Unionisation plays a moderating role in the relationship of Psychological Ownership and the job embeddedness variable of “Sacrifice” for employees in an organisation.

Chapter 4: Research Methodology

The philosophy adopted was that of Interpretivism, after understanding the relationship between job embeddedness and psychological ownership, inferences were made from a perspective of the researcher and one's own understanding of the environment. The study was focused on scheduled and non-scheduled employees showing the correlation that job embeddedness has on psychological ownership in business and management research. This approach is highly relevant to the interpretivist's perspective. (Saunders & Lewis, 2018)

This research took a deductive approach using existing research (Saunders & Lewis, 2018), which was originally researched by Mitchell and Lee (2001) and most recently adapted by Hom, Lee, Shaw, & Hausknecht, (2017), Peltokorpi, Allen, & Froese (2015), Hancock, Allen, Bosco, McDaniel, & Pierce (2013) and Allen, Peletokorpi & Rubenstein (2016) whereby the job embeddedness model has been developed and adapted. Further, finding relationships with research on psychological ownership completed by Olckers and van Zyl (2018), Kaur et al. (2013) and Avey, Wernsing, & Palanski (2012). The approaches included testing of theoretical hypotheses by adopting statistical testing and understanding the relationship between concepts discussed in the literature and what is happening in the organisation (Zikmund, Carr, Griffin, Babin, & Carr, 2013)

A mono-method of data gathering was adopted. The study is quantitative in nature. This allowed for testing of a hypothesis and relating cause and effect based on the research (Saunders & Lewis, 2018).

The research was that of a descripto-explanatory study, allowing for the findings to be evaluated and inferenced with literature (Saunders & Lewis, 2018). The research intends to understand what is happening in an organisation, asking relevant questions around the desired topics to gauge relationships or non-relationships to the literature. Further, making recommendation on how to address gaps in the literature.

The Data collection method chosen was a survey method, which was self-administered and completed by the employee using a Likert scale to measure how employees felt about the organisation and the perception they have on the two constructs of job embeddedness and psychological ownership to the organisation while allowing identifiable input from both unionised and non-unionised employees. According to Zikmund, Carr, Griffin, Babin & Carr, (2013) this method is inexpensive, efficient and accurate in assessing information about a large group. The data was collected through the means of a voluntary and anonymous self-administered survey distributed on printed paper questionnaires and online through digital forms, then statistically analysed with the aid of statistical software, IBM SPSS 24.

The survey is a snapshot of the employees perception of the two constructs of job embeddedness and psychological ownership in the organisation at a point in time and as such the time horizon is cross-sectional in nature (Saunders & Lewis, 2018; Zikmund et al., 2013). Due to the time frame of the research a longitudinal study was thought to be not be feasible, however, a longitudinal study would be desirable to monitor these two constructs over time after the experience of organisational shocks (Michell & Lee, 2001).

The techniques and procedures used by the researcher was of a structured questionnaire in the form of a survey (Saunders & Lewis, 2018). Using a Likert scale of 1 to 5 where 1 is strongly disagree and 5 is strongly agree (Zikmund et al., 2013). The questions presented by the researcher allowed for insight on employee's perception on how they feel on certain aspects in the organisation that relate to job embeddedness and psychological ownership.

Population

For this survey the target population comprised of 300 test subjects, all of which were a mix of scheduled and non-scheduled workers employed in a single organisation within the manufacturing sector based in Johannesburg, South Africa. A scheduled worker is an employee that is covered and protected by the main agreement. Non-scheduled workers are the support functions, indirect staff, managers and executives in the organisation. Non-scheduled workers are subjected to the performance management systems adopted by the organisation. Both types of employees work 40-hour weeks, Monday to Friday. Both scheduled and non-scheduled workers receive performance related bonuses dependent on the company's overall performance. However, their performance measurements are different, whereby scheduled employees are scored as a collective and non-scheduled are scored individually.

The target population comprises of 300 fulltime employees in the manufacturing industry in Johannesburg, Gauteng, South Africa. The population consists of executive, management, professional, skilled, unskilled artisans and administrative

workers. The manufacturing industry will be further narrowed down to the Metal and Engineering sector.

The organisation chosen has operated in South Africa for a lengthy period of time and has employees ranging from zero years to 42 years of employment service. The scheduled workers in this environment are made up of predominantly qualified and nonqualified artisans in the metal working industry. The non-schedule employees range from administrative to engineers, management and executive level. Unlike the scheduled employees, non-scheduled employees are measured by the company's internal performance management system.

For non-scheduled employees' performance is tracked and weighted on a 6 monthly bases, and at the end of a 12-month period, employees are scored, and rated. The rating drives their performance increase and bonus percentages. The performance system has well-defined measurement criteria to foster objectivity and reduce subjectivity.

Scheduled employees receive an annual increase, which is negotiated with the trade unions and the industry bargaining council unit. The annual increase is tiered across low to high earners that fall in the bargaining unit.

Unit of analysis

The unit of analysis are the employees of the organisation, scheduled and non-scheduled workers, gained from the survey data around the research question.

Sampling method and size

The researcher has gained permission from the organisation to use all willing employees as the sampling frame in the survey applicable to this research. The sampling technique used was probability sampling due to having the known list of employees available (Saunders & Lewis, 2018). Further the sampling method included simple random sampling to which the research questionnaire will be distributed (Saunders & Lewis, 2018).

Measurement instrument

The survey was conducted only after permission was granted by the organisation intended for the research. Further, ethical clearance to conduct the research and data collection, was granted by the University of Pretoria. All employees that took part in the survey was informed of the purpose of the survey and gave consent to use their data for the purpose of this research addressed on the cover page of the survey. The participants who did not want to participate simply did not complete the survey.

The survey was voluntary and no personal information was captured. Further, the surveys were printed out and distributed anonymously as well as electronically through an online survey tool (Google Forms). This allowed access to employees with and without computer access. The printed-out surveys had designated drop off points in a central area with designated employees to assist in collecting the completed surveys. There was a time frame that was set for the survey to completed

in a period of three weeks.

The questionnaire focused on the dimensions of embeddedness, and the aspects of psychological ownerships, comparing the effect and relationship they have when measured together (Hom, Lee, Shaw, & Hausknecht, 2017). The questionnaire was first to be given to a small test group of individuals, to gauge ease of understanding, ease of use and time to complete. Feedback was received and changes made in line with the constructive feedback. This pre-test would allow for the limiting of employees, who may abandon the test due to frustration or if they lose interest because of the length, complexity or level of language used. The questionnaire was supplied with a cover page encompassing a declaration of confidentiality of the person and organisation, a consent agreement, as well as a simple and brief explanation of the construct of job embeddedness and the purpose of the questionnaire (Pillay 2009). The survey and cover page can be found in the appendices.

A combination of nonparametric test was performed in the analysis, comprising of a factor analysis, Kruskal-Wallis H test, Mann-Whitney U test and Spearman's ranked order correlation. Similarly, a combination of factorial analysis and multiple regression analysis was used as the method of analysis in Olckers & van Zyl (2018) and Van Dyne & Pierce (2004) studies. This will allow the researcher to inference correlations between the observed variable and the latent constructs formed in the literature. To ensure that the questions are consistent with the latent constructs a factorial analysis was completed upfront (Suhr, 2006). Descriptive statistics was used where relevant (i.e. standard deviations and means) to describe the demographic data and pertinent analysis findings.

A Bartlett's test of sphericity and the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy (MSA) was used to support the factorial analysis by determining the sampling adequacy of the data being measured (Kaiser & Rice, 1974). The test will check if the data is suitable for structure detection. The Factor Analysis is to ensure the concept intended to be measured is actually measurable through the variables set out to measure them.

To test for normality the Shapiro-Wilk test was used to gauge that the data was not normally distributed (Shapiro & Wilk, 1965). Further in conjunction, to understand if a parametric or non-parametric test should be used, the Kolmogorov-Smirnov test was used. It is a non-parametric test that is used to measure goodness-of-fit (Massy, 1952), and it is used to check if the data's probability distribution differs to the theoretical distribution (Berger & Zhou, 2014).

To test reliability, the Cronbach's coefficient of reliability method was used. This is considered the most popular measure of scale reliability (Danes & Mann, 1984). Studies show that if the data achieves a Cronbach's alpha score of 0.70 and above it is good, 0.80 and above is better and 0.90 and above is the best (Lonial & Carter, 2015). As such, the higher the scores are, indicates how closely related a set of variables are, when grouped together. This will enhance the reliability of the data (De Vaus, 2002). Within multi-dimensional tests that measures internal consistency it is the most relevant reliability test, where the Cronbach's alpha is the preferred choice.

To test the correlation between the sub-construct and constructs a Spearman's ranked order correlation will be used to analyse the research questions. The Spearman ranked order correlation is a non-parametric test. It measures the strength

and direction of correlations between the ranked variables. A Pearson's correlation was not used due to the data being non-parametric (Myers & Sirois, 2004).

Myers & Sirois (2004) discussed in their work on how to interpret the association by looking at the strength of the correlations. The correlation ranges from -1 to 1:

- i.e. 0.0 to 0.2 Very weak to a negligible correlation
- 0.2 to 0.4 Weak to low correlation (marginally significant)
- 0.4 to 0.7 Moderate correlation
- 0.7 to 0.9 Strong to high correlation
- 0.9 to 1.0 Very strong correlation.

If the coefficient is between -1 and 0 (<0) then it means there is an inverse correlation. Where an increase in one will cause a decrease in the other, this is considered a negative correlation coefficient. If the coefficient is between 0 and 1 (>0) then it means that is a proportional correlation. Where an increase in one causes an increase in the other, this is a positive correlation coefficient.

To measure the association between the moderator and the sub-constructs and constructs, the Kruskal-Wallis test will be used. This test is a nonparametric equivalent of the one-way ANOVA usually used on parametric data. Further, it is also an extension of the Mann-Whitney U test, allowing the comparison of more than two independent groups. The Kruskal-Wallis can only gauge that at least two groups were different, as it cannot gauge which groups were significantly different from each other (Ostertagova, Ostertag & Kovac, 2014).

To ensure validity of the data, the survey will only be distributed to employees in the target populations after gaining permission from the HR department and the supervisors in the organisation. Anonymity of the survey will be highlighted to all respondents to mitigate biased data. Further to aid in generalisation of the research, more than one department and organisation will be used (Ostertagova, Ostertag & Kovac, 2014).

As the Kruskal-Wallis test does not assume normality in the data and is much less sensitive to outliers, it can be used, as the dependent variable was measured at the ordinal or the interval level which suits the Likert scale (Crossley, Bennett, Jex, & Burnfield, 2007). The independent variable consists of two or more independent categorical groups. Therefore, using a one-way ANOVA would be inappropriate. In addition, the data is ordinal, making the one-way ANOVA not useable (Ostertagova, Ostertag & Kovac, 2014).

The Mann-Whitney U test, compares the differences that occur between two independent groups. This is valid when the data is not normally distributed but where the dependent variable is either ordinal or continuous. The Mann-Whitney U test is generally considered a nonparametric alternative to the independent t-test (Hollander & Wolfe, 1999).

A chi-squared test of independence, compares two variables in a dataset to test if there is an association between the categorical variable. This is a non-parametric test that checks if the variables are independent or related (McHugh, 2013). Also known as the Pearson Chi-square test it is a statistic used for testing hypotheses.

Questionnaire Design

The questionnaire designed will be taken from the questions developed for Job embeddedness by Crossley, Bennett, Jex, & Burnfield (2007) and adapted by Pillay (2009) and questions developed for gauging psychological ownership by Olckers & van Zyl (2018) when applied in terms of an organisation.

Crossley, Bennett, Jex, & Burnfield (2007) research on the job embeddedness model developed by Mitchell & Lee (2001), led to the development and testing, globally of the reflective measures of job embeddedness and the dimensions originally described by Mitchell & Lee (2001). Their work has been widely used in quantitative job embeddedness related research, (Pillay, 2009; Peltokorpi et al, 2015; Karatepe & Shahriari 2012; Lee et al, 2017).

In the research Crossley, Bennett, Jex, & Burnfield (2007) provided a seven-dimensional means of measuring job embeddedness. Of which would need to be rated on a five-point Likert scale of 1 to 5 where 1 is strongly disagree and 5 is strongly agree. They encouraged the use of a set of 7 dimensions that measure the job embeddedness construct, included with instructions to follow (Crossley et al. 2007, p 13).

These questions would be used to generate content for the questionnaire that would be adapted in line with existing research questionnaires from literature (Pillay 2009) and the original questions published by Mitchell et al. (2001) to achieve a well-rounded interrogation of the job embeddedness construct. This research will however not use the questions for the dimension of community embeddedness as it

will only focus on the organisational level.

Olckers & van Zyl (2018) and Van Dyne & Pierce (2004) studies examines the psychometric properties of psychological ownership when contextualised in terms of the organisation. Their research shows that there are five and three-dimensional factors, respectively, of psychological ownership.

The five-dimensional factors Olckers & van Zyl (2018) confirmed as the best option, comprised of self-efficacy, self-identity, belongingness, accountability, and territoriality. They recommend using their questionnaire in future research. Further, their research proved to be a useful, valid and reliable, self-administered survey that can be used for an organisation with South African norms and context (Olckers & van Zyl, 2018).

The three-dimensional factors Van Dyne & Pierce (2004) confirmed, comprised of attitudes, self-concept and sense of responsibility. Their results demonstrate a positive link between psychological ownership and organisational citizenship behaviour. Van Dyne & Pierce (2004) recommend seven questions to be used to measure dealing with a sense of ownership in the context of the organisation. These questions will also be considered in the questionnaire. However, the research will be limited to demonstrating positive links to job embeddedness and psychological ownership only. The link to organisational citizenship will be recommended as a possible future study (Olckers, Geogre & van Zyl, 2017).

All research methods chosen, recommend that when using the relevant questions for each construct, a set of demographic characteristics should be included at the

start of the questionnaire, gauging age in years, gender, years of employment and level of education. This will provide further analysis based on descriptive statistics. The demographic questions chosen, as seen in the appendices, form the first five questions. These are there to gauge gender, age, highest level of education, and years of experience. This is to understand if there is any association between gender, age, education and experience, with job embeddedness or psychological ownership.

Questions six to ten measured the employment characteristics of the employee. The moderator question, "Do you belong to a union?", with option yes or no. followed by tenure, dependencies at individual and team level.

Questions 11 to 14 measure the "Fit" sub-construct of job embeddedness, where questions measure organisation-fit and job-fit. Further, measuring if there is a fit to their aspiration.

Questions 15 to 18 measure the "Link" sub-construct of job embeddedness, these measures if there is a link between co-workers, if there is happiness between co-workers and if there is a link between their freedom to make decisions and their role.

Questions 19 to 22 measure the "Sacrifice" sub-construct of job embeddedness, these measure the employee's perception of sacrifice when it comes to their job, promotional opportunities, perks and future, measuring the perception of the employee and whether they would sacrifice anything if they left the company.

Questions 23 to 24 measure the territoriality dimension of psychological ownership. These measure whether an employee is willing to share ideas and skills sets within

an organisation in order to benefit the organisation. A higher result where the employee strongly agrees is less desirable, i.e. a high mean does not promote psychological ownership.

Question 25 to 26 measure the self-efficacy dimension of psychological ownership. These measure whether the employee is aware of their positive contributions and the effect it has on the company.

Questions 27 to 28 measure the self-identity dimension of psychological ownership. These measure whether the employee associates their success with the organisation's success, and if they identify with the organisation.

Questions 29 to 30 measure the belongingness dimension of psychological ownership. These measure whether the employee perceives they belong in the organisation and if they are happy or comfortable working for the organisation.

Questions 31 to 32 measure the accountability dimension of psychological ownership. These measure whether the employee would speak out against wrong doing, showing that they are accountable for the success of the organisation.

Question 11 to 22 measure the job embeddedness main construct. While question 23 to 32 measure the psychological ownership main construct.

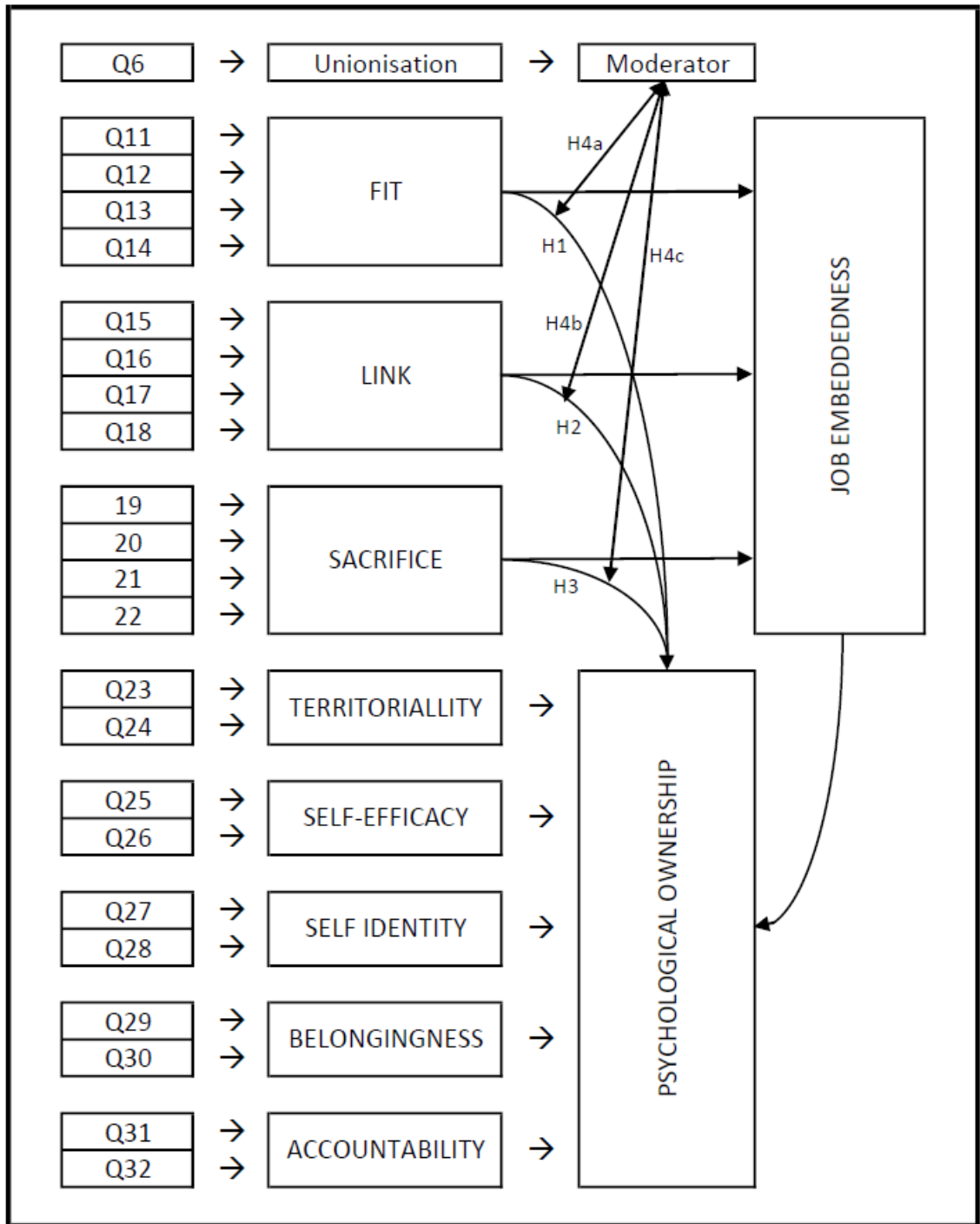


Figure 3: Hypotheses testing model expanded with questionnaire design.

Chapter 5: Results

In this chapter the results of the data collected will be presented. The data was collected from survey questionnaires circulated and administered to 300 participants from a single organisation within the manufacturing sector in Johannesburg, Gauteng, South Africa. Of which 117 participants completed and returned the survey questionnaire, a 39% response rate. Of the respondents 67 participants completed the survey online, through the google forms tool, and 50 participants completed and handed in the paper and pen option of the questionnaire. All surveys completed, showed no forms of identifying the participants.

The statistical analysis was conducted in IBM SPSS 24, generating both the descriptive and inferential statistics, which will be used to answer the research question and to complete the research objective.

Both the Kolmogorov-Smirnov and Shapiro-Wilk are shown to be significant, meaning that the data does not appear to be normally distributed, as such, non-parametric tests should be used rather than the parametric alternatives. Therefore, the Kruskal-Wallis H-test, Mann-Whitney U-Test, the Spearman's ranked order correlations, and the Chi-Square test will be used for this analysis.

Reliability

The Cronbach's Alpha test was completed to understand the reliability of each section pertaining to the research question. Cronbach's Alpha value of >0.7 are considered reliable.

The overall questions on job embeddedness and psychological ownership, question 11 to 32:

Scale is reliable, $\alpha > 0.7$ ($\alpha = 0.870$, $n = 22$)

Table 1: Overall reliability statistics of questionnaire.

Reliability Statistics	
Cronbach's Alpha	N of Items
0,870	22

The Job embeddedness reliability statistics, question 11 to 22:

Scale is reliable, $\alpha > 0.7$ ($\alpha = 0.854$, $n = 12$)

Table 2: Job Embeddedness reliability statistics of questionnaire.

Reliability Statistics	
Cronbach's Alpha	N of Items
0,854	12

Table 2: Job Embeddedness reliability statistics of questionnaire.

The Psychological Ownership reliability statistics, question 23 to 32:

Scale is reliable, $\alpha > 0.7$ ($\alpha = 0.752$, $n = 10$)

Table 3: Psychological ownership reliability statistics of questionnaire.

Reliability Statistics	
Cronbach's Alpha	N of Items
0,752	10

The data set can be considered reliable for all sections generated from the questionnaire.

Factor Analysis

Job Embeddedness

Table 4: KMO and Bartlett's test for Job embeddedness.

KMO and Bartlett's Test			
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.			0,826
Bartlett's Test of Sphericity	Approx. Square	Chi-	485,064
	df		66
	Sig.		0,000

KMO is > 0.550 therefore sample size is adequate.

Bartlett's test of Sphericity, which tests the overall significance of all the correlations within the correlation matrix, was significant. ($\chi^2(66) = 485.064, p < 0.001$) indicating that it was appropriate to use the factor analytic model on this set of data.

67.9% of the overall variance was accounted for by the first factor.

FACTOR 1 – JE1

- 11) I feel like I am a good match for this organisation
- 12) I feel that my job utilizes my skills and talents well
- 14) If I stay with this organisation, I will be able to achieve most of my goals
- 13) I feel personally valued at work
- 15) I generally get on well with my co-workers

FACTOR 2 – JE2

- 14) If I stay with this organisation, I will be able to achieve most of my goals
- 18) I like the authority and responsibility I have at this organisation

20) My promotional opportunities are excellent here

13) I feel personally valued at work

FACTOR 3 – JE3

21) The perks on this job are good (e.g., medical aid and pension)

22) I believe the prospects for continuing employment with this organisation are excellent

19) I would sacrifice a lot if I left this job

FACTOR 4 – JE4

17) I interact with my co-workers regularly throughout the working day? (formally or informally)

16) I feel that people at work respect me a great deal

15) I generally get on well with my co-workers

Psychological Ownership

Table 5: KMO and Bartlett's test for Psychological Ownership.

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0,740
Bartlett's Test of Sphericity	Approx. Chi-Square	434,377
	df	45
	Sig.	0,000

KMO is > 0.550 therefore sample size is adequate.

Bartlett's test of Sphericity, which tests the overall significance of all the correlations within the correlation matrix, was significant. ($\chi^2 (45) = 434.377, p < 0.001$) indicating that it was appropriate to use the factor analytic model on this set of data.

66.775% of the overall variance was accounted for by the first factor.

FACTOR 1 – PO1

29) I feel I belong in this organisation

32) I would not hesitate to tell my organisation if I saw something that was done wrong

31) I would challenge anyone in my organisation if I thought something was done wrong

30) I am totally comfortable being in this organisation

28) I feel being a member in this organisation helps define who I am

26) I am confident I can make a positive difference in this organisation

27) I feel this organisation's success is my success

FACTOR 2 – PO2

25) I am confident in my ability to contribute to my organisation's success

26) I am confident I can make a positive difference in this organisation

27) I feel this organisation's success is my success

FACTOR 3 – PO3

23) I feel I need to protect my ideas from being used by others in my organisation

24) I feel that people I work with in my organisation should not invade my workspace

Sample Characteristics

Table 6: Descriptive Statistics, Questions 1 to 10.

Descriptive Statistics									
	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	Std. Error	Kurtosis	Std. Error
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic
1) What is your gender?	117	1	2	1,79	0,406	-1,480	0,224	0,192	0,444
2) What is your age in years at the time of completing the questionnaire?	117	1	5	3,03	1,110	0,141	0,224	-0,877	0,444
3) What is your highest level of education?	117	1	5	3,56	1,322	-0,562	0,224	-0,740	0,444
4) How many years of experience do you have in the type of work you are currently doing, either in your current job or elsewhere?	117	2	5	3,26	1,138	0,407	0,224	-1,241	0,444
5) Do you have dependents (Children) at home?	117	1	2	1,25	0,434	1,183	0,224	-0,611	0,444
6) Do you belong to a Union	117	1	2	1,48	0,502	0,087	0,224	-2,027	0,444
7) How long have you worked in the current organisation?	117	1	5	3,64	1,221	-0,464	0,224	-0,832	0,444
8) How long have you been in your present position in the organisation?	117	1	5	2,79	1,265	0,230	0,224	-1,019	0,444
9) How many co-workers are highly dependent on you?	117	1	5	3,03	1,562	0,178	0,224	-1,562	0,444
10) How many different teams do you work in?	117	1	5	3,15	1,504	-0,051	0,224	-1,436	0,444

Frequency Tables

1) What is your gender?

Table 7: Frequency table of question, what is you gender?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Female	24	20,5	20,5	20,5
Male	93	79,5	79,5	100,0
Total	117	100,0	100,0	

In terms of gender, 79.5% of respondents are male, while 20.5% are female (n = 117). The skewness was -1.480 meaning that the data was significantly right skewed. The Kurtosis was 0.192 meaning the distribution of the values are wider spread around the mean.

2) What is your age in years at the time of completing the questionnaire?

Table 8: Frequency table of question, what is your age in years at the time of completing the questionnaire?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 20-29 years	7	6,0	6,0	6,0
30-39 years	37	31,6	31,6	37,6
40-49 years	31	26,5	26,5	64,1
50-59 years	30	25,6	25,6	89,7
60-65 years	12	10,3	10,3	100,0
Total	117	100,0	100,0	

In terms of age groups employed, 30-39 years formed 31.6% of the respondents,

40-49 years formed 26.5%, 50-59 years formed 25.6%, 60-65 years formed 12% and 20-29 years forming 6% (n = 117). The skewness was 0.141 meaning the data was slightly left skewed. The Kurtosis was -0.877 meaning that most of the values are concentrated on the right of the mean with a flat-topped curve.

3) What is your highest level of education?

Table 9: Frequency table of question, what is you highest level of education?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid High School	13	11,1	11,1	11,1
Matric	10	8,5	8,5	19,7
Trade Cert.	30	25,6	25,6	45,3
N. Diploma	26	22,2	22,2	67,5
B. Tech/ Degree	38	32,5	32,5	100,0
Total	117	100,0	100,0	

Most of the participants hold a B. Tech/Degree at 32.5% of all respondents, with Trade Cert. at 25.6%, N. Diploma at 22.2%, High School at 11.1% and the lowest concentration Matric at 8.5% (n = 117). The skewness was -0.562 meaning the data was right skewed. The Kurtosis was -0.740 meaning that the distribution has a flat-topped curve.

4) How many years of experience do you have in the type of work you are currently doing, either in your current job or elsewhere?

Table 10: Frequency table of question, how many years of experience do you have in the type of work you are currently doing, either in your current job or elsewhere?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 6 - 10 years	38	32,5	32,5	32,5
11 - 19 years	37	31,6	31,6	64,1
20 - 29 years	16	13,7	13,7	77,8
30 - 45 years	26	22,2	22,2	100,0
Total	117	100,0	100,0	

Most of the respondents has 6-10 years of experience with 32.5%, followed by 11-19 years at 32.6%, while 30-45 years has 22.2% and the lowest concentration of experience level 20-29 years at 13.7% (n = 117). The skewness was 0.462 meaning the data was left skewed. The Kurtosis was -1.241 meaning that the distribution has a very flat-topped curve.

5) Do you have dependents (Children) at home?

Table 11: Frequency table of question, do you have dependents (Children) at home?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	88	75,2	75,2	75,2
No	29	24,8	24,8	100,0
Total	117	100,0	100,0	

In terms of dependents 75.2% of respondents have dependents at home, while

29% don't have any dependents (n = 117). The skewness was 1.183 meaning that the data was significantly left skewed. The Kurtosis was -0.611 meaning the distribution of the values are wider around the mean with a flat-topped curve.

6) Do you belong to a Union

Table 12: Frequency table of question, do you belong to a Union?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	61	52,1	52,1	52,1
No	56	47,9	47,9	100,0
Total	117	100,0	100,0	

More respondents belong to a Union with 52.1% responding yes, and 47.9% not part of a union (n = 117). The skewness was 0.087 meaning the distribution is near symmetrical about the mean. The Kurtosis was -2.027 meaning the distribution of the values are wider around the mean with an almost flat-topped curve.

7) How long have you worked in the current organisation?

Table 13: Frequency table of question, how long have you worked in the current organisation?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 0-2 years	6	5,1	5,1	5,1
3-5 years	17	14,5	14,5	19,7
6-10 years	28	23,9	23,9	43,6
11-15 years	28	23,9	23,9	67,5
16 or more years	38	32,5	32,5	100,0
Total	117	100,0	100,0	

With regards to tenure most respondents stayed with the organisation 16 or more years at 32.5%, 11-15 years tied with 6-10 years at 23.9% each, while 3-5 years at 14.5, and 0-2 years at 5.1% (n = 117). The skewness was -0.464 meaning the data was right skewed. The Kurtosis was -0.832 meaning that the distribution has a flat-topped curve.

8) How long have you been in your present position in the organisation?

Table 14: Frequency table of question, how long have you been in your present position in the organisation?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 0-2 years	20	17,1	17,1	17,1
3-5 years	35	29,9	29,9	47,0
6-10 years	25	21,4	21,4	68,4
11-15 years	24	20,5	20,5	88,9
16 or more years	13	11,1	11,1	100,0
Total	117	100,0	100,0	

In terms of how long a respondent is in their current position. Most respondents are in the 3-5 years category at 29.9%, 6-10 years at 21.4%, 11-15 years at 20.5%, 0-2 years at 17.1%, while only 11.1% are in the position for 16 or more years (n = 117). The skewness was 0.230 meaning the data was slightly left skewed. The Kurtosis was -1.019 meaning that most of the values are concentrated on the right of the mean with a flat-topped curve.

9) How many co-workers are highly dependent on you?

Table 15: Frequency table of question, how many co-workers are highly dependent on you?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	None	22	18,8	18,8	18,8
	1 to 5	36	30,8	30,8	49,6
	6 to 10	14	12,0	12,0	61,5
	11 to 15	7	6,0	6,0	67,5
	16 to 20	38	32,5	32,5	100,0
	Total	117	100,0	100,0	

In terms of how many co-workers are dependent on the respondent most respondents have 16 to 20, co-workers dependent on them at 32.5%, 1 to 5 co-workers at 30.8%, No co-workers at 18.8%, 6 to 10 co-workers at 12% and 11 to 15 co-workers at 6% (n = 117). The skewness was 0.178 meaning the data was very slightly left skewed. The Kurtosis was -1.562 meaning that most of the values are wider spread around the mean.

10) How many different teams do you work in?

Table 16: Frequency table of question, how many different teams do you work in?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	One	22	18,8	18,8	18,8
	Two	23	19,7	19,7	38,5
	Three	23	19,7	19,7	58,1
	Four	14	12,0	12,0	70,1
	Five or more	35	29,9	29,9	100,0
	Total	117	100,0	100,0	

In terms of how many different teams the respondent works in, most stated Five or more at 29.9%, Two and Three teams at 19.7% each, One team at 18.8% and Four teams at 12% (n = 117). The skewness was -0.051 meaning the distribution is near symmetrical about the mean. The Kurtosis was -1.436 meaning the distribution of the values are wider around the mean with an almost flat-topped curve.

Kruskal-Wallis H Test and Crosstabs

Age vs Match

There is a significant difference in age between respondents of- I feel like I am a good match for this organisation ($H(4) = 11.294, p = 0.023$).

2) What is your age in years at the time of completing the questionnaire? * 11)

I feel like I am a good match for this organisation Crosstabulation

Count

Table 17: Crosstabulation between question 2 and 11.

		11) I feel like I am a good match for this organisation					Total
		Strongly disagree	Disagree	Undecided	Agree	Strongly agree	
2) What is your age in years at the time of completing the questionnaire?	20-29 years	1	2	1	3	0	7
	30-39 years	3	1	3	15	15	37
	40-49 years	1	1	1	11	17	31
	50-59 years	1	1	3	10	15	30
	60-65 years	0	0	0	8	4	12
Total		6	5	8	47	51	117

Highest level of education vs Leaving

There is a significant difference in the highest level of education between respondents of- I would sacrifice a lot if I left this job ($H(4) = 12.334, p = 0.015$).

3) What is your highest level of education? * 19) I would sacrifice a lot if I left this job Crosstabulation

Count

Table 18: Crosstabulation between question 3 and 19.

		19) I would sacrifice a lot if I left this job					Total
		Strongly disagree	Disagree	Undecided	Agree	Strongly agree	
3) What is your highest level of education?	High School	0	1	6	4	2	13
	Matric	1	2	5	1	1	10
	Trade Cert.	4	3	7	13	3	30
	N. Diploma	0	1	8	14	3	26
	B. Tech/ Degree	0	14	13	9	2	38
Total		5	21	39	41	11	117

Years of experience vs Self-Identity

There is a significant difference in years of experience between respondents of- I feel being a member in this organisation helps define who I am ($H(3) = 10.306, p = 0.016$)

4) How many years of experience do you have in the type of work you are currently doing, either in your current job or elsewhere? * 28) I feel being a member in this organisation helps define who I am Crosstabulation

Count

Table 19: Crosstabulation between question 4 and 28.

		28) I feel being a member in this organisation helps define who I am					Total
		Strongly disagree	Disagree	Undecided	Agree	Strongly agree	
4) How many years of experience do you have in the type of work you are currently doing, either in your current job or elsewhere?	6 - 10 years	1	8	7	16	6	38
	11 - 19 years	1	12	7	12	5	37
	20 - 29 years	1	0	3	10	2	16
	30 - 45 years	1	0	2	17	6	26
Total		4	20	19	55	19	117

Tenure vs promotional opportunities

There is a significant difference in how long have you worked in the current organisation between respondents of- My promotional opportunities are excellent here ($H(4) = 10.926, p = 0.027$)

7) How long have you worked in the current organisation? * 20) My promotional opportunities are excellent here Crosstabulation

Count

Table 20: Crosstabulation between question 7 and 20.

		20) My promotional opportunities are excellent here					Total
		Strongly disagree	Disagree	Undecided	Agree	Strongly agree	
7) How long have you worked in the current organisation?	0-2 years	0	0	3	2	1	6
	3-5 years	2	4	6	4	1	17
	6-10 years	6	12	7	2	1	28
	11-15 years	2	9	5	8	4	28
	16 or more years	9	10	7	10	2	38
Total		19	35	28	26	9	117

Tenure vs accountability

There is a significant difference in how long have you worked in the current organisation between respondents of- I would challenge anyone in my organisation if I thought something was done wrong ($H(4) = 10.629, p = 0.031$)

7) How long have you worked in the current organisation? * 31) I would challenge anyone in my organisation if I thought something was done wrong

Crosstabulation

Count

Table 21: Crosstabulation between question 7 and 31.

		31) I would challenge anyone in my organisation if I thought something was done wrong					Total
		Strongly disagree	Disagree	Undecided	Agree	Strongly agree	
7) How long have you worked in the current organisation?	0-2 years	0	1	0	2	3	6
	3-5 years	1	2	3	10	1	17
	6-10 years	0	1	1	18	8	28
	11-15 years	0	1	1	16	10	28
	16 or more years	1	2	0	25	10	38
Total		2	7	5	71	32	117

Tenure vs Accountability

There is a significant difference in how long have you worked in the current organisation between respondents of- I would not hesitate to tell my organisation if I saw something that was done wrong ($H(4) = 16.678, p = 0.002$)

7) How long have you worked in the current organisation? * 32) I would not hesitate to tell my organisation if I saw something that was done wrong

Crosstabulation

Count

Table 22: Crosstabulation between question 7 and 32.

		32) I would not hesitate to tell my organisation if I saw something that was done wrong					Total
		Strongly disagree	Disagree	Undecided	Agree	Strongly agree	
7) How long have you worked in the current organisation?	0-2 years	0	0	0	2	4	6
	3-5 years	2	2	2	10	1	17
	6-10 years	1	0	1	13	13	28
	11-15 years	0	0	1	16	11	28
	16 or more years	1	0	1	21	15	38
Total		4	2	5	62	44	117

Length of present position vs promotional opportunities

There is a significant difference in how long have you been in your present position in the organisation between respondents of- My promotional opportunities are excellent here ($H(4) = 12.814, p = 0.012$)

8) How long have you been in your present position in the organisation? *

20) My promotional opportunities are excellent here Crosstabulation

Count

Table 23: Crosstabulation between question 8 and 20.

		20) My promotional opportunities are excellent here					Total
		Strongly disagree	Disagree	Undecided	Agree	Strongly agree	
8) How long have you been in your present position in the organisation?	0-2 years	0	3	7	9	1	20
	3-5 years	5	12	10	7	1	35
	6-10 years	7	9	5	3	1	25
	11-15 years	3	8	3	5	5	24
	16 or more years	4	3	3	2	1	13
Total		19	35	28	26	9	117

Length of present position vs continuing employment

There is a significant difference in how long have you been in your present position in the organisation between respondents of- I believe the prospects for continuing employment with this organisation are excellent ($H(4) = 9.898, p = 0.042$)

8) How long have you been in your present position in the organisation? *

22) I believe the prospects for continuing employment with this organisation are excellent Crosstabulation

Count

Table 24: Crosstabulation between question 8 and 20.

		22) I believe the prospects for continuing employment with this organisation are excellent					
		Strongly disagree	Disagree	Undecided	Agree	Strongly agree	Total
8) How long have you been in your present position in the organisation?	0-2 years	0	1	2	15	2	20
	3-5 years	0	3	12	17	3	35
	6-10 years	3	2	10	8	2	25
	11-15 years	0	3	4	13	4	24
	16 or more years	1	1	0	9	2	13
Total		4	10	28	62	13	117

Territoriality vs co-worker dependency

There is a significant difference in how many co-workers are highly dependent on you between respondents of- I feel that people I work with in my organisation should not invade my workspace (H (4) = 9.572, p = 0.048)

9) How many co-workers are highly dependent on you? * 24) I feel that people I work with in my organisation should not invade my workspace

Crosstabulation

Count

Table 25: Crosstabulation between question 9 and 24.

		24) I feel that people I work with in my organisation should not invade my workspace				Total	
		Strongly disagree	Disagree	Undecided	Agree		
9) How many co-workers are highly dependent on you?	None	0	11	1	8	2	22
	1 to 5	3	15	2	13	3	36
	6 to 10	0	1	3	5	5	14
	11 to 15	0	1	1	5	0	7
	16 to 20	2	10	9	13	4	38
Total		5	38	16	44	14	117

Working in different Teams vs Getting on well with co-workers

There is a significant difference in how many different teams do you work in between respondents of- I generally get on well with my co-workers ($H(4) = 10.568, p = 0.032$)

10) How many different teams do you work in? * 15) I generally get on well with my co-workers Crosstabulation

Count

Table 26: Crosstabulation between question 10 and 15.

		15) I generally get on well with my co-workers					Total
		Strongly disagree	Disagree	Undecided	Agree	Strongly agree	
10) How many different teams do you work in?	One	0	0	0	8	14	22
	Two	0	0	3	14	6	23
	Three	0	0	1	17	5	23
	Four	0	0	0	11	3	14
	Five or more	1	1	3	15	15	35
Total		1	1	7	65	43	117

Mann-Whitney U Test and Crosstabs

Gender vs perks

There is a significant difference in the perks on this job are good (e.g., medical aid and pension) between males and females ($U = 829.000$, $p = 0.037$)

1) What is your gender? * 21) The perks on this job are good (e.g., medical aid and pension) Crosstabulation

Count

Table 27: Crosstabulation between question 1 and 21.

		21) The perks on this job are good (e.g., medical aid and pension)					Total
		Strongly disagree	Disagree	Undecided	Agree	Strongly agree	
1) What is your gender?	Female	0	1	2	15	6	24
	Male	7	14	12	44	16	93
Total		7	15	14	59	22	117

Gender vs Territoriality

There is a significant difference in feeling that people I work with in my organisation should not invade my workspace between males and females (U = 782.000, p = 0.018)

1) What is your gender? * 24) I feel that people I work with in my organisation should not invade my workspace Crosstabulation

Count

Table 27: Crosstabulation between question 1 and 24.

		24) I feel that people I work with in my organisation should not invade my workspace					Total
		Strongly disagree	Disagree	Undecided	Agree	Strongly agree	
1) What is your gender?	Female	2	11	3	8	0	24
	Male	3	27	13	36	14	93
Total		5	38	16	44	14	117

Spearman's rank order correlation

Table 28: Spearman's rank correlation between the job embeddedness construct and the psychological ownership construct.

			Correlations									
			JOB EMBEDDEDNESS	PSYCHOLOGICAL OWNERSHIP	FIT	LINK	SACRIFICE	TERRITORIALITY	SELF-EFFICACY	SELF_IDENTITY	BELONGINGNESS	ACCOUNTABILITY
Spearman's rho	JOB EMBEDDEDNESS	Correlation Coefficient										
		Sig. (2-tailed)										
		N										
	PSYCHOLOGICAL OWNERSHIP	Correlation Coefficient	.202*									
		Sig. (2-tailed)	0,029									
		N	117									
	FIT	Correlation Coefficient	0,162	.301**								
		Sig. (2-tailed)	0,082	0,001								
		N	117	117								
	LINK	Correlation Coefficient	0,176	.230*	.299**							
		Sig. (2-tailed)	0,058	0,013	0,001							
		N	117	117	117							
	SACRIFICE	Correlation Coefficient	0,104	0,092	.423**	0,141						
		Sig. (2-tailed)	0,264	0,326	0,000	0,129						
		N	117	117	117	117						
	TERRITORIALITY	Correlation Coefficient	0,033	.272**	0,168	.217*	.189*					
		Sig. (2-tailed)	0,728	0,003	0,070	0,019	0,041					
		N	117	117	117	117	117					
	SELF-EFFICACY	Correlation Coefficient	0,027	.350**	.204*	0,089	0,089	.278**				
		Sig. (2-tailed)	0,773	0,000	0,027	0,338	0,339	0,002				
		N	117	117	117	117	117	117				
	SELF-IDENTITY	Correlation Coefficient	-0,040	.295**	.273**	0,144	.280**	0,161	.199*			
		Sig. (2-tailed)	0,667	0,001	0,003	0,121	0,002	0,082	0,031			
		N	117	117	117	117	117	117	117			
	BELONGINGNESS	Correlation Coefficient	0,011	.279**	.383**	.304**	.323**	.238**	.308**	.382**		
		Sig. (2-tailed)	0,909	0,002	0,000	0,001	0,000	0,010	0,001	0,000		
		N	117	117	117	117	117	117	117	117		
	ACCOUNTABILITY	Correlation Coefficient	0,125	.290**	0,145	.188*	0,011	0,074	.282**	0,089	.318**	
		Sig. (2-tailed)	0,180	0,002	0,119	0,043	0,905	0,430	0,002	0,342	0,000	
		N	117	117	117	117	117	117	117	117	117	

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

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

In table 28, from the Spearman's ranked order correlation analysis outputs the following significant statistical correlations:

- There is a weak but significant positive correlation between **Job Embeddedness** and **Psychological Ownership**, with a significance of $p < 0.05$.
- There is a weak but significant positive correlation between **Fit** and **Psychological Ownership**, with a significance of $p < 0.01$.
- There is a weak but significant positive correlation between **Link** and **Psychological Ownership**, with a significance of $p < 0.05$.
- There is **no significant** positive correlation between **Sacrifice** and **Psychological Ownership**.
- There is a moderate and significant positive correlation between **Fit** and **Sacrifice**, with a significance of $p < 0.01$.
- There is no significant correlation between **Job Embeddedness** and **each of the Five Dimensions of Psychological Ownership**.

Kruskal Wallis test for the Moderator Unionisation

Table 29: Kruskal Wallis test for the Moderator Unionisation against the constructs

	JOB_EMBEDDEDNESS	PSYCHOLOGICAL_OWNERSHIP	FIT	LINK	SACRIFICE
Kruskal-Wallis H	0,530	1,510	0,173	2,562	3,986
df	1	1	1	1	1
Asymp. Sig.	0,466	0,219	0,678	0,109	0,046

a. Kruskal Wallis Test

b. Grouping Variable: 6) Do you belong to a Union

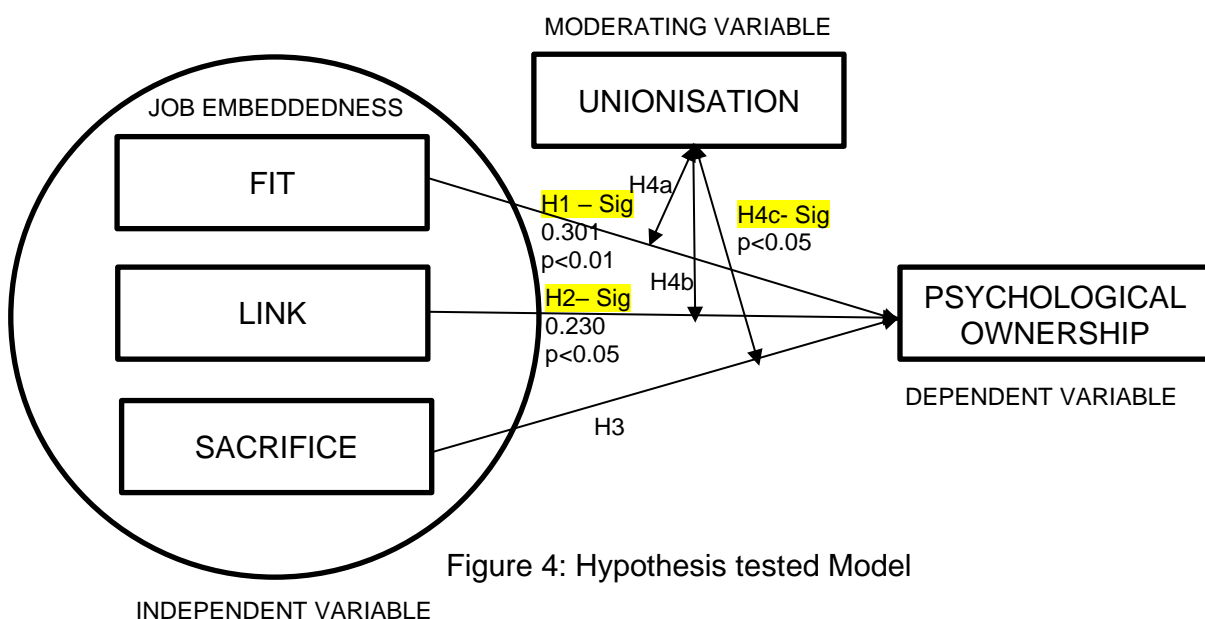
In table 29, from the Kruskal Wallis Test analysis output the following, significant statistical correlations, based on the chi-square approximation.

- There is **no statistical** significance between **Unionisation** and **fit**.
- There is **no statistical** significance between **Unionisation** and **link**.
- There is a Statistical significance between **Unionisation** and **Sacrifice**, with an asymptotic significance of $H= 3.986$, $p < 0.05$.

Chapter 6: Discussion of Results

As discussed in chapter two and by research done by Van Dyne & Pierce (2004), Dawkins, Tian, Newman & Martin (2017) and Olckers & van Zyl (2015, 2018) on psychological ownership and Mitchell & Lee (2001), Hom, Lee, Shaw, & Hausknecht, (2017), Peltokorpi, Allen, & Froese, (2015) and Hom, Mitchell, Lee & Griffeth, (2012) on job embeddedness that both constructs drive desirable traits that can be useful in the business environment currently. The results identify relationships between the independent constructs of job embeddedness to the dependent construct of psychological ownership, while moderating between unionised and non-unionised employees. The results are significant for most of the hypotheses.

The effect of unions only has an effect on one job embeddedness sub construct, but not on psychological ownership. The following research question will be answered using the literature from chapter 2 and inferencing it with the results in chapter 5 where applicable. The following model was answered:



Sample Demographics

The research data set was made up of 117 respondents from a targeted 300 participants, which is a 39% participation rate. This is low considering the samples from Olckers & van Zyl (2015, 2018), Mitchell & Lee (2001) and Peltokorpi, Allen & Froese, (2015). This could be partly due to the pandemic and the national state of disaster created by the novel corona virus strain, COVID-19 (WHO, 2020). As some employees were working from home, others working on site, but in socially segregated departments and in staggered shifts.

However, the sample size of 117 respondents has proven adequate with the chosen analysis methods. The Cronbach's alpha shows that both the job embeddedness and psychological ownership sections of the scale are reliable.

Based on the organisation predominantly operating in the manufacturing environment, a high response of male participants was expected based on the first question of gender.

The age distribution of the participants show that the organisation predominantly comprises of employees between the ages of 30 and 39 years in question 2.

Further to this the respondents show that most hold a B. Tech / Degree, followed by trade certificate and then National Diploma, high school and then matric in question 3. This speaks to the manufacturing sector dynamic, as most skills needed are technical in nature and where components are physically made and artisans with a trade certificates are needed (SEIFSA, 2019).

The older age group of question 1 speaks to the number of years of experience question 4, all participants has an experience level greater than 6 years, suggesting that the workforce is an experienced one. With the 20 – 45 years of experience applying to the 50-65 years age group. This should allow the organisation workforce to be sustainable as it has a good spread of experience across all the age groups, allowing for normal attrition.

Majority of the work force has dependents. This will affect the links sub-construct discussed by Mitchell & Lee (2001) and Peltokorpi, Allen & Froese, (2015) from question 5. Further, there is an almost even split of unionised and not unionised employees from question 6.

Analysis

Question 7, shows how long employees stay in the organisation, showing that of the 117 participants only 6 entered in the last 2 years. Majority sit in the 6 to 16 or more range. This shows that employees don't leave the organisation early and have a long employee life cycle. Which is a good reason to drive the psychological ownership construct as it would be an effective way to drive desirable behaviour in line with the organisation's current retention environment.

From question 8, one can gauge that employees don't move around that much with 50% of participants being in the same position between 6 and 16 years or more. From Allen, Peletokorpi & Rubenstein (2016) researched, there is a possibility that there could be a scenario of negative embeddedness occurring within the organisation.

Question 9 and 10, show that there is a high amount of teamwork taking place with high inter-co-worker dependencies present. These factors are good for the Link sub-construct which increases the likelihood of job embeddedness occurring, inferred by Mitchell & Lee (2001) and Peltokorpi, Allen & Froese, (2015).

The Kruskal-Wallis analysis outputted a number of good insights from the data. The crosstabulations with significant differences will be discussed:

Question 2 and 11, age vs belief that the participant is a good match for the organisation ($H(4) = 11.294, p = 0.023$). There is a significant difference between these responses. It can be observed that employees of age groups 30 and older believe they match the organisation; however, the youngest age group does not appear to believe they match the organisation. This is a good measure for the fit sub-construct, due to the high skew in the age group (Mitchell & Lee, 2001).

Question 3 and 19, Highest level of education vs sacrificing a lot if I left this job ($H(4) = 12.334, p = 0.015$). There is a significant difference between these responses. Respondents with high qualifications do not consider, that they have a lot to sacrifice if they had to leave. This could be based on the belief that their options in the job market is greater because they have a higher level of education (Peltokorpi, Allen & Froese, 2015). This can be changed by fostering more fits, links and psychological ownership (Van Dyne & Pierce, 2004; Mitchell & Lee, 2001).

Question 4 and 28, years of experience vs Self-identity ($H(3) = 10.306, p = 0.016$). Respondents with lower levels of experience in the current roles don't self-identify

with the organisation. This is concerning, as there is more than 50% of respondents that believe this. The psychological ownership construct believes that creating self-identity is one of the five dimensions that create the psychological ownership construct (Olckers and van Zyl, 2015). More organisation awareness campaigns and workshops driving inclusivity should be held.

Question 7 and 20, tenure vs promotional opportunities ($H(4) = 10.926, p = 0.027$). Most respondents disagreed or strongly disagreed, with a significant number of undecided respondents. Only 30% agreed with a small minority strongly agreeing. This could be another scenario of negative embeddedness happening in the organisation (Allen, Peletokorpi & Rubenstein, 2016). This result may affect fit subconstruct for respondents who negatively answered.

Question 7 and 31/32, Tenure vs accountability ($H(4) = 10.629, p = 0.031$) and ($H(4) = 16.678, p = 0.002$) respectively. Majority of respondents agreed or strongly agreed, suggesting that there is a high measure of accountability based on the five-dimensions of psychological ownership (Olckers and van Zyl, 2015), with employees that have worked in the organisation for more than 3-5 years. Both questions 31 and 32 measure the accountability subconstruct on psychological ownership discussed by Olckers & van Zyl (2015, 2018).

Question 8 and 20, length of present position vs promotional opportunities ($H(4) = 12.814, p = 0.012$). Question 21 measures the sacrifice subconstruct of job embeddedness (Michell & Lee, 2001). 46% of respondents either strongly disagreed or disagreed to promotional opportunities being excellent, while 24% are undecided where most respondents are in their present position between 0-5 years. This is the

same for the 30% that responded with either agree or strongly agree. This shows that as time progresses employees believe they have less opportunity of promotion. Personal development plans should be considered to grow employees, even if positions will not be available in the near future.

Question 8 and 22, length of present position vs continuing employment ($H(4) = 9.898, p = 0.042$). Question 22 also measures the sacrifice subconstruct of job embeddedness (Michell & Lee, 2001). 64% of respondents either strongly agree or agree to believing that the prospects for continuing employment with this organisation are excellent, while 25% are undecided where most respondents are in their present position between 3-10 years. Only 12% of respondents did not believe that the prospects for continuing employment with this organisation are excellent. This showed that most respondents want to continue employment with the organisation. However, the 25% to 36% of undecided and disgruntled respondents should be addressed before they decide to leave the organisation. Leveraging on the Link and Fit subconstruct of job embeddedness would be a good place to start in changing these statistics for the better (Hom, Lee, Shaw, & Hausknecht, 2017).

Question 9 and 24, Territoriality vs co-worker dependency ($H(4) = 9.572, p = 0.048$). Question 24 measures the Territoriality dimension of psychological ownership, this measure is an unpromoted behaviour (Olckers and van Zyl, 2015, 2018). Therefore, responses of agree and strongly agree are not desired as it works against psychological ownership (Dawkins, Tian, Newman & Martin, 2017). They were a high number of respondents that perceive that people should not invade their workspace. The fit and link sub-constructs need to be strengthened to create inclusiveness in the workplace (Hom, Lee, Shaw, & Hausknecht, 2017).

Question 10 and 15, Working in different team's vs getting on well with co-workers ($H(4) = 10.568, p = 0.032$). Question 15 measures the link subconstruct of job embeddedness (Michell & Lee, 2001). Majority of the respondents that work in one or more teams get on well with their co-workers. With less than 8% of respondents either undecided, disagreed or strongly disagreed. This is a relatively good weighting in the link sub-construct (Hom, Lee, Shaw, & Hausknecht, 2017).

The Mann-Whitney analysis outputted two good insights from the data. The crosstabulations with significant differences will be discussed:

Question 1 and 21, Gender vs perk are good ($U = 829.000, p = 0.037$). Question 21 measures the sacrifice subconstruct of job embeddedness (Michell & Lee, 2001). 87.5% of female participants either agreed or strongly agreed that the perks offered were good, while only 64.5% of male participants either agreed or strongly agreed. Indicating that female respondents have a stronger weighting on the sacrifice sub-construct than males (Hom, Lee, Shaw, & Hausknecht, 2017). The organisation could look at offering better perk offers that speak to the male population as well as the female population to strengthen the sacrifice sub-construct.

Question 1 and 24, Gender vs Territoriality ($U = 782.000, p = 0.018$). Question 24 measures the Territoriality dimension of psychological ownership, this measure is an unpromoted behaviour (Olckers and van Zyl, 2015, 2018). 54% of female participants either disagreed or strongly disagreed that people should not invade their workspace, 32% of female participants either disagreed or strongly disagreed. Indicating that the male respondents have a higher territoriality weighting than females as per the

psychological ownership construct (Olickers and van Zyl, 2015, 2018). Again, the fit and link sub-constructs need to be strengthened to create inclusiveness in the workplace for the male counterparts (Hom, Lee, Shaw, & Hausknecht, 2017).

Research Question 1

Research question one asked “If Psychological Ownership is positively correlated to the job embeddedness variable of “fit” for employees in an organisation?” From the results there is a weak but significant correlation between the sub-construct fit and main construct psychological ownership, with a significance of $p < 0.01$. Failing to reject the null hypothesis.

Therefore, if the fit sub construct increases in perceived strength so does the effects of psychological ownership. As discussed by Mitchell & Lee (2001), fit is defined by how well an individual is able to align with an organisation and its culture, how well the individual “fits” within an organisation. Ultimately, if an individual perceives that they fit in with an organisation they are more likely to stay.

While Avey, Avolio, Crossley, & Luthans (2009) discussed that, psychological ownership is linked to positive organisation behaviour, they speak of self-efficacy, self-identity, sense of belonging and accountability. Van Dyne & Pierce (2004), further compared and linked other important constructs such as commitment and satisfaction. Likewise, Avey et al. (2009) believed that if psychological ownership is invested in, developed, measured and managed, it can be considered as a competitive advantage, forming part of an organisation’s strategy.

Therefore, if an employee fits in with the organisations culture, fit in with the job or task, fits in team and leadership style (Schneider, 1987), they are not only more likely to stay, but they are more likely to foster psychological ownership over time (Olckers and van Zyl, 2015). These include promotive, desired psychological ownership, behaviours like, self-efficacy, self-identity, sense of belonging and accountability. From the results, fit has a significant correlation with self-efficacy, self-identity, belongingness and accountability. Therefore, driving any of these psychological ownership dimensions will positively drive organisational fit of the employee (Olckers and van Zyl, 2015; Schneider, 1987).

Research Question 2

Research question two asked “If Psychological Ownership is positively correlated to the job embeddedness variable of “link” for employees in an organisation? From the results there is a weak but significant correlation between Link and Psychological Ownership, with a significance of $p < 0.05$. Failing to reject the null hypothesis.

Therefore, if the Link sub construct increases in perceived strength so does the effects of psychological ownership. As discussed by Mitchell & Lee (2001) and Hom, Lee, Shaw, & Hausknecht (2017), links are the formal or informal attachments to colleagues or groups of colleagues in the same organisation to which strong work relationships may have developed. Creating or fostering more links will create stronger desires to stay in an organisation. Further, any positive relationships with other individuals in the organisation will reduce employees from wanting to leave and starting off afresh. These links are built over a period on time, making it difficult for

an employee to consider leaving as they would break or give up these links when leaving an organisation (Mitchell & Lee 2001). Further, with more employees having dependents (Question 5) this link will further strengthen the link sub-construct of job embeddedness.

Similar to research question one, psychological ownership plays a proportionate role when compared to link (Avey et al., 2009) Likewise, these include promotive psychological ownership desired behaviours like, self-efficacy, self-identity, sense of belonging and accountability. Further to this link, has a significant relationship to belongingness and accountability, the dimensions of psychological ownership.

Research Question 3

Research question three asked “If Psychological Ownership is positively correlated to the job embeddedness variable of “Sacrifice” for employees in an organisation?” From the results there is no significant correlation between Sacrifice and Psychological Ownership, rejecting the null hypothesis. However, the analysis does show that there is a moderate and significant positive correlation between Fit and Sacrifice, with a significance of $p < 0.01$.

A work around, would be for the organisation to start driving the fit sub-construct and its levers so that it can also increase sacrifice and visa-versa indirectly. Furthermore, from the results, the crosstabulation where the significant difference in the highest level of education between respondents of- I would sacrifice a lot if I left this job (H (4) = 12.334, $p = 0.015$, would be concerning for this organisation as individuals with higher levels of education believe they would not sacrifice a lot if they left. For these

individuals, driving the fit and links subconstruct are likely to be needed (Hom, Lee, Shaw, & Hausknecht, 2017; Peltokorpi, Allen, & Froese, 2015; and Hom, Mitchell, Lee & Griffeth, 2012), as these two subconstructs can also drive psychological ownership.

Research Question 4a, b, c.

Research question 4a asked, “Does unionisation play a moderating role in the positive relationship of Psychological Ownership and the job embeddedness variable of “Fit” for employees in an organisation?” From the results there is no statistical significance between Unionisation and fit, rejecting the null hypothesis. All employees are affected by these constructs equally.

Research question 4b asked, “Does unionisation play a moderating role in the positive relationship of Psychological Ownership and the job embeddedness variable of “Link” for employees in an organisation?” from the results there is no statistical significance between Unionisation and link, rejecting the null hypothesis. All employees are affected by these constructs equally.

Research question 4c asked, “Does unionisation play a moderating role in the positive relationship of Psychological Ownership and the job embeddedness variable of “Sacrifice” for employees in an organisation?” From the results there is a statistical significance between Unionisation and Sacrifice, with an asymptotic significance of $p < 0.05$. Failing to reject the null hypothesis. Unionised respondents associated more with the sacrifice sub-construct. This inferences that unionised respondents

believe they have more to lose than their nonunionised counterparts.

Further, the analysis did show that there is a moderate and significant positive correlation between Fit and Sacrifice, with a significance of $p < 0.01$. This would mean that 2 out of the 3 sub-constructs have a positive correlation, one directly and the other indirectly. Therefore, unionised employees have a higher chance of both staying embedded or becoming embedded (Hom, Mitchell, Lee & Griffeth, 2012). This is supported by the result showing that there is a weak but significant positive correlation between Job Embeddedness and Psychological Ownership, with a significance of $p < 0.05$.

Chapter 7: Conclusions and Recommendations

The job embeddedness construct in its own right with the fit, link and sacrifice sub-construct is a powerful and relevant assessment of employee retention in an organisation (Mitchell & Lee, 2001; Hom, Lee, Shaw, & Hausknecht, 2017; Peltokorpi, Allen, & Froese, 2015; Hom, Mitchell, Lee & Griffeth, 2012). It has the ability to diagnose an organisation using a simple survey to gain insight to their employee's perceptions (Crossley, Bennett, Jex, & Burnfield, 2007).

This makes the Job embeddedness construct robust and easy to use when trying to fix organisations with high attrition rate. It is imperative that the three sub-constructs making up the main construct, FIT, LINK, and SACRIFICE, are broken down into its underlining make, so that the correction can be made at the root cause of a problematic organisation (Hom, Lee, Shaw, & Hausknecht, 2017).

Organisations, however, need to keep cognisant of the "Dark side" of job embeddedness. Where being "stuck" is not always good, as discussed by Allen, Peltokorpi, & Rubenstein (2016) where the negative effects of retention, described why some employees could not leave an organisation, believing that they were "stuck" because they became too embedded. Going on to show that this result will cause the employee to become counterproductive, negative and demotivated. Therefore, practitioners should always probe the organisation when trying to foster change.

This will assist in maintaining a healthy level of job embeddedness in employees within their organisation. This healthy environment will begin to foster other desirable organisational behavioural constructs to develop and grow with the right nurturing by the organisation's leadership. Allowing said leaders to pull the correct levers fostering the desired behavioural traits that will benefit the organisation.

The psychological ownership construct currently ticks all the boxes of desirable organisational behavioural traits described by Van Dyne & Pierce (2004). In Olckers & van Zyl (2015, 2018) they discuss and measure the five-dimensions of psychological ownership. Four of which are promotive and beneficial to any organisation to foster growth. These are, accountability which is the want and desire to directly or indirectly justify one's actions, belief or feeling, coupled by an acceptance of responsibility, self -openness and to be able to answer for said actions (Mansouri & Roney, 2014; Pearson & Sutherland, 2017). Belongingness, the extent that an individual perceives comfort in a team or organisation, where they can be oneself and feel "At Home". Self-efficacy, when an individual has belief in one's own ability to understand, adapt and achieve goals or tasks with great satisfaction. Lastly, self-identity, which is to have a clear understanding of one's self and the aspects that make up their identity which drives their actions and choices. Further, being able to link their identity with other targets (Olckers, Geogre & van Zyl, 2017).

Avey, Avolio, Crossley, & Luthans (2009) linked psychological ownership and its five-dimensions to positive organisation behaviour. Further in Van Dyne & Pierce (2004) research they compared and linked other important constructs such as commitment and satisfaction. Avey et al. (2009) supported by this research indicates that if psychological ownership is developed, measured and managed, it can be considered

as a competitive advantage. Further creating positive work behaviours and fostering citizenship, Avey et al. (2009) and Van Dyne & Pierce (2004) hypothesised that there is a positive relationship between Psychological Ownership and organisational citizenship behaviour, which supports the finding in this research showing that there is an effective relationship between job embeddedness and psychological ownership.

This creates a number of additional levers that can be pulled in an organisation to effect change in the right direction and with the organisational strategy. This will drive the psychological ownership construct by fostering the individual dimension of psychological ownership. This is key in the current environment of business where less is more and organisations are looking for ways to create higher productive, more accountable and more responsible employees (Olckers and van Zyl, 2015; Crossley, Bennett, Jex, & Burnfield, 2007).

In the research, the result showed a weak but significant correlation between job embeddedness and psychological ownership, further it showed that two of job embeddedness sub-constructs, Fit and Link also have weak but significant correlations. With the third sub-construct, Sacrifice, a moderate and significant correlation between link and sacrifice was indicated. Indirectly confirming that Job embeddedness is associated to psychological ownership.

This opens up a significant branch in the job embeddedness knowledge base creating links to accountability, belongingness, self-efficacy and self-identity. These are all highly desirable behavioural traits to have in an organisations' culture and also create new literature for psychological ownership to add fits and links to its

knowledge base as positive contributors to its construct.

The effect of the moderator of unionisation was not expected, as it showed a significant correlation with only the sacrifice construct of job embeddedness, suggesting that fostering these constructs will only improve retention and not effect psychological ownership in unionised employees more than nonunionised employees. However, an effect still does exist, shown by this research.

Implications for management and other relevant stakeholders

Using the measurement developed in this research will allow organisations to not only measure the two main constructs of Job embeddedness and psychological ownership, but they will also be able to measure its sub-constructs and dimensions that make up the two main constructs. This will allow organisations to understand employee retention and ownership at a micro and macro level. Allowing them to tweak the antecedents of each construct at the root causes, effecting sustainable change is the right place and direction. These can then feed into their organisational strategy to ensure the right organisational culture is fostered.

Limitations

The limitation will be that the research is of a single frame of one organisation and industry and therefore any application of the research in other organisations and industries will have a level of uncertainty. The research utilised is a cross-sectional choice of methodology which has its own limitation due to economic and environmental factors that could skew if changes occur. The data set is that of a

single specific geographical location, Johannesburg, Gauteng, South Africa. The reliability of the survey results is highly dependent on the structure and design of the survey questions and also the accuracy of the answers submitted by the employees. Further, because of the pandemic and the national lockdown (WHO, 2019) most employee's perceptions were affected on retention and wanting to stay.

Suggestions for future research

A longitudinal study would be beneficial, measuring the job embeddedness and psychological ownership construct over time. This would allow fine tuning of the construct to become more resilient to shocks in the organisation. Further allowing a more robust and efficient model. Further research should be done to understand how to strengthen the weak correlations identified and to effect more positive change in organisations.

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Appendices

Survey Questionnaire - Job Embeddedness and Psychological Ownership	TICK OR FILL IN THE APPROPRIATE BOX				
DEMOGRAPHICS					
1) What is your gender?	Female	Male			
2) What is your age in years at the time of completing the questionnaire?	Input Age in years				
3) What is your highest level of education?	High School	Matric	Trade Cert.	N. Diploma	B.Tech/ Degree
4) How many years of experience do you have in the type of work you are currently doing, either in your current job or elsewhere?	Input Age in years				
5) Do you have dependents (Children) at home?	Yes	No			
EMPLOYMENT DETAILS					
6) Do you belong to a Union	Yes	No			
7) How long have you worked in the current organisation?	0-2 years	3-5 years	6-10 years	11-15 years	16 or more years
8) How long have you been in your present position in the organisation?	0-2 years	3-5 years	6-10 years	11-15 years	16 or more years
9) How many co-workers are highly dependent on you?	None	1 to 5	6 to 10	11 to 15	16 to 20
10) How many different teams do you work in?	1	2	3	4	5 or more
JOB EMBEDDEDNESS					
FIT					
11) I feel like I am a good match for this organisation	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
12) I feel that my job utilizes my skills and talents well	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
13) I feel personally valued at work	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
14) If I stay with this organisation, I will be able to achieve most of my goals	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
LINK					
15) I generally get on well with my co-workers	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
16) I feel that people at work respect me a great deal	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
17) I interact with my co-workers regularly throughout the working day? (formally or informally)	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
18) I like the authority and responsibility I have at this organisation	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
SACRIFICE					
19) I would sacrifice a lot if I left this job	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
20) My promotional opportunities are excellent here	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
21) The perks on this job are good (e.g., medical aid and pension)	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
22) I believe the prospects for continuing employment with this organisation are excellent	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
PSYCHOLOGICAL OWNERSHIP					
TERRITORIALITY					
23) I feel I need to protect my ideas from being used by others in my organisation	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
24) I feel that people I work with in my organisation should not invade my workspace	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
SELF-EFFICACY					
25) I am confident in my ability to contribute to my organisation's success	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
26) I am confident I can make a positive difference in this organisation	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
SELF-IDENTITY					
27) I feel this organisation's success is my success	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
28) I feel being a member in this organisation helps define who I am	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
BELONGINGNESS					
29) I feel I belong in this organisation	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
30) I am totally comfortable being in this organisation	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
ACCOUNTABILITY					
31) I would challenge anyone in my organisation if I thought something was done wrong	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
32) I would not hesitate to tell my organisation if I saw something that was done wrong	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
END, THANK YOU					

Dear Participant

I am currently busy with a research project as part of my postgraduate studies at the Gordon Institute of Business Science. This research involves testing whether the theory of Job Embeddedness is linked or correlated to the theory of Psychological Ownership in individuals. I would therefore wish to request you to kindly participate in this research by completing the attached questionnaire. It should not take more than 15 minutes, containing 32 questions.

The theory of Job Embeddedness examines the reasons people remain in organizations over long periods of time. It examines different factors including people's links to their work environment, the role of their community and the sacrifices they would endure if they exited these environments.

The theory of Psychological Ownership builds upon the observation that individuals feel ownership toward a variety of targets, suggesting that under certain conditions, employees can develop feelings of ownership toward an organization and/or various organizational factors.

Please do not enter your name or contact details on the questionnaire as it remains completely anonymous. Furthermore, you can be assured that the results generated from the questionnaire will only be used for the purposes of this study, and that your information and that of the organization you represent will always be kept strictly confidential.

Please complete all the questions contained in the questionnaire as I will not be able to use the responses to any questionnaire if all the questions are not answered. I recognize that your time is valuable and taking the time to complete this questionnaire is really appreciated.

Should you have any queries or comments regarding this questionnaire, you are welcome to raise it with myself as the researcher, **Kuven Pillay**, telephonically on [REDACTED] or [REDACTED] or by e-mail at [REDACTED], or the supervisor of this research: Dr Albert Wocke at [REDACTED]

Should you wish feedback on the findings of the study once completed, please feel free to contact myself, Kuven Pillay at the above e-mail address or telephone number.

Sincerely,

Kuven Pillay, Master of Business Science student (Student number: 19384832),
University of Pretoria and the Gordon Institute of Business Science.

Dr Albert Wocke, Senior Lecturer, Gordon Institute of Business Management,
[REDACTED]
28 September 2020

Appendix 2: Consistency Matrix		Literature review	Data Collection	Analysis	Validity and Reliability
Hypothesis					
Hypothesis H1: Psychological Ownership is negatively correlated to the job embeddedness variable of "fit" for employees in an organisation.	Horn, Lee, Shaw, & Hausknecht, 2017 Mitchell & Lee 2001 Pierce, Kostova & Dirks 2001 Olickers & van Zyl 2018	Q11-14; Q23-32	Linear model to measure psychological ownership. Then using a regression analysis to determine which of the 3 dimensions of job embeddedness is highest contributor to Psychological Ownership.	Cronbach's coefficient alpha	
Hypothesis H2: Psychological Ownership is negatively correlated to the job embeddedness variable of "link" for employees in an organisation.	Horn, Lee, Shaw, & Hausknecht, 2017 Mitchell & Lee 2001 Pierce, Kostova & Dirks 2001 Olickers & van Zyl 2018	Q15-18; Q23-32	Same as above	Same as above	
Hypothesis H3: Psychological Ownership is negatively correlated to the job embeddedness variable of "Sacrifice" for employees in an organisation.	Horn, Lee, Shaw, & Hausknecht, 2017 Mitchell & Lee 2001 Pierce, Kostova & Dirks 2001 Olickers & van Zyl 2018	Q19-22; Q23-32	Same as above	Same as above	
Hypothesis H4a: Unionisation plays a moderating role in the negative relationship of Psychological Ownership and the job embeddedness variable of "Fit" for employees in an organisation.	Horn, Lee, Shaw, & Hausknecht, 2017 Mitchell & Lee 2001 Pierce, Kostova & Dirks 2001 Olickers & van Zyl 2018	Q9; Q11-14; Q23-32	Same as above	Same as above	
Hypothesis H4b: Unionisation plays a moderating role in the negative relationship of Psychological Ownership and the job embeddedness variable of "Link" for employees in an organisation.	Horn, Lee, Shaw, & Hausknecht, 2017 Mitchell & Lee 2001 Pierce, Kostova & Dirks 2001 Olickers & van Zyl 2018	Q9; Q15-18; Q23-32	Same as above	Same as above	
Hypothesis H4c: Unionisation plays a moderating role in the negative relationship of Psychological Ownership and the job embeddedness variable of "Sacrifice" for employees in an organisation.	Horn, Lee, Shaw, & Hausknecht, 2017 Mitchell & Lee 2001 Pierce, Kostova & Dirks 2001 Olickers & van Zyl 2018	Q9; Q19-22; Q23-32	Same as above	Same as above	

Ethical Clearance Approved

MastersResearch2020 <MastersResearch2020@gibs.co.za>
To: "19384832@mygibs.co.za" <19384832@mygibs.co.za>

11 September 2020 at 13:20

**Gordon Institute
of Business Science**
University of Pretoria

**Ethical Clearance
Approved**

Dear Kuven Pillay,

Please be advised that your application for Ethical Clearance has been approved.


You are therefore allowed to continue collecting your data.

We wish you everything of the best for the rest of the project.

[Ethical Clearance Form](#)

Kind Regards

This email has been sent from an unmonitored email account. If you have any comments or concerns, please contact the GIBS
Research Admin team.

 **EthicalClearanceReport.pdf**
417K

Statistically Analysis

Research Question - JOB EMBEDDEDNESS

Descriptive Statistics									
	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	Std. Error	Kurtosis	Std. Error
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic
11) I feel like I am a good match for this organisation	117	1	5	4,13	1,063	-1,531	0,224	2,037	0,444
12) I feel that my job utilizes my skills and talents well	117	1	5	3,60	1,122	-0,678	0,224	-0,466	0,444
13) I feel personally valued at work	117	1	5	3,46	1,126	-0,585	0,224	-0,513	0,444
14) If I stay with this organisation, I will be able to achieve most of my goals	117	1	5	3,37	1,047	-0,466	0,224	-0,395	0,444
15) I generally get on well with my co-workers	117	1	5	4,26	0,687	-1,209	0,224	3,870	0,444
16) I feel that people at work respect me a great deal	117	1	5	3,97	0,809	-1,032	0,224	1,653	0,444
17) I interact with my co-workers regularly throughout the working day? (formally or informally)	117	2	5	4,26	0,607	-0,673	0,224	1,900	0,444
18) I like the authority and responsibility I have at this organisation	117	1	5	3,76	0,906	-0,848	0,224	0,633	0,444
19) I would sacrifice a lot if I left this job	117	1	5	3,27	1,005	-0,264	0,224	-0,429	0,444
20) My promotional opportunities are excellent here	117	1	5	2,75	1,196	0,185	0,224	-0,932	0,444
21) The perks on this job are good (e.g., medical aid and pension)	117	1	5	3,63	1,111	-0,878	0,224	0,036	0,444
22) I believe the prospects for continuing employment with this organisation are excellent	117	1	5	3,60	0,920	-0,870	0,224	0,765	0,444

Frequency Tables

11) I feel like I am a good match for this organisation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	6	5,1	5,1	5,1
	Disagree	5	4,3	4,3	9,4
	Undecided	8	6,8	6,8	16,2
	Agree	47	40,2	40,2	56,4
	Strongly agree	51	43,6	43,6	100,0
	Total	117	100,0	100,0	

12) I feel that my job utilizes my skills and talents well

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	5	4,3	4,3	4,3
	Disagree	21	17,9	17,9	22,2
	Undecided	13	11,1	11,1	33,3
	Agree	55	47,0	47,0	80,3
	Strongly agree	23	19,7	19,7	100,0
	Total	117	100,0	100,0	

13) I feel personally valued at work

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	7	6,0	6,0	6,0
	Disagree	20	17,1	17,1	23,1
	Undecided	20	17,1	17,1	40,2
	Agree	52	44,4	44,4	84,6
	Strongly agree	18	15,4	15,4	100,0
	Total	117	100,0	100,0	

14) If I stay with this organisation, I will be able to achieve most of my goals

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	6	5,1	5,1	5,1
	Disagree	19	16,2	16,2	21,4
	Undecided	31	26,5	26,5	47,9
	Agree	48	41,0	41,0	88,9
	Strongly agree	13	11,1	11,1	100,0
	Total	117	100,0	100,0	

15) I generally get on well with my co-workers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	1	0,9	0,9	0,9
	Disagree	1	0,9	0,9	1,7
	Undecided	7	6,0	6,0	7,7
	Agree	65	55,6	55,6	63,2
	Strongly agree	43	36,8	36,8	100,0
	Total	117	100,0	100,0	

16) I feel that people at work respect me a great deal

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	1	0,9	0,9	0,9
	Disagree	7	6,0	6,0	6,8
	Undecided	13	11,1	11,1	17,9
	Agree	70	59,8	59,8	77,8
	Strongly agree	26	22,2	22,2	100,0
	Total	117	100,0	100,0	

**17) I interact with my co-workers regularly throughout the working day?
(formally or informally)**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	2	1,7	1,7	1,7
	Undecided	4	3,4	3,4	5,1
	Agree	72	61,5	61,5	66,7
	Strongly agree	39	33,3	33,3	100,0
	Total	117	100,0	100,0	

18) I like the authority and responsibility I have at this organisation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	2	1,7	1,7	1,7
	Disagree	11	9,4	9,4	11,1
	Undecided	20	17,1	17,1	28,2
	Agree	64	54,7	54,7	82,9
	Strongly agree	20	17,1	17,1	100,0
	Total	117	100,0	100,0	

19) I would sacrifice a lot if I left this job

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	5	4,3	4,3	4,3
	Disagree	21	17,9	17,9	22,2
	Undecided	39	33,3	33,3	55,6
	Agree	41	35,0	35,0	90,6
	Strongly agree	11	9,4	9,4	100,0
	Total	117	100,0	100,0	

20) My promotional opportunities are excellent here

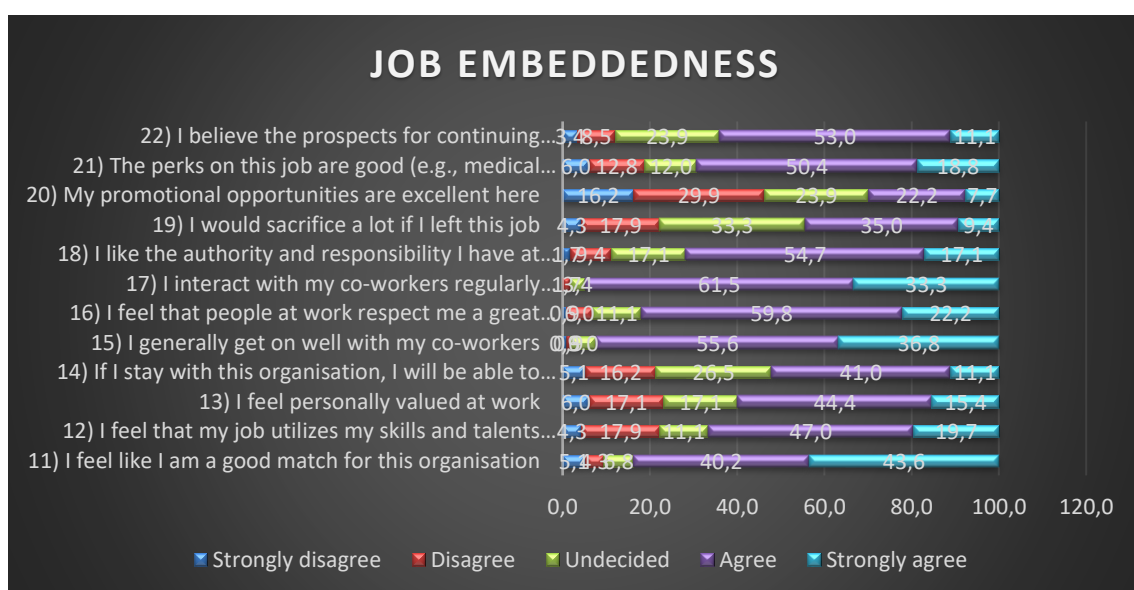
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly disagree	19	16,2	16,2	16,2
Disagree	35	29,9	29,9	46,2
Undecided	28	23,9	23,9	70,1
Agree	26	22,2	22,2	92,3
Strongly agree	9	7,7	7,7	100,0
Total	117	100,0	100,0	

21) The perks on this job are good (e.g., medical aid and pension)

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly disagree	7	6,0	6,0	6,0
Disagree	15	12,8	12,8	18,8
Undecided	14	12,0	12,0	30,8
Agree	59	50,4	50,4	81,2
Strongly agree	22	18,8	18,8	100,0
Total	117	100,0	100,0	

22) I believe the prospects for continuing employment with this organisation are excellent

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly disagree	4	3,4	3,4	3,4
Disagree	10	8,5	8,5	12,0
Undecided	28	23,9	23,9	35,9
Agree	62	53,0	53,0	88,9
Strongly agree	13	11,1	11,1	100,0
Total	117	100,0	100,0	



Research Question – Psychological Ownership

Descriptive Statistics									
	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	Std. Error	Kurtosis	Std. Error
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic
23) I feel I need to protect my ideas from being used by others in my organisation	117	1	5	3,41	1,153	-0,240	0,224	-1,172	0,444
24) I feel that people I work with in my organisation should not invade my workspace	117	1	5	3,21	1,149	-0,100	0,224	-1,196	0,444
25) I am confident in my ability to contribute to my organisation's success	117	2	5	4,35	0,592	-0,539	0,224	0,855	0,444
26) I am confident I can make a positive difference in this organisation	117	1	5	4,31	0,804	-1,733	0,224	4,508	0,444
27) I feel this organisation's success is my success	117	1	5	4,09	0,890	-1,081	0,224	1,093	0,444
28) I feel being a member in this organisation helps define who I am	117	1	5	3,56	1,062	-0,609	0,224	-0,410	0,444
29) I feel I belong in this organisation	117	1	5	3,73	0,988	-1,061	0,224	0,949	0,444
30) I am totally comfortable being in this organisation	117	1	5	3,72	0,972	-0,778	0,224	0,311	0,444
31) I would challenge anyone in my organisation if I thought something was done wrong	117	1	5	4,06	0,844	-1,429	0,224	2,879	0,444
32) I would not hesitate to tell my organisation if I saw something that was done wrong	117	1	5	4,20	0,873	-1,818	0,224	4,612	0,444

Frequency Tables

23) I feel I need to protect my ideas from being used by others in my organisation

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly disagree	3	2,6	2,6	2,6
Disagree	33	28,2	28,2	30,8
Undecided	15	12,8	12,8	43,6
Agree	45	38,5	38,5	82,1
Strongly agree	21	17,9	17,9	100,0
Total	117	100,0	100,0	

24) I feel that people I work with in my organisation should not invade my workspace

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly disagree	5	4,3	4,3	4,3
Disagree	38	32,5	32,5	36,8
Undecided	16	13,7	13,7	50,4
Agree	44	37,6	37,6	88,0
Strongly agree	14	12,0	12,0	100,0
Total	117	100,0	100,0	

25) I am confident in my ability to contribute to my organisation's success

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	1	0,9	0,9	0,9
	Undecided	4	3,4	3,4	4,3
	Agree	65	55,6	55,6	59,8
	Strongly agree	47	40,2	40,2	100,0
	Total	117	100,0	100,0	

26) I am confident I can make a positive difference in this organisation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	2	1,7	1,7	1,7
	Disagree	3	2,6	2,6	4,3
	Undecided	4	3,4	3,4	7,7
	Agree	56	47,9	47,9	55,6
	Strongly agree	52	44,4	44,4	100,0
	Total	117	100,0	100,0	

27) I feel this organisation's success is my success

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	1	0,9	0,9	0,9
	Disagree	8	6,8	6,8	7,7
	Undecided	11	9,4	9,4	17,1
	Agree	56	47,9	47,9	65,0
	Strongly agree	41	35,0	35,0	100,0
	Total	117	100,0	100,0	

28) I feel being a member in this organisation helps define who I am

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	4	3,4	3,4	3,4
	Disagree	20	17,1	17,1	20,5
	Undecided	19	16,2	16,2	36,8
	Agree	55	47,0	47,0	83,8
	Strongly agree	19	16,2	16,2	100,0
	Total	117	100,0	100,0	

29) I feel I belong in this organisation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	5	4,3	4,3	4,3
	Disagree	10	8,5	8,5	12,8
	Undecided	17	14,5	14,5	27,4
	Agree	65	55,6	55,6	82,9
	Strongly agree	20	17,1	17,1	100,0
	Total	117	100,0	100,0	

30) I am totally comfortable being in this organisation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	3	2,6	2,6	2,6
	Disagree	12	10,3	10,3	12,8
	Undecided	22	18,8	18,8	31,6
	Agree	58	49,6	49,6	81,2
	Strongly agree	22	18,8	18,8	100,0
	Total	117	100,0	100,0	

31) I would challenge anyone in my organisation if I thought something was done wrong

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly disagree	2	1,7	1,7	1,7
Disagree	7	6,0	6,0	7,7
Undecided	5	4,3	4,3	12,0
Agree	71	60,7	60,7	72,6
Strongly agree	32	27,4	27,4	100,0
Total	117	100,0	100,0	

32) I would not hesitate to tell my organisation if I saw something that was done wrong

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly disagree	4	3,4	3,4	3,4
Disagree	2	1,7	1,7	5,1
Undecided	5	4,3	4,3	9,4
Agree	62	53,0	53,0	62,4
Strongly agree	44	37,6	37,6	100,0
Total	117	100,0	100,0	

