



Perceptions of motivational factors in the Department of Health: A demographic groupings analysis



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Orientation: Employees' motivation is a key driving force of any successful organisation. Motivated administrative employees commit themselves to achieving the goals and objectives of the organisation.

Research purpose: The purpose of this study was to investigate whether motivational factors statistically differ among demographic groupings.

Motivation for the study: This department is currently operating in a diverse environment, which demands managers to understand the factors that influence the motivational level of their administrative employees.

Research approach/design and method: A quantitative research approach was used. A structured research questionnaire was used to achieve the objective of the study. Non-probability, convenience sampling was used to select 150 administrative employees who were targeted from the population of 463.

Main findings: This study showed marginally significant differences between factors of motivation namely job responsibility and leadership to respondents' race groups. This study showed significant differences between male and female respondents regarding factors of motivation namely goal setting and feedback. The results showed that there were marginally significant differences between age groups regarding what motivated them.

Practical/managerial implications: Management and Human Resource Management should make use of both motivators and hygiene factors to effectively motivate employees and promote job satisfaction in the workplace.

Contribution/value-add: The contribution of this study is to assist managers and management in understanding the influence of motivation on employees. This study underlines factors that contribute to employee motivation and offers guidelines on the factors that are conducive to keeping employees motivated.

Keywords: motivation; management; demographic groupings; Human Resource Management; employees.

Introduction

In the current dynamic working environment, organisations are required to do their utmost to become relevant and remain competitive (Rozman et al., 2017). The National Department of Health (NDoH) is expected to focus on the practices that help employees to achieve high-level motivation at the workplace. Makamu (2016) argues that to meet citizens' needs for public services, government employees should perform their work effectively. Batho Pele's principles for delivering better services to the citizens are a concern. This is because the state of the public sector in South Africa was heavily influenced by the legacy of the apartheid era, which required re-integrating a hierarchically ordered, racially fragmented and inordinately complex and inefficient public sector after the advent of democracy in 1994 (Naidoo, 2015). Moreover, the public sector has been characterised by inefficiency, a lack of accountability, ineffective management practices and a lack of transparency (Kalashe, 2016).

A key mandate of the South African government is to provide better and quality services to the citizens; however, the government has often been criticised for not delivering services to its citizens as expected (Fourie & Poggenpoel, 2017). Based on the literature review, it is clear that public sectors all over the world face challenges and that to date public sector reforms have not been very successful (Fourie & Poggenpoel, 2017). Additionally, South Africa has experienced high levels of constant subjective criticism by members of the public for poor or unsatisfactory

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service delivery or the total lack of it in terms of meeting standards and requirements (Mazibuko-Madalani, 2016). The tardiness to deliver basic services and the unfulfilled promises have triggered service delivery protests and frustrations in various communities (Masuku & Jili, 2019).

It is generally accepted that the absence of administrative services in any business sector precludes efficient information, records and resource management (Ferreira et al., 2017). It is essential for administrative employees to be highly motivated to commit to the NDoH's initiative to improve the governance and service delivery of the health system in South Africa (NDoH, 2014). This is because administrative employees can assume office responsibilities without direct supervision to maintain the organisation's existence and ensure survival (Musa, 2016). To achieve this remarkable level of performance, employees must be highly motivated (Ramatsetse, 2016). The key functions of administrative employees include general management, administration, sales and marketing, operations, supply chain, human resources and public relations (Ferreira et al., 2017). It is therefore important for the NDoH to know which factors can contribute to the motivation of their administrative employees. Kabinde (2016) established that employees who had positive feelings about their work tended to hold positive beliefs about it and display positive behaviours towards it. It is believed that if employees are dissatisfied and demotivated in their workplace, their performance might decline and the organisation might fail to exploit their potential (Rahaman et al., 2020).

Even though the South African public sector operates in a diverse environment, it appears that the South African public sector fails to address the causes of its challenges (Fourie & Poggenpoel, 2017). This results in continuous complaints from the citizens of poor or unsatisfactory service delivery or the total lack of it in terms of meeting standards and requirements (Mazibuko-Madalani, 2016). In South Africa, civil servants frequently express their dissatisfaction with their jobs, and it is common knowledge that the public sector has been characterised by demotivated employees who contribute to inefficiency and ineffectiveness in terms of service delivery. According to Van Antwerpen and Ferreira (2016), managers or supervisors need to provide employees with a working environment that nurtures motivation. No similar study could be found in the literature about how demographic factors of administrative employees influence the perceptions of factors of motivation. It is against this background that the need for the study arose. This study sought to determine if there were statistically significant differences among the various demographic groupings, namely race, gender and age in relation to motivational factors.

Purpose of the study

Before the start of this study, no similar study could be found in the literature about how demographic factors of administrative employees influence the perceptions of factors

of motivation. The main purpose of this study was to investigate whether motivational factors statistically differ among demographic groupings. The research objective of this study was to investigate whether there were statistically significant differences among the various demographic groupings in terms of race, gender and age in relation to motivational factors in the NDoH.

Literature review

Motivation in the workplace

Motivation is one of the fundamental aspects that influence an employee's performance (Vincent & Kumar, 2019). Motivation has become a process of moving employees from being bored to the state of feeling interested (Rahaman et al., 2020). The organisation needs to motivate employees to improve their performance (Vincent & Kumar, 2019). The consequences of demotivated employees have been reported in the literature. For instance, Razak et al. (2018) state that even if employees can perform their tasks effectively, the outcomes of their work will not satisfy if they are not motivated. Van Antwerpen and Ferreira (2016) demonstrated that motivation could be regarded as a drive originating from within employees that will encourage them to perform their jobs.

Nabi et al. (2017) confirm that motivation is a tool that encourages employees to work self-intentionally. The idea of motivation derives from the word 'mover', meaning encouragement (Razak et al., 2018). Previous researchers considered motivation as a set of inner processes that influence the arousal, direction and determination of employees' attitudes towards achieving a goal (Sandhu et al., 2017). On the other hand, researchers such as Kemoh (2016) report that when employees are not satisfied at the workplace and motivated to perform their duties efficiently and effectively, the organisation cannot achieve success. Motivation is related to conditions that encourage an employee to focus on attaining the organisational goals (Razak et al., 2018). It is often stated that motivation falls under the umbrella of human resources as a precondition for external rewards such as promotions and salary increases (Idowu, 2017). When employees are motivated, they tend to work harder to perform their duties (Razak et al., 2018).

Herzberg's two-factor theory

Herzberg (2003) postulates that the factors involved in producing job satisfaction are separate and distinct from the factors that lead to job dissatisfaction. He further maintains that there are two kinds of factors affecting motivation, namely motivator and hygiene factors, and these factors influence employees differently. According to Idowu (2017), hygiene factors lead to job satisfaction as part of the intrinsic motivation process because they satisfy the employees' internal need for self-actualisation. Hygiene factors are regarded as extrinsic

and include factors such as salary or remuneration, job security and working conditions (Herzberg et al., 2009). Moreover, hygiene factors alone are not enough to motivate employees (Turabika & Baskan, 2015). On the other hand, motivators are regarded as intrinsic factors such as a sense of achievement, recognition, responsibility and personal growth (Herzberg, 1966). Intrinsic factors are associated with the ability to achieve and experience psychological growth. Particularly, Herzberg's (1966) theory suggests that employees have desires beyond the hygiene factors and that motivators are very important to employees.

Factors that influence employee motivation

In presenting factors of motivation, this section is structured as follows.

Feedback, reward and performance appraisal

Performance appraisals and rewards are regarded as proactively influencing employee willingness to behave proactively (Lee et al., 2019). Similarly, Idowu (2017) considers performance appraisal as an essential success tool for employees and believes that a system should be developed to create perceptions of fair treatment among employees and in employees' expectations. The fairness process of the performance appraisal system refers to the extent to which the performance of the employees is expected to be evaluated in a way that is perceived to be accurate, fair, justified and free from bias (Baird et al., 2020). This is because performance appraisal is normally used in the organisation to evaluate the performance of employees (Al-Jedaiaa & Mehreza, 2020). It is well known that feedback should be provided to employees after Performance appraisal (PA), as feedback is considered an essential tool to improve employee morale and motivation by indicating the areas where employees did something especially good (Idowu, 2017). Positive feedback will encourage employees to perform better. The advantages of giving employees feedback through PA are that managers' expectations are clearly explained to employees (Idowu, 2017). Based on the discussion above, it is evident that the ability to motivate PA relies entirely on how the outcomes of the evaluation are used (Idowu, 2017).

Leadership

Razak et al. (2018) report that the success and failure of an organisation depends on leadership. This is because the right leadership style is considered key to outstanding performance; however, it depends on how a manager of the organisation deals with the workforce, controls resources within the organisation and motivates the employees to work hard (Al-Jedaiaa & Mehreza, 2020). The adoption of an effective type of leadership in the organisation will have an influence on the existence and survival of the organisation in dealing with the challenges and changes that might take place (Razak et al., 2018).

Working conditions

In practice, a feasible and secure workplace is the main concern according to Maslow's theory (Budiharso, 2022). As mentioned above, managers in the organisation should focus on work organisation improvements; as is widely known, managers may find it hard to promote supportive working conditions (Leka & Nicholson, 2019). The performance of employees is associated with the right working environment (Idowu, 2017). Therefore, according to Frederick Herzberg, the presence of good working conditions in the organisation will stop dissatisfaction and consequently foster motivation, promoting favourable employee performance (Mulianga et al., 2022). Idowu (2017) reports that fair treatment, support, effective communication and collaboration within the organisation can lead to favourable conditions.

Training and development

Nowadays, employees in the public sector need the motivation to improve their performance outcomes based on their duties and responsibilities (Rahayu et al., 2019). El-Ghalayini (2017) found that training and development had a positive relationship with employee commitment and satisfaction. Khan et al. (2022) maintain that training and development bring positive change in the work of employees, thus increasing productivity. Rahayu et al. (2019) report that training is prioritised not only to foster the ability to carry out work in the future but also to increase work motivation. Khan et al. (2017) found that sufficient work training was related to positive attitudes to job proficiency and suitable work training was associated with positive attitudes to work training. Although training and development are fundamental, it is also essential for the organisation to know what type of training and development programme will serve to change the culture and employee attitudes (Ibrahim & Boerhannoeddin, 2017). According to Rodriquez and Walters (2017), training and development should not be seen as a tool to improve competencies needed to do a job, but as a tool to help employees to feel more satisfied with the outcome of their performance.

Recognition and appreciation

The rewards and recognition process must be fair; the lack of a fair rewards and recognition system can lead to an unsatisfactory workforce in the organisation and it is known that employees want to be treated like valuable resources, not disposable assets (Mendis, 2017). Recognition and appreciation for employees can be in the form of monetary or non-monetary benefits. For instance, organisations may prefer to recognise their employees by giving service awards or loyalty awards to employees who have worked for the organisation for a long period (Mendis, 2017). These enhance employees' performance, satisfaction and productivity (Nagaraju & Pooja, 2017). Recognising employee performance can also be in the form of verbal appreciation to increase employees' self-esteem and happiness, which will result in further benefits for the organisation (Khan et al., 2017).

Job security

One way to increase motivation is to offer employees job security. According to Hur and Perry (2019), a low level of job security may reduce intrinsic motivation and decrease the morale of employees. Job security is key to attracting and motivating employees. Imam and Javed (2019) established that job insecurity triggered and promoted undesirable feelings among employees and caused a loss of focus on job tasks. A lack of job security not only predisposes employees to perform below the expected standard but is also a major contributing factor to high employee turnover in organisations across the world (Vijayan, 2017). According to Imam and Javed (2019), a working environment must not be polluted by job insecurity perceptions because these negatively affect employee performance.

Research methodology

Research approach and research design

The study was designed as a formal study, and a quantitative survey design was used to achieve the objectives of the study. The study sought to address the following research question:

- Are there any significant differences among the various demographic groupings in terms of race, gender and age in relation to motivational factors in the NDoH?

Target population and sampling design

A sample of at least 150 administrative employees was targeted from the population of 463. Non-probability, convenience sampling was used to select respondents for this study. In this study, a total of 150 questionnaires were personally distributed by the researcher to administrative employees who are working within the office of the NDoH. A total of 130 were returned which resulted in a response rate of 86.66%.

Measuring instrument, validity and reliability

The questionnaire used for this study consisted of 46 questions. The questionnaire was evaluated by the study supervisor, Tshwane University of Technology statisticians and management of the NDoH to confirm content validity. Before data collection, a pilot study was also conducted with 10 administrative employees to ensure face validity, and the final questionnaire was self-administered by respondents. One hundred and fifty questionnaires were self-administered and personally collected by the researcher.

Data analysis

The Statistical Package for the Social Sciences (SPSS) version 22 was used to compile the descriptive statistics. The Cronbach's alpha coefficient test was done to assess the internal consistency reliability of the measuring instrument. ANOVA (Table 3) and t-tests (Table 1 and Table 2)

were conducted to establish relationships between the different independent variables. A post hoc test (Table 4) was conducted for age groups on an opportunity for advancement and performance appraisals.

Ethical considerations

First of all, a formal submission was drafted and sent to the management of the NDoH in Pretoria, Gauteng requesting permission to conduct research at the department. Ethical clearance (Ref #: FREC2014/FR/10/002-MS [2]) for this study was obtained from the Tshwane University of Technology. To secure confidentiality in this study, respondents were made aware that all the information that they will provide will be treated with strict confidentiality and no one will have access to the information except the authorised people. Participants had to give consent and they were assured that their responses will be confidential. To ensure anonymity, respondents were not requested to provide their names.

Results

Demographic results

This section presents demographic results of the respondents namely gender, race, marital status, educational level, age and years of service.

According to study results, most of the respondents were African, 108 (83.07%), followed by white people, 15 (11.54%), coloureds, 5 (3.85%) and only 2 (1.54%) Asians. It is apparent that the NDoH employs more African administrative employees than any other race group. Regarding gender profile, 77 (59.23%) of the respondents were female and 53 (40.77%) were male. This could be because administrative positions in general are dominated by female employees. These results are in line with studies done by Hanaysha (2016), where similar results were reported.

The results regarding age profile show that 56 (43.08%) of the respondents were between the ages of 22 and 29, and 41 (31.54%) were between the ages of 30 and 39. But those aged between 40 and 49 accounted for 21 (16.15%) of the total response, while 11 (8.46%) were 50 and older. Furthermore, only 1 (0.771%) of the respondents was younger than 21. The fact that 74.62% of all respondents were between the ages of 22 and 39 is an indication that administrative positions are dominated by younger employees. However, this result is in line with South Africa's *Employment Equity Act (55/1998)*, which promotes the employment of young people in the public sector.

Concerning the educational profile, the results show that 13 (86.92%) of the respondents had either a diploma, degree or postgraduate qualification and 17 (5.39 + 7.69%) had either a Senior certificate or a certificate. This speaks volumes for the efforts of the public sector and the country in general to employ qualified employees in the public sector of South Africa. The results concerning years of service show that the majority of employees, namely 103 (79.23%), were

TABLE 1: Independent samples *t*-test for race.

Motivational factors	Levene's test for equality of variances		<i>t</i> -test for equality of means			
	F statistics	Sig value (i-value)	<i>t</i> -Statistics	Degrees of freedom	Sig- (2-tailed)	Mean difference
Reward						
Equal variances assumed	0.009	0.926	0.074	128	0.941	0.0194
Equal variances not assumed	-	-	0.071	29.100	0.944	0.0194
Goal setting						
Equal variances assumed	0.047	0.829	0.308	127	0.758	0.0729
Equal variances not assumed	-	-	0.299	29.383	0.767	0.0729
Feedback						
Equal variances assumed	0.827	0.365	0.537	127	0.592	0.1427
Equal variances not assumed	-	-	0.556	31.324	0.582	0.1427
Job characteristics						
Equal variances assumed	0.611	0.436	-0.526	127	0.600	-0.1268
Equal variances not assumed	-	-	-0.601	35.279	0.552	-0.1268
Salary						
Equal variances assumed	0.090	0.765	-0.316	128	0.753	-0.0850
Equal variances not assumed	-	-	-0.328	31.330	0.745	-0.0850
Opportunity for advancement						
Equal variances assumed	2.893	0.091	-0.010	128	0.992	-0.0030
Equal variances not assumed	-	-	-0.009	26.996	0.993	-0.0030
Working conditions						
Equal variances assumed	6.331	0.013	1.173	128	0.243	0.2929
Equal variances not assumed	-	-	1.521	42.754	0.136	0.2929
Recognition and appreciation						
Equal variances assumed	1.186	0.278	0.325	128	0.746	0.0783
Equal variances not assumed	-	-	0.347	32.307	0.731	0.0783
Training and development						
Equal variances assumed	0.020	0.887	-0.208	128	0.835	-0.0568
Equal variances not assumed	-	-	-0.211	30.495	0.835	-0.0568
Responsibility						
Equal variances assumed	11.009	0.001	2.155	128	0.033	0.4541
Equal variances not assumed	-	-	2.995	49.003	0.004	0.4541
Job security						
Equal variances assumed	0.003	0.954	1.002	128	0.318	0.1982
Equal variances not assumed	-	-	1.007	30.332	0.322	0.1982
Performance appraisals						
Equal variances assumed	0.190	0.664	-0.892	128	0.374	-0.2357
Equal variances not assumed	-	-	-0.860	29.162	0.397	-0.2357
Leadership						
Equal variances assumed	4.962	0.028	2.007	127	0.047	0.4836
Equal variances not assumed	-	-	2.284	35.090	0.029	0.4836
Overall satisfaction						
Equal variances assumed	0.917	0.340	0.601	128	0.549	0.0974
Equal variances not assumed	-	-	0.646	32.556	0.523	0.0974

employed for 2 to 10 years, which indicates a relatively stable workforce and more experienced employees, while 16 (12.30%) were employed for 11–20 years. The results reveal that 7 (5.39%) were employed for less than 2 years and 2 (1.54%) of the respondents were employed for 21–30 years and more than 30 years, respectively.

Reliability and validity

It was decided that Nunally's (1978) recommendation of 0.50 would be an acceptable threshold for an alpha score for this study. All 11 scales obtained Cronbach's alpha coefficient values above the minimum acceptable level ranging from 0.52 to 0.94. The results confirm that the reliability of the measuring instrument was acceptable according to the guidelines of Nunally (1978).

Independent samples *t*-test

To confirm whether there were significant differences between motivational factors and demographic groupings namely race and gender, the independent samples *t*-tests were conducted (displayed in Table 1 and Table 2).

The results of the independent samples *t*-test for the race group are displayed in Table 1. The race variables were presented into four groups, namely Asian, white, black and coloured.

Table 1 depicts that there were only two scales on which there were marginally significant differences between the race groups, namely responsibility and leadership ($p < 0.05$).

TABLE 2: Independent samples *t*-test for gender.

Motivational factors	Levene's test for equality of variances		<i>t</i> -test for equality of means			
	F statistics	Sig- value (<i>p</i> -value)	<i>t</i> -Statistics	Degrees of freedom	Sig (2-tailed)	Mean difference
Reward						
Equal variances assumed	0.000	0.997	2.409	128	0.017	0.4702
Equal variances not assumed	-	-	2.424	114.308	0.017	0.4702
Goal setting						
Equal variances assumed	7.964	0.006	2.379	127	0.019	0.4220
Equal variances not assumed	-	-	2.520	125.914	0.013	0.4220
Feedback						
Equal variances assumed	7.577	0.007	2.153	127	0.033	0.4312
Equal variances not assumed	-	-	2.231	121.476	0.028	0.4312
Job characteristics						
Equal variances assumed	0.613	0.435	1.976	127	0.050	0.3594
Equal variances not assumed	-	-	2.007	117.725	0.047	0.3594
Salary						
Equal variances assumed	0.334	0.564	0.534	128	0.594	0.1095
Equal variances not assumed	-	-	0.531	109.657	0.597	0.1095
Opportunity for advancement						
Equal variances assumed	0.307	0.580	1.795	128	0.075	0.3883
Equal variances not assumed	-	-	1.779	108.434	0.078	0.3883
Working conditions						
Equal variances assumed	0.010	0.921	1.985	128	0.049	0.3747
Equal variances not assumed	-	-	1.971	109.004	0.051	0.3747
Recognition and appreciation						
Equal variances assumed	1.526	0.219	2.952	128	0.004	0.5254
Equal variances not assumed	-	-	3.000	117.898	0.003	0.5254
Training and development						
Equal variances assumed	0.000	0.984	3.291	128	0.001	0.6573
Equal variances not assumed	-	-	3.289	111.769	0.001	0.6573
Responsibility						
Equal variances assumed	0.325	0.570	1.114	128	0.267	0.1816
Equal variances not assumed	-	-	1.125	115.575	0.263	0.1816
Job security						
Equal variances assumed	0.014	0.905	0.225	128	0.822	0.0341
Equal variances not assumed	-	-	0.225	113.045	0.822	0.0341
Performance appraisals						
Equal variances assumed	0.142	0.707	2.179	128	0.031	0.4325
Equal variances not assumed	-	-	2.207	116.844	0.029	0.4325
Leadership						
Equal variances assumed	1.902	0.170	0.774	127	0.440	0.1445
Equal variances not assumed	-	-	0.784	116.721	0.435	0.1445
Overall satisfaction						
Equal variances assumed	1.189	0.278	2.834	128	0.005	0.3402
Equal variances not assumed	-	-	2.882	118.177	0.005	0.3402

The results of the independent samples *t*-test for the gender group are displayed in Table 2. The results on gender were recorded into two groups, namely male and female.

This table points to two significant differences between male and female respondents regarding what motivates them ($p \leq 0.05$), namely goal setting and feedback. This may signify that males are more motivated by goal setting and feedback than females.

Analysis of variance

To confirm whether relationships existed between the motivational factors and age, ANOVA was conducted on all the factors of motivation (displayed in Table 3 and Table 4).

The results of the ANOVA for the age group are displayed in Table 3.

As seen in Table 3, the only significant difference between age groups was with regard to performance appraisal ($p = 0.000$). There were marginally significant differences between age groups with regard to feedback ($p = 0.046$), salary ($p = 0.027$) and opportunity for advancement ($p = 0.021$). In order to establish which age groups differed significantly from each other, a post hoc analysis was performed. With regard to feedback and salary, no significant pairwise differences could be detected, as is often the case when ANOVAs are only marginally significant. In the case of opportunity for advancement, there was one pairwise difference that was significant, namely between those 40–49 years of age and those below 29 years of age. The younger group had a significantly higher score on this scale.

TABLE 3: ANOVA for age.

Motivational factors	Sum of Squares	Degrees of freedom	Mean Square	F statistics	Significance value (p-value)
Reward					
Between Groups	6.934	3	2.311	1.902	0.133
Within Groups	153.074	126	1.215	-	-
Total	160.008	129	-	-	-
Goal setting					
Between Groups	0.670	3	0.223	0.217	0.885
Within Groups	128.822	125	1.031	-	-
Total	129.492	128	-	-	-
Feedback					
Between Groups	10.091	3	3.364	2.735	0.046
Within Groups	153.758	125	1.230	-	-
Total	163.849	128	-	-	-
Job characteristics					
Between Groups	6.239	3	2.080	2.017	0.115
Within Groups	128.900	125	1.031	-	-
Total	135.140	128	-	-	-
Salary					
Between Groups	11.863	3	3.954	3.159	0.027
Within Groups	157.745	126	1.252	-	-
Total	169.608	129	-	-	-
Opportunity for advancement					
Between Groups	14.318	3	4.773	3.371	0.021
Within Groups	178.415	126	1.416	-	-
Total	192.733	129	-	-	-
Working conditions					
Between Groups	0.602	3	0.201	0.172	0.915
Within Groups	146.906	126	1.166	-	-
Total	147.508	129	-	-	-
Recognition and appreciation					
Between Groups	1.240	3	0.413	0.387	0.763
Within Groups	134.652	126	1.069	-	-
Total	135.892	129	-	-	-
Training and development					
Between Groups	0.154	3	0.051	0.037	0.990
Within Groups	173.741	126	1.379	-	-
Total	173.894	129	-	-	-
Responsibility					
Between Groups	0.411	3	0.137	0.161	0.922
Within Groups	107.289	126	0.851	-	-
Total	107.700	129	-	-	-
Job security					
Between Groups	3.115	3	1.038	1.467	0.227
Within Groups	89.162	126	0.708	-	-
Total	92.277	129	-	-	-
Performance appraisals					
Between Groups	22.376	3	7.459	6.625	0.000
Within Groups	141.855	126	1.126	-	-
Total	164.231	129	-	-	-
Leadership					
Between Groups	3.716	3	1.239	1.146	0.333
Within Groups	135.086	125	1.081	-	-
Total	138.802	128	-	-	-
Overall satisfaction					
Between Groups	2.042	3	0.681	1.441	0.234
Within Groups	59.505	126	0.472	-	-
Total	61.548	129	-	-	-

Furthermore, a post hoc test was performed and the findings in terms of the two dependent variables, namely opportunity for advancement and performance appraisals based on the age groups of the respondents, are reported in Table 4.

Table 4 compares the age groups with one another. The final results show that a significant relationship was found between the group younger than 29 years and the group 40–49 years ($p = 0.029$).

TABLE 4: Post hoc tests for age groups on an opportunity for advancement and performance appraisals.

Dependent variable	(I) Age	(J) Age	Mean difference (I-J)	Std. error	Significance value (p-value)
Multiple comparisons: Age groups					
Opportunity for advancement	Younger than 29	30–39 years	0.44416	0.2437	0.349
		40–49 years	0.92732*	0.3038	0.029
		50 and older	0.41866	0.3919	0.767
	30–39 years	Younger than 29	–0.44416	0.2437	0.349
		40–49 years	0.48316	0.3193	0.517
		50 and older	–0.02550	0.4041	1.000
	40–49 years	Younger than 29	–0.92732*	0.3038	0.029
		30–39 years	–0.48316	0.3193	0.517
		50 and older	–0.50866	0.4429	0.725
	50 and older	Younger than 29	–0.41866	0.3919	0.767
		30–39 years	0.02550	0.4041	1.000
		40–49 years	0.50866	0.4429	0.725
Performance appraisals	Younger than 29	30–39 years	0.35045	0.2173	0.460
		40–49 years	0.97995*	0.2709	0.006
		50 and older	1.15311*	0.3494	0.015
	30–39 years	Younger than 29	–0.35045	0.2173	0.460
		40–49 years	0.62950	0.2847	0.186
		50 and older	0.80266	0.3603	0.180
	40–49 years	Younger than 29	–0.97995*	0.2709	0.006
		30–39 years	–0.62950	0.2847	0.186
		50 and older	0.17316	0.3949	0.979
	50 and older	Younger than 29	–1.15311*	0.3494	0.015
		30–39 years	–0.80266	0.3603	0.180
		40–49 years	–0.17316	0.3949	0.979

* , Employees in the age group 40–49 years reported significantly lower levels of motivation with a mean score of 2.07.

If the mean scores between the age groups are analysed, it is interesting to note that employees younger than 29 years old reflected the highest level of motivation with a mean score of 3.21.

Discussion

The independent samples *t*-test was also conducted to determine whether there were significant differences regarding motivation between demographic groupings namely race and gender. Table 1 showed that in the case of job responsibility, black respondents had a slightly lower score than the other race groups. This shows that job responsibility and leadership did not necessarily motivate the black respondents to the same extent as the other race groups. It is generally known that some employees will be motivated by motivators while others are motivated by hygiene factors. According to Al-Awar et al. (2022), to attain job satisfaction at work, motivational factors need to be harmonised with hygiene factors to achieve job satisfaction at work. Managers in the organisation need to comprehend this relationship. Job responsibility was deemed a motivator and leadership a hygiene factor by Herzberg et al. (1959). However, according to Herzberg's theory, job responsibility contributes to job satisfaction and encourages employees to work harder (Herzberg et al., 1959).

Table 1 depicts that there were only two scales on which there were marginally significant differences between the race groups, namely responsibility and leadership ($p < 0.05$). As far as Herzberg's theory is concerned, job responsibility is

associated with motivators and leadership is associated with hygiene factors. According to Herzberg et al. (1959), hygiene factors do not lead to job satisfaction; satisfying these needs may create peace of mind but not necessarily enhance motivation. It is essential to note that the absence of hygiene factors can decrease the performance and productivity of employees (Amzatet al., 2016). From these results, it can therefore be deduced that job responsibility as a motivator is slightly less effective in motivating black respondents. The same pattern of scores was found with regard to the leadership scales.

Table 2 depicts that males had higher mean scores than females. The results showed that to remain inspired and motivated, males appear to be more motivated by goal setting and feedback than females. Highly motivated employees will always put their best efforts into their work and help the company to be productive (Badubi, 2017). Employees' motivation is important in the organisation. Tovmasyan and Minasyan (2020) explained that employees need to be satisfied and feel their contributions are valued by the organisation to improve their performance. Table 4 points to two significant differences between male and female respondents regarding what motivates them ($p \leq 0.05$), namely goal setting and feedback. This may signify that males are more motivated by goal setting and feedback than females. It is important to note that goal setting and feedback are classified as motivators by Herzberg et al. (1959). Ann and Blum (2020) argue that the absence of these motivators in the workplace will not lead employees to be dissatisfied. Motivators are essential to avoid dissatisfaction.

ANOVA was conducted to establish whether relationships existed between the motivational factors and the independent variables. There were four age groups relevant to this study. According to Table 3, the only significant difference between age groups was with regard to performance appraisal ($p = 0.000$). There were marginally significant differences between age groups with regard to feedback ($p = 0.046$), salary ($p = 0.027$) and opportunity for advancement ($p = 0.021$). The younger group had a significantly higher score on this scale. The results of the post hoc test in Table 4 imply that the group younger than 29 years of age was more motivated by opportunity for advancement than the group of 50 years and older. This may be because the employees younger than 29 years were still building their careers and were interested in promotion. Older employees were already where they wanted to be in the organisation, and therefore opportunity for advancement might not be that important to them at this stage in their careers. With regard to the overall level of motivation, there were no significant differences between the youngest and the second youngest groups. There were, however, differences between those younger than 29, those between 40 and 49 years and those older than 50. According to Herzberg's theory, opportunity for advancement is classified as a motivating factor. In this situation, the absence of an opportunity for advancement factor leads to a decrease in motivation and the presence of an opportunity for advancement increases motivation (Ozsoy, 2019).

Table 4 showed that respondents in the age categories younger than 29 and 40–49 years evidenced high levels of motivation in opportunity for advancement. The results in this table further reveal that there was a significant relationship between the age groups younger than 29 years and 40–49 years ($p = 0.006$). A significant relationship was also found between the age groups younger than 29 years and 50 years and older ($p = 0.015$). This result could mean that the groups younger than 29 years, 40–49 years and 50 years and older were more motivated by performance appraisal than the age group 30–39 years. According to Herzberg's theory, performance appraisal is classified as a motivating factor. Therefore, to create a successful public sector in its operation, managers must not only pay attention to motivator factors to avoid employee dissatisfaction but also attend to hygiene factors in the work itself for employees to be motivated. It is essential to note that the absence of hygiene factors can decrease the performance and productivity of employees (Amzat et al., 2016).

Practical implications

The findings of the study showed that employees could be concurrently intrinsically and extrinsically motivated. Therefore, the NDoH needs to note that although hygiene factors do not lead to employee motivation, the absence of hygiene factors could lead to poor employee performance. This study urges managers to incorporate both motivators

and hygiene factors into the organisation's policy to motivate employees, according to Herzberg. With that in mind, managers should use a variety of methods (motivators and hygiene factors) to effectively motivate employees and promote job satisfaction in the workplace regardless of demographic differences. For the organisation to survive in today's competitive working environment, it is essential to have employees who are highly motivated (Rahaman et al., 2020). Unless and until NDoH makes decisions that enhance employee motivation, this sector will struggle to compete in today's competitive working environment. This study may encourage management to pay specific attention to aspects that are not conducive to employee motivation as indicated by the respondents of the study.

Limitations and recommendations

This study is only a starting point, focusing on a demographic analysis of administrative employees concerning motivational factors. It is thus important to be aware that any references made in this study regarding any part of the universe should not be read to be representing the entire population but should rather be seen in the context of the sample frame that was used. Another limitation is that only administrative employees at the NDoH participated in this study, and it may not be possible to generalise the results to other public service departments and other industries although with continued research similar constructs could materialise.

Below are the recommendations based on the study results:

- Managers should provide employees with feedback through performance appraisal indicating areas that need improvement and where employees' performance is good. This process should be perceived to be fair to all employees and free from bias.
- Management should provide employees with opportunities for advancement to bring positive change in the work of employees, thus increasing productivity. It is also essential for managers to assess what type of opportunity for advancement programmes will serve to change the culture and employee attitudes.
- Goal setting should be provided to the employee to bring a sense of connection between the employee and the organisation.
- A comparative study between public sector administrative employees and private sector administrative employees concerning administrative employees' perceptions of motivational factors is recommended and a demographic analysis should be carried out.

Conclusion

The research objective of this study was to investigate whether there were statistically significant differences among the various demographic groupings in terms of race, gender and age to motivational factors in the NDoH. The findings from the

empirical part of this study serve to highlight the demographic differences among administrative employees. The findings are consistent with the idea that different demographic groups have different perspectives on the elements that motivate employees. The study found marginally significant differences between factors of motivation and respondents' race groups. However, there were several significant differences between male and female respondents regarding what motivates them. The following factors were involved: reward, goal setting, feedback, recognition and appreciation, training and development and performance appraisal. There were marginally significant differences among the four age groups in the study regarding feedback, salary and opportunity for advancement, but a significant difference in performance appraisal. The management is not required to take any particular demographic groups into account when motivating employees.

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Authors' contributions

G.M. conducted the research and C.P.J.H. supervised the research and co-wrote the article.

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Data availability

The data that support the findings of this study are not openly available but are available from the corresponding author, G.M., upon reasonable request.

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