Determinants of employee compensation: an exploratory study

By Frans Maloa* and Mahamed Rajah**

Abstract
Compensation is a discretionary concept and the determinants of compensation may not necessarily be the same for all organisations.

This article reports on the extent to which a limited number of determinants of compensation identified for this particular study, namely job performance, external equity, job families, tenure and employee skill, determine employee compensation in an organisation.

A purposive sample was drawn for this study. Three small and medium-sized organisations were included in the sample, namely a state-owned organisation in the aviation sector, a parastatal company in the finance development sector and a private company in the banking sector. A categorical multiple regression analysis was conducted.

The findings of this study reflect a greater significance in four of the six variables as strong predictors of employee compensation, namely employee skill, employee performance, job family and job grade. The other predictors, namely external equity and tenure, can be considered to be of marginal significance as predictors of employee compensation. However, the results also seem to indicate that the four strong predictors may be more significant in state-owned and parastatal companies than in private sector companies.

Key words: employee compensation, employee skill, employee performance, external equity, organisational tenure, job family, and job grade

1 Introduction
It would seem that employees performing the same kind of work, and located in the same working environment, are not compensated equally. Workers performing almost identical work, that requires the same skills, and who are organised by the same union in the same geographical area are receiving a rate of pay that differs markedly from one employer to the next. A sixty per cent difference is not uncommon (Gomez-Mejia, Beronne & Franco-Santos 2010).

A study by Van Zyl (2010) contends that there is currently an important general debate in South Africa (among employer organisations, labour unions, politicians and such like) on the size and fairness of perceived employee remuneration gaps between

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the different employment levels in organisations. Labour unions, in particular, are of the opinion that remuneration gaps are expanding and that the situation constitutes a major threat to job creation and the fair distribution of income in the workplace and the economy as a whole. Employer organisations, however, argue that employee remuneration gaps are, in the main, the result of the shortages of more highly skilled employees in the workplace and differences in labour productivity levels between the different employee segments. According to Crotty and Bonorchis (2006), vast income inequalities have always been a characteristic of the South African economy.

In a study conducted in the public sector by Masibigiri and Nienaber (2011), employees complained that their employer was not paying for their skills. In addition, employees were of the opinion that salary should match the service given and that salary should not lag behind inflation. The findings of the study implied that employees do regard their skills and tenure as important determinants of employee compensation. The question then is to establish which particular determinants of employee compensation should be regarded as more significant in determining the rate of compensation.

Employee compensation is seen as a product of many factors within an organisation and one of the determinants has been an emphasis on equity. For example, in Swanepoel, Erasmus and Schenk (2008), workplace equity was seen as the goal attainment linked to the bonuses paid to managerial staff at the SAB. Similarly, a study conducted at the Witwatersrand Business School identified the retention of the scarce and highly marketable specialist skills of knowledge workers as dependent on competitive remuneration packages.

Zingheim and Schuster (2007) contend that the compensable elements most used to determine the value of work to an organisation vary widely in their ability to predict the market value of work performed. However, the most important determinants of the market value of a job have been found to lie in the functional area in which the work is performed, such as accounting, computer systems, sales management and quality control.

Boyd and Salamin (2001) assert that base salary could be viewed as being determined by individual characteristics (gender, age, hierarchical position) rather than by strategic orientation, whereas the payment of bonuses is largely explained by strategic orientation rather than individual factors.

Riggio (2009) provides an internal perspective for looking at the determinants of employee compensation by stating that a number of other variables, such as the perceived value of the job to the company, and the job’s history, may also influence its rate of compensation. Giancola (2009) provides a macro- and external perspective by stating that in many organisations the internal pay structure and salary increase plans are heavily influenced by the actions of other companies.

Current compensation practitioners have attempted to address concerns about determinants of employee compensation by relying mostly on equity and market data. According to Gomez-Mejia et al (2010), both equity and labour market models and their operationalisation (namely job evaluation and market surveys) take a largely deterministic view of the world. This deterministic view has been questioned, by practitioners and academics alike, in a number of related ways. According to Bussin in Coetzee and Schreuder (2010), while most South African organisations use a job-based job evaluation system, the authenticity, reliability and acceptability of job evaluation are largely influenced by the quality of the job descriptions used in the process.
Swanepoel et al (2008) contend that many companies and industries use in-house systems that have been developed as tailor-made systems. Extensive use is also made of standardised, ready-made systems that have been developed locally and abroad, the most prevalent being the Paterson Decision Band Method, the Peromnes system and the Hay guide chart.

Although job evaluation is regularly undertaken to assist in determining monetary values for jobs, it is not a method for determining rates of pay. Instead the determinants should be the grades or categories to which pay is attached (Vosloo 2005).

Gomez-Mejia et al (2010) contend that some practitioners still believe that employee compensation is mostly determined by job performance. However, according to Bevilacqua and Singh (2009) the underpinning of any pay-for-performance system is the establishment of an accepted method of performance evaluation – one that is fair and transparent. However, methods of evaluation are often fraught with significant problems. Often, pay-for-performance systems become encumbered by complex, multi-layered formulae that attempt to reward such a large number of behaviours that the employees are unable to keep their priorities clear.

Employee compensation also seems to be influenced by whether the organisation is a public company or a private company. For example, Llorens, Wenger and Kellough (2008) state that when identifying competitive pay rate levels, most public sector organisations rely on salary surveys of comparable positions in the private sector. As these positions are the most likely alternative for potential or current public sector employees, it is the goal of public sector organisations to offer pay rates that match, or at least come close to, private sector rates. These rates are commonly referred to as “prevailing rates”.

However, there are concerns when adopting and implementing private sector methods in managing public sector salaries, especially when seeking to identify prevailing rates for public sector occupations. First, if there are patterns of wage discrimination present in the private sector labour market, then basing public sector pay rates on this market only perpetuates these patterns of discrimination (Nigro, Nigro & Kellough 2007). Second, policy makers must determine which labour markets are most appropriate for a comparison of pay rates. Inappropriate comparisons could potentially lead to higher or lower prevailing rates than are necessary or desirable (Llorens et al 2008).

The dependency of the public sector on the private sector, together with issues concerning the correct market on which to base pay determinations, seems to suggest that there is no immediate solution to the problems surrounding employee compensation. Van Zyl’s (2010) study concluded that all the research findings clearly indicate three important aspects that must be considered, namely (1) employee characteristics, (2) the difference in the skills levels of employee segments and (3) the level of uncertainty in the business or economic environment in which a particular employer operates. Van Zyl’s study relates to the objectives of the current study in that it seeks to identify the most significant determinants of employee compensation in an organisation.

Studies in the South African context (Masibigiri & Nienaber 2011; Swanepoel et al 2008; Van Zyl 2010; Vosloo 2005) succeeded in identifying the determinants of employee compensation. They have yet, however, to account for the extent to which each determinant predicts employee compensation in an organisation. The contribution of this research is therefore unique in that the determinants of employee compensation are collated and statistically interrogated to expose the degree to which each variable
predicts employee compensation. What makes this study of interest is the weighting of each of the identified determinants of employee compensation.

This article focuses on the extent to which each of the identified variables, namely job performance, external equity, internal equity, job families, organisational tenure and employee skills, predicts employee compensation in an organisation. Although this line of investigation may appear straightforward, a review of the employee compensation literature, especially within the South African context, does not produce much information on the way the identified variables account for employee compensation in both the public and the private sector.

This research offers several contributions to the literature on employee compensation as it intends to bring new insight to the body of knowledge on employee compensation within the South African context by creating awareness of the accepted determinants of employee compensation when structuring salaries. Secondly, the study will explain, to a limited degree since a purposive sample is used for the study, the extent to which determinants of employee compensation differ in public sector organisations as opposed to private sector organisations.

This article is structured accordingly: First, the problem statement and the aims of the research article are provided. The paradigm perspective is then discussed, followed by the preliminary literature review. The research design is subsequently explained, followed by the results and a discussion of the results. The article concludes with a discussion on the limitations and recommendations of the study.

2 Problem statement

Compensation is a discretionary concept and the determinants of compensation may not necessarily be the same in all organisations. There are various factors that may contribute to discrepancies in the way employee compensation is determined within an organisation. Employee experience and level of education are signals to organisations that indicate employees’ levels of knowledge and skills. Consequently, the labour market rewards employees for acquiring more human capital with access to better jobs, higher earnings and greater incentives to remain in their jobs (Ng & Feldman 2010).

The going rate in the labour market becomes the key factor in ascertaining job value or worth. Hence, external equity is defined as the extent to which the firm’s pay rate for a given job matches the prevailing rate for that job in the external market (Fitzpatrick & McMullen 2008).

The salary survey data, in general, are used for each job within a given grade level and are used to price all jobs previously classified into that grade. It is possible to use regression procedures to link market data with job evaluation scores (Rosen 2008) to determine employee compensation. However, there seem to be challenges in determining which labour markets are most appropriate for a comparison of pay rates between the private and the public sectors.

In practice, where a certain employee will be positioned in terms of salary depends on a number of factors of which the most common are previous experience, company tenure and assessed job performance (Hellerman & Kochanski 2008; Amuso & Knopping 2008; Wilson & Malanowski 2008; Grote 2008; Niven 2008; Graham-Brown 2008).

Against this background the research reports on job performance, external equity, job family/job function, organisational tenure, employee skill and job grade as determinants of employee compensation.
3 Objectives of the research
The primary objective of this research was to gain a better understanding of the determinants of employee compensation in an organisation. The secondary research objectives included the following:
• the extent to which job performance determines employee compensation in an organisation;
• the extent to which external equity determines employee compensation in an organisation;
• the extent to which organisational tenure determines employee compensation in an organisation;
• the extent to which job family determines employee compensation in an organisation;
• the extent to which employee skills determine employee compensation in an organisation; and
• the extent to which job grade determines employee compensation in an organisation.

The last objective was to formulate recommendations from the results for use in the organisation, as well as in further research, in the field of labour relations and compensation in particular.

4 Theoretical overview
Since the research reports on the complicated and multi-faceted concept of employee compensation, there is a need to work within a broader theoretical framework that permits generalisation to most compensation situations.

The broader theoretical framework that serves as a foundation for understanding the concept of employee compensation in an organisation includes motivational theories such as equity theory, institutional theory, principal-agent theory, the structural model, and human capital theory. Firstly, according to Gomez-Mejia et al (2010), equity theory posits that an individual’s motivation is affected by how he or she perceives the ratio of inputs (such as work performance) to outcomes (like rewards) relative to referent others. Consequently, from a motivational perspective, the organisation must provide rewards that are proportionate to individual inputs.

A second possible theoretical viewpoint of employee compensation is the institutional theory. Balkin (2008) argues that it is impossible to explain the observed differences in pay level and compensation without examining the role of institutional forces, such as mimetic isomorphism (practices of peer organisations), normative isomorphism (norms that develop in professions that receive similar training) and coercive isomorphism (corporate governance system, practices and regulations).

A third theoretical viewpoint from which employee compensation can be explained is the principal-agent theory, also known as the agency theory. According to Perkins and White (2008) agency theory holds that the size of the reward offered may be linked to the level of complexity (and associated transactional cost to principals) in monitoring agent’s behaviour (employee behaviour).

A fourth possible theoretical viewpoint is the structural model of pay, which holds that the compensation received by top ranks in a firm is a direct function of the number of organisational levels below them. All things being equal, the taller the organisational structure, the higher the earnings of top executives (Gomez-Mejia et al 2010).
The last theoretical viewpoint discussed here is human capital theory, which focuses on individual characteristics as predictors of pay (Buck, Liu & Skovoroda 2008; Finkelstein, Hambrick & Cannella 2009; Combs & Skill 2003; Carpenter, Sanders & Gregersen 2001). According to Ng and Feldman (2010), human capital theory suggests that long-tenure workers are better performers because they have accumulated more job-related knowledge and work experience. Experience and education are signals to organisations about employees’ levels of knowledge and skills. The labour market therefore rewards individuals for acquiring more human capital with access to better jobs, higher earnings and greater incentives to remain. In turn, employees with longer tenure have greater incentives to perform well in future.

Against this theoretical background, the hypotheses are presented below.

5 Hypotheses
A total of six hypotheses that indicate statistically significant relationships between the independent and dependent variables are highlighted. The null hypotheses with statistically significant relationships are the following:

• Null hypothesis (H0) 1: Job performance does not determine employee compensation to a large extent in an organisation.
• Null hypothesis (H0) 2: External equity does not determine employee compensation to a large extent in an organisation.
• Null hypothesis (H0) 3: Job family does not determine employee compensation to a large extent in an organisation.
• Null hypothesis (H0) 4: Organisational tenure does not determine employee compensation to a large extent in an organisation.
• Null hypothesis (H0) 5: Employee skills do not determine employee compensation to a large extent in an organisation.
• Null hypothesis (H0) 6: Job grade does not determine employee compensation to a large extent in an organisation.

The next section provides an outline of the research methodology pursued in this study.

6 Research methodology
The research methodology refers to the techniques used in data collection and data analysis processes (Saunders, Lewis & Thornhill 2007). For this study, the researcher chose the quantitative method of gathering and analysing data. The emphasis was on documented data consisting of nominal, ordinal and numeric data.

A quantitative approach was used because of its positivist foundation (Babbie 2007). It suited the purpose of this study, since it helped to establish the existence of criteria (like the determinants of employee compensation) in an objective and quantitative manner. A secondary data analysis approach was adopted in this study. This approach was relevant since, as posited by Mouton (2001), secondary data analysis uses existing data (mostly quantitative) and attempts to re-analyse such data in order to test hypotheses or validate models.

6.1 Unit of analysis
The unit of analysis comprised salaried employees who do not fall under sectoral determination. Because of accessibility of the information, five organisations, well
known to the authors, were initially approached to participate in the study. Only three of those organisations were willing to supply information on their employee compensation. Owing to the nature of the study, the first stage of sampling involved selecting the three organisations by means of convenience sampling. Since the unit of analysis consisted of employees who do not fall under sectoral determination, the second stage of sampling consisted of data from a purposive sample of salaried employees.

6.2 Data collection
Secondary data were collected by means of an extensive literature review which included journals and textbooks on employee compensation. The Secondary Data Approach, as posited by Mouton (2001), is relevant for this study. By using existing data (mostly quantitative), Secondary Data Analysis aims to reanalyse such data in order to test hypotheses or validate models.

A theoretical orientation and a study of the appropriate published research data preceded the empirical study. A literature review of the research reports and journal articles related to employee performance, external equity, organisational tenure, job families, and employee skills was conducted to test the extent to which these factors are determinants of employee compensation in an organisation.

The empirical data collected consisted of a salary corpus which contained information about the current job grades, job tenure, employee skill and performance appraisal scores of all employees in the three organisations under investigation. The data gathered were in the form of an Excel spreadsheet for the organisations concerned. Data from the salary corpus were transferred to an Excel spreadsheet in order to code and analyse the data. Furthermore, an analysis of the National Remuneration Guide (Deloitte 2010) was used to benchmark the salaries paid by the organisation being examined against those paid in the market within the same industries. The purpose of using the national benchmark was to measure the internal and external parity of the jobs in the organisations being studied.

6.3 Data processing and analysis
The data analysis took the form of statistical analysis. The statistical procedures chosen for this study were based on their applicability to the exploratory nature of the research design. The corpus of salary data available on an Excel spreadsheet containing information about employee job grade, tenure, job function, performance rating and employee skills was exported into SPSS (a statistical programme for the social sciences) in order to perform statistical analysis. After editing and capturing, the data were processed to provide descriptive measures in order to describe the data set according to its shape. Data were summarised for individual variables in the form of frequency tables. Descriptive statistics were also calculated to describe variables numerically (Saunders et al 2007).

Since this study involved a multi-variable problem – that is, a problem in which more than one independent variable is studied, categorical multiple regression analysis was used. This multiple regression analysis was used because, according to Albright, Winston, Zappe and Broadie (2009), multiple regressions represent an improvement over simple regressions, and they allow any number of explanatory variables to be included in the analysis. In addition, categorical regression analysis was used to specify the extent of the relationship between the variables. Categorical regression was conducted because the variables being studied fall into different categories, with a combination of, interval, ordinal and nominal data.
In this study leading extant sources on employee compensation were studied to derive the content of the measurement items. In order to control the extent of the research, only employee compensation variables mentioned for this particular study were considered for analysis. As a result, the data analysis aimed to empirically validate the variables believed to have an impact on employee compensation through an extensive literature review of the particular variables.

6.4 Methods used to ensure validity and reliability

6.4.1 Validity
According to Terre Blanche and Durrheim (2002), both internal and external validity are necessary in a research design. The aim of the research design chosen was to plan and structure the study in such a way that it would ensure that the literature review and empirical study are valid in terms of the variables used.

The validity of the literature review was ensured by using literature that was relevant to the research topic, problem statement and objectives. In the empirical study, leading extant sources on compensation were studied and a salary dump of each organisation under study was converted into an Excel spreadsheet and used as an instrument to analyse data. The data from the salary dump were subsequently entered and saved to a computer file that was exported into SPSS in order to perform statistical analysis. Data were summarised for individual variables in the form of frequency tables and also provided descriptive data statistics to describe and calculate variables numerically (Saunders et al 2007).

6.4.2 Reliability
Reliability is the extent to which a test is repeatable and yields consistent results in terms of that which is measurable. In the literature review, reliability was addressed by using existing literature sources, theories and models that are available to researchers (Foxcroft & Roodt 2009).

The data in this study related only to previously mentioned variables. Employee compensation can be determined by a wide variety of factors, but in this study the focus is on a few of the variables that are regarded in literature and empirical studies as determinants of employee compensation.

7 Research results
The analysis of the research findings is based on statistical methods. The research findings are discussed in terms of categorical and quantitative data. The research data obtained were purely quantitative, therefore the analysis used only quantitative methods. The research results are discussed in terms of the descriptive statistics and tables representing the statistical findings.

7.1 Descriptive statistics
The predictor variables are discussed in terms of job family, job grade, employee skills, external equity, tenure, employee performance and employee compensation. Descriptive statistics present an initial indication of the data. Salary information for the total population of 459 employees from three different organisations was studied.

Table 1 below shows the total population percentage distribution per company and Table 2 shows the summary statistics of the job family. Table 3 shows the frequency distribution of job grades of the 459 employees represented in the study.
Table 1

Statistical information on all represented companies

<table>
<thead>
<tr>
<th>Company</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid percentage</th>
<th>Cumulative percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>75</td>
<td>16.3</td>
<td>16.3</td>
<td>16.3</td>
</tr>
<tr>
<td>2</td>
<td>137</td>
<td>29.8</td>
<td>29.8</td>
<td>46.2</td>
</tr>
<tr>
<td>3</td>
<td>247</td>
<td>53.8</td>
<td>53.8</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>459</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Table 1 above reflects information about the company statistics: Company 1 represents a state-owned company in the development finance sector, Company 2 represents a state-owned company in the aviation sector and Company 3 represents a private company in the banking sector.

The most represented company in the population was Company 3, with 247 employees and a resultant percentage distribution of 53.8. The second most highly represented company was Company 2, with 137 employees and a resultant percentage distribution of 29.8%. The least represented company was Company 1, with 75 employees in the population and a resultant percentage distribution of 16.3%.

Table 2

Statistical data on job family

<table>
<thead>
<tr>
<th>Job family</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid percentage</th>
<th>Cumulative percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration</td>
<td>17</td>
<td>3.7</td>
<td>3.7</td>
<td>3.7</td>
</tr>
<tr>
<td>Finance</td>
<td>91</td>
<td>19.8</td>
<td>19.8</td>
<td>23.5</td>
</tr>
<tr>
<td>Human resources</td>
<td>19</td>
<td>4.1</td>
<td>4.1</td>
<td>27.7</td>
</tr>
<tr>
<td>IT</td>
<td>56</td>
<td>12.2</td>
<td>12.2</td>
<td>39.9</td>
</tr>
<tr>
<td>Risk</td>
<td>33</td>
<td>7.2</td>
<td>7.2</td>
<td>47.1</td>
</tr>
<tr>
<td>Operations</td>
<td>243</td>
<td>52.9</td>
<td>52.9</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>459</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Table 2 above reflects the information on job families: The most represented job family in the study was Operations, with 243 employees and a resultant percentage distribution of 52.9%. The second most highly represented job family was Finance, with 91 employees and a resultant percentage distribution of 19.8%. The third most highly represented job function was Information Technology, with 56 employees and a resultant percentage distribution of 12.2%, followed by Risk, with 33 employees and a consequent percentage distribution of 7.2%.

Table 3

Statistical data on grades

<table>
<thead>
<tr>
<th>Grades</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid percentage</th>
<th>Cumulative percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>BL</td>
<td>9</td>
<td>2.0</td>
<td>2.0</td>
<td>2.0</td>
</tr>
<tr>
<td>BU</td>
<td>15</td>
<td>3.3</td>
<td>3.3</td>
<td>5.2</td>
</tr>
<tr>
<td>CL</td>
<td>31</td>
<td>6.8</td>
<td>6.8</td>
<td>12.0</td>
</tr>
<tr>
<td>CU</td>
<td>110</td>
<td>24.0</td>
<td>24.0</td>
<td>35.9</td>
</tr>
<tr>
<td>DL</td>
<td>153</td>
<td>33.3</td>
<td>33.3</td>
<td>66.3</td>
</tr>
<tr>
<td>DU</td>
<td>85</td>
<td>18.5</td>
<td>18.5</td>
<td>84.8</td>
</tr>
<tr>
<td>EL</td>
<td>51</td>
<td>11.1</td>
<td>11.1</td>
<td>95.9</td>
</tr>
<tr>
<td>EU</td>
<td>5</td>
<td>1.1</td>
<td>1.1</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>459</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
The job family with the second lowest representation in the study was Human Resources, with 19 employees and a resultant percentage distribution of 4.1%, followed by the least represented job function of Administration, with 17 employees and a resultant percentage distribution of 3.7%.

Table 3 shows that the highest grade represented in the study is DL, which represents lower level management at 33.3%, followed by supervisory staff (CU) at 24%. Upper management (DU) represents 18.5% of the population, with senior management (EL) representing 11.1% of the population. The least represented was executive management (EU) at 1.1%.

7.2 Combined results

The model summary indicates the correlation between employee compensation and the determinants of employee compensation when all the organisations were treated as one company, irrespective of the type of organisation.

<table>
<thead>
<tr>
<th>Table 4 Model summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standardised data</td>
</tr>
<tr>
<td>Multiple R</td>
</tr>
<tr>
<td>0.892</td>
</tr>
</tbody>
</table>

Dependent variable: Employee compensation
Determinants: Hot skills score, External equity, Tenure, Employee performance, Company, Job family, Job grade

Table 4 shows that 79% of the variance in employee compensation, in all companies, is explained by the determinants of employee compensation.

<table>
<thead>
<tr>
<th>Table 5 Analysis of variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sum of squares</td>
</tr>
<tr>
<td>Regression</td>
</tr>
<tr>
<td>Residual</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Dependent Variable: Employee compensation
Predictors: Hot skills score, External equity, Tenure, Employee performance, Company, Job family, Job grade

The results of the analysis of variance are depicted in Table 5. The model fit is significant since the p-value is less than 0.05. The results show that the model variances (18.026) are considerably higher than the error variances (.214), indicating that the different determinants succeed in predicting employee compensation significantly at a 95% level of certainty.

According to Table 6, the following determinants have a p-value of less than the significance level of 0.05 and can therefore be regarded as relating strongly to employee compensation: employee skills, employee performance, job family and job grade. The variable job grade (178.832) has the highest F-statistics, followed by job family (30.412) and employee skills (12.493), respectively. This implies that job grade as a determinant of employee compensation is the strongest predictor, followed by job family, employee skills, external equity, tenure and employee performance, respectively.
Table 6
Regression coefficients

<table>
<thead>
<tr>
<th>Variables</th>
<th>Standardised Coefficients</th>
<th>df</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Beta</td>
<td>Bootstrap (1000) Estimate of Std error</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee skills score</td>
<td>0.125</td>
<td>0.035</td>
<td>1</td>
<td>12.493</td>
</tr>
<tr>
<td>External equity</td>
<td>0.080</td>
<td>0.051</td>
<td>1</td>
<td>2.421</td>
</tr>
<tr>
<td>Tenure</td>
<td>0.030</td>
<td>0.025</td>
<td>1</td>
<td>1.374</td>
</tr>
<tr>
<td>Employee performance</td>
<td>-0.081</td>
<td>0.033</td>
<td>3</td>
<td>6.104</td>
</tr>
<tr>
<td>Company</td>
<td>0.151</td>
<td>0.034</td>
<td>2</td>
<td>19.390</td>
</tr>
<tr>
<td>Job family</td>
<td>0.132</td>
<td>0.024</td>
<td>5</td>
<td>30.412</td>
</tr>
<tr>
<td>Job grade</td>
<td>0.071</td>
<td>0.050</td>
<td>7</td>
<td>178.832</td>
</tr>
</tbody>
</table>

Dependent Variable: Employee compensation
Predictors: Hot skills score, External equity, Tenure, Employee performance, Company, Job family, Job grade

There is a negative relationship between employee compensation and employee performance. This implies that there is an inverse relationship between employee compensation and employee performance, the effect of which is that when employee performance is low, employee compensation will be high.

The standardised coefficients with regard to the six variables indicate that employee skills, employee performance, job family and job grade relate strongly to employee compensation and are regarded as determinants of employee compensation. The other determinants, namely external equity (0.120) and tenure (0.242), can be regarded as non-significant, since they are both way above the 0.05 level of significance.

7.3 Overall results and summary by company
The previous section reported on the overall findings of all the organisations combined. However, there appear to be discrepancies when reporting on the determinants of employee compensation at the individual organisation level. The following section reports on findings at the individual organisations.

Table 7
Model summary

<table>
<thead>
<tr>
<th>Standardised data</th>
<th>Multiple R</th>
<th>R squared</th>
<th>Adjusted R squared</th>
<th>Apparent prediction error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company 1</td>
<td>0.909</td>
<td>0.939</td>
<td>0.921</td>
<td>0.061</td>
</tr>
<tr>
<td>Company 2</td>
<td>0.841</td>
<td>0.829</td>
<td>0.811</td>
<td>0.171</td>
</tr>
<tr>
<td>Company 3</td>
<td>0.882</td>
<td>0.796</td>
<td>0.786</td>
<td>0.204</td>
</tr>
</tbody>
</table>

Dependent Variable: Employee compensation
Predictors: Hot skills score, External equity, Tenure, Employee performance, Job family, Job grade

Table 7 shows the correlation between employee compensation and the determinants of employee compensation. The predictor variables of employee compensation for Company 1 explain 93% of the variance, for Company 2 82% and for Company 3 79% of the variance. This indicates, on the one hand, that the type of organisation has an effect on employee compensation. On the other hand, the results also indicate that the determinant variables are significant in state-owned companies as compared to private companies.
Table 8
Regression coefficients

<table>
<thead>
<tr>
<th>Determinants</th>
<th>Company 1 Standardised coefficients</th>
<th>Company 2 Standardised coefficients</th>
<th>Company 3 Standardised coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Beta</td>
<td>F</td>
<td>Sig</td>
</tr>
<tr>
<td>Employee skills</td>
<td>0.209</td>
<td>3.214</td>
<td>0.090</td>
</tr>
<tr>
<td>External equity</td>
<td>0.282</td>
<td>3.273</td>
<td>0.077</td>
</tr>
<tr>
<td>Tenure</td>
<td>0.081</td>
<td>1.996</td>
<td>0.165</td>
</tr>
<tr>
<td>Employee performance</td>
<td>-0.080</td>
<td>1.322</td>
<td>0.256</td>
</tr>
<tr>
<td>Job family</td>
<td>0.083</td>
<td>3.968</td>
<td>0.005</td>
</tr>
<tr>
<td>Job grade</td>
<td>0.476</td>
<td>8.281</td>
<td>0.000</td>
</tr>
<tr>
<td>Model</td>
<td></td>
<td>0.000</td>
<td>0.000</td>
</tr>
</tbody>
</table>

7.3.1 Results for Company 1
According to Table 8, job grade (0.000) and job family (0.005) have a p-value of less than the significance level of 0.05 and can therefore be regarded as determinants of employee compensation. Their F-statistics are 8.281 for job grade and 3.968 for job family, respectively. This implies that job grade is the strongest determinant of employee compensation, followed by job family.

The other predictors, namely employee skill (0.080), employee performance (0.256), external equity (0.077) and tenure (0.165), can be considered to be non-significant, since they are above the 0.05 level of significance.

7.3.2 Results for Company 2
According to Table 8, external equity (0.000), job family (0.000), job grade (0.003), tenure (0.022) and employee performance (0.039) have p-values of less than the significance level of (0.05) and can therefore be regarded as determinants of employee compensation. Their F-statistics are 28.283 for external equity, 10.369 for job family, 5.423 for tenure, 4.860 for job grade and 3.335 for employee performance. This implies that external equity is the strongest determinant of employee compensation, followed by job grade. However, the beta coefficients indicate that there is a negative relationship between tenure (-0.097), employee performance (-0.091) and employee compensation. This means that there is an inverse relationship between tenure, employee performance and employee compensation.

7.3.3 Results for Company 3
According to Table 8, the following have p-values of less than the significance level of 0.05 and can therefore be regarded as determinants of employee compensation: employee skills (0.006), external equity (0.000), employee performance (0.000), job family (0.000) and job grade (0.000). Their F-statistics are as follows: job grade (89.902), job family (19.978), external equity (14.040), employee performance (9.729) and employee skills (7.820). This implies that job grade is the strongest determinant of employee compensation, followed by external equity, job family, employee skills and employee performance, respectively. However, the beta coefficients indicate that there is a negative relationship between employee performance (-0.129) and employee compensation. This implies that there is an inverse relationship between employee performance and employee compensation.

The other variable, namely tenure (0.453), can be considered as being non-significant since it is way above the 0.05 level of significance. Thus, tenure is not
significant as a determinant of employee compensation within a private company in the banking sector.

8 Discussion

This research offers a new approach to compensation in terms of the determinants of employee compensation within an organisation. In addressing employee compensation, the extent to which each determinant of compensation contributes to and predicts employee compensation was considered. Overall, findings from the research indicate a positive relationship among four of the six variables as significant predictors of employee compensation. Moreover, the findings show the other predictors, namely external equity and tenure, as being of marginal significance as predictors of employee compensation. Thus, the null hypothesis below is of no significant effect and could therefore be rejected in favour of the alternative hypothesis.

• Null hypothesis (H0) 5: Employee skills do not determine employee compensation to a large extent in an organisation.

The null hypothesis can be rejected. H0 falls within the rejection region (p < 0.05) at 0.000 and the large F-statistics value of 12.493 indicates that there is a significant relationship between employee skill and employee compensation. Thus, (H), the alternative hypothesis, is accepted.

• Null hypothesis (H0) 1: Job performance does not determine employee compensation to a large extent in an organisation.

Null hypothesis (H0) 1 falls within the rejection region (p < 0.05) at 0.000 and a large F-statistics value of 6.104 indicates that there is a significant relationship between employee skills and employee compensation. Thus (H), the alternative hypothesis, is accepted.

• Null hypothesis (H0) 3: Job family does not determine employee compensation to a large extent in an organisation.

The null hypothesis (H0) 3 is also rejected based on the large F-statistics value of 30.412 and p-value of 0.000 (p < 0.05). This indicates that there is a significant relationship between job family and employee compensation. Thus, (H) 3 is accepted.

• Null hypothesis (H0) 5: Job grade does not determine employee compensation to a large extent in an organisation.

Null hypothesis (H0) 5 can also be rejected based on the large F-statistics value of 178.832 and p-values of 0.000, which fall within the rejection region of p < 0.05. The large F-statistics value of 178.832 is the highest F-statistics value, which indicates that there is a highly significant relationship between job grade and employee compensation and can thus be regarded as the most highly significant predictor of employee compensation when related to other determinants of employee compensation. The research hypothesis can thus be accepted.

The null hypotheses below were accepted.

• Null hypothesis (H0) 2: External equity does not determine employee compensation to a large extent in an organisation.

The null hypothesis (H0) 2 can be accepted based on the low F-statistics value (2.421) and p-value of 0.120, which is above the significance level of p < 0.05. The results indicate that there is no significant relationship between external equity and employee compensation within a private company in the banking sector.
compensation. It can therefore be concluded that external equity does not determine employee compensation to a large extent in an organisation.

- Null hypothesis (H0) 4: Organisational tenure does not determine employee compensation to a large extent in an organisation.

The null hypothesis (H0) 4 can be accepted based on the low F-statistics value (1.374) and p-value of 0.242, which is above the significance level of p < 0.05. The results indicate that there is no significant relationship between organisational tenure and employee compensation. Thus, it can be concluded that organisational tenure does not determine employee compensation to a large extent in an organisation.

Since the findings were different in different organisations, depending on the nature of the business and the number of employees per organisation, this would suggest that the type and size of a company should be taken into consideration when studying the extent to which the determinants were predictors of employee compensation in an organisation. The findings seem to suggest that the determinants may be more significant in state-owned and parastatal companies than in private companies. A brief exposition of this analysis per organisation is presented.

### 8.1 Results for Company 1

According to the results for Company 1, job grade and job family, with a p-value of less than 0.05 and F-statistics value of 8.281 and 3.968 respectively, appear to be strong determinants of employee compensation. The differences in beta coefficient imply that job grade is the strongest determinant of employee compensation, followed by job family. This finding agrees with the literature reviewed, in that salary survey data are generally used for each job on a given grade level, as well as to price all jobs previously classified according to a specific grade. It is possible to use regression procedures to link market data with job evaluation scores (Rosen 2008) in order to determine employee compensation.

Research also suggests that the most significant determinants of the market value of a job have been found to lie in the functional area in which the work is performed (Zingheim & Schuster 2007).

The results also agree with the structural theory, as described by Gomez-Mejia et al (2010), that compensation received by top ranks in a firm is a direct function of the number of organisational levels below them.

Rosen (2008) further asserts that it is possible to use regression procedures to link market data with job evaluation scores to determine employee compensation. In addition to Rosen’s assertion, research also suggests that the most important determinants of the market value of a job have been found to lie in the functional area in which the work is performed, for example accounting, computer systems, sales management and quality control (Zingheim & Schuster 2007).

However, in this particular company, other predictors, namely employee skills (0.080), employee performance (0.256), external equity (0.077) and tenure (0.165) were non-significant since they scored above the 0.05 level of significance.

- Null hypothesis (H0) 1: Job performance does not determine employee compensation to a large extent in an organisation.
- Null hypothesis (H0) 2: External equity does not determine employee compensation to a large extent in an organisation.
- Null hypothesis (H0) 4: Organisational tenure does not determine employee compensation to a large extent in an organisation.
Null hypothesis (H0) 5: Employee skills do not determine employee compensation to a large extent in an organisation.

Thus, the null hypotheses with no significant effect could be rejected in favour of the alternative hypotheses of significance.

8.1.1 Implications of results within Company 1

The fact that employee skills are non-significant in this particular company seems to suggest that the company does not face serious challenges in the market in the sense of having to compete for scarce skills. Since the company also scored low on tenure and external equity, the results seem to suggest that its employees are not poached by other companies, which may be the reason why tenure is low and non-significant as a determinant of employee compensation.

Employees within this company remain with the company longer, but are not rewarded accordingly. Since employees are not resigning, there seems to be no pressure to compensate employees according to market rates. Thus, external equity is not significant as a determinant of pay in this development finance company.

The finding may also suggest an inverse relationship between employee skills and organisational tenure. That is, when employee skills are in demand, organisational tenure would become significant since more employees would leave the organisation for competitors. When the demand for employee skills in the market is low, organisational tenure would increase and as a result employees would remain with the organisation longer and thus the organisation might not be pressured to increase pay in an attempt to retain employees.

Considering the overall relative significance of job grade and job family, the results seem to suggest that with fewer challenges in retaining skilled employees, an organisation would place a lot of emphasis on internal factors. These include placing employees in the correct grades and jobs and paying them predetermined salaries according to the levels and types of job they do.

8.2 Results for Company 2

External equity (0.000), job family (0.000), job grade (0.003), tenure (0.022), and employee performance (0.039) have p-values of less than the significance level of 0.05 and can therefore be regarded as strong determinants of employee compensation within Company 2.

The F-statistics value of external equity (28.283), job family (10.369), job grade (4.860), tenure (5.423) and employee performance (3.335) indicate that external equity is the strongest determinant of employee compensation, followed by job grade. However, the beta coefficients indicate that there is a negative relationship between tenure (-0.097), employee performance (-0.091) and employee compensation. The findings indicate that there is an inverse relationship between employee tenure and employee compensation, that is, when tenure is high, employee compensation would remain low. The finding seems to indicate that employees may have joined the company at the "going rate", since external equity is the highest determinant of employee compensation within the company.

The impact of external equity has the effect of overriding employee performance. Employee compensation remained high irrespective of the employee’s performance in this specific organisation. This seems to agree with the motivational theories, as posited by Perkins and White (2008:59), which indicate that individuals may focus less on their own performance and more on comparing informational signals regarding
relative recognition they receive as against the recognition received by organisational peers. Consequently it seems that within Company 2 employees are compensated according to the type of job an individual performs and the job grade, with the effect that employees remain with the organisation longer.

The other predictor, namely employee skills (0.465), can be considered to be non-significant, since it is way above the 0.05 level of significance. Thus, employee skills are not a significant determinant of employee compensation within this particular aviation company. Employee skills are therefore rejected as a significant determinant of employee compensation.

Null hypothesis (H0): Employee skills do not determine employee compensation to a large extent in an organisation. Thus, the null hypothesis that employee skills have no significant effect could be accepted.

8.2.1 Implications of results within Company 2
The findings of this study imply that Company 2 is not experiencing problems with employee skills and is able to secure all the required skills in the market, without having to consider them as a determinant of employee compensation. It may mean that there is a low turnover of staff, and it is therefore not a serious challenge for the organisation to recruit aggressively in the market. It may also suggest that the organisation is not exposed to keen competition from the market and is therefore not forced to consider paying for skills at a competitive level.

8.3 Results for Company 3
Employee skills, external equity, employee performance, job family and job grade are strongly related to employee compensation within Company 3, and are thus regarded as strong determinants of employee compensation within this private company in the banking sector. These findings are aligned with the neoclassical model and the literature review. For example, Fitzpatrick and McMullen (2008) state that in order to attract and retain a qualified workforce, the firm must first identify what the prevailing wage is for each of its jobs. Secondly, the going rate in the labour market becomes the key factor in determining job value or worth and, hence, external equity is defined as the extent to which the firm’s pay rate for a given job matches the prevailing rate for that job in the external labour market. According to Perkins and White (2008), agency theory holds that the size of the reward offered may be linked to the level of complexity (and associated transactional cost to principals) in monitoring an agent's behaviour (employee behaviour).

The other variable, namely tenure (0.453), can be considered to be non-significant, since it is way above the 0.05 level of significance. Accordingly, tenure is not significant as a determinant of employee compensation within this private company in the banking sector.

Null hypothesis (H0): Organisational tenure does not determine employee compensation to a large extent in an organisation. Consequently, the null hypothesis of no significant effect could be accepted.

8.3.1 Implications of results within Company 3
The findings of this study imply that Company 3 focuses their compensation on retaining employee skills, which may be in demand by competitive organisations in the market. In order to retain such skills, the company benchmarks employee compensation against the market and applies appropriate grading of positions, in order to arrive at a competitive scale of employee compensation. These findings could also
mean that there is high turnover of staff, which poses a serious challenge if the organisation fails to pay employees at the market rate. This supports the literature, which argues that in many organisations the internal pay structure and salary increase plans are heavily influenced by the actions of other companies (Shore, Tashchian & Jourdan 2006).

9 Conclusion
The aim of this study has been to gain a better understanding of the determinants of employee compensation in an organisation. The preceding discussion addressed the extent to which certain variables, namely job performance, external equity, job family/job function, tenure, employee skills and job grade, determine employee compensation.

Findings from the research reflect a greater significance in four of the six variables as strong predictors of employee compensation. Employee skills, employee performance, job grade and job family were found to be strongly related to employee compensation and regarded as strong determinants of it. The other determinants, namely external equity (0.120) and tenure (0.242), could be considered to be non-significant, since they were both above the 0.05 level of significance.

However, the results may also imply that the predictors may be more significant in a state-owned and parastatal organisation than in a private company. In Company 1, a parastatal development finance company, the determinants were 92% predictable and in Company 2, a state-owned company in the aviation sector, the determinants were 81% predictable, compared to a private company in the banking sector, where the determinants were 79% predictable. Thus, the results indicate that the determinants were more significant in state-owned companies than in private companies. The implications of the findings seem to suggest that the type and size of the organisation should be taken into consideration when studying the determinants of employee compensation.

10 Recommendations
The findings have confirmed previous research, which suggests that the compensable elements most used to determine the value of work to an organisation vary widely in their ability to predict the market value of work performed (Zingheim & Schuster 2007). Thus, organisations and compensation practitioners may have to consider the type of organisation, and the sector to which an organisation belongs, in order to design an ideal compensation strategy that would be suitable for a particular organisation.

Since this research focused on single organisations from different sectors, future research may need to investigate the extent to which each variable studied for this research contributes to employee compensation within organisations of a similar type within the same industry or sector.

The nature of the sample, which was based on purposive sampling, may also limit the generalisability of the findings. Stratified sampling would be ideal for future studies on the subject as the study is about different categories of employees in the organisation. Since employees are classified according to different job functions, job grades, job performance and organisational tenure, stratified sampling would help to provide information about the different subgroups as well as information about the overall population of employees in the study. According to Peck, Olsen and Devore (2001), stratified sampling can be used if it is central in obtaining information about characteristics of the individual strata as well as of the entire population.
The subject of compensation remains a challenging concept that cannot be confined to a single theoretical perspective. It should continue to be approached from a broad perspective that involves an interdisciplinary background.

While the authors are keenly aware of, and sensitive to, the limitations of using secondary data analysis and own capacity to provide meaningful advice to South African organisations, the research discussed some of the more essential issues of employee compensation development in South Africa. This is illustrated by examples from literature and from the empirical research conducted.

This research attempted to avoid the generic manner in which employee compensation is addressed. Instead it focused on specific and popular determinants of employee compensation in practice. The extent to which each variable predicts employee compensation within an organisation was also evaluated. The authors’ approach suggests that the crux of employee compensation lies in understanding the extent of each determinant in predicting employee compensation.

It is hoped that this research will trigger discussion among compensation practitioners and human resource managers about how they might structure employee compensation by taking into account the extent to which each determinant helps to predict compensation in its particular organisation. In most organisations the extent to which each determinant predicts employee compensation may be an aspect that is taken for granted, but it may be the core of what separates one organisation from another as an employer of choice.

11 Limitations of the research

This study has several limitations. It investigated only one type of organisation in each sector studied. Care should be taken when extending the research results beyond the three organisations studied. Although the determinants of employee compensation studied may be common among most organisations, this may not necessarily be equally applicable to other similar organisations. It is therefore critical for organisations to take into account the extent of each determinant when determining employee compensation in their particular environment.

A purposive sample was used to select the unit of analysis, which consisted of employees whose compensation is not determined through the bargaining council and was restricted to organisations based in the Gauteng area. This could have impacted on the representativeness of the sample. Only three organisations were sampled, and the small number of organisations therefore serves as a limitation on investigating the extent to which the determinants of compensation could be predicted in most organisations. A large sample of organisations would potentially provide deeper insight into the determinants of employee compensation in an organisation. Follow-up research with a larger sample of organisations would be able to gather data from more organisations in a wider range of industries, in both the private and the public sector.

The study focused on the few determinants identified for the purpose. However there may be other unobserved determinants of employee compensation that may not have been taken into account, such as gender and age of employees.

This study relied on secondary data. Although there were advantages to using secondary data, such as ease of access and low cost, the use of such data produced certain limitations. The biggest limitation in this regard was the ready acceptance of the captured information from the different organisations as being correct.
An analysis of the data revealed that the most represented job family in the study was Operations, with 243 employees, resulting in a percentage distribution of 52.9%. Given that Operations was the highest in terms of representativeness, it is possible that Operations as a job family could have influenced more of the final results than other job families in the study, thus resulting in biased results. Administration as a job function, with 17 employees, resulting in a percentage distribution of 3.7%, could have been misrepresented in the sample and therefore have been seen as the job function with the least impact on the investigation of the determinants of employee compensation.

An analysis of the grades, specifically in terms of the highest and lowest grades represented, revealed that the highest grade represented in the study is (DL), which represents lower level management at 33.3%, followed by supervisory staff (CU) at 24%. Given that lower level management was the highest in terms of representativeness, it is possible that the final results could have been influenced by lower level management to the detriment of other jobs at different grades. Upper management (DU) represents 18.5% of the population, with senior management (EU) representing 11% of the population. These figures might have been different had the sample included more organisations. The least represented was executive management (EU) at 1%, which could indicate that the small number of organisations included in the sample might have influenced the representation of executive management. This may have resulted in the researcher gaining limited insight into the extent of the determinants of compensation in predicting the compensation of executive management – a problem that would not have arisen had more organisations been included.

The subjectivity and non-probability nature of purposive sampling means that it might be difficult to defend the representativeness of the sample, especially since only three organisations were used for the study. It might also be difficult to achieve theoretical/analytic/logical generalisation to most organisations using purposive sampling.

More informative data on market survey were obtained from a consulting firm that specialises in remuneration. However, the organisations under study possessed recent, benchmarked data, but not data from the same service provider or consultant. Therefore, figures as presented by the different organisations differed slightly, but on average were aligned to the service provider used as a point of reference by all the organisations included in this study.

In conclusion, secondary data enabled the researchers to gain access to a wider range of sources than time would have allowed if primary data had been collected.

List of references


