The determinants of job satisfaction and auditors' performance in the Saudi context

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Abstract

Purpose – This study aims to examine the relationship between internal and external factors and job satisfaction, and between job satisfaction and auditors' performance.

Design/methodology/approach – This research used deductive approach. Data was gathered from 83 auditors in the Saudi Organisation for Certified Public Accountants (SOCPA) database. By implementing the partial least squares-structural equation modelling (PLS-SEM) technique, the suggested hypotheses were examined.

Findings – The results show that internal factors, i.e., achievement, advancement, recognition and growth, significantly impact job satisfaction. Subsequently, the external factors, i.e., company policies, relationship with a peer and relationship with supervisor, significantly impact job satisfaction. In contrast, work security has no relationship with job satisfaction. Furthermore, job satisfaction is a significant driver for auditors' performance.

Research limitations/implications – This research sheds light on the relationships between internal and external factors, job satisfaction and auditors' performance in the Saudi context. It would be interesting to investigate these relationships in a different setting, such as a different country, time or industry. Future studies should broaden the sample frame to include different types of employees to obtain more generalisable results.

Practical implications – This study may help managers of auditing departments formulate appropriate strategies and design effective programs to increase the level of job satisfaction between auditors by enhancing such factors, which will lead to improving the auditors' performance.

Originality/value – This research provide an empirical evidence to support the theoretical assumptions of Herzberg's which is much needed.

Keywords Auditors performance, Herzberg's theory, Job satisfaction, Work security, Relationships with supervisors

Paper type Research paper

1. Introduction

Auditors are extremely significant assets for accounting companies, and their performance is crucial to the success of the organisation (Srimindarti *et al.*, 2020). As a result, accounting companies should establish conditions that motivate their auditors to work at their best (Dorta-Afonso *et al.*, 2023). For an auditor, performance is crucial. Performance is frequently used as a criterion for evaluating auditors' accuracy in carrying out audit tasks. Auditors who do not perform well risk being sanctioned or perhaps losing their employment (Louis *et al.*, 2022; Supriyatin *et al.*, 2019). On the other hand, if the auditor can complete the task according to the assignment, the auditor will have a lot of chances to keep his or her membership in the organisation. Auditors may also be promoted to a higher level based on their performance,

allowing them to contribute more effectively to the organisation's success (Alqudah *et al.*, 2023b; Rani *et al.*, 2018). Because auditors play such an essential function, keeping satisfaction among them is a major challenge. Employees are often thought to be a competitive advantage source, while a company's ability to compete depends on maintaining a stable staff (Noman and Basiruddin, 2021). However, whether or not employees are driven to perform well is determined by how satisfied they are at work (Rani *et al.*, 2018). As a result, audit companies would benefit from determining what motivating variables influence auditors' job satisfaction (Mohd Nasurdin *et al.*, 2020). Meanwhile, according to Pio (2022), the relationship between auditors' performance as well as job satisfaction is ambiguous in the current literature.

Herzberg's two-factor theory was developed to explain why people are satisfied or dissatisfied with their jobs. According to Herzberg's theory, employees satisfaction is related to the internal and external factors that can lead to job satisfaction (Alqudah *et al.*, 2023a). This theory, as experts suggest, is a valuable resource for measuring employee job satisfaction by integrating external and internal aspects (Ann and Blum, 2020). The relationship between internal and external factors of Herzberg's theory and job satisfaction were the topic of discussion of various academic researchers. However, the current literature provides contradictory results about Herzberg's internal and external factors that impact job satisfaction (see literature review section). These inconclusive results led to a research gap to verify the role of internal and external factors in job satisfaction (Pio, 2022; Saat *et al.*, 2021).

Employee satisfaction past research have delved into Herzberg's theory thoroughly, but mainly in groups other than auditors. Comparable research on auditors, on the other hand, is scarce. Thus, the criteria identified by Herzberg have yet to be directly duplicated in the auditor's setting (Saat *et al.*, 2021). Surprisingly, few prior researchers have used the three criteria that describe comparable concepts in one study, namely achievement, growth and advancement. Instead, most researchers have integrated growth, achievement and advancement as a single component (Ann and Blum, 2020; Saat *et al.*, 2021). This exploratory study explores the relationships between external and internal factors and job satisfaction, as well as the relationship between auditor performance and job satisfaction, in an endeavour to address this research gap. Without addressing this gap, it is questionable whether or not they play a role in maximising job satisfaction (Saat *et al.*, 2021). Further, it is questionable the extent to which job satisfaction can enhance auditors' performance (Cai *et al.*, 2023; Pio, 2022). Further, the relationships between internal and external factors and job satisfaction will remain inconclusive. As a result, the theoretical assumptions of Herzberg's theory will remain without enough empirical validation.

2. Literature review and hypotheses development
2.1 Herzberg's two-factor theory toward job satisfaction
In 1959, Frederick Herzberg developed his two-factor theory to clarify why individuals are content or discontent in their jobs. Maslow's concept of self-actualisation served as a foundation for this theory (Kamal *et al.*, 2020). As per Herzberg's two-factor theory, job satisfaction is one of a person's essential needs. According to Herzberg's theory, employees' satisfaction was related to the motivational factors or internal factors, "job content", hygiene factors or external factors "job context" (Alrawahi *et al.*, 2020). Achievement, advancement, recognition and growth were all parts of the internal factors. On the other hand, external factors include interpersonal relationships, supervision, salary conditions, organisational policy and working conditions (Rani *et al.*, 2018; Saat *et al.*, 2021). The internal factors that contribute to job satisfaction differ from external factors (Jaworski *et al.*, 2018). The distinction between external and internal factors that might contribute to job satisfaction is analysed by Herzberg's two-factor theory (Saat *et al.*, 2021). As per Herzberg *et al.* (2017),

when motivators are improved, work satisfaction rises and businesses are able to improve employees' performance, while hygienic aspects help to minimise dissatisfaction. Put differently, Herzberg contended that workers are "not satisfied" with the lack of these hygiene and motivators at work (Ann and Blum, 2020). As a result, experts suggest that this theory is a valuable resource for deciding employee job satisfaction by combining internal "job content" and external "job context" aspects (Ann and Blum, 2020).

2.2 The effects of internal factors on job satisfaction

Achievement is defined as "employees" ability to solve difficulties they face in their organisations successfully" (Rani *et al.*, 2018). According to Herzberg's theory, employees' self-confidence and satisfaction can be enhanced as a result of their achievements (Herzberg *et al.*, 2017). In the context of auditing work, the requirement to deliver quality work, time limitations, and datelines are all part of an auditor's hectic work schedule. Thus, auditors must deal with professional ethics as part of the process of auditing. They will feel accomplished once all of the reports are finished and validated, given the strict timeframes of a heavily controlled workplace (Rani *et al.*, 2018; Saat *et al.*, 2021). Similarly, according to Ruthankoon and Olu Ogunlana (2003), positive achievement events became job success stories or issue solutions. The achievement possesses a significant positive relationship concerning job satisfaction, as per Saat *et al.* (2021), and is a prominent internal factor of motivation towards job satisfaction. The studies of Dorta-Afonso *et al.* (2023) and Ruthankoon and Olu Ogunlana (2003) found that achievement contributes positively to satisfaction for Thai engineers' construction industry. Accordingly, achievement can be considered a substantial source of satisfaction because when an employee's level of achievement is met, their job satisfaction rises (Alrawahi *et al.*, 2020). Using these arguments as a foundation, this study hypothesises that:

H1. Achievement has a positive significant impact on job satisfaction.

Advancement refers "to the improvement or a promotion's possibility in the status of work" (Saat *et al.*, 2021). According to Saat *et al.* (2021), advancement is among the aspects that can impact job satisfaction; it is the auditor's perception that the position they have would lead to career advancement. When auditors believe that there has been some type of advancement and that it is worthwhile to remain loyal to the organisation, they will be instantly motivated to produce higher-quality work, contributing to job satisfaction. However, a lack of advancement in a company will have a negative impact on how auditors feel about their jobs (Louis *et al.*, 2022). Cai *et al.* (2023) found that job advancement seems to make auditors develop better satisfaction at work. Dorta-Afonso *et al.* (2023) found that development and advancement directly and positively affect job satisfaction. The study of Saat *et al.* (2021) discovered that advancement possesses a significant positive relationship concerning job satisfaction, and the employees were very much satisfied in that dimension. Similarly, Kamal *et al.* (2020) discover that advancement possesses a significant impact on auditors' job satisfaction. Ruthankoon and Olu Ogunlana (2003) also found that advancement contributes positively to job satisfaction. Using these arguments as a foundation, this study concluded that advancement result to a positive significant relationship with respect to the job satisfaction, this investigation came out with a hypothesis, which is:

H2. Advancement has a positive significant impact on job satisfaction.

"The forms of appreciation and words of praise from subordinates, peers and bosses" are referred to as "recognition" (Ruthankoon and Olu Ogunlana, 2003). According to Ann and Blum (2020), recognition is an excellent technique to thank the staff for it is simple and inexpensive. This practice may help employees feel good about themselves and show others

what outstanding work looks like. Recognition will lead to a positive attitude and job satisfaction and increase employees' sense of value, causing them to feel satisfied and be more motivated to contribute to the organisation (Ruthankoon and Olu Ogunlana, 2003). This is the same when auditors receive praise for their work from supervisors, co-workers or management. They will be content working with the organisation, which will eventually lead to job satisfaction (Dorta-Afonso *et al.*, 2023). Saat *et al.* (2021)'s outcomes confirmed a significant positive relationship between job satisfaction and recognition. Ann and Blum (2020) discovered that recognition was one of the most powerful predictors of job satisfaction. Meanwhile Aung *et al.* (2023) found that Inadequate reward and recognition directly predicted a decline in job satisfaction. Using these arguments as a foundation, this study concluded that recognition possesses a positive significant relationship concerning the job satisfaction, this study hypothesises that:

H3. Recognition has a positive significant impact on job satisfaction.

Growth is described as "the possibility of an individual being promoted, as well as opportunity to acquire new skills or develop construction processes" (Ruthankoon and Olu Ogunlana, 2003). Companies worldwide require auditors to have a variety of hard and soft skills (Rani *et al.*, 2018). As a result, when junior auditors are exposed to learning new skills, for instance, accounting knowledge, problem-solving skills, information technology, computer skills, general business knowledge, interpersonal skills and communication skills, their job satisfaction will be significantly higher, and their performance will improve (Saat *et al.*, 2021). This research also discovered that growth possesses a significant positive relationship concerning job satisfaction, and growth was the motivation's dominant internal factor in opposition to job satisfaction. Rani *et al.* (2018)'s research demonstrated that growth possesses a significant impact on the level of job satisfaction among auditors. Using these arguments as a foundation, this study concluded that growth possesses a positive significant relationship concerning job satisfaction. Hence, the following are some of the hypothesises of this research:

H4. Growth has a positive significant impact on job satisfaction.

2.3 The effects of external factors on job satisfaction
Company policies is "Explanations of permissible or inadequate management and organisational guidelines and policies for the company (Saat *et al.*, 2021). Employee satisfaction is influenced by excellent or bad organisational policies (Ruthankoon and Olu Ogunlana, 2003). The regulations of an organisation may cause working life quick and simple or tiresome and slow, affecting employees' emotions (Louis *et al.*, 2022). Strong regulations typically symbolise a company's hierarchical culture, which is described as highly structured, regulated and bureaucratic (Dorta-Afonso *et al.*, 2023; Saat *et al.*, 2021). Past studies argued that company policy possesses a substantial impact on job satisfaction (Rani *et al.*, 2018; Saat *et al.*, 2021). For instance, research performed by Lund (2003) found that firms with a hierarchical culture performed the lowest in terms of job satisfaction. As a result, if a company implements or enforces many rules and procedures, it will leave a negative influence on the employee's job satisfaction (Jaworski *et al.*, 2018). Moreover, Saat *et al.* (2021)'s research found that company policies possess significant positive relationships concerning job satisfaction, and company policy was a dominant external factor of motivation. Employee's job satisfaction is positively influenced by job policies, according to Sattar *et al.* (2012). Using these arguments as a foundation, this study concluded that company policies have a positive significant relationship concerning job satisfaction; this research hypothesises that:

H5. Company policies have a positive significant impact on job satisfaction.

According to Chuang *et al.* (2009), if there is a decent level of interpersonal relationship or an adequate interpersonal relationship level between colleagues, workers will be more devoted and remain in the organisation. As per Herzberg *et al.* (2017), good relations with peers help keep people committed and satisfied with their job. Colleagues are important to any employee since they are the individuals with whom they spend most of their time while working (Saat *et al.*, 2021). Peroune (2007) identified three types of peer relationships. The first kind of peer connection is referred to as an information peer relationship, in which intimacy among peers is dependent only on the work-related knowledge exchange within the organisational setting. Collegial peer relationships are the second kind of peer connection. It is where the connection is more cohesive, as the peers have formed a bond of friendship (Louis *et al.*, 2022). This contributes to the discussion on business, organisation, and more topics. Finally, there is the exceptional peer, who belongs to a closer connection group, where peers share personal topics such as goals and ambitions. As a result, the connection between employees has a beneficial impact on job satisfaction (Rani *et al.*, 2018; Saat *et al.*, 2021). Saat *et al.* (2021) discover that a relationship with a peer has significant positive relationships with auditors' job satisfaction. The study of Lu *et al.* (2016) also found that relationships with peers contributed significantly to job satisfaction. Using these arguments as a foundation, this study concluded that a relationship with a peer possesses a positive significant relationship concerning job satisfaction. This research hypothesises that:

H6. Relationship with a peer has a positive significant impact on job satisfaction.

"Events connected to indications of existence or absence of job security" are referred to as "work security" (Ruthankoon and Olu Ogunlana, 2003). Workers that are generally pleased with their job security will increase performance and dedication, which benefit the organisational performance (Rani *et al.*, 2018). Saat *et al.* (2021)'s research disclosed that work security possesses a positive relationship concerning job satisfaction. Furthermore, according to Islam and Ismail (2008), employees in Malaysia regard job security as the fourth crucial element in determining job satisfaction. The clarification for such an outcome might be due to Malaysia's complicated market situation and fierce competition. Dorta-Afonso *et al.* (2023) found that work security is direct driver of job satisfaction. The study of Ruthankoon and Olu Ogunlana (2003) also found that work security contributes to reducing job dissatisfaction. Similarly, Bontis and Serenko (2007) found that lack of work security negatively impacts job satisfaction. Using these arguments as a foundation, this study concluded that work security possesses a positive significant relationship concerning job satisfaction. This research hypothesises that:

H7. Work security has a positive significant impact on job satisfaction.

Relationship with supervisor refers to "he/she has personal and professional relationships with the workers and supervisors with whom he/she works. This covers both positive and negative experiences in cooperation, interactions, and discussions at work and during breaks (Ruthankoon and Olu Ogunlana, 2003). Alqudah *et al.* (2023a) argued that relationship with supervisor enhance auditors and their satisfaction. Alrawahi *et al.* (2020) asserted that supervisors who are encouraging and collaborating with subordinates to overcome work issues might boost the motivation and job satisfaction of workers. A relationship with a supervisor possesses a significant positive relationship concerning job satisfaction, as per (Louis *et al.*, 2022), and is a dominant external element of motivation towards job satisfaction. On the contrary, Alrawahi *et al.* (2020) discovered that a relationship with a supervisor is a significant motivator associated with job satisfaction. Liu and Ren (2019) found that the relationship with supervisors is substantially correlated with the trainee auditors' job satisfaction. Using these arguments as a foundation, this study concluded that a relationship

with the supervisor possesses a positive significant relationship concerning job satisfaction. This research hypothesises that:

H8. Relationship with the supervisor has a positive significant impact on job satisfaction.

2.4 The effects of job satisfaction on auditors performance
Job satisfaction is a subjective evaluation of the employee's job experience (Sitzmann and Weinhardt, 2019). Shen and Tang (2018) expressed job satisfaction as "a worker's general experience of their job". When employees have a greater degree of job satisfaction, they are more inclined to share and transmit their newly gained information and abilities to the workplace (Yulianti *et al.*, 2022). They are also more motivated to use their personal development to generate new ideas at work, as well as to improve their skills and knowledge (Beuren *et al.*, 2021). Thus, auditors who are satisfied with their jobs are more driven to create a satisfying and productive workplace, and they will be more motivated to increase job performance (Pio, 2022). At the organisational level, satisfied workers contribute significantly to the organisation's efficacy and long-term job performance. On the other hand, dissatisfied employees contribute minimally to the organisation's success (Mohd Nasurdin *et al.*, 2020). Beuren *et al.* (2021) found that job satisfaction can affect performance. Similarly, Pio (2022) establish that job satisfaction is among the most motivating aspects in accomplishing employee performance. Mohd Nasurdin *et al.* (2020) revealed that job satisfaction possesses a positive influence on two factors of job performance: task performance and context performance. Using these arguments as a foundation, job satisfaction possesses a positive significant relationship concerning the auditor performance, in regards to this research, which hypothesises that:

H9. Job satisfaction has a significant positive impact on auditors' performance: therefore, this study suggests a framework model as shown in Figure 1.
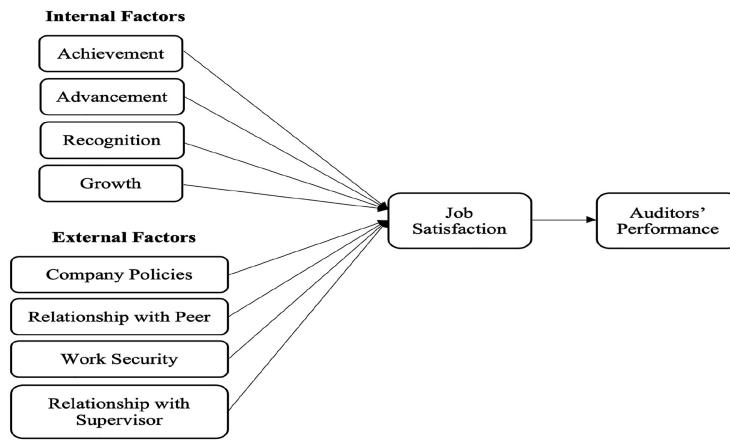
Figure 1.
The conceptual framework

Source(s): Figure by author

3. Study design
Twelve measurement items have been employed to assess the internal factors. Three items were utilised to measure achievements, advancement, recognition and growth, respectively. These items were adapted from the research of Saat *et al.* (2021). External factors were

assessed utilising a total of twelve measurement items. These items were adapted from the research of Rani *et al.* (2018). Four items were used to measure job satisfaction, adapted from Rani *et al.* (2018) and auditors' performance, adapted from Manzoor *et al.* (2019). A closed response approach was employed to create the questionnaire. Respondents must choose one of five alternatives to express how firmly they agree or disagree with statements, having 1 representing major disagreement and 5 representing significant agreement (Sekaran and Bougie, 2016).

Saudi Arabia was selected as the study's location. Since they have the essential knowledge, internal auditors were picked as primary sources for this investigation. The random sampling technique was used to do probability sampling. To develop the sampling frame, the Saudi organisation for certified public accountants (SOCPA) provides a list of internal auditors in its database. The SOCPA has 2628 auditors on its database. There is also contact information on the list, such as name, email and phone number. The data was collected from 83 auditors listed in the SOCPA database. Note that the data was gathered between October 2021 and December 2021. The questionnaire was created using the Google Docs service.

In simple random sampling, there should be an equal chance (probability) that each of the 2628 auditors could be selected for inclusion in this study sample. To achieve that, the list of internal auditors in the database of the SOCPA has been used to develop the sample frame. This study was targeted to sample 262 auditors (10% of the population). A consecutive number from 1 to 2828 has been assigned next to each of the auditors. A list of random numbers from the total list of 2628 auditors was developed using a computer program that generates these numbers. In this study, which of the 262 auditors will be invited to take part in the research has been identified.

The identified auditors were contacted by e-mail to explain the purpose of the study and to ascertain their willingness to participate. On October 1 2021, 262 questionnaires were sent to the auditor listed in the SOCPA directory. On October 21 2021, a reminder was sent to the targeted auditors. On November 10 2021, a second reminder was sent to the auditors. However, the response rate was very weak. 32 responses have been received. Many respondents mentioned they were very busy, another group said they had no time to answer the questionnaire, and another group simply ignored e-mail and the reminder. Using the random numbers table, another group of auditors was contacted by email on November 20 2021. The process has continued until the end of December 31 2021. As described by Alsughayer (2021) the response rate in the Saudi auditors' context is estimated to be around 15–25%. Therefore, the final sample size was 83 auditors.

In this study, the variance-based SEM (also known as SEM-PLS) were used in testing relationships between the study variables. PLS is an analytical technique within SEM software, and its use has increased dramatically in recent years (Hair *et al.*, 2024). PLS is an analytical technique used to examine the impact of moderating variables or mediating variables on the relationship between one or more independent and dependent variables (DVs) (Hair *et al.*, 2017). This technique is a particularly attractive choice for investigating the effect of mediating variables because it can be directly incorporated into the model to test all the relevant paths and complications, such as measurement error and feedback (Hayes, 2018). It can, therefore, be used in testing several hypotheses at the same time (Hair *et al.*, 2017). Thus, the SEM-PLS was used in this study to test the hypothesised relationships among the variables.

Given that this study examines direct and mediating relationships simultaneously in one model, the path model is relatively complex. Thus, using the SEM technique to test this model is more appropriate, as Sarstedt *et al.* (2019) recommended. Also, PLS is a nonparametric technique. Thus, it is suitable for analysing datasets that fail to meet the normality assumptions, thus, PLS has been recommended for handling non-normal data (Sarstedt *et al.*, 2017). This implies that data normality is not a pre-requisite for PLS analysis (Rönkkö *et al.*,

2016). Also, PLS admits small sample sizes in testing hypotheses and can detect the interaction effects in any model built with latent variables (Ringle and Sarstedt, 2016). Despite being amenable to small samples, PLS can be used where the construct is measured using a large number of indicators (Sarstedt *et al.*, 2017).

Partial least squares-structural equation modelling (PLS-SEM) was used in this study to: (1) assess the overall fit of the measurement model by estimating the validity of fundamental theories of statistical models (Henseler *et al.*, 2015); (2) testing of hypotheses relating to the association of the latent variables and their respective indicators (Ringle and Sarstedt, 2016); and (3) Given that the number of samples in this study is consider small (83 auditors), PLS is considered a comprehensive statistical technique that allows testing hypotheses about relationships among the constructs in small samples (Zhang and Savalei, 2016). Put differently, PLS enables a researcher to test a hypothesised model and to ascertain how the data collected fit the model even with the small samples (Byrne, 2016). Accordingly, this study proposes that PLS was an appropriate technique for analysing the data collected.

The preliminary questionnaire was evaluated by three academic experts from Saudi universities and three professional auditors. The preliminary questionnaire was also piloted with 15 auditors. The goal is to test the instrument's reliability before sending the final questionnaires. The scales utilised in this pilot test had a high internal consistency, including Cronbach's alpha coefficient values surpassing the proposed value of 0.70, according to the reliability test findings. The structural models and measurement were tested employing the PLS-SEM version 3.3.3. The findings are demonstrated in the sections that follow.

4. Results

4.1 The measurement model

The absolute correlation between the concept and its measuring items is also shown in Table 1. Table 1 displays that the item/dimension factor loadings are exceeding the suggested value of 0.70, having factor loadings in the range of from 0.745 to 0.934, which are above Hair *et al.* (2010) and Henseler *et al.* (2015)'s minimal threshold requirement, and all item loadings are significant. Cronbach's alpha has a widely acknowledged lower limit of 0.70. In this study, Table 1 shows the composite reliability exceeds the threshold value of 0.70 and ranges from 0.778 to 0.896, indicating the acceptability of the scales' reliability (Henseler *et al.*, 2015). Note that the composite reliability is also higher compared to the desired value of 0.7, as seen in Table 1 (Cronbach, 1951; Hair *et al.*, 2010). The Cronbach's alpha is greater compared to the cut-off value of 0.70 (Cronbach, 1951; Hair *et al.*, 2010).

To verify for convergent validity, the average variance extracted (AVE) approach was employed (Hair *et al.*, 2006; Henseler *et al.*, 2009; Tabachnick and Fidell, 2007). Table 1 also suggests that each variable's AVE is greater than 0.5. The AVE for each variable in this study was shown in Table 1. The AVE ranged from 0.690 to 0.796, which was higher than the 0.50 threshold, meaning that each variable can describe over half of the variation in its measuring items on average (Hair *et al.*, 2013).

To validate discriminant validity, the Fornell-Larcker criteria were used. A construct must indicate more variation among its elements with the other model's constructs (Hair *et al.*, 2011). Table 2 shows that the square roots of all constructs' AVEs are bigger than their matching inter-correlations, suggesting that the discriminant validity shows that the measurement model is satisfactory, as observed in Table 2.

Discriminant validity, convergent validity, Cronbach's alpha and factor loading were all used to assess the measurement model in this research. The findings corroborate the model's validity and reliability. Thus, the measurement model adopted in this investigation is satisfactory and sufficient. Figure 2 shows the outer loadings of the measurement model.

Constructs	Items	FL	CA	CR	AVE
Achievement	ACHI1	0.912	0.868	0.92	0.792
	ACHI2	0.904			
	ACHI3	0.853			
Advancement	ADV1	0.871	0.781	0.869	0.690
	ADV2	0.868			
	ADV3	0.747			
Auditors Performance	AUD_PER1	0.745	0.896	0.922	0.704
	AUD_PER2	0.86			
	AUD_PER3	0.871			
	AUD_PER4	0.801			
	AUD_PER5	0.910			
Growth	GROW1	0.833	0.824	0.895	0.739
	GROW2	0.878			
	GROW3	0.868			
Job Satisfaction	JOP_SA1	0.850	0.882	0.919	0.739
	JOP_SA2	0.861			
	JOP_SA3	0.890			
	JOP_SA4	0.837			
Company Policies	POLI1	0.893	0.871	0.920	0.794
	POLI2	0.899			
	POLI3	0.881			
Recognition	RECO1	0.906	0.862	0.915	0.782
	RECO2	0.848			
	RECO3	0.898			
Relationship with Peer	REL_PEER1	0.817	0.848	0.907	0.766
	REL_PEER2	0.934			
	REL_PEER3	0.871			
Relationship with Supervisor	REL_SUP1	0.903	0.872	0.921	0.796
	REL_SUP2	0.88			
	REL_SUP3	0.893			
Work Security	WSEC1	0.776	0.778	0.871	0.693
	WSEC2	0.849			
	WSEC3	0.870			

Source(s): Table by author

Table 1. Convergence validity and reliability outcomes

Constructs	Achiev	Advan	Aud-per	Com-poli	Growth	Job-Sat	Re-peer	Re-Sup	Recog	W-Sec
Achiev	0.890									
Advan	0.343	0.831								
Aud-Perf	0.282	−0.018	0.839							
Com-Poli	0.461	0.041	0.190	0.891						
Growth	0.345	0.379	0.189	0.191	0.860					
Job-Sat	0.746	0.480	0.343	0.506	0.560	0.860				
Re_Peer	0.063	0.175	−0.196	−0.115	0.234	0.192	0.875			
Re_Sup	0.449	0.513	0.210	0.194	0.759	0.648	0.274	0.892		
Recog	0.486	0.163	0.281	0.489	0.123	0.492	−0.187	0.245	0.884	
W-Sec	0.393	0.087	0.208	0.669	0.213	0.452	−0.188	0.150	0.613	0.833

Note(s): Achiev = Achievement, Advan = Advancement, Aud-Per = Auditors Performance, Com-poli = Company Policies, Job-Sat = Job. Satisfaction, Re-Peer = Relationship with Peer, Re-Sup = Relationship with Supervisor, Recog = Recognition, W-Sec = Work Security
Source(s): Table by author

Table 2. Discriminant validity – Fornell and Lacker criterion
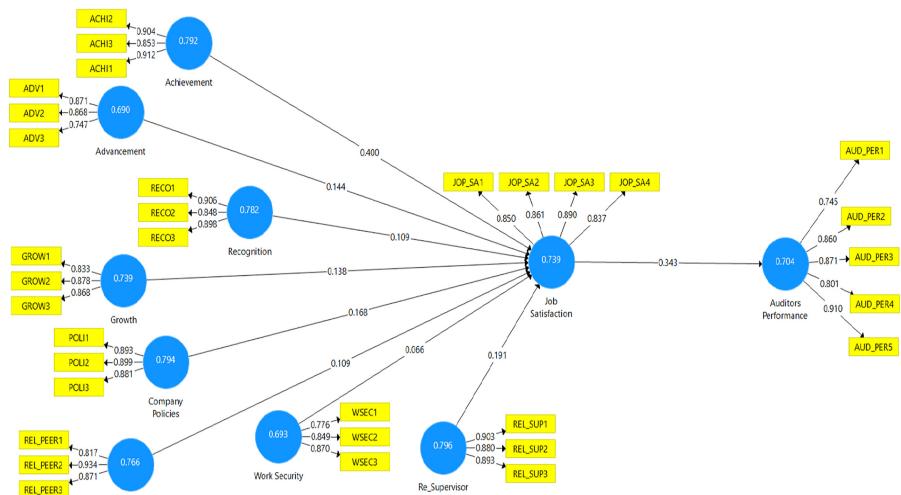
Figure 2.
Measurement model
(Outer model)

Source(s): Figure by author

The second criteria used in this study to validate discriminant validity was heterotrait-monotrait (HTMT). In PLS-SEM, HTMT is a novel approach for testing discriminant validity. The HTMT ratio of the correlations is used to assess discriminant validity (Henseler *et al.*, 2015). It compares the geometric-mean correlation between indicators across constructs to the geometric-mean correlation between indicators within the same construct. HTMT values are used to calculate inter-construct correlations (Hair *et al.*, 2017). In comparison to Fornell Lacker, this procedure is said to be superior. The HTMT values must be less than 0.90, according to Henseler *et al.* (2015). The top threshold of HTMT values was less than 0.90, as shown in Table 3. As a result, the discriminant validity study also confirms that the measurement model meets the HTMT requirement.

4.2 The structural model
The PLS-SEM algorithm and bootstrapping methods were used to examine the structural model proposed by Hair *et al.* (2006). PLS-SEM analysis places a strong focus on variance explained and determining the significance of all paths estimations. R^2 was utilised to evaluate the amount of variation in the DV described by the model and to assess the structural model's quality (Hair *et al.*, 2010). In addition, the R^2 value aids in describing the variation in the endogenous variable(s) that is described by the exogenous variable(s) (Henseler *et al.*, 2009). It was revealed in Table 4 that the R^2 value for job satisfaction is 0.318 (which is above 25%), and the R^2 value for auditor performance is 0.757 (which is above 25%), indicating a significant level of prediction.

The effects size (f^2) is utilised to determine the change in R^2 value when a certain predictor variable is omitted from the structural model (Sarstedt *et al.*, 2019). Table 4 reveals that job satisfaction is largely influenced by achievement ($f^2 = 0.379$). Job satisfaction is slightly influenced by job security ($f^2 = 0.007$). Note that Table 5 shows that all other exogenous factors have a medium influence on the endogenous variables.

The variance inflation factor (VIF) was employed to verify for multicollinearity to examine if the independent variables (IVs) had a strong correlation. Collinearity between the variables is exhibited by VIF values greater than five. The highest VIF value is 3.162, while the smallest is 1.191 in Table 6, demonstrating that the independent constructs are not multicollinear.

Constructs	Achieve	Advance	AudiPer	ComPol	Growth	JobSat	Re_Peer	Re_Sup	Recog	WorSec
Achieve										
Advance	0.402									
AudiPer	0.322	0.110								
ComPol	0.523	0.085	0.205							
Growth	0.405	0.454	0.208	0.222						
JobSat	0.845	0.553	0.363	0.573	0.658					
Re_Peer	0.086	0.235	0.235	0.139	0.277	0.215				
Re_Sup	0.513	0.606	0.230	0.218	0.897	0.737	0.319			
Recog	0.556	0.179	0.308	0.551	0.158	0.554	0.227	0.276		
WorSec	0.478	0.110	0.238	0.812	0.264	0.545	0.240	0.182	0.742	

Source(s): Table by author

Table 3.
Heterotrait-Monotrait
ratio (HTMT)

The prediction accuracy of the structural model was evaluated using predictive relevance (Q2 value) (Sarstedt *et al.*, 2017). As advised by Stone (1974) and Geisser (1975), a Q2 value evaluation was done to test the predictive powers of the endogenous variables' items. As a rule of thumb, the model has predictive relevance if the Q2 value larger than zero for a particular endogenous variable, which indicate that the path model's predictive accuracy is acceptable for this particular construct (Sarstedt *et al.*, 2017). Table 7 shows that the

Endogenous variables	R square	R square adjusted
Job Satisfaction	0.318	0.310
Auditors Performance	0.757	0.740

Note(s): Substantial > 0.25; Moderate > 0.12, Weak > 0.02 (Cohen *et al.*, 2002)
Source(s): Table by author

Table 4.
R-squared (R^2) result

Exogenous variables	Auditors performance	Job satisfaction
Achievement		0.379
Advancement		0.060
Company Policies		0.057
Growth		0.030
Job Satisfaction	0.133	
Re_Peer		0.041
Re_Supervisor		0.048
Recognition		0.025
Work Security		0.007

Note(s): Large: > 0.35; Medium: > 0.15; Small: 0.0 > 0.02 (Cohen, 1988)
Source(s): Table by author

Table 5.
F-square result

Exogenous variables	Auditors performance	Job satisfaction
Achievement		1.742
Advancement		1.424
Company Policies		2.026
Growth		2.578
Job Satisfaction	1.000	
Re_Peer		1.191
Re_Supervisor		3.162
Recognition		1.979
Work Security		2.412

Source(s): Table by author

Table 6.
Multicollinearity result
– Inner VIF values

Endogenous variables	CCRQ^2 (=1-SSE/SSO)	CCCQ^2 (=1-SSE/SSO)
Auditors Performance	0.073	0.556
Job Satisfaction	0.535	0.551

Source(s): Table by author

Table 7.
Result of predictive
relevance

structural model in this study has high predictive relevance as the Q2 values are higher than zero for all the endogenous variables.

Table 8 reveals that the initial direct hypothesis is achievement → job satisfaction, which is statistically significant at $p = 0.001$, which is smaller than 0.01 (at significance level $p < 0.01$), with a t-value of 3.341, which is larger than the standardised value of 2.58, and a regression weight of $\beta = 0.400$. Therefore, hypothesis H1 is verified. The second direct hypothesis is Advancement → Job Satisfaction, which is statistically significant with a $p = 0.008$, which is fewer than 0.01 (at significance level $p < 0.01$), a t-value of 2.675, which is greater compared to the standardised value of 2.58, and a regression weight of $\beta = 0.144$. Thus, hypothesis H2 is validated. The third direct hypothesis is recognition → job satisfaction, which is significant with a $p = 0.042$, which is below than 0.05 (at significance level $p < 0.05$), a t-value of 2.044, which is greater compared to the standardised value of 1.96, and a regression weight of $\beta = 0.109$. Hence, hypothesis H3 is proven. growth → job satisfaction is the fourth direct hypothesis. It is statistically significant with a $p = 0.026$, which is fewer than 0.05 (at significance level $p < 0.05$), a t-value of 2.228, which is greater than the standardised value of 1.96, and a regression weight of $\beta = 0.138$. As a result, hypothesis H4 is accepted. company policies → job satisfaction is the fifth direct hypothesis, and it is statistically significant with a $p = 0.015$, which is lower than 0.05 (at significance level $p < 0.05$), a t-value of 2.430, which is larger compared to the standardised value of 1.96, and a regression weight of $\beta = 0.168$. As an outcome, hypothesis H5 is recognised. The sixth direct hypothesis is Relationship with Peer → Job Satisfaction, which is significant since the $p = 0.038$, which is fewer than 0.05 (at significance level $p < 0.05$), and the t-value is 2.084, which is greater compared to the standardised value of 1.96, and the corresponding regression weight is $\beta = 0.109$. Thus, hypothesis H6 is validated. Work security → job satisfaction is the seventh direct hypothesis, which is statistically insignificant since the $p = 0.3096$, which is more than 0.05, and the t-value is 1.019, which is smaller compared to the standardised value of 1.96, and the related regression weight is $\beta = 0.066$. As a result, hypothesis H7 is ruled out. The relationship with supervisor → job satisfaction is statistically significant at $p = 0.036$, which is lower than 0.05 (at significance level $p < 0.05$). The t-value is 2.105, which is greater than the standardised value of 1.96 and the related regression weight is $\beta = 0.191$. As an outcome, hypothesis H8 is confirmed. Job satisfaction → auditors performance is the ninth direct hypothesis, and it is

Hypotheses		Beta/OS	Confidence interval 95% bias corrected LL	UL	T	P	Decision
H1	Achievement → Job Satisfaction	0.400	0.199	0.660	3.341	0.001**	Supported
H2	Advancement → Job Satisfaction	0.144	0.043	0.245	2.675	0.008**	Supported
H3	Recognition → Job Satisfaction	0.109	−0.007	0.202	2.044	0.042*	Supported
H4	Growth → Job Satisfaction	0.138	0.023	0.264	2.228	0.026*	Supported
H5	Company Policies → Job Satisfaction	0.168	0.035	0.301	2.430	0.015*	Supported
H6	Re_Peer → Job Satisfaction	0.109	0.003	0.207	2.084	0.038*	Supported
H7	Work Security → Job Satisfaction	0.066	−0.065	0.184	1.019	0.309	Not Supported
H8	Re_Supervisor → Job Satisfaction	0.191	0.034	0.383	2.105	0.036*	Supported
H9	Job Satisfaction → Auditors Performance	0.343	0.184	0.500	4.221	0.000**	Supported

**Note(s):** Significant: **$p < 0.01$, *$p < 0.05$
Source(s): Table by author

significant with a $p = 0.000$, which is below than 0.01 (at significance level $p < 0.01$), and a t-value of 4.221, which is greater compared to the standardised value of 2.586, and a regression weight of $\beta = 0.343$. In conclusion, hypothesis H9 is fulfilled.

Figure 3 displays the inner loadings (t-value) of the structural model. Note that the value of t between IVs and DVs were between 2.084 and 4.221, which exceeded the standardised values of 1.96 and 2.58. These results approved that H1–H6 and H8 were supported. Meanwhile, the t-value for the relationship between work security and job satisfaction was 1.019, which is less than the standardised value of 1.96. Thus, H7 was not supported.

5. Conclusion

According to the findings of this study, internal factors appear to have a stronger role in determining job satisfaction in Saudi Arabia. The findings of the empirical data analysis encourage the direct relationship between Herzberg's theory internal factors (motivations), i.e., achievement, advancement, recognition, growth and job satisfaction when utilising PLS-SEM path modelling to verify the hypotheses. The four direct hypotheses for internal factors H1, H2, H3 and H4 were substantial. These findings support Herzberg's two-factor theory, which claims that internal factors possess a substantial influence on job satisfaction (Herzberg *et al.*, 2017). Therefore, these findings support Herzberg's theoretical foundation with empirical evidence. Moreover, the empirical findings of this study back up Dorta-Afonso *et al.* (2023), Saat *et al.* (2021) and Ruthankoon and Olu Ogunlana (2003). They discovered that accomplishment contributes positively to job satisfaction and possesses a substantial relationship. Further, the findings strongly support Cai *et al.* (2023), Saat *et al.* (2021) and Kamal *et al.* (2020) that advancement positively impacts job satisfaction. The results of this research also strongly affirm the results of Aung *et al.* (2023), Saat *et al.* (2021), Ann and Blum (2020) and Ruthankoon and Olu Ogunlana (2003), who found that recognition contributes positively to job satisfaction. Finally, the result is in accordance as per Dorta-Afonso *et al.* (2023), Saat *et al.* (2021), Rani *et al.* (2018) and Ruthankoon and Olu Ogunlana (2003). They discovered that job satisfaction among auditors is significantly influenced via growth.
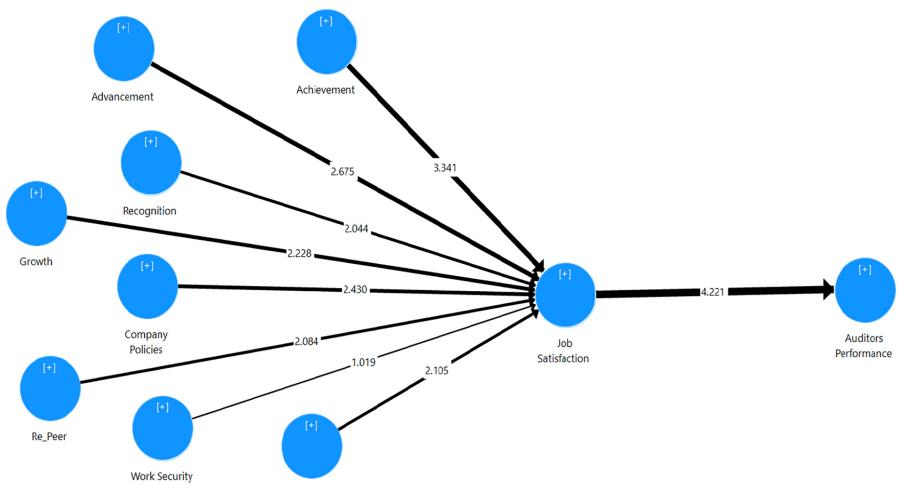
Figure 3.
Structural Model having t-values (Bootstrapping result)

Source(s): Figure by author

Correspondingly, the findings of the empirical data analysis confirm Herzberg's theory's direct relationship between external factors (hygiene factors), i.e., company policies, relationship with a peer and relationship with the supervisor. Three out of four direct hypotheses for external fators H5, H6 and H8 were significant. These results provide empirical evidence of Herzberg's two-factor theory, which claims that external factors possess a major effect on job satisfaction (Herzberg *et al.*, 2017). This study's empirical findings complement those of Saat *et al.* (2021), Sattar *et al.* (2012) and Ruthankoon and Olu Ogunlana (2003), which found that company policies possess significant positive relationships with respect to job satisfaction. Moreover, the outcomes are persistent with Louis *et al.* (2022), Saat *et al.* (2021), Lu *et al.* (2016) and Ruthankoon and Olu Ogunlana (2003) that a relationship with a peer has significant positive relationships with the job satisfaction of auditors. Furthermore, the result is in accordance with Alqudah *et al.* (2023a), Saat *et al.* (2021), Alrawahi *et al.* (2020), Liu and Ren (2019) and Ruthankoon and Olu Ogunlana (2003). They discovered that a positive connection with a supervisor possesses a significant positive relationship concerning job satisfaction and trainee auditors' job satisfaction. However, there was no evidence of a relationship between work security and job satisfaction. Thus, H7 were not significant. The explanation for such an outcome might be due to the Saudi market situation, which is stable, and salaries in Saudi are high. Hence, work security does not reflect any problem for the auditors.

The findings further indicate a significant positive relationship between auditor performance and job satisfaction. The outcomes depict that the immediate relationship between auditors' performance and job satisfaction had the highest level of significance between the eight supported hypotheses. Thus, this result provides empirical evidence for the theoretical literature arguments that job satisfaction is a strong driver for auditors' performance. This is also in line with the results of Beuren *et al.* (2021), Pio (2022) and Mohd Nasurdin *et al.* (2020), who found that job satisfaction is one of the most motivating factors in achieving employee performance.

According to the findings of this study, the results show that internal factors, i.e., achievement, advancement, recognition and growth, significantly impact job satisfaction. Subsequently, the external factors, i.e., company policies, relationship with a peer, and relationship with supervisor, significantly impact job satisfaction. In contrast, work security has no relationship with job satisfaction. Furthermore, job satisfaction is a significant driver for auditors' performance.

Given the external and internal factors that impact job satisfaction and the subsequent auditors' performance have understood and identified in the Saudi context. This study may help managers of auditing departments and other interested parties formulate appropriate strategies and design effective programs to increase the level of job satisfaction between auditors by enhancing such factors, which will lead to improving the auditors' performance. Furthermore, the findings may guide accounting and auditing businesses in ensuring their auditors understand of a clear route of what and how to achieve or perform, ultimately leading to a better advancement. Auditors, for example, are more satisfied with their positions when they see prospects for growth and advancement opportunities within the company. Any perceived chance for growth and advancement within the company would encourage and satisfy auditors with their work experience, resulting in improved performance. As a result, managers should make available the resources needed to assist auditors in achieving their growth and advancement objectives. Managers should also recognise and reward the accomplishments of auditors, as this may lead to increased satisfaction among auditors and a favourable attitude toward their duties. In terms of external factors, audit companies should develop clear business policies and maintain positive relationships between auditors may use training to develop supervisors' skills and teach them how to maintain good relationships with auditors. This

may build trust among auditors and foster a comfortable workplace, which leads to job satisfaction and improves auditors' performance. In addition, auditors may experience an improvement in satisfaction with their work when they gain encouragement from their supervisors and peers. Thus, managers should take great care in establishing relationships between auditors and supervisors. Auditing and accounting firms also should pay more attention and put more effort into enhancing auditor job satisfaction to enhance their performance.

6. Limitations and future studies

This study employed a cross-sectional design, meaning that all variables were assessed simultaneously. This type of design would not enable long-term monitoring of the relationships between suggested variables. A longitudinal study would enable long-term monitoring of the relationships between external and internal factors, as well as job satisfaction and auditor performance. It would be interesting to investigate these relationships in a different setting, such as a different country, time or industry. Because this study focuses on auditors in Saudi firms, the findings may not be applicable in other situations. Even though the study's findings provide much evidence regarding auditing quality, it is limited by the sample and the context since the respondents represent a small sample (83 auditors). The size of the sample was small and covered only central provenance in Saudi Arabia. Future studies should broaden the sample size to include a bigger number of auditors to obtain more generalisable results.

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