Motivating Professional Researchers to Reduce Turnover in Gauteng and the Western Cape Provinces in South Africa

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Abstract

The objective of this study is to determine whether there is a significant correlation between motivational factors and labour turnover. Retaining Research and Development experts has been recognised as a critical managerial challenge for many technology-based companies in South Africa. Intrinsically motivated employees engage in tasks for the pleasure they derive from them, whereas extrinsically motivated employees engage in tasks for the rewards that follow from completing these. It is critical that employers ensure employees are effectively attracted, motivated and retained. It is also of importance that employees should have a comprehensive understanding of the business strategy, together with an aligned human resources strategy as well as policies and procedures. The management team together with the human resources department needs to ensure continually that employee stimuli are relevant and appropriately applied. Effective and on-going communication with employees is vital through, for example, employee surveys or focus groups or information-sharing sessions. The method employed by this study comprised a quantitative, self-report survey design (N=260). Statistical analysis included both descriptive and inferential statistics. Recommendations are made to managers with guidelines for increasing employee motivation, managing turnover and designing effective policies to maintain the situation.

Keywords: extrinsic, intrinsic, motivation, research and development, turnover

1. Introduction

The South-African government created this research institution to facilitate multi-disciplinary research in support of national defence, safety and security. The research institution has offices in both Gauteng and the Western Cape provinces of South Africa. The Research and Development (R&D) professionals are scientists with specialised skills in Sience, Engineering and Technology. These R&D professionals have high-level, multi-disciplinary competencies that take years to develop. The high turnover rate is a major cause for concern, as R&D professionals do not stay with the organisation to re-invest their knowledge in projects of the organisation. This causes a concern, as the loss of knowledge and skills may have a detrimental effect on the organisation and society in general (Anderson, 2005).

The enduring shortage of skilled R&D professionals hinders resource capacity and a mismatch of skills is manifested in persistently high levels of less-skilled employees being appointed in positions they are not ready for and therefore are not comfortable (Organisation for Economic Co-operation and Development, 2008) It is, therefore, imperative that business managers constantly motivate the R&D professionals to ensure prolonged engagement and job satisfaction, and to reduce the risk of high labour turnover. In this competitive era, organisations struggle to attract and retain skilled workers. This poses a challenge to deliver on the business unit's mandate and bottom line.

The purpose of this paper is to report on whether there is a significant correlation between motivational factors and labour turnover in a research-intensive business unit in two provinces namely, Gauteng and the Western Cape, in South Africa.

2. Literature Review

A South African study conducted by Robbins, Odendaal & Roodt (2007) found that motivation is related to turnover with factors such as labour market conditions, expectations about alternative job opportunities, incentives and rewards having specific significance. Motivation and turnover within this context, will now be discussed in more detail.

2.1 Motivation

Motivation may be defined as "a psychological force that helps to explain what arouses, directs and maintains behaviour" (Dyck & Neubert, 2009). Similarly, Williams (2010) defines motivation as "the set of forces that initiates the level of effort an employee exerts in his/her work, the direction an employee decides to take when doing his/her work and the persistence to accomplish goals based on reducing or eliminating the efforts". It can therefore be deduced that motivation covers all the reasons that cause an employee to act, such as negative influences like fear for retribution, as opposed to the more positive motives, such as financial incentives, personal growth and development, promotion and recognition (Adair, 2009).

Keller (2010) states that extrinsic motivation is most frequently associated with rewards that is tangible, such as remuneration. It is enhanced by the work environment and occurs after the work has been completed (Marquis & Huston, 2008). In many industries, monetary rewards work well to motivate performance quantity, but not necessarily quality. In these cases, extrinsic rewards do not necessarily erode intrinsic motivation, all though extrinsic rewards may hinder intrinsic motivation by lowering the performance level requiring creativity and innovation. It is important to emphasise intrinsic rewards with transformational leadership, especially to promote high-quality work that is needed for the business unit, which is knowledge-based and innovation-solution-driven (Sosik & Jung, 2010).

The motivational factors influencing labour turnover include work engagement, performance management, organisational culture and management. Engagement takes place when employees are committed to their work and motivated to achieve high levels of performance. The result can only be achieved when employers offer an implied contract to their employees, which elicits specific positive behaviours aligned with the organisation's goals (Armstrong & Brown, 2009). Performance is not the consequence or result of action; it is the outcome of the projects and tasks performed (Landy & Conte, 2010). In terms of motivational effort, an employee tends to have characteristics, such as attention, resilience and confidence, which all lead to motivational design and management in the work environment. Ultimately, motivation and performance can be satisfactory in that employees would feel that their expectations are well defined, and that they are able to deliver successfully on projects and tasks (Keller, 2010). Organisational culture is a pattern of basic assumptions that are considered valid and that are shared with employees, such as the way to perceive, think and feel in an organisation (Armstrong & Brown, 2009). The formal factors here should be leadership, policies and decision-making processes. Informal factors are things such as norms, language and myths (Hellriegel & Slocum, 2007).

Highly educated professionals tend to have strong intrinsic work values, pursuing autonomy, responsibility, achievement and challenging work assignments. Intrinsic rewards from work itself are even more critical for research and development professionals, because they tend to identify strongly with their professions and are eager to engage in meaningful and challenging tasks. It can be concluded that research shows that R&D professionals value both intrinsic and extrinsic aspects of their work (Chang, Choi & Kim, 2008).

2.2 Turnover

The level of labour turnover from one organisation to another varies in terms of what constitutes a low-level and a high level-labour turnover. In the business unit where the research was performed high-level turnover is seen as an institutional risk. As there is a loss of institutional knowledge, critical projects mat be put on halt in order for the existing employees to receive the knowledge transfer from the exiting employees. This might lead to poor service being rendered, due to extended time to delivery.

Jackson, Schuler and Werner (2009) mention the most common causes of labour turnover, namely low job satisfaction, poor human resource practices, other role commitments and labour market conditions. Every employee in an organisation is unique. In some organisations, job dissatisfaction may be a big problem, whereas in other companies, poor remuneration might be a major concern to employees. The competitiveness of the labour market also poses a challenge to organisations that do not have better opportunities to offer the scarce and critical skills job seekers. Human resource department also need to ensure that their policies and procedures – with regard to recognition and career development – are applied fairly and consistently. Cognisance also needs to be taken of personal needs to balance the

roles of being an employee as well as personal commitments to family and community (Jackson *et al.*, 2009).

There are employees who have relatively low-levels of attachment to their employer and they tend to change employment relatively frequently (Chang *et al.*, 2008). Thus, the turnover rates of R&D experts in high-technology companies could be high. The loss of R&D professionals with core scientific and technical knowledge is detrimental to organisational performance and results in "ripple effects" on other employees employed in the organisation. Highly qualified R&D professionals often have high levels of technical expertise and experience in finding and solving new problems in a systematic, logical and creative manner – attributes that are critical for the development of innovative ideas and products (Chang *et al.*, 2008). Despite the fact that labour turnover has been one of the most widely studied topics in the area of organisational psychology, relatively little is known regarding the possible causes of turnover among highly educated R&D professionals (Chang *et al.*, 2008).

Motivation and labour turnover operate in the context of the overall business strategy, organisational culture, and human resource strategy, and their exchange relationship between the employer and the employee. In essence, when employees have a comprehensive understanding of the business strategy, together with the human resources policies and procedures, this makes it easy for them to appreciate the organisational culture.

The research question that guided the research was if there is a significant correlation between motivational factors and factors causing labour turnover among R&D professionals in a research-intensive business unit in Gauteng and the Western Cape provinces of South Africa. The investigative questions addressed the correlation between various identified factors and these questions are reflected in the hypotheses formulated below.

2.3 Hypotheses

Based on the theory presented, the following hypotheses were formulated:

H_1: A significant correlation exits between the style of management (motivational factor) and racial tension (turnover factor).

H_2: A significant correlation exists between being in a challenging work environment (motivational factor) and the intention to stay in the employ of the research institution (turnover factor).

H_3: A significant correlation exists between the respondents' ability to identify what is required for their career growth (motivational factor) and job satisfaction (turnover factor).

H_4: A significant correlation exists between the management system (motivational factor) and R&D professionals' workload (turnover factor)

H_5: A significant correlation exists between the relationship with the direct manager (motivational factor) and favouritism (turnover factor).

3. Research Methodology

3.1 Research design

This descriptive research design included a cross-sectional self-report survey design, measuring the research constructs and related sub-dimensions. Quantitative statistical analysis was done to determine the relationship between various motivational factors and labour turnover (Kumar, 2011).

3.2 Participants

The business unit in which the research was conducted has offices in Gauteng as well as in the Western Cape provinces of South Africa. The total population comprised of 380 (N=380), based in both locations, and included a diverse staff complement representing different demographical groups in terms of age, race, qualification, gender, years of service, career ladder, fixed job and career ladder level. The respondents were placed on different career paths, referred to as career ladders, to which they had to align themselves. The organisation provided for different career ladders including the project manager ladder, the research application and development ladder, the research ladder, the technical ladder and a fixed job (implying the absence of a career path or ladder). The population exhibited all the characteristics of a business unit (Russell & Purcell, 2009). The results of the research were only generalised across the business unit and not across the research institution (Gorard, 2004). A sample was not drawn, but instead the entire staff complement (census) of 380 from Gauteng and the Western Cape provinces of South Africa was requested to participate in the questionnaire, in order to obtain a true reflection that was consistent and unbiased of the business unit as a whole. The respondents totalled

260, implying a highly representative sample of 68%.

In terms of validity and reliability measures, Cronbach's alpha (α) was employed to test for internal consistency of the questionnaire. The analysis was performed at $\alpha = 0.05$ error rate (two sided). It measured reliability and assessed the extent to which a group of questions was asking for the same basic underlying information (Gorard, 2004; Wilson & Sapsford, 2006). The cut-off point of 0.7 was considered in this project. That is, if Cronbach's α was found to be less than 0.7, the items were deemed not good at measuring a perceived latent construct.

4. Findings

The demographical findings are presented in table 1.

Table 4.1 Biographical information (N=260)

Demographical dimension	Biographical Information	Frequency	Percentage	Cumulative Percentile
Age	20 – 25	22	8.46%	8.46%
	26 – 30	66	25.38%	33.85%
	31 – 40	84	32.31%	66.15%
	41 – 50	55	21.15%	87.31%
	51 – 60	28	10.77%	98.08%
	60 +	5	1.92%	100.00%
	Total	**260**	**100.00%**	
Race	Black	47	18.08%	18.08%
	Coloured	14	5.38%	23.46%
	Indian	26	10.00%	33.46%
	White	160	61.54%	95.00%
	Other	13	5.00%	100.00%
	Total	**260**	**100.00%**	
Qualifications	Doctoral Degree	17	6.54%	6.54%
	Master Degree	68	26.15%	32.69%
	4 year Degree & Honours	96	36.92%	69.62%
	3 year Degree	13	5.00%	74.62%
	Diploma & Degree	53	20.38%	95.00%
	Non – Tertiary	13	5.00%	100.00%
	Total	**260**	**100.00%**	
Gender	Female	66	25.38%	25.33%
	Male	194	74.62%	100.00%
	Total	**260**	**100.00%**	
	Total	**260**	**100.00%**	
Years of Service	0 - 18 Months	49	18.85%	18.85%
	1.5 - 5 years	120	46.15%	65.00%
	6 - 10 years	30	11.54%	76.54%
	11 - 14 years	13	5.00%	81.54%
	15 years +	48	18.46%	100.00%
	Total	**260**	**100.00%**	
Career Ladder or Fixed Job	Career Ladder	185	71.15%	71.15%
	Fixed Job	60	23.08%	94.23%
	Don't know	15	5.77%	100.00%
	Total	**260**	**100.00%**	

From the above, the most significant findings include that the majority of the respondents were relatively young, between the ages of 31 and 40 years (n=84), representing 32.31%. In terms of experience, the respondents between the ages of 26 – 30 (n=66), representing 25.38%, had significantly less experience. However, the skills of the respondents of 26 - 30 could be enhanced through the sharing of knowledge with the respondents in the group 32–40 years and those who were 60+. The statistics further indicated a wide margin between the different races groups (black and white). The majority of the respondents were white (n=160), representing 61.54%. The black population group only represented (n=47) representing 18.08%. This might indicate a development area in terms of employment equity in future. Furthermore the

females were n=66, representing 25.38%, while the majority of the respondents were males (n=194 or 74.62%). The business units' female representation was therefore also out of proportion low, when compared to South Africa's demographical profile. By far the majority of respondents' length of service ranged between 1.5 and 5 years (n=120 or 46.15%). This means that most employees stay for less than five years, which is a worrying trend. This finding emphasised the unit's need to develop innovative ways to attract talented members of the unrepresented groups (black and female scientists) and furthermore to retain skills to ensure business continuity and returns on investment.

A Chi-square statistical analysis was performed to investigate specific trends based on the biographical information collected from the participants. As "career paths" are seen as essential to the functioning of this business unit, as they guide employees on how they might grow and develop their career to the next level, and how to acquire the necessary requirements and skills, such as qualifications and publications in order to progress to the next career level, this concept was further investigated correlating the demographical dimension "career ladder" to specific motivational factors and turnover factors. Table 2 illustrates the empirical results of the correlation between the two categorical variables.

Table 2: Chi-square: demographic information (own compilation)

Quantitative questions	Respondents on a career ladder or fixed job path	Only respondents on a career ladder
Envisioning a career in the research institution	p=0.032	
Job satisfaction	p=0.011	
Enabling environment	p=0.026	
Racial tension		p=0.051
Challenging environment		p=0.005

From the above empirical findings, it emerged that 75.77% (n=197) of the respondents believed they had a future, longterm career in the research institution, while 24.23% (n=63) felt that they did not have a longterm career in the research institution. What is important, is that there was a significant correlation between scientists being on a career ladder and believing that they had a career in the research institution (p-value=0.032). This implies that being on a career ladder is very important in terms of envisioning a futute longterm career in the research institution.

Furthermore, a significant correlation between being on a career ladder and experiencing job satisfaction (p-value=0.011) was found. This provides more empirical evidence of the importance of being on a career ladder for retaining skilled employees. Generally, the respondents were satisfied with their jobs at 60.77% (n=158), and only 12.31% (n=32) indicated that they were completely dissatisfied.

In addition, a significant correlation between being on a career ladder and experiencing an enabling environment within the research unit was found (p-value=0.026). In total 51.92% (n=135) of the respondents believed their manager created an enabling environment for their career development, while 33.85% (n=88) felt that their managers sometimes created such an environment, and 14.23% (n=37) believed that their manager was not creating an environment that would develop their career. Managers need to have a full understanding of their employee's abilities and shortfalls, in order for them to create an enabling environment for their employees. Being able to address individual needs is critical, as training and development can never be seen as a generic "one size fits all" intervention.

There was a significant correlation between being on a career ladder and the experience of racial tension in the research unit (p-value=0.051), but as the vast majority of the respondents, 96.22% experienced no racial tensions. As only a very small persentage of the population (less than 4% experienced any racial tension, it may be assumed that the business unit dealt effectively with any significant form of tension that the employees may have experienced.

There was a significant correlation between being on a career ladder and being able to envision a career in the research institution (p-value=0.009). The majority of respondents (n=148 or 80%) believed that they could have a longterm career in the research institution and only a relatively small number of employees n=37 (20%) felt that they could not see a longterm career in the research institution for themselves. From this, the importance of using the career ladder employment strategy in the research institution, is again emphasised. The HR department needs to identify whether the respondents who do not see any career growth hold critical positions, so that any potential problems can be solved pro-actively, turnover be prevented and institutional knowledge be preserved to the benefit of the organisation.

There was a significant correlation between being on a career ladder type and the perception of working in a challenging environment (p-value=0.005). The majority of the respondents (70.27% or n=130) felt that the environment is challenging, while n=47 (25.41%) felt that the environment was sometimes challenging and 4.32% (n=8) believed that the environment was not challenging. The level of challenge of the project would differ in term of complexity and

requirements; however, the projects should be distributed fairly with the intention of creating consistency and fairness in the work that each employee does.

The hypotheses, as presented in par.2.3 were tested statistically. Table 2 summarises the results of the correlation analysis between the different motivational factors and labour turnover factors.

Table 3: Correlation analysis

Variables		Degree of freedom (df,n=xx)	Value of test statisctics Chi-square (X^2)	Information about the cutoff (p-value)	Effect size Cramer's V (Ø)	Effect	Likelihood ratio
Motivation	Labour turnover						
Style of management	Racial tension	1,n=260	11.171	p<0.001	0.207	Small to Medium	9.818
Challenging environment	Intention to stay	2,n=260	22.431	p<0.000	0.415	Large	17.94
Career growth requirement(s)	Job satisfaction	8,n=260	19.772	p<0.011	0.78	Large	18.98
Management Systems	Workload	1,n=260	6.082	p<0.014	0.153	Small to Medium	6.314
Relationship with direct manager	Favouritism	3,n=260	49.381	p<0.000	0.754	Large	37.962

H_1: A significant correlation exists between the style of management and racial tension.

The style of management was significantly and positively correlated to racial tension (X^2=11.171, p<0.001). The magnitude of the coefficient was small to medium (Ø=0.207), and the likelihood ratio was 9.818. This finding can be interpreted that there is a relationship between the management style of the direct manager and the perception of racial tension by employees. Managers need to be made aware of this correlation and work on developing an all-inclusive management style, to reduce any perception of racial division and tension that may consequently lead to negative turnover in the business unit.

H_2: A significant correlation exists between being in a challenging work environment and the intention to stay in the employ of the research institution.

From the empirical results it emerged that the R&D professionals are motivated by being in a challenging work environment, thus building a very strong commitment to stay in the employ of the research institution. There was a significantly positive correlation, whereby X^2=22.431, p<0.000. The magnitude of the coefficient was large (Ø=0.415), with a likelihood ratio of 17.94. The employees are motivated through knowledge-based, challenging work that stimulates their thinking abilities within this research environment. It is evident that employees enjoy the cognitive challenges of their jobs, therefore decreasing the possibility that they will look for alternative employment.

H_3: A significant correlation exists between the respondents' ability to identify what is required for their career growth and job satisfaction.

The respondents indicated that being able to identify the requirements for career growth is important to them, which enhanced their level of job satisfaction. A significantly positive correlation exists between the constructs, with X^2=19.772 and p<0.011. The effectual size of the coefficient was large (Ø=0.78), with a likelihood ratio of 18.98. The fact that employees knew what was required of them to achieve career growth, created a sense of job satisfaction within them. These findings indicated that employees were generally content to work towards achieving their career aspirations, as long as they knew what was expected of them to achieve this.

H_4: A significant correlation exists between the management system and the labour turnover.

A significant and positive correlation was ascertained (X2=6.082, p<0.014). The magnitude of the coefficient was small to medium (Ø=0.153); and the likelihood ratio was 6.314. In this highly technological and knowledge-based environment, the assurance of an acceptable management system is imperative. This implies that the manager has to ensure that the workload is distributed fairly with different levels of complexity within the specific competency area, as well as in the research group. The manager needs to utilise his or her management style strategically to distribute the work equally, according to the employees' abilities and capabilities. The empirical results allude to the fact that employees who feel that they are underutilised or exploited, are likely to consider attractive alternative employment options.

H$_5$: A significant correlation exists between the relationship with the direct manager and favouritism.

There was a significant and positive correlation between the respondents′ relationship with the direct manager and the respondents feeling that the direct manager had favourites (X2=49.381, p<0.000). The effectual size of the coefficient was large (Ø=0.754) and the likelihood ratio was 37.962. This is an indication that employees within this environment is sensitive towards the perception of management showing favouritism towards certain individuals It is equally important that a manager and an employee work towards a good relationship in creating a work environment that is positive, in order to eliminate any favouritism.

The management style and working environment were also considered as important factors for retention, as employees generally want to form a good working relationship without conflict and disagreements with their managers. Managers need to work consciously towards fostering equality and eliminating discrimination and favouratism for all races in a work environment (Van Rooyen, Du Toit, Botha & Rothmann, 2010).

5. Discussion and Conclusions

When the findings are considered holistically, it is clear that the most important issues in preventing turnover are firstly the respondents understanding exactly what is required for career growth, secondly the relationship with the direct manager and thirdly the respondents perceiving a challenging work environment. Although generally employees perceived promising career opportunities in the research institution, it is imperative to pay attention to retaining employees who are considering alternative employment options, especially those with critical and scarce skills to ensure business continuity.

The demographical profile of the study indicated that the members of the black race group, as well as females were under represented, when compared to South Africa′s demographical profile. Furthermore, it was found that most employees stay for a relatively short period of time (less than five years), which is concerning, as a lot of resources are invested in the training and development of young scientists, whom then leave the employment of the research unit for greener pastures and more lucrative financial offers. This finding emphasised the unit's need to develop innovative ways to attract talented members of the unrepresented groups (black and female scientists) and furthermore to retain skills to the benefit of the research unit and the society as a whole.

These findings call for creative solutions that may not necessarily be monetary by nature. It is possible that the research unit might design alternative ways of attreacting and retaining scarece skills, for example more flexible work schedules, research and development leave or other interventions aimed at improving the quality of worklife experience, which may in turn enhance the motivation of the scientists.

Managers need to revise the management system used to distribute workloads, to ensure equal allocation. Managers also need to identify employee strengths and weaknesses, so that the work is distributed to grow and develop employees and not over burden them, setting them up for failure. This may in turn lead to younger or less experienced employees becoming demotivated and consequently, leading to the termination of their employment. This could possibly be linked to the demographical trend of many employees having less than five years experience. In a working environment, good leaders make achievement possible, they stimulate creativity and they give recognition (Adair, 2009). To improve satisfaction and motivation in a job, managers need to confront challenging factors, such as career development, performance management, promotion opportunities, developmental opportunities, work–life balance and talent management (Adair, 2009). The human resources department of the business unit taking part in the research needs to develop strategies for ensuring that additional labour is supplied when there are shortages of highly qualified graduates, as there is an aging workforce and a lack of experienced talent. Different recruitment initiatives, such as the recruitment database, would need to be explored. The recruitment database needs to be monitored continuously, in order to have a skills pool from which to recruit. In addition, partnering with recruitment agencies and professional associations in science, engineering and technology – both locally and internationally – could be an added advantage in bridging the skills gap (Henkens, Remery & Schippers, 2008).

As competition for talent increases, organisations not only have trouble attracting employees, but also with keeping them, as competitors ensure that there are competitive remuneration and benefits to bargain with potential employees, as well as current employees who are seeking other job opportunities outside the organisation. The human resources department of the business unit researched would need to develop a plan for effectively attracting and retaining the talent they need for the success of the organisation. An investigation on how to improve employee recognition through the organisational policies and procedures that would encourage growth opportunities for advancement, would be an advantage. Engagement could result in job satisfaction, motivation and reduced levels of labour turnover. Engagement may be related to good health, such as low levels of depression, illnesses and stress, which ultimately leads to effective

job performance (Schaufeli & Bakker, 2003).

From the empirical findings it can be deduced that the career ladders used may potentially to be utilised as a powerful tool for ensuring that employees remain cognitively challenged, perceive the work environment as overall challenging and interesting and remain in the employ of the research institution. Although the career ladder path is preferable, those employees on the fixed job career path need to be guided and supported and they could be given challenging and exciting work to maintain interest and effort. This could potentially strengthen the employees' commitment to the business unit, and thus reduce the intention to leave.

The business unit needs to consider allocating a career advisor to employees to help with their developmental plans. This is a human resources function, and it could be extended to include those employees who are nearing retirement age, or those who have been in the business unit for a long time. Effective mentorship and coaching programmes would be an investment by the business unit in developing employees individually. Managers can then concentrate on imparting technical knowledge and on-the-job training. In a research and development environment, it is important that there be an information and knowledge transfer of skills acquired. Management could also create an internal link managed by the unit's communication department, where employees can post their research papers or demonstrations for internal comments and peer reviews. This has the potential to build a knowledge and innovation environment. The outcomes could be used for building strategies on how the employees' abilities, capabilities, competencies, areas of improvement and areas where they are subject-matter experts could be utilised to develop a talent-driven environment (Bogardus, 2009).

There are certain variables that are crucial in influencing employees' decision to either leave or remain in an organisation (Samuel & Chipunza, 2009). Such variables include training and development, recognition for performance, a competitive remuneration package and job security. It is only a comprehensive blend of intrinsic and extrinsic motivational variables that can enhance retention and reduce the high rate of labour turnover in various organisations (Samuel & Chipunza, 2009). The business unit taking part in the study needs to take cognisance of the ever-changing and evolving nature of the work environment. The skills required to execute curtain projects might not necessarily be available as there could be shortages of skilled human capital. It is important for the business unit to have a talent pool and succession planning in order to reduce the risk of having projects with no skilled human capital. In order to mitigate factors influencing labour turnover, it is critical to understand the literature on engagement, performance management, organisational culture, management and leadership. An understanding of the above-mentioned factors will assist business managers to develop processes to ensure that the labour turnover rate is managed accordingly.

6.   Conclusions

The main objective of the study was met by confirming that there was a significant correlation between motivational factors and labour turnover at the research-intensive business unit taking part in the study. The strongest motivational factors in terms of combatting turnover were identified as firstly the respondents understanding exactly what is required for career growth, secondly the relationship with the direct manager and thirdly the respondents perceiving a challenging work environment. This confirmed the possibility that business managers could manage turnover by paying attention to these issues in the research-intensive business unit. The managers should strive to provide a challenging work environment, in which employees know exactly what is expected from them, in order to advance their own careers. There is also a requirement for consistency in the business unit and management needs to adopt a supporting or coaching role for employees, in order to keep institutional knowledge within the business unit (Kennedy, 2009). Younger employees or those with less than five years experience need specific coaching and mentoring in order to learn coping mechanisms and master the necessary skills to remain in the employment of the research institution.

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