Application of Mintzberg's Managerial Roles by Academic Leaders at Higher Education Institutions in South Africa: The Case of North-West University

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Abstract: Academic leaders at higher education institutions in South Africa are applying various management principles to be effective in performing their duties as managers. It is imperative for these academic leaders to apply effective management skills such as Mintzberg's managerial strategies that will ensure constant improvement. The aim of this study was to explore the extent to which academic leaders at the North-West University apply Mintzberg's managerial roles in executing their functions as leaders within their institution. A quantitative approach was adapted and a non-probability sampling technique was used to select the 109 participants who were administered questionnaires and 91 were fully completed, giving a response rate of 83.49%. Data was analysed using the Statistical Package for Social Sciences version 23, applying the following techniques: descriptive statistics, factor analysis and cross tabulations. Mintzberg's managerial roles were found to be important to all academic leaders at higher education institutions. The results of the study revealed that academic leaders at North-West University are applying all the three Mintzberg's managerial roles. It is recommended that academic leaders of higher education institutions should endeavour to apply Mintzberg's managerial roles because it is an effective management model that can improve their performance.

Keywords: Academic leaders, Higher education, Institution, Managerial roles, Mintzberg

1. Introduction

The higher education system in the world today is characterised by constant changes and innovation. Mmope (2010) asserts that higher education institutions all over the world, and South Africa in particular, are increasingly evolving and looking for a ground-breaking standard in academic leadership and management to ensure that they triumph in a competitive and dynamic global educational environment. The search for a change of standard in academic leadership and management is the fundamental managerial role, within institutions of higher learning, to ensure that staff exert greater efforts to help their organisations accomplish their predetermined objectives and mission. Selden and Sowa (2011) state that with the introduction of democracy in South Africa in 1994, its higher education system has been undergoing transformation, which is a broader plan of government to correct the imbalances of the past. Thus, government's endeavour is to ensure effective management and leadership in order to curb mismanagement and waste of resources in higher educational institutions by incompetent academic leaders.

The most important need of higher education institutions in South Africa is to make a significant improvement in its management and leadership practices. Poor performances in these institutions can be blamed on poor management and leadership and not only on academic staffs and students (Bhowan & MacDonald, 2000). As such, it is worthwhile to re-examine requirements for effective managers and academic leaders within the higher education system. Fayol was the first scholar to develop formal management principles that address the fundamental issues of how organisations should be structured and managed. Since then, his ideas have set a foundation for management thoughts and greatly influenced succeeding generations of management scholars such as Taylor, Gulick and Mintzberg, whose managerial roles continue to influence the practice of management as an art (Wren & Bedeian, 2009).

Applying Mintzberg's example of managerial roles is distinctive as it was established from surveillance in a corporate scenario. In this study, the approach is examined in an academic environment. Muna *et al.* (2006) identify Mintzberg's managerial roles as those that are mostly adopted and implemented

by academic leaders and also as those managerial roles that have been perceived and recognised to be the most significant and successful roles to be implemented in higher education institutions, for instance, such as those of South Africa. The utilisation of Mintzberg's managerial roles in an organisation is very relevant in that it is through these roles that academic leaders in higher education institutions can wield different features into a supportive enterprise or initiative; which is a relevant aspect of coordinating academic affairs in an organisation (Mintzberg, 1973). This is, therefore, an indication that most academic leaders concur with Mintzberg's model as relevant to describing their role, inter alia, in higher educational institutions. Mintzberg (1973) maintains that a managerial role is an organised set of conducts known to be related to a managerial position and the day-to-day work of managers as individuals used to measure this role. On the same note, Mintzberg classifies the ten management roles into three categories as follows: interpersonal; informational; and decision-making role categories. The managerial roles performed by higher education leaders in academic institutions should inform various aspects of employee satisfaction and talent management. Therefore, the core of managing performance at the workplace should start first with effective leadership of individual employees within the organisation. In order to effectively lead employees such as academic staff and improve on their performance, academic leaders of higher education institutions are expected to perfect their managerial skills and behaviours toward employees and to be of good example. Sharma *et al.* (2006) state that, higher education institutions and businesses are constantly striving to implore measures of improving employees' performance. When academic leaders influence the behaviour of an employee positively through their role execution, it enhances their effectiveness and efficiency, which will in turn, improve on their performance at work and push them to achieve set goals and objectives.

Management roles and functions of academic leaders in higher education institutions are seemingly complex and very challenging. Despite the intricacies involved in running academic institutions, some leaders are not fully knowledgeable about managerial roles and principles since they have limited administrative experiences. For instance, Tucker (1984) observed 400 academic managers of state universities in Florida and discovered that 68% of

them did not have prior administrative experience. Moreover, their turnover rates were between 15 and 20%; 41% were elected by colleagues while 44% of middle and lower level managers or academic leaders were appointed by superiors without taking into consideration, competency and work experience. This situation is very common in higher education institutions around the world, particularly in institutions of higher learning in South Africa.

In the Daily Dispatch (2011a), it was reported that the state of the higher education system in South Africa is chaotic, characterised by corruption, poor academic performance, protests and intimidation as well as incompetent academic leaders and staff. Kunene (2012) argues that the higher education system in South Africa is a mess, which has been the cause of some social, political and economic problems plaguing the country. Consequently, many institutions do not meet their expectations, some ignore deadlines and others have many unanswered requests. According to Jones (2012), the government has been developing plans and policies in an endeavour to resolve problems plaguing the higher education sector such that by 2030, the majority, if not all South Africans, will have access to the best quality of higher education leading to significant improvement in the performance of students. This study seeks to address the ineffectiveness of academic leaders in managing higher education institutions in South Africa, because they possibly do not utilize the pivotal managerial roles of interpersonal relations, informational and decision-making as described by Mintzberg. This will highlight which roles are executed in these institutions and role differentiation among different managerial levels will assist with possible career development of academic management. Hence, this study mainly seeks to examine the extent to which Mintzberg's managerial roles are executed by academic leaders in this selected higher education institution in South Africa.

2. Literature Review

Mace (2013) asserts that Henry Mintzberg is one of the many scholars who expanded on Luther Gulick's fundamental management roles. These were the most accepted and recognised management models at the time. In his book published in 1973 entitled "The Nature of Managerial Work", Mintzberg provides a brief summary of Luther Gulick's management functions of planning, organising, staffing,

directing, coordinating, reporting and budgeting (POSDCORB). Gulick's management functions were a pace-setter for Mintzberg that spurred him to later formulate his management model and he further examined and explained the fundamental roles of management.

Mintzberg is one of the most prominent management scholars. As a young student at the Massachusetts Institute of Technology (MIT) in 1967, he undertook a special study to review the literature on the duties of management. In his research, Mintzberg discovered a gap which was lacking of descriptive facts in the literature to designate what managers ought to do at the workplace (Kleiner, 2010). Mintzberg closely examined Gulick's POSDCORB functions in order to relate them to particular managerial roles and activities. He realised that the definitions and descriptions did not clearly describe the management job and also failed to describe what managers actually do at work (Mintzberg, 1968). In order to clarify his point of argument, in his thesis (1973), Mintzberg conducted a practical study of five different chief executive officers (CEOs) in five different organisations as follows: a CEO of a consulting firm; a chairman of an industry and defence technology development firm; a director of a city hospital; a chairperson of a consumer goods industry; and an overseer of a big semi-urban school system. Consequently, Mintzberg realised that it was very necessary and even possible to separate and categorise management functions into ten roles (Mintzberg, 1973). Hence, he organised the management functions into three major categories to incorporate the ten managerial roles and various activities known today as Mintzberg's role taxonomy.

The managerial roles stipulated by Mintzberg (1973) provide a good framework for assessing academic leaders in higher education institutions. Muma (2004) holds that functional specialty has an influence on the relevance of different managerial roles. For instance, Mintzberg's study proposes that in the manufacturing industry, a sales manager capitalises more on interpersonal roles, a production manager lays more emphasis on decisional roles while a specialist, otherwise known as a human resource manager, gives more attention to informational roles. Mintzberg (1973), Muma (2004), Robbins and Judge (2013) and Mace (2013) note that in the 1960s, Henry Mintzberg himself conducted a study of five executives and came to a conclusion that managers have ten different interrelated roles in an organisation classified into three categories as depicted in Figure 1: interpersonal; informational; and decisional roles.

Figure 1: An Overview of Mintzberg's Managerial Roles
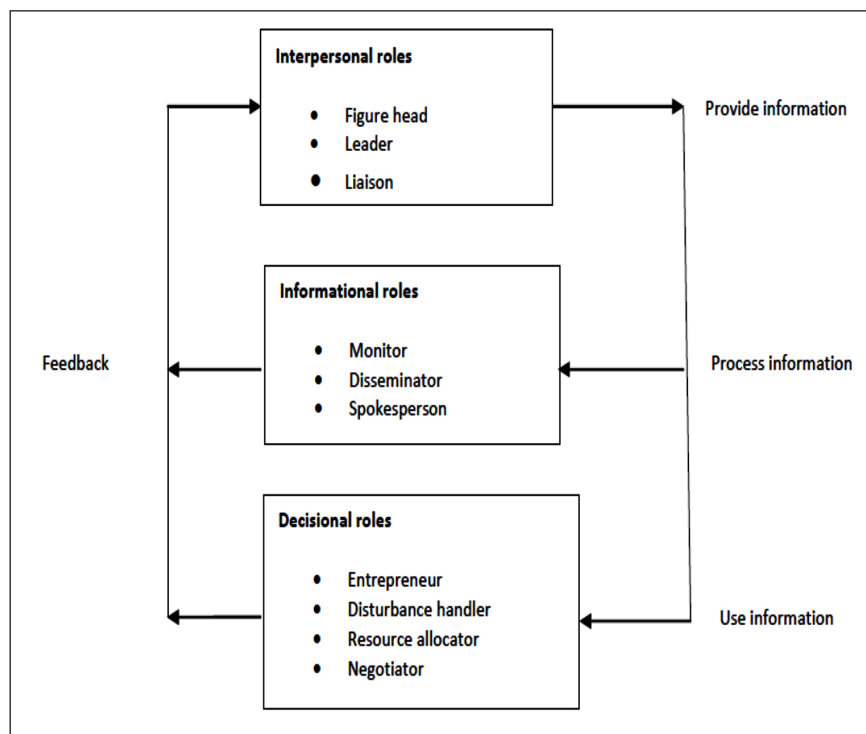
Source: Muma *et al.,* 2006:66

2.1 Interpersonal Roles

Generally speaking, managers are recognised as the official heads in charge of their organisations and suitably handle relevant relationship positions within their institutions. Mintzberg (1973) notes that, the characteristics of the roles and activities of management relate directly to the managers' positions and authority and each basically consists of the development of interpersonal connections. Interpersonal roles of managers encompass figurehead, leadership and liaison roles. As far as interpersonal roles are concerned, managers are expected to perform the following three roles for the organisation:

2.1.1 Figurehead Role

This is the ceremonial and symbolic duties of managers whereby, they are expected to represent their organisations locally and internationally, in every meeting they attain on behalf of the organisation and even everywhere they find themselves. Managers are symbols of authority who carry out a range of activities such as approving and signing legitimate documents, contracts, agreements and also doing other ceremonial paperwork on behalf of their organisations (Mintzberg, 1973). Muma (2004) moots that some other managerial figurehead responsibilities involve duties such as talking to paid workers and volunteers, welcoming guests to the organization and conducting tours.

2.1.2 Leadership Role

The leadership role of managers requires them to recruit, train, motivate and discipline their employees to ensure that organisational goals are adequately achieved. The leadership role and activities are the most important functions of managers because as leaders, they set the pace for their institutions by innovating the goals and missions as well as constructing good relationships for their organisations (Mintzberg, 1973). Mace (2013) states that apart from directing and giving their institutions a sense of purpose, managers are also charged with the responsibility to lead, hire, train, motivate and discipline their subordinates. This function of leadership activities is very important in promoting a prosperous institution that integrates organisational interests with subordinates needs.

2.1.3 Liaison Role

Also within the category of interpersonal roles, is the liaison role which entrusts managers with the responsibility to create contacts and a cordial relation with partners and informants of the organisation. In this regard, managers make internal contacts with employees and also external contacts with their peer executives in different organisations through associations (Robbins & Judge, 2013). Mace (2013) argues that the liaison role of management entrust managers with the responsibility of taking part in vertical and horizontal networking of associations on behalf of their organisations with the focus of creating and developing beneficial relationships with partners. This can be achieved by managers taking part in social gatherings and joining professional community and organisations' boards through which expertise can be exchanged to mutually benefit and support member organisations.

2.2 Informational Roles

Mintzberg (1973) refers to the second set of his managerial duties as informational roles. According to him, the informational duties of managers are those of digging and searching for information that are of interest to their organisations and transmitting them to subordinates. Mace (2013), states that managers are pivots who occupy the focal position and thus, have full access to all information concerning their institutions. Robbins and Judge (2013) maintain that in this category of managerial roles, managers act as monitors, disseminators and spokespersons of their organisations.

2.2.1 Monitoring Role

This role entrusts managers with the duty to research and gather external information by searching the news media, the internet and social media such as Facebook and twitter and also socialising and talking with peers and experts from other organisations. Mintzberg (1973) states that with the monitoring role, managers learn of change in public taste, especially for manufacturing firms and the plan of action of competitors in order to outwit them in competition. Mace (2013) observes that managers are constantly getting information and responding to it by making amendments that will suit the climate of their institutions and by constantly giving opportunities for subordinates to evolve with the cultural shift of the organisation. The monitoring role also entails deskwork such as making and receiving phone calls, reading emails, attending meetings and reading reports.

2.2.2 Disseminating Role

Mintzberg (1973) maintains that this role requires managers to carefully select factual and value

internal and external information and communicate it to everybody within the organisation. Factual information has validity and is well thought out to be accurate and coming from a reliable source. On the other hand, value information is a manager's natural opinion about information he or she provides to subordinates when he or she deems it is important for decision-making. Robbins and Judge (2013) insist that managers are expected to be communicators entrusted with the responsibility of transmitting all information and decisions to every members or employees in order for them to familiarise themselves with what is happening within the organisation.

2.2.3 Spokesperson Role
This managerial role focuses on the communication of selected information out to the organisation's environment. This information is actually transmitted by managers to two groups of people - the institution's board and the organisation's public (Mintzberg, 1973). Muma (2004) argues that just like the figurehead role, the spokesperson role of managers warrants them to speak on behalf of the organisation whenever and wherever they represent it.

2.3 Decisional Roles

Mintzberg (1973) maintains that the procedure of strategic decision-making ranges along a scale. At one end of the scale, are entrepreneurial decisions which help organisations to survive and at the other, is disturbance handler, which is the managers' choice to resolve problems within the organisation. In terms of decisional roles, managers make greater use of information obtained from informational role activities which help them to choose wisely for their organisations. Robbins and Judge (2013) agree with Mintzberg and add that the decisional roles of managers are those that have to do with making choices for the organisation such as entrepreneurial, disturbance handlers, resource allocation and negotiating roles.

2.3.1 Entrepreneurial Role
This role requires managers to act like entrepreneurs who initiate, coordinate and supervise new projects that can improve the organisation's outcomes or performance (Muma, 2004). The entrepreneurial role requires managers to wilfully initiate projects and continuously think out means to resolve problems and overcome challenges facing their organisations. As far as the entrepreneurial role is concerned, the

duty of managers is to make the final decision on whether or not to engage the projects of the organisation and also to make a choice of a reliable person to handle such projects (Mace, 2013).

2.3.2 Disturbance Handler Role
The disturbance handler role entails that managers take corrective measures to resolve impulsive and unpredicted crisis that may arise within organisations. This requires that managers must always be on the alert any time to resolve any spontaneous conflicts that may arise among subordinates. They are also expected to ensure maximum security of the organisation and to reveal all vital information that can possibly cause losses or harm to the organisation's valuable resources (Mintzberg, 1973). This is a managerial role that deals with unexpected issues and complications which can disrupt the efficiency of the system. As disturbance handler, managers are entrusted with the duty to take corrective actions to solve future unforeseen and unpredicted problems likely to plague the organisation (Robbins & Judge, 2013).

2.3.3 Resource Allocation Role
As resource allocators, it is a manager's duty to allocate monetary, human and physical resources to employees for the achievement of organisational goals (Robbins & Judge, 2013). According to Mace (2013), resources such as materials, equipment, money and time are pivotal to an organisation's strategy making system. The major activity of managers in the resource allocation managerial role is to make decisions concerning when and where resources are to be apportioned, under what circumstances the resources will be apportioned and to whom the resources will be allocated to.

2.3.4 Negotiating Role
Mintzberg (1973) notes that the decisional role of negotiating is associated with conflict resolution and includes activities such as working with both internal and external parties of the organisation. Apart from bargaining, other activities contained within the negotiating role might include vendor bid activities, or any other activities where the organisation would be best represented by the formal authority. Robbins and Judge (2013) concur with Mintzberg that as far as the negotiating role of managers is concerned, they are responsible to bargain and discuss pertinent issues on behalf of their organisations with other organisations and units in order to gain advantage for themselves and their organisations.

Henry Mintzberg is, perhaps, the most renowned management scholar in Canada and even beyond. According to Fowke (2009), Fayol's management principles which deal mostly with planning, organising, commanding, coordinating and controlling are too limited. Hence, Mintzberg's managerial roles are very important in management or to managers because they elaborate and throw more light on Fayol's management principles. Mintzberg (1991) conducted a study and found out that there was a gap between management in theory as postulated by former management scholars before him and actual management in practice. He then realised that a manager's duty was characterised by pace, brevity, interruptions and a fragmentation of activities. This is because managers talk a lot to people and spend the bulk of their time attending meetings and networking with other people. Ramezani *et al*. (2011) state that unlike former management scholars such as Henri Fayol, Fredrick Winslow Taylor and Luther Gulick, who merely outlined management principles, Mintzberg organised his management thoughts as a set of behaviours identified with a particular management position measured by what people do at their workplace on a daily basis. As a result, he developed his three categories of ten managerial roles that are widely recommended for contemporary management practice. Very important about Mintzberg's management roles is the fact that his main idea is to make managers of organisations to understand how to effectively complete various tasks within a working day in spite of what comes up and what problems need to be resolved.

Mintzberg propounded a different approach of defining management. Instead of just designating or describing in theory like other former management scholars (such as Fayol, Taylor & Gulick) what managers are supposed to do, Mintzberg researched the reality and laid more emphasis on what executive managers actually spend most of their time doing at the work place. Unlike these former management scholars, Mintzberg clearly makes a distinction between what managers are expected to do and what they actually do. In this regard, Mintzberg demonstrated on the basis of work activities that the work of managers is characterised by fragmentation of activities, variety, preference for verbal contacts, pace, brevity and interruptions. For instance, the fragmentary nature of managers' tasks or roles is to ensure the effective accomplishment of organisational goals (Pugh & Hickson, 2007). Mintzberg's managerial roles

provide a better understanding and description of management function rather than the traditional list of management principles stipulated by former management scholars. Haberg and Rieple (2008) assert that Mintzberg's managerial roles advocate for managers to be responsive and adaptable, not just controlling, spending more time to plan and organise in an orderly manner, making them to live hectic lives in continuously changing business environment. His good mastery of management roles has made Mintzberg to stand very tall among management scholars. His managerial roles are more feasible and realistic than the management principles of former management scholars. This is the main reason why this study focuses on exploring Mintzberg's managerial roles of academic leaders in a higher education institution in South Africa and not the application of any of the management principles of former management scholars such as Fayol, Taylor or Gulick. It can be seen from Mintzberg's managerial roles that management and leadership are two sides of the same coin. This is to say that management needs to complement leadership in order to achieve high performance.

3. Methodological Approach

The research philosophy that informs the research strategy and method used for this study is pragmatism. This philosophy advocates for quantifiable observed measurements; hence, the study adopted a quantitative survey research design. The choice of a quantitative approach in this study was due to the fact that it is the best and accurate method to explain a numerical change as to whether the achievement of academic leaders of the North-West University with regard to Mintzberg's managerial roles are implemented in most cases. Moreover, a quantitative research approach is also an accurate method to investigate and explain the state of phenomena such as the extent to which academic leaders at North-West University, adhere to Mintzberg's managerial roles. A descriptive survey research design was used in conducting this study because this design aims at providing accurate and valid representation of factors relevant to the study.

For the purpose of this study, a target population of 150 academic leaders were selected from the three campuses of the North-West University. These academic leaders are heads of every unit such as IT managers, programme managers, school directors, deans and their campus deputies, human

resource managers, registrars, campus deputy Vice Chancellors and the Vice Chancellor. Hoy (2010) argues that because of the difficulty to test every individual and due to the scarcity of resources, it becomes imperative to limit the research population somehow, by using sampling techniques. A probability sampling technique was used to identify academic leaders at the the North-West University for this study. A simple stratified random sampling technique was chosen as the best suited technique for this study because according to Cooper and Schindler (2006), it is more representative than other methods, it is less costly and it addresses issues of validity and reliability in the data collection process. Tustin *et al*. (2005) contend that the sample size can be obtained using a statistical calculator called Raosoft sample size calculator. The Raosoft sample size calculator was used to estimate the sample size which was calculated at 95% confidence interval alongside a 5% error margin and the recommended sample size was 109 respondents. Questionnaire was used as an instrument for data collection for this study. Data from the questionnaire was analysed using statistical procedures and tests in order to give meaning to the data and the research and SPSS 23 software was used for data analysis.

4. Results and Discussion

The population of this study consisted of 150 academic leaders at the North-West University and the recommended sample size was 109 respondents. The number of questionnaires sent to academic leaders in management positions at the three campuses (Potchefstroom, Mafikeng and Vaal Triangle) of the North-West University was 109 and out of this number, 91 were fully completed while 18 were partially completed, giving a response rate of 83.49% that was used in the analysis. The descriptive statistics of Mintzberg's managerial roles in this section begins with descriptive statistics of the three factors, followed by correlation of the three factors and lastly, by item descriptive statistics of interpersonal, informational and decisional roles.

4.1 Descriptive Statistics on Interpersonal, Informational and Decisional Roles

The Pearson correlation test was used to test the correlation between the application of interpersonal, informational and decisional roles. If the probability value is less than 5%, then the coefficients are significant. Table 1 below presents the relationship with Mintzberg's managerial roles.

The results reveal that there is a high significant and positive correlation (r=0.92, p<0.00) between informational and interpersonal roles. Also, decisional and interpersonal roles are significant and highly and positively correlated (r=0.89, p<0.00). Lastly, informational and decisional roles are significant and highly and positively correlated (r=0.92, p<0.00). The significant positive correlation between these roles, imply that the more the application of one of these roles, the higher the application of the other. They both increase or decrease together.

Descriptive statistics were done for the three factors and the results are presented in Table 2 on the following page. The descriptive statistics present results of the mean, standard deviation, skewness, kurtosis and alpha.

Table 1: Correlation Test Results of the Mintzberg's Managerial Roles

		Interpersonal	Informational	Decisional
Interpersonal	Pearson correlation	1		
	Sig. (2-tailed)			
	N	91		
Informational	Pearson correlation	.918**	1	
	Sig. (2-tailed)	,000		
	N	91	91	
Decisional	Pearson correlation	.885**	.916**	1
	Sig. (2-tailed)	,000	,000	
	N	91	91	91

Source: Authors

Table 2: Descriptive Statistics of Mintzberg's Managerial Roles

	Mean	Std. deviation	Skewness	Kurtosis	A
Interpersonal	3,1133	1,23433	-,133	-,627	,925
Informational	3,4994	1,28697	-,454	-,568	,920
Decisional	3,4757	1,41405	-,429	-,821	,957

Source: Authors

Table 3: Descriptive Statistics on Interpersonal Roles

Item	Mean	No extent	Some extent	Low extent	High extent	Great extent	All the time
Ceremonial	2,6484	24	27	12	17	7	4
Symbolic	2,7912	22	26	10	19	10	4
Signing	2,4286	34	19	17	12	4	5
Welcoming	3,0330	18	20	15	21	13	4
Motivating	3,7473	17	6	8	25	22	13
Training	3,4066	17	12	13	26	12	11
Recruiting	3,2088	25	11	12	17	15	11
Creating	3,5604	16	7	14	26	20	8
Attending	3,2088	14	17	17	26	13	4

Source: Authors

The mean value of interpersonal roles is 3.11 (sd = 1.23), showing a low to high extent of the application of this role. Also, skewness value is -0.13, and the value is close to zero; hence, the distribution is symmetric for the interpersonal role. Furthermore, the kurtosis of -0.63 shows that the shape of the data matches with the Gaussian distribution hence, the distribution is normally distributed. Lastly, the alpha value of 0.93 indicates that the reliability test is good, since it is above the 75% lower reliability limit.

The mean value of informational roles is 3.50 (sd = 1.29), this shows as well that application of this role is between low to high extent. Also, skewness value is -0.45, and the value is close to zero; hence, the distribution of informational role is symmetric. Furthermore, the kurtosis of -0.57 shows that data for the informational role is normally distributed while the alpha value of 0.92 shows that the test is reliable.

The mean value of decisional roles is 3.50 (sd = 1.29), this shows as well that application of this role is between low to high extent. Also, skewness value is -0.45, this value is close to zero; hence, distribution of informational roles is symmetric. Furthermore, the kurtosis of -0.57 shows that data for the informational role is normally distributed. The results of the alpha show 95.7%; an indication that the

reliability test is good, above the 75% lower reliability limit.

The alpha of the interpersonal (0.93), informational (0.92) and decisional (0.96) roles are all greater than 0.75, hence, there is a high level of consistency in this data set.

4.1.1 Descriptive Statistics on Interpersonal Roles

Muma *et al.* (2006) state that figurehead; leadership and liaison roles are the interpersonal roles of Mintzberg's managerial roles. Table 3 presents the views of respondents regarding the application of interpersonal roles.

The results obtained from the mean values indicate that the signing (2.43) of legal documents is done to some extent and to a low extent, the mean is close to 2 while ceremonial (2.65) and symbolic (2.79) roles are performed to a low extent. The welcoming (3.03), motivating (3.75), training (3.41), recruiting (3.21), creating (3.56) and attending (3.21) is done to a low and high extent. It is, therefore, concluded that interpersonal roles are performed at the North-West University by academic leaders even though the extent of its application differs. On average, 21 academic leaders do not perform interpersonal roles while 70 of them apply interpersonal roles to a varied extent.

Table 4: Descriptive Statistics on Informational Roles

Item	Mean	No extent	Some extent	Low extent	High extent	Great extent	All the time
Communicating	3,0220	23	16	14	19	12	7
Informing	3,7473	11	17	8	22	14	19
Chairing	3,3187	15	17	16	20	13	10
Networking	3,9121	10	10	9	24	25	13
Gathering	2,7582	23	21	16	20	8	3
Contacting	3,7473	12	10	16	15	27	11
Convening	3,7582	13	11	11	21	20	15
Conveying	3,7363	14	10	14	16	22	15

Source: Authors

Table 5: Descriptive Statistics on Decisional Roles

Item	Mean	No extent	Some extent	Low extent	High extent	Great extent	All the time
Mentoring	3,6703	17	9	10	20	21	14
Coordinating	3,7473	15	4	19	18	21	14
Interrelating	3,9121	12	10	10	19	22	18
Initiating	3,5714	14	11	13	23	22	8
Dealing	3,3077	18	11	18	21	15	8
Implementing	2,7253	28	18	14	19	6	6
Allocating	3,2198	22	14	15	10	22	8
Ensuring	3,5275	21	8	12	16	20	14
Bargaining	3,1319	23	12	17	15	17	7
Constructing	3,9451	14	7	10	19	21	20

Source: Authors

4.1.2 Descriptive Statistics on Informational Roles

According to Muma *et al.* (2006), monitoring, disseminating and acting as a spokesperson are roles that make up the informational role of Mintzberg's managerial roles. The descriptive statistics on informational roles is presented in Table 4.

Based on the mean values, apart from the gathering (2.76) role that is performed to some extent and low extent, all the other informational roles at the North-West University are performed between low extent and high extent since their mean is greater than 3. Therefore, it is concluded that informational roles are implemented at the North-West University by academic leaders even though the extent of implementation differs. The overall results reveal that on average, only 16 academic leaders at the North-West University do not perform informational roles while 75 of them perform informational roles even though to varying extents.

4.1.3 Descriptive Statistics on Decisional Roles

Muma *et al.* (2006) note that entrepreneur; disturbance handlers, resource allocator and negotiator constitute the decisional roles of Mintzberg's Managerial roles. Table 5 shows the questions and views of respondents on decisional roles.

Based on the mean values, apart from the implementation role (2.73), that is performed to some low extent, all the other decisional roles are performed between low extent and high extent since their mean is greater than 3. This implies that decisional roles are performed at the North-West University by academic leaders, even though the extent of their application differs. The overall results reveal that on average, only 19 of academic leaders at the North-West University do not perform decisional roles while 72 of them perform these roles even though to varying extents.

4.2 The Multivariate Test on the Application of Mintzberg's Managerial Roles

The multivariate analysis of variance (MANOVA) is used to test two or more vectors of means. MANOVA was conducted for the demographic characteristics and the application of Mintzberg's managerial roles. The demographic variables (campus, gender, age range, race, educational qualification, job level, years of work experience and years in current position) were the fixed factors while the interpersonal, informational and decisional roles were the dependent variables. There was a need to see if demographic characteristics do have differences in the application of Mintzberg's managerial roles. The null hypothesis states that there is no difference in the application of Mintzberg's managerial roles across the campus, gender, age range, race, educational qualification, job level, years of work experience and years in current position. When the probability value is less than 5%, the null hypothesis is rejected and it is concluded that there is a significant difference. The results are shown in Table 6 and a significant value less than 5% reveals that the coefficient is significant.

Table 6: MANOVA Test of Difference in the Application of Mintzberg's Managerial Roles (Wilks' Lambda)

Item	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Campus	,831	2,788[b]	6,000	172,000	,013*	,089
Age	,821	1,434	12,000	222,535	,152	,064
Gender	,978	,651[b]	3,000	87,000	,584	,022
Job level	,863	1,434	9,000	207,018	,175	,048
Qualification	,924	,757	9,000	207,018	,656	,026
Job level	,924	2,382[b]	3,000	87,000	,075	,076
Years of work experience	,760	2,750	9,000	207,018	,005*	,088
Years in current position	,893	1,093	9,000	207,018	,369	,037

Source: Authors

Table 7: Posthoc Results of Mintzberg's Managerial Roles Across the Campuses

Dependent variable			Mean difference (I-J)	Std. Error	Sig.	95% Confidence interval Lower bound	95% Confidence interval Upper bound
Interpersonal	Campus 1	Campus 2	.8178*	,28336	,016	,1214	1,5142
		Campus 3	,8570	,38116	,099	-,1242	1,8382
	Campus 2	Campus 1	-.8178*	,28336	,016	-1,5142	-,1214
		Campus 3	,0392	,34719	,999	-,8774	,9558
	Campus 3	Campus 1	-,8570	,38116	,099	-1,8382	,1242
		Campus 2	-,0392	,34719	,999	-,9558	,8774
Informational	Campus 1	Campus 2	,5443	,30411	,217	-,2042	1,2927
		Campus 3	,8892	,43656	,151	-,2411	2,0194
	Campus 2	Campus 1	-,5443	,30411	,217	-1,2927	,2042
		Campus 3	,3449	,39683	,769	-,7141	1,4039
	Campus 3	Campus 1	-,8892	,43656	,151	-2,0194	,2411
		Campus 2	-,3449	,39683	,769	-1,4039	,7141
Decisional	Campus 1	Campus 2	,5955	,31891	,185	-,1864	1,3773
		Campus 3	1,0345	,46076	,104	-,1679	2,2369
	Campus 2	Campus 1	-,5955	,31891	,185	-1,3773	,1864
		Campus 3	,4390	,43729	,685	-,7211	1,5992
	Campus 3	Campus 1	-1,0345	,46076	,104	-2,2369	,1679
		Campus 2	-,4390	,43729	,685	-1,5992	,7211

Source: Authors

Table 6 shows that there is a statistically significant difference (p-value<0.05) in the application of Mintzberg's managerial roles across the campuses. Also, there is a statistical difference in the number of years of work experience. There is no statistically significant difference in the application of Mintzberg's managerial roles across gender, age range, race, educational qualification, and years in current position. Since there is a significant difference across the campuses and years of work experience, there is need to check the factors that presented these significant differences. This is obtained with the help of the Between-Subjects Effects test. This test is important to know which of the roles is performed differently on the campuses as well as which of the roles is performed differently due to the number of years of work experience.

4.2.1 Posthoc for Campus

Results for MANOVA test revealed that there is a statistically significant difference in the application of Mintzberg's managerial roles across the campuses. There is a need to further find out the particular factor and the campuses where there was a difference. The results show that there is a significant difference in terms of interpersonal roles across the campuses. A significant difference is revealed in the application of interpersonal roles across campus 1 and 2. There was no significant difference across campus 1 and campus 3, campus 2 and campus 3, campus 3 and campus 1 and campus 3 and 2 in the application of interpersonal roles. Also, there was no significant difference between decisional and information roles across the three campuses. See Table 7 on the previous page.

4.2.2 Posthoc for Years of Work Experience

Results for the MANOVA test show that there is a statistically significant difference in the application of Mintzberg's managerial roles in the number of years of work experience. (Table 8). There was need to further find out the particular factor and the range of years of work experience where there was a difference. Even though there is a significant difference in the number of years of work experience, the results show no significant difference in interpersonal, decisional and interpersonal roles across the years of work experience. There were no significant differences in the campuses and in decisional and informational roles and across the number of years as well.

The results of the finding of this study revealed that academic leaders at the North-West University

apply all the three managerial roles as proposed by Mintzberg. There was a positive significant correlation between informational and interpersonal roles, decisional and interpersonal roles and informational and decisional roles. Results for MANOVA revealed a statistical difference in the application of these interpersonal roles across the campuses. Campuses 1 and 2 had significant differences between them in terms of these roles. Even though there was a significant difference in the application of Mintzberg's managerial roles across the years of work experience, the posthoc results revealed that there was no statistical difference in the years of work experience and the three managerial roles.

Majority of academic leaders at the North-West University apply Mintzberg's interpersonal roles. However, the signing of legal documents on behalf of the institution is not performed by 34 (37.36%) managers in this institution. Hence, it is important that those who are in charged with the responsibility of signing legal documents on behave of the North-West University should endeavour to do so as much as possible. Also, the motivation of new staff to ensure that they work at their optimum capability to achieve institutional goals should be encouraged as only 13 academic leaders at this institution perform this task all the time. Academic leaders should check their attitude towards staff and students and improve on the amount and level of motivation towards them in order to boost their productivity and performance. This is because effective leadership starts with the right mind-set. A correct mind-set is founded upon a leaders' enthusiasm to motivate and boost the morale of subordinates.

Informational roles performed by academic leaders at the North-West University are not high enough. Only 19 of the 91 (20.88%) of academic leaders at the North-West University do inform other staff about upcoming activities of their departments all the time. It is important that academic leaders should inform staff about upcoming activities of their departments and units which is one of their managerial responsibilities. Also, 23 academic leaders do not gather and communicate information to staff. It is imperative for academic leaders at this institution to engage in gathering and communicating information to subordinates as much as possible.

Decisional roles are performed by 72 out of the 91 academic leaders who fully participated in the study

at the North-West University. However, 28 academic leaders at this institution do not apply disciplinary measures to sanction misconduct perpetrated by recalcitrant staff members. It is important for academic leaders at this institution to implement disciplinary measures as much as they can, which is one of their managerial responsibilities and also engage in beneficial relationships with their staff.

Table 8: Posthoc Result of Mintzberg's Managerial Roles for the Number of Years of Work Experience

Dependent variable			Mean difference (I-J)	Std. Error	Sig.	95% Confidence interval	
						Lower bound	Upper bound
Interpersonal	0 - 5 years	6 - 10 years	,0090	,53082	1,000	-1,4838	1,5019
		11 - 5 years	-,1890	,42456	,998	-1,3800	1,0020
		15+ years	-,5183	,37749	,676	-1,5904	,5537
	6 - 10 years	0 - 5 years	-,0090	,53082	1,000	-1,5019	1,4838
		11 - 5 years	-,1980	,47985	,999	-1,5686	1,1725
		15+ years	-,5274	,43876	,786	-1,8074	,7526
	11 - 15 years	0 - 5 years	,1890	,42456	,998	-1,0020	1,3800
		6 - 10 years	,1980	,47985	,999	-1,1725	1,5686
		15+ years	-,3293	,30165	,849	-1,1827	,5241
	15+ years	0 - 5 years	,5183	,37749	,676	-,5537	1,5904
		6 - 10 years	,5274	,43876	,786	-,7526	1,8074
		11 -15 years	,3293	,30165	,849	-,5241	1,1827
Informational	0 - 5 years	6 - 10 years	,0703	,54040	1,000	-1,4446	1,5852
		11 - 5 years	-,6417	,44375	,624	-1,8908	,6075
		15+ years	-,8576	,40438	,227	-2,0116	,2965
	6 - 10 years	0 - 5 years	-,0703	,54040	1,000	-1,5852	1,4446
		11 - 5 years	-,7120	,46241	,561	-2,0330	,6091
		15+ years	-,9279	,42477	,211	-2,1655	,3098
	11 - 15 years	0 - 5 years	,6417	,44375	,624	-,6075	1,8908
		6 - 10 years	,7120	,46241	,561	-,6091	2,0330
		15+ years	-,2159	,29210	,972	-1,0407	,6089
	15+ years	0 - 5 years	,8576	,40438	,227	-,2965	2,0116
		6 - 10 years	,9279	,42477	,211	-,3098	2,1655
		11 -15 years	,2159	,29210	,972	-,6089	1,0407
Decisional	0 - 5 years	6 - 10 years	-,2667	,58809	,998	-1,9198	1,3864
		11 -15 years	-,7327	,48519	,579	-2,0923	,6269
		15+ years	-,7992	,42481	,341	-2,0034	,4049
	6 - 10 years	0 - 5 years	,2667	,58809	,998	-1,3864	1,9198
		11 -15 years	-,4660	,54023	,943	-2,0035	1,0715
		15+ years	-,5326	,48672	,846	-1,9484	,8833
	11 - 15 years	0 - 5 years	,7327	,48519	,579	-,6269	2,0923
		6 - 10 years	,4660	,54023	,943	-1,0715	2,0035
		15+ years	-,0665	,35561	1,000	-1,0743	,9413
	15+ years	0 - 5 years	,7992	,42481	,341	-,4049	2,0034
		6 - 10 years	,5326	,48672	,846	-,8833	1,9484
		11 - 5 years	,0665	,35561	1,000	-,9413	1,0743

Source: Authors

In a nutshell, even though academic leaders at this institution do apply the three Mintzberg's managerial roles, there was a statistical difference in the application of decisional roles across campuses. Hence, it is essential for top management to reinforce the application of interpersonal roles in these campuses by acting as symbolic leaders on behalf of the organisation, among other duties.

Understanding Mintzberg's managerial roles of academic leaders at the North-West University and the roles that they tend to apply the most compared to others, is very important. Academic leaders believe that their jobs and the roles they perform may have direct implications to their institutions. From the results of this study, newly elected or appointed academic leaders should not see their new positions as high profile jobs but understand the responsibilities and duties of such positions such as performing interpersonal, informational and decision-making duties for their institutions. An improvement in the effectiveness of academic leaders in higher education institutions can result to a better functioning of such institutions, and further strengthen institutions by increasing staff morale and other vital factors associated with leaders and their institutions.

5. Conclusion and Recommendations

The results of this study are a benchmark for Mintzberg's managerial roles of academic leaders in higher education institutions in South Africa because these institutions can be able to compare their different managerial roles with one another. In this way, they will know if the managerial roles implemented at various institutions are similar or different from one another. This would enable institutions to know which of the management roles are more effective in achieving organisational objectives and missions. Perhaps, the outcome of such comparison could go a long way in persuading or dissuading aspiring academic leaders to assume leadership positions because they obtained the right reflection on the position. Based on the results of this study, it is evident that the three managerial roles mostly implemented by academic leaders are: leadership, liaison; and disseminating roles. With this revelation, aspiring academic and current academic leaders at the North-West University who wish to be more effective in their leadership functions, could research more on these areas of leadership. Aspiring leaders should,

therefore, develop more skills in leadership as academic leaders in higher education institutions in South Africa.

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