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# The Nexus Between Analytical Skills, Employment Relations And Future Workspace

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**ABSTRACT**

**Little research, if any, has been conducted on management's expectations from their human resource management related to the nexus between analytical skills, employment relations and future workspace. The purpose of this study is to determine if there is a correlation between perceived analytical skills, employment relations and future workspace. A survey research design and a quantitative approach were utilised. The general managers of the human resource managers that were affiliated with the South African Board of People Management completed the questionnaire. Correlation analyses was used to analyse the data. The results indicated that there was a significant positive relationship between analytical skills, employment relations and future workspace. The results contributed new insights obtained from the views of management and their future expectations from HR in relation to analytical skills, employment relations and future workspace. The study is noteworthy in that its results may be used to make substantial decisions to improve the HR's analytical skills and employment relations due to its relationship with future workspace.**

**Keywords:** Future workspace, analytical skills, employment relations, future expectations, human resources

## INTRODUCTION

It is almost impossible to think about management without thinking about the future of work. Managers should constantly plan and shape how their organisation can improve future workspace so that it is beneficial for the business and the employees. Workspace is not an end in itself. It is an input factor, supporting the organisation to meet its goals and fulfil its mission (Kämpf-Dern and Konkol 2017). Karanika-Murray and Michaelides (2015, 238) state that "there is little, if any, research on how inherently healthy and motivating workplaces can be developed. Organizational intervention research could also focus on the potential to design workplaces supportive of motivation." Data-driven insights are needed to improve the workplace (Harris and Craig 2011). Data gathering combined with rigorous analysis will support and inform business decision-making (Van den Heuvel and Bondarouk 2017).

Analytics involves an insight into what has happened, explains it, and aims to predict what might happen in the future (Van den Heuvel and Bondarouk 2017). The new workplace is digital and

business oriented, as opposed to the mechanical manufacturing nature of the traditional workplace (Chernyak-Hai and Rabenu 2018). This means that business knowledge and skills needed to understand how analytics can be used to create business value are essential (Harris and Craig 2011). The newness of having and using data to inform and even predict HR outcomes is powerful and has already created a compelling call to action for HR mangers (Fernandez 2019).

Another action that HR mangers must take is to improve employment relations. Employment relations refer to the relationships between co-workers, teammates, supervisors (Sahoo and Sahoo 2018) and healthy employment relations are necessary for satisfactory organisational performance and for the employes to feel engaged (Tansel and Gazîoğlu 2014). The organisation by ensuring affirmative relations with the employees can deliver motivated, satisfied, and productive workforce to challenge the dynamism of competition (Sahoo and Sahoo 2018). How workers engage in new forms of employment relations is challenging only employers, but also governments and society at large (Lansbury 2018) A link between analytical skills, employment relations and future workspace was not found in literature.

**Analytical skills**

Analytical skills is the ability to visualise, articulate, conceptualise, or solve both complex and uncomplicated problems by making decisions that are sensible given the available information (Oliver, Vesty, and Brooks 2016). Lykins, Davis, Jamrog, Martin, DiRomualdo, Jamrog and Dixon (2013) mention that analytical ability is a mindset and not the mastery of a specific software or mathematical skill. Data analytics help to take fact-based decisions (Kiron, Shockley, Kruschwitz, Finch and Haydock 2012) and help managers to focus on facts rather than intuition, which also changes the power dynamics in the company (Falletta, 2014). Hecklaua, Galeitzkea, Flachsa and Kohlb (2016) as well as Gray, Burel, Graser and Gallacci (2018) found analytical skills to be an important future workplace competence. Data production, quantitative analysis and statistical models assist HR managers to make better decisions and achieve better results (Harris et al. 2011).

HR managers should have enough business insight to be able to apply their quantitative knowledge to business problems and processes (Harris and Craig 2011). Business intelligence (BI) tools such as online analytical processing (OLAP) provides the dynamic analysis, synthesis and consolidation of large quantity of multi-dimensional data (Mailvaganam 2007). OLAP applications can retrieve summary statistics such as totals, averages, percentages, standard deviations, maximum, minimum of data measurements from multiple dimensional views (Kapoor and Sherif 2012).

HR managers should also possess a wide range of quantitative skills for example trend analysis, classification algorithms, predictive and statistical modeling, optimisation and simulation, along with various data-, web- and text-mining techniques (Harris and Craig 2011). HR managers should be re-educated in scientific thinking and statistical reasoning to advance the quality of people decisions (Kahneman, 2011).

Statistical techniques can be used to sample data selected randomly and specifically to validate a hypothesis and data mining is an extension of statistical techniques such as, classical and artificial intelligence (Kapoor and Sherif 2012). Data mining includes techniques called discovery driven techniques that do the exploration and analysis by automatic means of large quantities of data in order to discover meaningful hidden patterns in order to find relationships, associations and trends

among the data measurements (Kim 2002; Shmueli, Nitin and Bruce 2010). Van der Togt and Rasmussen (2017) caution that is important to ground projects in some form of sound theory or else one may risk basing the decisions on statistical flukes caused by data mining.

The key to staying competitive is to conduct predictive analytics (quantitative methods to derive actionable insights and outcomes from data) (Harris and Craig 2011). "Predictive analytics includes statistical, mathematical and data mining analyst-guided techniques that do the exploration and analysis of large quantities of data in order to make decisions by forecasting the outcomes" (Kapoor and Sherif 2012: 232).

The key role of the HRM in enhancing firms' competitive advantage has been frequently emphasised in the literature (Buller and McEvoy 2012; Jiang, Lepak, Han, Hong, Kim and Winkler 2012). Employee and workforce insights are the greatest competitive advantage for organisations dealing with the disruption and uncertainty driving dramatic changes in today's workplace. Embedded in this is the growing expectation of the human resource (HR) function to understand how workforce analytics informs the business and fuels success (DiClaudio 2019). According to Van den Heuvel and Bondarouk (2017), by 2025, HR analytics will be an accepted established practice within business and the focus will be on predictive analytics, for example predicting peaks in staff turnover, rather than simple data reporting (Van den Heuvel and Bondarouk 2017).

As the use of HR analytics provides integrated, consistent and trustworthy data (LaValle, Lesser, Shockley, Hopkins and Kruschwitz 2011), it can significantly reduce biases related to human cognition. Smart Human Resources 4.0 (SHR 4.0) is a new concept that is evolving as a part of the overall 4th Industrial Revolution and characterised by innovations in digital technologies such as Internet-of-Things, Big Data Analytics, and artificial intelligence (AI) and fast data networks such as 4G and 5G for the effective management of next-generation employees (Hecklaua et al. 2016).

An important issue of HR analytics in the future will be data privacy as there will be an increasing amount of data available ("big data") both from within the company and from external sources including employee personal data (Van den Heuvel and Bondarouk 2017). "New concerns surfacing just this year question whether it will even be possible to access HR data, stored and used for analytics purposes" (Fernandez 2019, 24).

## Employment relations

Employment relations refer to the relationships between co-workers, teammates, supervisors and managers that exchange ideas, feelings and emotions (Sahoo and Sahoo 2018). In an organisational context employment relations are part of the socialisation process, a source of information required for successful performance and satisfaction, and a ground for social support and networking (Chernyak-Hai and Rabenu 2018). While the regulation of the workplace and interaction between employers and unions remain key concerns to the field of employment relations, other issues related to people at work, employment and organisations are important in bringing a broader perspective to the subject (Lansbury 2018).

For some time now an important strand of study has been emphasising the limitations of the traditional paradigm of employment, according to which work and employment in the advanced economies are supposed to be regulated by the interactions among three groups of IR actors labour

– employees and their trade unions; capital – employers and their associations; and the state (Regalia 2017). Understanding the changing nature of work and employment relations has significant implications for economic prosperity and social harmony in all societies. "While the regulation of the workplace and interaction between employers and unions remain key concerns to the field of employment relations, other issues related to people at work, employment and organizations are important in bringing a broader perspective to the subject" (Lansbury 2018, 16).

The employer/employee relationship (EER) is part of employment relations. Researchers have defined EER from different perspectives (Countouris, 2016), such as economic and legal perspective (Countouris, 2016; Flammer and Luo, 2017), leadership perspective (Einarsen, Aasland and Skogstad 2016; Wang, Law, Hackett, Wang and Chen 2005), and HRM perspective (Abdullah, 2017; Luo, Kanuri and Andrews 2014). According to prior research, EER from the HRM perspective can be defined as "how well firms take care of and build long-term relationships with internal stakeholders of employee" (Luo et al. 2014, p. 499).

According to Chernyak-Hai and Rabenu (2018), as employment relationships become more personal, a greater need for enforcement of labour laws designed to prevent exploitation and maintain compliance with basic ethical standards. Organisations progressively seek effective strategies to cooperate and to sustain long-lasting mutually beneficial relationships with their employees (Waters, Bortree and Tindall 2013). "Managers, human resource managers in particular, must play a key role in the construction of labour relationships in the new workplace by suggesting fair exchange alternatives on the one hand while recognising the change in employees' needs on the other" (Chernyak-Hai and Rabenu 2018, 474). Organisations should improve the existing ERs scenario and adopt effective HR strategies and policies that value employees as the key stakeholders (Yadav and Naim, 2017). HR managers should also leverage their relationships with line managers to enhance HR department effectiveness (Nguyen and Teo 2018).

Organisations' priority towards enhancing the well-being of employees is considered relevant for a healthy employer–employee relations climate (Holtzhausen and Fourie 2009). People need to perceive not only a friendly and supportive environment, but also that there is no room for discrimination in their organisation (Di Marco, Arenas, Euwema and Munduate 2017). It is essential to focus on the development of positive interpersonal relationships in the workplace (Reich and Hershcovis 2011). According to Vasconcelos (2015), older workers regard their relationships with their younger colleagues as positive and being led by younger managers as acceptable. "To get to know someone, you must spend time with them and develop the relationship." (Mirau 2017, online). A better employment relationship based on trust and respect is the most critical driver of organisational advancement (Bello, 2012). Open conversation about product failures, layoffs, or competitive threats is also essential (O'Boyle, Atack and Monaha 2017).

According to Sullivan, Baird and Donn (2013), workspace impacts on productivity, cognitive performance tests, monitoring computer activity, absenteeism, presenteeism, health issues, time lost to issues affecting productivity, mood, sleepiness, job satisfaction, job engagement, intention to quit and turnover. Workspace significantly influences the performance of individuals, groups and the overall organisation's success (Kämpf-Dern and Konkol 2017).

Totterdill and Exton (2014, 6) state that one of the signals for 2020 is that "trade unions and employers' organizations at national and local levels can play an important but largely unrecognized role as knowledgeable participants in stimulating, guiding and resourcing workplace change." Other 2020 signals, according to Totterdill and Exton (2014), are listening to the voice of employees to generate greater workforce commitment to the organisation, as well as employee engagement, involvement, and participation. Employment relations will be resilient in the future (Fenwick, Kucera, Curtis, Lapeyre, Tchami, Stavrakis, Hunter and Marcadent 2016). Colbert, Yee and George (2016) found that the digital workforce is an important factor in the future workplace. Favourable workspace incorporated with fairness (Aryee, Budhwar and Chen 2002), autonomy in decision-making, and the harmonious management of conflicts incite them to be more prone towards relationships (Sahoo and Sahoo 2018).

**Future workspace**

Hills and Levy's (2014) mention that workspace entails workability, comfort, occupational density, the need for privacy, control over the environment, adjacency to colleagues, and functionality, as well as two further criteria, namely, location and customisability. Workspace consists of any human-made artifact such as tool, product, technical processes, service, software, built environment, task, organisational design as well as other humans (Wilson, 2000). An ideal workspace evolves around privacy, control, access, proximity, technology access, size, indication of status or equality, an aesthetically pleasing environment, comfort, physical well-being, and flexibility (Wilhoit, Gettings, Malik, Hearit, Buzzanell and Ludwig 2016). Previously, most research opined that workspace was material, static, and functional (Kornberger and Clegg 2004). Other scholars are of the opinion that workspace is a changing and multiple social production (Dale and Burrell 2007), while also considering the lived experience of being in workspaces (Beyes and Steyaert 2011).

The past three decades have seen very significant changes to workspace and much of that change has been the result of the increasingly profound impact of technology (Harris 2015). Managers should consider the social aspects of workspace and possibilities that workers understand space differently (Wilhoit et al. 2016). Crawford (2018) indicated that a creative future workspace is essential to keep the business profitable. The nature of work has changed, becoming much more flexible and virtual whereas employee characteristics have changed, with greater freedom in employment such as free agents and freelancers (Chernyak-Hai and Rabenu 2018). The current workspace is dynamic and complex and often referred to as VUCA (volatility, uncertainty, complexity, and ambiguity; see Bennett & Lemoine, 2014). This could be a stressful environment for employees, especially managers, because they have less influence on organisational outcomes (Chernyak-Hai and Rabenu 2018).

According to Chen, Wang and Yang (2015) as well as Dul, Bruder, Buckle, Carayon, Falzon, Marras, Wilson and van der Doelen (2012), ergonomics considers different aspects of the person (physical, physiological, psychological) and different aspects of the environment (physical, social, informational). Ergonomics can therefore not be ignored when dealing with workspace.

Harris (2015) found that the agility to support a constantly evolving workforce can be enabled by the infrastructure to support agile working. Shakshuki and Matin (2010) mention that learning agents are computer systems that are capable of learning user actions, which they can use to determine what to do in the future within their environment. Such an agent should therefore be

able to learn users' actions and help to influence users' future actions within the collaborative virtual workspace (Shakshuki and Martin 2010). Abrishami, Goulding, Rahimian and Ganah (2015) propose that optimal solutions should be found for conceptual design automation.

Crawford (2018) states the need to contextualise the office within its own operations. Ropo and Höykinpuro (2017) also state that workspaces become filled with emotions and sensations, influencing social action and performance. According to Haynes, Suckley and Nunnington (2017), the term "downtime" is used to mean the office occupier is able to physically move away from their desk and engage in either social interaction or just to have time to themselves away from their desk. Positioning therefore requires careful consideration. It is proposed that "downtime" has a key role to play both in terms of productivity and the health and well-being of office occupiers (Haynes et al. 2017).

"The success of workspace change projects is dependent on two components and their interrelations: the organisation-specific effective (re)design of the workspace (the content) and the management of change during its implementation phase (the processes)" (Kämpf-Dern and Konkol 2017, 228). Overall, a greater spread of square feet per worker should be expected over the next several years, as some organisations reduce footprints significantly while others maintain current practices with private, dedicated spaces (Miller 2014).

Steiner (2016, 22) asks the question: "Is the workplace flexible and future-proofed?" In the future world of work employees may work from different places – in the office, at home, at third places or in between (Kämpf-Dern and Konkol 2017). New workspace design thus has to consider a multitude of interrelated dimensions to be effective. Miller (2014) found that there will be a new kind of space being required, one that lets in more natural light with better natural ventilation, with better temperature control and provides for more collaborative and more productive workspace.

To understand the future workspace it is essential to understand the activities and processes that take place within it and this includes employee perceptions of how workspace design affects their sense of well-being and productivity (Hills and Levy 2014). De Paoli and Ropo (2017) emphasise the importance of involving end-users in planning and designing their workspace, not only to comment on architect's drawings, but to participate as an equal partner throughout the building or renovating process. Kämpf-Dern and Konkol (2017) state that workplace design should consist of an integration of change management parameters of workspace projects, the explicit performance orientation and the inclusion of the multitude of actors such as users, facilities management, Human Resources, ICT.

## PROBLEM STATEMENT AND PRIMARY OBJECTIVE

Literature suggests that by applying advanced analytical techniques, HR managers will get intelligent business insight, predict changes and make informed decisions at operational and strategic levels (Kapoor and Sherif 2012); it remains important for organisations to provide an attractive workspace that meets the needs of the future employees **(**De Bruyne and Gerritse 2018) and to reinvent employment relations is inevitable (Van der Togt and Rasmussen 2017). In addition, little is known about the nexus between analytical skills, employment relations and future workspace. Against this background, the primary objective of this study was to determine if there is a significant positive relationship between analytical skills, employment relations and future

workspace. To achieve this objective, the research question is posed as follows: Is there is a significant positive relationship between analytical skills, employment relations and future workspace? In answering the research question posed, the current study contributes to closing the aforementioned research gap.

## METHODOLOGY

A survey research design and a quantitative research approach which was deductive and cross-sectional in nature.

### Sampling

The South African Board of People Practice (SABPP) was approached in this study. The general managers of the human resource managers (HR) that were affiliated with the SABPP participated in this study. The HR manager therefore did not complete the questionnaire but his or her general manager completed the questionnaire. The Survey Monkey link was sent to a total of 1,380 general managers. A census was therefore used and 241 general managers completed the questionnaires.

### Procedures for data collection

The questionnaire was developed on the findings of a qualitative review that was used to obtain inputs from 30 international futurists about the future of work (Schultz 2017). This questionnaire was distributed to the respondents (general managers) via SurveyMonkey.

### Data analysis

Statistical Package for the Social Sciences (SPSS) version 25.0 was utilised for statistical analyses. Demographic analysis was conducted using descriptive statistics. The method used was a principal axis factor analysis and oblimin with Kaiser normalisation rotation. Preliminary data analysis included the aggregation of frequencies to profile the respondents' characteristics, and the computation of the scale reliability to test internal consistencies (Cronbach's alpha). Pearson correlation analysis was used to quantify the strength of association among the constructs being investigated in this study (Blyth 1994). Regression analysis was conducted to establish the perceptual and influential nature (Galo, 2015) of analytical skills and employment relations on future workspace. Multiple regression analysis aims to determine the nature of the linear relationship between one dependent variable, and multiple independent variables (Collis and Hussey 2014) as was the case in the current study.

## RESULTS

The demographic profile of the respondents, validity and reliability of the questionnaire, factor analysis, correlation analysis and regression analysis are reported below.

### Demographic profile of the respondents

The demographic profile of the respondents is presented in Table 1.

**Table 1: Profile of the respondents**

| Demographic parameter | Classification | N | n | % |
|---|---|---|---|---|
| **Gender** | Male | 240 | 98 | 40.7 |
| | Female | | 142 | 58.9 |
| **Age** | 18–24 | 241 | 2 | 0.8 |
| | 25–34 | | 26 | 10.8 |
| | 35–44 | | 62 | 25.7 |
| | 45–55 | | 82 | 34.0 |
| | 54–65 | | 59 | 24.5 |
| | 65 years and older | | 10 | 4.1 |
| **Managerial experience** | Less than 5 years | 241 | 39 | 16.2 |
| | 6 to 10 years | | 51 | 21.2 |
| | 11 to 15 years | | 45 | 18.7 |
| | 16 to 20 years | | 41 | 17.0 |
| | 21 to 25 years | | 28 | 11.6 |
| | More than 26 years | | 37 | 15.4 |
| **Managerial level** | First-line manager | 235 | 113 | 46.9 |
| | Middle manager | | 77 | 32.0 |
| | Top manager | | 45 | 18.7 |

An analysis of Table 1 illustrates that there are more female respondents (58.9%; n=142) than male respondents (40.7%; n=98). With reference to age groups, a greater number of the employees fall within the 45–55 years age group (34%; n=82), followed by individuals in the 35–44 years age group (25.7%; n=62). With respect to managerial experience, the majority of the respondents have six to 10 years of managerial experience (21.2%; n=51), followed by 11 to 15 years (18.7%; n=45). Lastly, most of the respondents are at a first-line managerial level (46.9%; n=113), followed by middle managers (32%; n=77), and top managers (18.7%; n=45).

## Validity and reliability

Content validity was determined by using 10 Human Resource Management (HRM) academics who reviewed the questionnaire. These academics possessed a doctorate degree in HRM and they had 5 years' experience or more an HRM academic. They reviewed the language, structure, and design of the questionnaire.

Face validity was ascertained by conducting a pilot test with 20 executive general managers. These managers had 5 years' experience or more as a manager.

Construct validity was ensured by conducting a principal factor analysis as shown in Table 2.

Convergent validity was checked by means of a Pearson correlation analysis. There are positive correlations between the constructs, as seen in Table 4.

**Table 2: Factor analysis**

| | Factor | | |
|---|---|---|---|
| | **Analytical skills** | **Future workspace** | **Employment relations** |
| My HR manager must be able to do a gap analysis (a technique to determine what steps need to be taken to move from its current state to its desired future state). | 0.835 | | |
| My HR manager must have knowledge of flexibility analysis to improve, for example, innovation, continuous training of its workforce, and developing collaborative high-trust labor relations. | 0.776 | | |
| I want my HR manager to have future thinking skills to take on the challenges of a complex and dynamic evolving future landscape. | 0.748 | | |
| My HR manager must assist me with introducing a "third space" or "nomadic workplace" (informal public places on neutral ground where people gather and interact) in order to decrease square meter space at work. | | 0.869 | |
| My HR manager must assist me with the future office that may be more hybrid workspaces (movable furniture, couches and/or private booths) to add variety and individuality to current featureless offices. | | 0.841 | |
| My HR manager must have a futuristic (ahead of times) approach towards the design of workspaces. | | 0.559 | |
| My HR manager must assist me to redefine employment relations between the employer and employee to fit future purposes. | | | 0.8 |
| I expect my HR manager to constantly engage with me. | | | 0.701 |
| My HR manager must become future-fit (more focused on what lies ahead than behind). | | | 0.663 |

In this study, scale reliability was measured using Cronbach's alpha. The alpha readings are presented in Table 3.

**Table 3: Scale reliabilities**

| Scale | Number of items | Cronbach's alpha |
|---|---|---|
| Analytical skills | 14 | 0.939 |
| Future workspace | 4 | 0.867 |
| Employment relations | 10 | 0.897 |

Feinberg, Kinnear and Taylor (2013) suggest that the acceptable level for measuring reliability of an instrument is 0.7. Table 2 indicates that all alpha readings are above the recommended 0.7 value. The scales used in this study are reliable or internally consistent.

## Correlation analysis

The strength of associations between the future workplace, analytical skills and employment relations were tested using the Pearson correlation coefficient (r). The results of this analysis are presented in Table 4.

**Table 4: Correlation analysis**

| | | Analytical skills | Future workspace | Employment relations |
|---|---|---|---|---|
| **Analytical skills** | Pearson correlation | 1 | 0.643** | 0.826** |
| | Sig. (2-tailed) | | 0.000 | 0.000 |
| | N | 241 | 239 | 241 |
| **Future workspace** | Pearson correlation | 0.643** | 1 | 0.572** |
| | Sig. (2-tailed) | 0.000 | | 0.000 |
| | N | 239 | 239 | 239 |
| **Employment relations** | Pearson correlation | 0.826** | 0.572** | 1 |
| | Sig. (2-tailed) | 0.000 | 0.000 | |
| | N | 241 | 239 | 241 |

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

In Table 4, the Pearson correlation coefficients suggest positive linear associations between perceived analytical skills and future workspace (r=0.643); analytical skills and employment relations (r=0.826); and future workspace and employment relations (r=0.572). By implication, an increase in a construct results in increases in other constructs if a positive correlation exists, while the reverse is also true.

## Discussion and Managerial Implication

The aim of this study was to determine if there is a nexus between analytical skills, employment relations and future workspace. The results indicated that there is a significant positive relationship between perceived analytical skills, employment relations and future workspace.

Hecklaua et al. (2016) as well as Gray et al. (2018) also found analytical skills to be an important future workplace competence. Busari, Mughal, Khan, Rasool and Kiyani (2017) discovered the importance of cognitive analytical skills in making decisions, and Klakegg, Torp, and Austeng (2010) concur with the importance of analytical skills in the workplace. This concur with the findings of this study. Van der Togt and Rasmussen (2017) also found the importance of analytical skills. By constructively challenging one another, people develop a deeper understanding of the issues, create more innovative solutions to problems, and increase the effectiveness of decision-making (Kaufman 2012).

Steiner (2006) has already also found that employees should be adequately involved in the workspace planning process through surveys and ongoing feedback. Workplaces will continue to face significant challenges over the coming decade. This will mean that employers, employees and their representatives will have to improve their analytical skills and employment relations in the years to come. The way that one interacts with others in the workplace is important. Good employment relations, where everyone feels respected and supported, help promote a positive work culture. Management needs to actively work at building and maintaining employment relationships in the workplace and be aware of and open to others' situations.

Jungst and Blumberg (2016) found that managers should facilitate the development of meaningful employment relations that are more resilient against negative employee behaviour. Roncalli and Byrne (2016) highlight the importance of constructive communication and support from colleagues in order to strengthen employment relations. All workers (permanent workers, contingent workers, freelancers and contractors) must be engaged to improve employment relations and productivity (Jesuthasan 2017). Koriat and Gelbard (2014) state that organisations should also pay attention to human resource practices concerning all types of employees in order to establish transparent and supportive employment relations that would in turn encourage knowledge sharing.

The findings in this study have several implications. For academic researchers, the current study provides evidence to encourage more studies with a larger sample to obtain the perceptions and future expectations of general managers from South Africa's HR managers as well as in other countries.

This paper has shown evidence with practical implications. Specifically, general managers can interpret findings of this study in meaningful and applicable ways although it was based on perceptions. The results can be used by general managers to assess the way they manage human resource related matters. Improving the employment relations in large firms will not only increase employee satisfaction in several respects but it will also increase labour productivity, reduce turnover and motivate employees (Tansel and Gazîoğlu 2014). From a managerial perspective, there needs to be a strong investment into IT systems, updating systems, and building a solid infrastructure not only for data collection but also for analysis and prediction (Van den Heuvel and Bondarouk 2017). The use of human analytics will improve organisational effectiveness and strategic decision-making of managers that positively impact the organisation's performance as a whole (Durai, Rudhramoorthy and Sarkar 2019).

Strengthening analytical ability requires more math classes because it requires broad understanding of finance and operations, and marketing must be combined with statistical analysis, presentation skills, and a focus on problem-solving. Any strategic management plan, as well as the strategic HR plan, should aim to align people to execute business strategy and goals. These plans will assist to prepare the current staff, and anticipate the people and skills an organisation will need in the future. According to the results of this study, these plans should then focus specifically on enhancing the analytical ability of the organisation's HR managers.

It is essential for any organisation to prepare for the future of work. This can be done by paying attention to the improvement of the analytical skills of specifically, human resource managers. If for some reason this improvement is not done the consequences may be that there will be a lack of understanding future-related problems and working toward solutions. There may also be a negative impact on future work relations and future workspace. Managers and HR managers need to re-think the meaning of workspace. It is not clear exactly what the future entails and management as well as HR managers should therefore rather prepare themselves as far as possible.

## LIMITATIONS AND RECOMMENDATIONS

In this study, managers indicated their future expectations of human resource managers and it was therefore perceptual in nature. The views of the human resource managers were not taken into

consideration. The study is limited to the general managers of the human resource members of the SABPP—it is not a universal representation of all general managers in South Africa.

It is recommended that executives and their management teams build an open culture and encourage others to engage in healthy debate and constructive dissent in order to be more likely to avoid dysfunctional employment relations and discover a competitive edge in the future workplace. Ultimately, the goal of every organisation should be to embrace, not avoid, healthy and constructive opposition, and reap the rewards of analytical skills and healthy employment relations.

Further research ideas entail extending this study to different sectors in South Africa, as well as conducting international studies. A qualitative study to obtain rich data on managers' views about their analytical skills, employment future relationships, and future workspace is also suggested. This study was based on perceptions and direct measurements to investigate actual workspace, analytical skills and employment relations can be conducted.

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