# **ORIGINAL ARTICLE**



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# Breaking the silence: An empirical analysis of the drivers of internal auditors' moral courage

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This study investigates the effect of positive states, perceived supervisor support and independence of internal audit function on internal auditors' moral courage. Although extensive research has suggested that risk of feared consequences is the major cause that inhibits internal auditors from reporting managerial fraud, there has been little empirical investigation into the way of fostering internal auditors' moral courage to speak up. This study used a survey of 146 internal auditors in Tunisia. The partial least squares–structural equation model was used to test our hypotheses. The results indicate that self-efficacy, resilience, perceived supervisor support and the independence of internal audit function have a positive effect on the internal auditors' moral courage; however, state hope does not show a significant link. Additionally, we find that women experience higher levels of moral courage than men do.

#### **KEYWORDS**

Ethics, fraud, internal audit

#### 1 | INTRODUCTION

Previous evidence has shown that internal auditors are more helpful in detecting fraud and corruption than external auditors are (Halbouni, 2015; Jayalakshmy, Seetharaman, & Khong, 2005); nevertheless, they are still reluctant to report them. Accordingly, academicians and professionals describe them as "gatekeepers" who failed to prevent the global financial scandals (Chambers & Odar, 2015). A growing body of research has revealed that the fear of retaliation is the main cause of the silence of nonreporting observers (Cassematis & Wortley, 2013; James, 2003; Khelil, Hussainey, & Noubbigh, 2016). Keil, Tiwana, Sainsbury, and Sneha (2010) note that retaliation is common and is reported to happen 17–38% of the time. It is manifested in several forms, including job loss, intimidation, death threats, defamation of character and negative impact on one's career, all of which can exert a physical and psychological toll on the health of whistle-blower (Comer & Schwartz, 2017; Miceli, Near, & Morehead Dwoekin, 2008).

Moral courage is an attribute that motivates and enables individuals to take the right path of action based on the ethics of their professions (Sekerka, Bagozzi, & Charnigo, 2009). Morales-Sánchez and Cabello-Medina (2013) support this view by noting that prosocial behaviors, such as speaking up, require access to moral courage. Such courage is a moral competency that implies overcoming fear.

Despite the great agreement in the literature that internal auditors keep silent out of fear of reprisal, there have been few empirical investigations into the factors that enhance their moral courage to speak up when they encounter wrongdoings (e.g., Khelil et al., 2016; Khelil, Hussainey, & Noubbigh, 2017). Until now, however, auditing scholars have tended to focus on internal auditors' responsibilities in disclosing management fraud and have not considered what encourages them to exercise these responsibilities. Indeed, internal auditors need not only to know what the right thing to do is, but also to have the courage to do it (Khelil et al., 2016).

We aimed to fill this gap by examining the effect of positive states (self-efficacy, state hope and resilience), internal auditor's independence and perceived supervisor support (PSS) on internal auditors' moral courage to speak up when they encounter wrongdoings. Additionally, the examination of the Tunisian context makes a particular contribution to the internal auditing works related to the Middle East and North Africa (MENA), as little research has been conducted in this region (Al-Akra, Abdel-Qader, & Billah, 2016).

The choice of the Tunisian context is justified by these main reasons. First, although fraudulent deeds and malpractices continue to propagate in such a country (Hentati-Klila, Dammak-Barkallah, & Affes, 2017), too little attention has been paid to how to encourage auditors to report fraud.

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Second, nowadays, the internal audit function (IAF) is depicted as part of the solution to perceived breakdowns in the systems of internal control, business reporting and ethical behavior (Bailey, Gramling Jr., & Ramamootri, 2003). Asiedu and Deffor (2017) assert that an effective IAF can reduce administrative corruption. Owing to the growing importance of internal audit in ensuring corporate governance efficiency, the recent formal corporate governance guidance in Tunisia (code of best practices of corporate governance for Tunisian public enterprises, in 2008, updated twice in 2012 and in 2014) has strengthened the professional and ethical responsibilities of internal audit within public and private organizations. Accordingly, a study on what motivates Tunisian internal auditors to fulfill these responsibilities is required.

Moreover, considering moral courage as a moral muscle that spurs the moral strength to face corruption (Sekerka, 2011), the investigation of the Tunisian context is timely as Tunisia is in the midst of a revolution at the social, economic, and financial levels. Such a revolution aims to fight corruption (illegal acts, fraud, and unethical behaviors) and to promote integrity in both the private and the public sectors (Khelil et al., 2016).

For this study, 146 questionnaires were administered to Tunisian internal auditors, and a partial least squares–structural equation model (PLS-SEM) was used to test our hypotheses.

Although the advantage of using structural equation modeling (SEM) has been widely explained in previous studies to analyze accounting behavioral data, SEM is still underutilized by accounting behavioral scholars compared with related disciplines such as psychology, management, and information systems (Hampton, 2015). Accordingly, this study makes an original methodological contribution to the behavioral accounting literature.

Our results show that self-efficacy, resilience, PSS, and the IAF independence have a positive effect on internal auditors' moral courage. However, state hope does not show a significant link with the moral courage of the internal auditor.

The paper is organized as follows. Section 2 discusses the research background and reviews relevant literature. We develop our hypotheses in Section 3 and discuss the research methodology in Section 4. The analysis and discussion of results are presented in Section 5. Section 6 concludes the paper.

# 2 | RESEARCH BACKGROUND AND RELEVANT LITERATURE

# 2.1 | The role of internal auditors in fraud reporting

Resounding corporate scandals have generated much public disappointment, leading the internal auditing standard setters to seek ways to reinforce the internal auditors' willpower to strive against corporate malfeasance and promote truthfulness by restoring a responsibility for fraud reporting not only internally but also externally.

The Institute of Internal Auditors (IIA, 2015) decrees in standard 2060 that:

the chief audit executive must report periodically to senior management and the board on the internal audit activity's purpose, authority, responsibility and performance relative to its plan. Reporting must also include significant risk exposures and control issues, including fraud risks, governance issues and other matters needed or requested by senior management and the board.

Practice Advisory 2440–2, *Communicating Sensitive Information* within and outside the Chain of Command, related to internal audit standard 2440, explains that in some situations an internal auditor may face the dilemma of considering whether to communicate the information to persons outside the normal chain of command or even outside the organization. This communication is commonly referred to as "whistle-blowing." The act of disclosing adverse information to someone within the organization but outside the internal auditor's normal chain of command is considered as internal whistle-blowing, while disclosing adverse information to a government agency or other authority outside the organization is considered to be external whistle-blowing.

The aforementioned requirements are supported by the academicians who advocate that internal auditors are potential whistle-blowers by reporting illegal activities within organizations to audit committees, boards of directors, or government agencies (Miceli, Near, & Schwenk, 1991; Xu & Ziegenfuss, 2008).

In addition, and given the trust placed in the internal auditors to furnish accurate information on internal control, risk management systems and corporate governance processes, the IIA Code of Ethics (IIA, 2013), as well as the rules of conduct, specifies norms of behavior stressing a set of cardinal principles that internal auditors should uphold.

Noting that "the integrity of internal auditors establishes trust and thus provides the basis for reliance on their judgment," the rules of conduct emphasize that internal auditors must execute their work with honesty, responsibility, and diligence. Similarly, the internal auditors must make disclosures expected by law and within the profession.

An overwhelming body of research depicts speaking up about fraud as an ethical and prosocial behavior as it has several beneficial effects for organizations and for society at large (Harbour & Kisfalvi, 2014; Miceli et al., 2008). In this context, some authors use adjectives inspired from ethical and religious glossaries when describing the whistle-blowers. Grant (2002) views them as "Saints of Secular Culture," and Avakian and Roberts (2012) describe them as "prophets." According to Burke (2013), whistle-blowers are "people of conscience" who behave to spur human welfare.

# 2.2 | Internal auditors' moral courage and fraud reporting

Despite the professional and ethical responsibility for fraud reporting, internal auditors still face ethical conflicts when the disclosure of audit findings can have deleterious effects on their careers (Khelil et al., 2016). In fact, internal auditors are related to management not as enablers but as individuals involved in the conflict. Independent auditor/corporate management conflicts involve two sources of power: the pecuniary temptations of management teams to induce auditors to sanction ignobility versus the integrity of auditors to resist such temptations (Bayou, Reinstein, & Williams, 2011).

In this context, Osswald, Frey, and Streicher (2012) contend that behaving ethically in the presence of power imbalances requires moral courage. Such a moral courage is defined as "the expression of personal views and values in the face of dissension and rejection" and in cases in which "an individual stands up to someone with power over him or her (e.g., boss) for the greater good" (Lopez, O'Byrne, & Petersen, 2003, p. 187). Likewise, when we explicitly assess one's moral interest in a given situation, we find that the person musters the moral courage to resist pressures to obey authorities (Skitka, 2012). Accordingly, moral courage actions serve "as a protection against obedience to potentially malevolent authorities or blind conformity to group norms" (Skitka, 2012, p. 21).

The importance of the moral courage for auditors has been theoretically and empirically recognized by academics and professionals. In their qualitative study, Libby and Thorne (2007) reveal that courage is an instrumental virtue that plays a significant role in enhancing the ethical judgment of auditors. Similarly, the role of moral courage in promoting the moral character of auditors is evident in the studies of Armstrong, Ketz, & Owsen (2003) and Khelil et al. (2016). These authors relied on Thorne's (1998) integrated model of ethical decision-making to show how moral courage can determine auditors' ability to behave in accordance with their ethical intentions.

The findings emerging from the exploratory study of Roussy (2012) provide a support for these views. Roussy (2012) reports that 14 members of an audit committee working in organizations of the Quebec public sector believe that courage is an essential value that internal auditors must have to discuss sensitive issues. Accordingly, the audit committee members expect that the internal auditors behave courageously to describe things as they are and thus to permit them to trust their work and the content of the audit reports.

The findings of Roussy (2012) are consistent with those of Everett and Tremblay (2014), who sought to identify the crucial virtues that motivate "Cynthia Cooper" (WorldCom's ex-vice president) to behave ethically and to report fraud committed by her bosses. The examination of Cooper's autobiography permitted the authors to conclude that her ethical behavior was based on her courage and resilience in the face of threats.

# 3 | DEVELOPMENT OF HYPOTHESES

There is a general agreement in the existing literature that moral courage is not an innate behavior but is tied to motivation and ready for development through internal and external resources (Comer & Schwartz, 2017; Hannah et al., 2013; Hannah, Sweeney, & Lester, 2010; Khelil et al., 2016; Osswald et al., 2012).

In what follows, we will show how positive states (self-efficacy, hope, resilience), PSS together with the IAF independence can affect internal auditors' moral courage.

#### 3.1 | Positive states

Fredrickson, Tugade, Waugh, and Larkin (2003) reveal that positive states construct personal resources to counteract narrowing of thought-action repertoires otherwise generated under stress.

Similarly, Hannah et al. (2010) propose that positive states such as self-efficacy, hope, and resilience, if contained in a social role, play a critical role in enhancing courage when we face risks associated with this role.

# 3.1.1 ∣ Self-efficacy

Self-efficacy is a fundamental concept of social cognitive theory grounded by Bandura (Bandura, 1982, 1986). It is described as "an important determinant of how much effort people will exert and how long they will persevere in the face of significant challenges" (Rice, 1998, p. 540). In this manner, the perception of efficacy can foster motivation and performance in different ways. In fact, often related to confidence, self-efficacy is operationalized in terms of challenging self-set goals, generous effort, self-selection into difficult tasks, mobilization toward task mastery and goal achievement, and perseverance when encountering obstacles (Goud, 2005; Youssef & Luthans, 2012).

The role of self-efficacy in enhancing moral courage and over-coming fear has been widely recognized in previous literature (Amos & Klimoski, 2014; Goud, 2005; Hannah et al., 2010; Sekerka & Bagozzi, 2007).

Based on the fact that a high level of self-efficacy fosters the individual's belief that they can influence the situation toward a necessary or a desired outcome, especially under risk, Amos and Klimoski (2014) highlight that confidence is a critical individual characteristic attached to behaving with courage. Indeed, an individual, who lacks a positive sense of self, is not expected to choose taking risks and to behave with courage.

According to Hannah et al. (2010), self-efficacy is obviously associated with envisioning successful outcomes (Bandura, 1997) and encouraging goal-directed acts. As a result, individuals with high levels of self-efficacy experience less stress and perceptions of being threatened when encountering fearful situations; they try to persist despite being threatened. Goud (Goud, 2005, p. 110) supports this view by stating that "belief and trust in one's capabilities (i.e., confidence) is a primary force in countering fears, risks, and the safety impulse."

Sekerka and Bagozzi (Sekerka & Bagozzi, 2007, p. 137) state that "the perception of one's power to act relies upon a belief that the individual has some control over the present circumstances." Chemers, Watson, and May (2000) assert that this type of judgment boosts the desire to behave with moral courage. They claim that self-efficacy is critical to moral courage because these types of judgments affect "not only what skills people perceive themselves to have, but also what they believe they can do with the skills they possess" (p. 268). From this, and based on social cognitive theory (Bandura, 1982), we derive our first hypothesis:

**Hypothesis 1. (H1):** The moral courage of the internal auditor is positively related to the person's self-efficacy.

# 3.1.2 ∣ State hope

According to Snyder et al. (Snyder et al., 1991, p. 287), hope is defined as "a positive motivational state that is based on an interactively derived sense of successful (1) agency (goal-directed energy) and (2) pathways (planning to meet goals)."

Snyder et al. (1996) explain that hope consists of two dimensions; agency and pathways. First, individuals behave on goals they set using their agency (motivation and drive). Second, pathways (several ways or paths) are created to attain these goals.

Building on the fact that hope is made up of "willpower (agency) and way power (alternate pathways)" (Peterson & Luthans, 2003, p. 26), the literature on moral courage argues that hope provides the courageous actor with goal-directed energy and promotes envisioning different paths to success (Hannah et al., 2010; Pury, Kowalski, & Spearman, 2007; Sekerka & Bagozzi, 2007).

Based on the expectancy theory (Vroom, 1964), which posits that people frequently decide to act based on the probability of the desired outcome, Sekerka and Bagozzi (2007) affirm that the higher the outcome expectancies of success toward acts of moral courage, the greater the person's desire to behave courageously.

Likewise, Hannah et al. (2010) suggest that high levels of hope enhance the envisioning of extended thought repertoires (pathways) to attend to threats as well as the use of focused energy to implement solutions, which in turn decrease fear and spur courageous behaviors. Similarly, Pury et al. (2007) demonstrate that whatever the type of courage (personal or general), the higher the individual's judgment that the situation will ameliorate and the outcome will be successful, the more the individual is expected to be evaluated as courageous. From this, and building on the expectancy theory (Vroom, 1964), we will examine the following hypothesis:

**Hypothesis 2.** (H2): The moral courage of the internal auditor is positively related to their state hope.

Repealing that state hope is made up of two dimensions (agency and pathways), Peterson and Luthans (2003) affirm that both dimensions are additive, iterative, and positively related, but remain conceptually distinct constructs. Accordingly, it is not sufficient to have solely agency or pathways; both must be present. On this basis, two underlying hypotheses are relevant:

**H2a:** The moral courage of the internal auditor is positively related to the agency dimension.

**H2b:** The moral courage of the internal auditor is positively related to the pathway dimension.

# 3.1.3 │ Resilience

The positive psychology literature defines resilience as positive coping and adaptation in the face of significant risk or adversity (Lee, Cheung, & Kwong, 2012; Luthans, Avolio, & Avey, 2002; Luthans, Avolio, Avey, & Norman, 2007).

According to the American Psychological Association, resilience is "the process of adapting well in the face of adversity, trauma, tragedy, threats or even significant sources of stress such as family and relationship problems, serious health problems or workplace and financial stressors." Applied to the workplace, Luthans (2002, p. 702) describes this state as the "positive psychological capacity to rebound; to 'bounce back' from adversity, uncertainty, conflict, failure, or even positive change, progress and increased responsibility."

Many studies suppose that highly resilient people tend to be more effective in various life experiences, encompassing adjustment and development under a variety of life-course threatening situations (Bergheim, Nielsen, Mearns, & Eid, 2015; Lee et al., 2012; Luthans, Avolio, Avey, & Norman, 2007).

According to Hannah et al. (2010), resilience is similar to coping efficacy, which is defined as the belief in one's ability to overcome negative cognitions and ruminative thought to succeed in a given challenge (Bandura, 1989), such as a challenge requiring courageousness. In this manner, resilience is deemed as important for the activation of courage.

In the same vein, Bergheim et al. (2015) support that such a state enables workers to feel at ease outside their habitual comfort area and challenge personal assumptions and external obstacles.

In their detailed examination of the autobiography of Cynthia Cooper (the ex-vice president of internal audit at WorldCom), Everett and Tremblay (2014) attempt to identify the crucial practical virtues that led Cynthia Cooper to behave ethically by blowing the whistle. This heroic accountant showed her positive adaptation in the face of adversity, threats, and risks. Indeed, she experienced serious consequences (including demoralization, loneliness, and humiliation) and several real physical costs (including sickness, loss of sleep, alcoholism, and depression). Executives conspired against her, and fellow employees became angry with her. She feared for her safety, family, home, and savings while the case dragged on for years.

The findings of Everett and Tremblay (2014) are consistent with those of Khelil, Hussainey, and Noubbigh (in press), who used 30 structured interviews with Tunisian chief audit executives (CAEs) to identify the factors that promote internal auditors' moral courage. There was a consensus among the interviewees that resilience is critical for the activation of courage. Accordingly, to be courageous; an internal auditor should be able to resist pressure, risk, threat, and danger.

Based on the foregoing discussion, the following hypothesis is developed:

**Hypothesis** 3. **(H3):** The moral courage of the internal auditor is positively related to their resilience.

# 3.2 | Perceived supervisor support

Perceived organizational support (POS) is defined as workers' perceptions of "the extent to which the organization values their contributions and cares about their well-being" (Eisenberger, Fasolo, & Davis-LaMastro, 1990, p. 51).

The organizational support theory (Eisenberger, Huntington, Hutchison, & Sowa, 1986) posits that the development of POS is promoted by employees' tendency to assign humanlike characteristics to the organization. POS is valued as an assurance that aid will be provided by the organization when needed to cope with stressful situations and perform one's job effectively (Rhoades & Eisenberger, 2002). Moreover, it strengthens employees' identification and support for organizational goals and those that go beyond the call of normal duty (Alleyne, Hudaib, & Pike, 2013).

Hannah et al. (2010) affirm that organizations enhance the activation of self-regulatory expectations and plan to engage in courageous behaviors by promoting perceptions of a supportive context (i.e., protecting whistle-blowers from punishment).

Because supervisors act as organizational agents, Rhoades and Eisenberger (2002) confirm that the employee's receipt of favorable treatment from a supervisor should contribute to POS. The strength of this relationship is associated with the degree to which employees identify the supervisor with the organization, as opposed to regarding the supervisor's actions as idiosyncratic. Likewise, Mayer, Nurmohamed, Trevi o, Shapiro, and Schminke (2013) state that employees are expected to look to the support of supervisors when faced with uncertainty about whether to engage in a risky behavior.

Alleyne et al. (2013) highlight that the concept of POS is consistent with social exchange theory (Blau, 1964) and the norm of reciprocity (Gouldner, 1960). Indeed, the relationship between supervisors and subordinates is based on social exchange, wherein "each party must offer something the other party sees as valuable and each party must see the exchange as reasonably equitable or fair" (Graen & Scandura, 1987, p. 182).

In this sense, Alleyne et al. (2013) clarify that auditors are more likely to feel committed to their organization when they perceive a great level of organizational support. Accordingly, the auditor will feel comfortable reporting unethical deeds. In other words, the courage to speak up is based on the auditor's perception of organizational support.

In the internal audit context, several studies describe the audit committee as an organizational agent that provides support for the internal auditor (Khelil et al., 2016; Sarens, De Beelde, & Everaert, 2009; Turley & Zaman, 2007). Indeed, an IAF which is strongly supported by the audit committee is likely to be more objective and powerful in the implementation of control (Khelil et al., 2016; Zain, Subramaniam, & Stewart, 2006).

Considering the audit committee as a critical vehicle in increasing the organizational status of internal auditing (Scarbrough, Rama, & Raghunandan, 1998), an audit committee should reinforce the position of the IAF by offering a supportive environment where the CAE can raise matters affecting their manager (Alzeban, 2015; Khelil et al., 2016; Zaman & Sarens, 2013). The Organization for Economic Cooperation and Development (2014) supports this view by noting that the audit committee is able to provide additional support to ensure the effectiveness and independence of internal audit activities.

Supporting that, audit committees act as agents of the organization and are responsible for guiding and assessing internal auditors' performance (Alzeban, 2015; Khelil et al., 2016), we believe that internal auditors view their audit committees' favorable or unfavorable orientation toward them as a signal of the organization's support. Building on organizational support theory (Eisenberger et al., 1986) and social exchange theory (Blau, 1964), we assume that it is on the basis of their perceptions that internal auditors make decisions to report fraud and irregularities or to keep silent. From this, we form the following hypothesis.

**Hypothesis 4. (H4):** The moral courage of the internal auditor is positively related to their perception of the audit committee support.

# 3.3 | Independence of the internal auditing function

Independence is described as "the freedom from conditions that threaten the ability of the internal audit activity to carry out internal audit responsibilities in an unbiased manner" (International Auditing and Assurance Standards Board, 2013). Auditor independence has been recognized as crucial for the auditing profession (Arya & Glover, 2014). Indeed, recent evidence shows that the quality of audit and financial reporting depends on auditor independence. In this sense, several attribute standards and associated practice advisories have been publicized by the IIA focusing on internal auditors' independence. According to standard 1100 "internal audit activity must be independent, and internal auditors must be objective in performing their work" (IIA, 2009). In other words, independence is framed as the means that protects internal auditors against conflict of interest, bias, or influence of others that would offend their professional judgments (Abbott, Daugherty, Parker, & Peters, 2016).

Given that internal auditors can experience familiarity and threats of social pressure generated from their relationships with managers (Khelil et al., 2016), the aforementioned standard stresses the fact that "the chief audit executive should report to a level within the organization that allows the internal audit activity to fulfill its responsibilities."

Abbott et al. (2016) explain that the IAF should be shielded from managerial pressures, because the manager can reduce the likelihood of reporting issues and fraud to the proper channel. In this context, both external and internal auditing standards and professional best practices emphasize that an internal auditor's objectivity is promoted when the oversight of the IAF by the audit committee is greater than the managerial oversight (Abbott, Parker, & Peters, 2012; American Institute of Certified Public Accountants, 2013; IIA, 2002). Therefore, the independence of the internal auditor is a direct function of the reporting relationship between the audit committee and the IAF.

In parallel, a considerable amount of literature has supported an association between greater audit committee oversight and greater independence for the IAF (Abbott et al., 2012; Abbott et al., 2016; Alzeban, 2015; Goodwin & Yeo, 2001), as the former permits shielding auditors from possible managerial pressure (Abbott et al., 2012, 2015).

James (2003) proves that internal auditors related to the audit committee are viewed as more likely to report fraud than those related to senior management. In the same vein, Goodwin and Yeo (2001) assert that establishing a direct reporting relationship between internal auditors and the audit committee can strengthen the position of internal auditors' function and boost their independence. In fact, the audit committee behaves as an independent forum for the internal auditor to report critical problems that affect their manager. Stewart and Subramaniam (2010) add that the audit committee can create a "tone" permitting internal auditors to have a degree of influence and power in their organizations.

Furthermore, Alzeban (2015) claims that hiring and firing the CA, which is a significant responsibility arising out of this reporting relationship, can affect internal auditors' independence. He argues that hiring/firing decisions should be made without managerial influence

to ensure the impartiality of the internal auditor so that they report poor managerial deeds without a fear of reprisals.

Khelil et al. (2016) assert that the organizational position of the IAF permits the enhancement of its effectiveness by fostering the CAE's courage. They find that the participation of the audit committee in CAE hiring/firing decisions might not promote the CAE's moral courage. Khelil et al. (2016) performed complementary interviews with 22 CAEs to explain this finding. The interviewees explain that it is insufficient for the audit committee to be merely involved in such decisions; instead, the committee should make the final decision. For that reason, the audit committee must have full authority concerning the career of the CAE to guarantee their independence and then to foster their courage.

In addition to reporting lines and termination rights, Abbott et al. (2012, 2016) consider that budgetary control performed by the audit committee is a third critical facet of the independence of internal audit activity.

Hence, the independence of internal auditors is determined by the audit committee oversight of internal audit activity (reporting lines, termination rights. and budgetary control). Thus:

**Hypothesis 5. (H5):** The moral courage of the internal auditor is positively related to the independence of IAF.

Figure 1 provides an overview of the proposed theoretical model concerning the effects of self-efficacy, hope (agency and pathway), resilience, PSS, and IA independence on internal auditor moral courage.

# 4 | RESEARCH METHOD

# 4.1 | Sample selection and data collection

The data were gathered from Tunisian firms that have an IAF and an audit committee. Given that an internal audit team is composed of an average of three internal auditors in each target company, three copies of the questionnaire were administered (face to face and electronically) to 77 listed companies and four nonlisted companies in both financial and nonfinancial sectors. We did not exclude companies

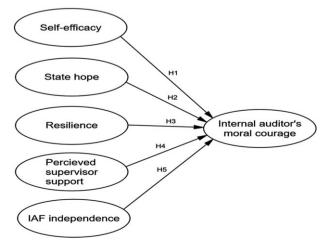


FIGURE 1 General theoretical model

operating in the financial sector as fraud is a costly crime for all companies, regardless of their size and the industry in which they operate (Halbouni, 2015). The final target sample comprised 213 potential respondents.

The questionnaire was in two parts. The first part intended to capture respondents' basic demographic information. This information included gender, age, training level, work experience, and professional certifications.

The second part was dedicated to measure the level of internal auditors' moral courage, state hope, resilience, PSS, self-efficacy, and the independence of IAF (see Appendix).

Data collection lasted 9 months. It allowed us to receive, out of the 213 distributed questionnaires, 146 answers (68%) from internal auditors working in financial and nonfinancial sectors.

As shown in Table 1, our sample consisted of 57 internal auditors working in the financial sector and 89 working in the nonfinancial sector. The overwhelming majority of them (95%) exercise in listed companies. The respondents include 94 men and 52 women with an average age of 38.16 years. The participants had between 2 and 30 years of professional experience. In addition, we document that

**TABLE 1** Demographic variables and sample composition

A: Descriptive statistics for demographic variables						
Variable	Min.	Max.	Mean			
Age (years)	27	55	38.16			
Work experience (years)	2	30	12.5			
B: Respondents by sample composition						
	Frequency	Perce	ntage			
Education						
License	6	4				
Bachelor's degree +4	36	25				
Bachelor's degree +5 or + 6	85	58				
DESS, DEA or equivalent	13	9				
Doctorate and +	6	4				
Total	146	100				
Certification						
Internal auditor has at least an international IA certification	12	8				
Internal auditor has no international IA certification	134	92				
Total	146	100				
Gender <sup>a</sup>						
Male	94	64				
Female	52	36				
Total	146	100				
Activity sector <sup>b</sup>						
Financial	57	39				
Nonfinancial	89	6				
Total	146	100				
Company type						
Listed	139	95				
Nonlisted	7	5				
Total	146	100				

<sup>&</sup>lt;sup>a</sup>Gender coded: 0, male; 1, female.

<sup>&</sup>lt;sup>b</sup>Activity sector coded: 0, nonfinancial; 1, financial.

more than half of respondents (58%) had a bachelor's degree +5 or 6. Responses also indicated that the certification was rare among internal auditors; only 8% of participants had at least an international certification related to internal auditing (CISA, CIA, or DPAI).

# 4.2 | Variable measurement

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# 4.2.2 ∣ Moral courage

This was assessed with a four-item moral courage scale developed by Hannah and Avolio (2010), which has demonstrated high reliability and construct validity in earlier studies (Hannah, Avolio, & May, 2011; Hannah et al., 2013; Schaubroeck et al., 2012).

Participants rated their levels of moral courage on a Likert scale ranging from 1 (strongly disagree) to 5 (fully agree). To contextualize the measure, the instructions directed participants to "think about your actions while you detect a fraud occurred by your manager and rate your level of agreement with how each item applies to you."

# 4.2.3 | Independent variables

#### **Self-efficacy**

This was measured with the 10-item self-efficacy scale developed by Parker (1998) building on Bandura (1986). This scale is the most used among organizational literature. It demonstrated high reliability and constructed validity in earlier studies (Bergheim et al., 2015; Luthans, Avolio, & Avey, 2002; Luthans, Norman, Avolio, & Avey, 2008; Luthans, Youssef, & Avolio, 2007; May, Luth, & Schwoerer, 2014).

The respondents were asked to rate how confident they would feel if they were asked to carry out each of the 10 tasks using a five-point Likert scale from 1 (not at all confident) to 5 (very confident).

# State hope

The state hope measure used in the study was developed by Snyder et al. (1996). This scale has been widely used in the workplace context (Bergheim et al., 2015; Luthans et al., 2008; Luthans, Avolio, & Avey, 2002; Luthans, Youssef, & Avolio, 2007; Peterson & Luthans, 2003). This six-item scale has undergone rigorous psychometric analyses concerning internal and temporal consistency. It comprises two identifiable and robust agency and pathways factors (Peterson & Luthans, 2003; Snyder et al., 1996). In other words, the agency (the even-numbered items) and pathways (the odd-numbered items) are subscales which are factorially identifiable as subcomponents of the overall measure (Snyder et al., 1996).

The six items use a five-point Likert scale from 1 (strongly disagree) to 5 (fully agree) and instruct the respondent to answer how they think about themselves right now.

#### Resilience

The resilience measure comes from the widely recognized work of Block and Kremen (1996), who developed a self-report scale (the ER89) that permits the measurement of ego-resiliency by subjective self-ratings. The 14-item resilience scale (the ER89) has been the

subject of different investigations. A first series of studies tested the psychometric properties of the ER89 using exploratory factor analysis and investigated correlations of the individual's mean score on the instrument with different relevant psychological components. The studies of Caprara, Steca, and De Leo (2003), Letzring, Block, and Funder (2005), and Fonzi and Menesini (2005) corroborate the unidimensionality, internal consistency and reliability, and construct validity of the scale.

The measure uses a five-point Likert scale from 1 (strongly disagree) to 5 (fully agree).

#### Perceived supervisor support

This was measured as in several studies (DeConinck, 2010; Eisenberger, Stinglhamber, Vandenberghe, Sucharski, & Rhoades, 2002; Hutchison, 1997; Rhoades, Eisenberger, & Armeli, 2001; Shanock & Eisenberger, 2006) by replacing the term *organization* with the term *supervisor* in the Survey of Perceived Organizational Support (SPOS) developed by Eisenberger et al. (1986).

Because of the high internal reliability reported for the SPOS (Eisenberger et al., 1986; Eisenberger et al., 1990), Eisenberger et al. (2002) noted that a short form of SPOS, which includes the eight high-loading (items 4, 8, 9, 13, 20, 22, 23, and 25) of the 36 items, can be used and therefore adapted to measure PSS.

These eight items were retained in our study to assess the perceived audit committee support. Respondents indicated the extent of their agreement with each item on a five-point Likert-type scale from 1 (strongly disagree) to 5 (fully agree).

#### Internal audit function independence

Following Abbott et al. (2016, 2012), we measured the organizational independence of the internal auditing function by measuring audit committee's IAF influence vis-à-vis management's IAF influence based on three critical facets of the internal audit-audit committee relationship: reporting lines, termination rights, and budgetary control. To capture the relative degrees of oversight, we asked internal auditors to state their level of agreement concerning the amount of influence exhibited by the audit committee versus management (chief executive officer [CEO] and chief financial officer [CFO]) on these three facets. The level of agreement ranged from 1 (strongly disagree) to 5 (strongly agree).<sup>2</sup>

# 4.2.4 | Control variables

Based on business ethics and internal audit literature, certain control variables were considered in our empirical model: gender, age, and activity sector. Although, to date, there have been mixed findings concerning the direction of the relationships between these variables and ethical behavior (Cassematis & Wortley, 2013; Curtis, Conover, & Chui, 2012; Keenan, 2000; Liyanarachchi & Adler, 2011; Miceli & Near, 1988), any possible effect of these factors was examined in the current study.

# 4.3 | Partial least squares regression

The PLS-SEM was used to test the research model and hypotheses. Partial least squares (PLS) is a component-based SEM technique that simultaneously tests the psychometric properties of the scales used to measure the constructs (i.e., measurement model) and verifies the strength of the relations between the constructs (i.e., structural model) (Chin, 1998).

We chose the PLS for this study because it is suitable when there is a deficiency of previous theoretical knowledge, and/or when the size of the sample is relatively small (Chin & Newsted, 1999; Hair, Hult, Ringle, & Sarstedt, 2014; Lisi, 2016). In addition, it develops minimal data suppositions as it does not need multivariate normal data (Chin, 1998; Lisi, 2016). According to Sosik, Kahai and Piovoso (2009), PLS most frequently generates better results because it uses a model for both the dependent and predictor data that accounts appropriately for the correlation structure of the data.

# 5 | DATA ANALYSIS AND RESULTS

# 5.1 Descriptive statistics

Table 2 reports the descriptive statistics. These indicate that, apart from PSS, the actual range of the other variables was comparable to the theoretical range. The mean scores of moral courage (3.955), resilience (3.648), and PSS (3.811) and self-efficacy (4.009) are greater than the midpoint of the average. Concerning state hope, the pathway (4.187) provides a mean score higher than that of the agency (3.887). The mean score of IAF independence (0.137) indicates that the amount of influence exhibited by the management (CEO and CFO; on reporting lines, termination rights, and budget determination) is higher than this exhibited by the audit committee.

# 5.2 | Measurement model analysis

The measurement model in PLS is evaluated in terms of indicator reliability, internal consistency reliability, convergent validity, and discriminant validity (Hair et al., 2014; Lisi, 2016).

As a first step before running PLS-SEM, and following Hair et al. (2014) as well as Hampton (2015), 19 outliers identified by Mahalanobis distance ( $D^2$ , p-value <.001) were removed. Accordingly, the test of reliability was carried out on 127 answers.

The reliability test of the measurement model was performed in terms of indicator reliability and internal consistency reliability. Indicator reliability was assessed using the factor loading.

**TABLE 2** Descriptive statistics for scale variables

			Range	
	Mean	SD	Theoretical	Actual
Moral courage	3.955	.965	1-5	1.75-5
IAF independence	.137	.098	NA	NA
Pathway	4.187	.572	1-5	1.667-5
Agency	3.887	.728	1-5	1.333-5
Resilience	3.648	.923	1-5	1.571-5
PSS	3.811	.881	1-5	2.25-5
Self-efficacy	4.009	1.008	1-5	1.6-5

IAF, internal audit function; PSS, perceived supervisor support.

Following the recommendations of Hair et al. (2014), an item (HOP5) which had very low factor loading (<0.4) was deleted from the hope scale and the model was reestimated. Then, three items (HOP1, HOP2, HOP6) which had factor loadings between 0.4 and 0.7 were dropped sequentially to ensure an internal consistency reliability (composite reliability >.70) and a convergent validity (average variance extracted, AVE > .50). To comply with the common rule of thumb that dictates keeping items with factor loading greater than .7 (Hair, Ringle, & Sarstedt, 2011; Hajli & Lin, 2016), we deleted six items from the resilience scale (RES1, RES2, RES5, RES6, RES9, and RES10).

Table 3 presents the item loadings from both the initial and the final PLS measurement model. It shows that all the factor loadings are greater than .70 in the final model. In addition, the table indicates a satisfactory reliability of the constructs, given that all composite reliability exceeds .70 (Hair et al., 2014; Hajli & Lin, 2016; Hulland, 1999; Lisi, 2016). The Cronbach's alpha values support the constructs' reliability (Cronbach's alpha >.6) (Murphy & Davidshofer, 1988).

The examination of the AVE, which permits one to assess the convergent validity of constructs, demonstrates an adequate convergent validity. Indeed, the AVE for each variable is greater than .50 (Hair et al., 2014; Lisi, 2016).

We finished with assessing the discriminant validity, which presents the extent to which the measures of a given construct diverges from other constructs' measures in the same model (Hulland, 1999). In other words, the discriminant validity is satisfied only when the square roots of AVEs are all higher than the respective correlations between constructs (Hair et al., 2014; Hajli & Lin, 2016; Lisi, 2016). We found that the terms of discriminant validity were not fulfilled.

The elimination of items (COURAGE2, COURAGE3, COURAGE4, PSS1, PSS3, PSS8, RES11, S\_EFF2, S\_EFF4, S\_EFF5, S\_EFF6, S\_EFF8) having outer variance inflation factor (VIF) value >5 (Hair et al., 2011) did not resolve the problem. Self-efficacy and perceived supervisor support were highly correlated (Table 4).

In order to mitigate this situation, we estimated two measurement model versions (Akrout, 2016). The first model considered the PSS and did not consider self-efficacy, while the second model considered self-efficacy and did not consider the PSS. As we did in the beginning, we removed two and three outliers (identified by  $D^2$ , p-value <.001) in the first and second measurement model versions respectively. The results show an adequate reliability and validity for each construct in the two measurement model versions (Tables 5 and 6). This allows us to interpret the structural model for these two versions.

# 5.3 | Structural model analysis: test of hypotheses

In this part, we seek to test the extent to which independence, hope (agency and pathway), resilience, PSS, and self-efficacy influence internal auditors' moral courage. To this end, a PLS-SEM was used to test the proposed hypotheses in which moral courage was the predictive variable (Figure 2).

The principal assessment criteria for the structural model are the measures of  $R^2$  and the level of significance of the path coefficients. Hair et al. (2011) clarify that the main target constructs' level of  $R^2$  should be high because the goal of the prediction-oriented PLS-SEM approach is to explain the variance of the endogenous latent variables.

**TABLE 3** Item loadings, composite reliability, and AVE statistics for all variables (n = 127)

for all variables (n = 127)		
	Model	
	Final	Initial
Moral courage		
COURAGE1: I will confront my peers if they commit an unethical act.	.911	.911
COURAGE 2: I will confront my manager if she/she commits an unethical act.	.956	.956
COURAGE 3: I will always state my views about ethical issues to my supervisors.	.948	.948
COURAGE 4: I will go against the group's decision whenever it violates my ethical standards.	.953	.953
Composite reliability	.969	.969
Cronbach's alpha	.958	.958
AVE	.888	.888
State hope		
Pathway		
HOP1: If I should find myself in a jam, I could think of ways to get out of it.		493
HOP3: There are lots of ways around any problem that I am facing now.	1.000	.874
HOP5: I can think of many ways to reach my current goals.		020
Composite reliability	$NA^a$	.061
Cronbach's alpha	NA	349
AVE	NA	.336
Agency		
HOP2: At the present time, I am energetically pursuing my goals.		.413
HOP4: Right now, I see myself as being pretty successful.	1.000	.671
HOP6: At this time, I am meeting the goals that I have set for myself.		.719
Composite reliability	NA	.636
Cronbach's alpha	NA	.259
AVE	NA	.380
Resilience		
RES1: I am generous with my friends.		.552
RES2: I quickly get over and recover from being startled.		.699
RES3: I enjoy dealing with new and unusual situations.	.847	.841
RES4: I usually succeed in making a favorable impression on people.	.834	.785
RES5: I enjoy trying new foods I have never tasted before.		.598
RES6: I am regarded as a very energetic person.		.676
RES7: I like to take different paths to familiar places.	.749	.757
RES8: I am more curious than most people.	.819	.774
RES9: Most of the people I meet are likable.		.576
RES10: I usually think carefully about something before acting.		.566
RES11: I like to do new and difficult things.	.905	.913
RES12: My daily life is full of things that keep me interested.	.817	.772
RES13: I would be willing to describe myself as a pretty 'strong' personality.	.801	.790
RES14: I get over my anger at someone reasonably quickly.	.825	.833
геазопаріу циїскіў.		

TABLE 3 (Continued)

TABLE 3	(Continued)		
		Model	
		Final	Initial
Composit	e reliability	.945	.940
Cronbach	's alpha	.932	.932
AVE		.682	.536
Perceived	supervisor support		
	Audit Committee/Board of Directors y considers my goals and values.	.939	.939
	p is available from my Audit Committee/ of Directors when I have a problem.	.891	.891
	Audit Committee/Board of Directors ares about my well-being.	.945	.945
	Audit Committee/Board of Directors forgive an honest mistake on my part.	.842	.842
	iven the opportunity, my Audit Committee/ of Directors would take advantage of me. (R)	.799	.799
,	Audit Committee/Board of Directors is to help me if I need a special favor.	.862	.862
,	Audit Committee/Board of Directors very little concern for me. (R)	.871	.871
	Audit Committee/Board of Directors bout my opinions.	.896	.896
Composit	e reliability	.965	.965
Cronbach	's alpha	.959	.959
AVE		.777	.777
Self-confi	dence		
S-EFF1: A solution	nalyzing a long-term problem to find a n.	.736	.736
	depresenting your work area in meetings nior management.	.920	.920
S-EFF3: D	Designing new procedures for your work area.	.829	.829
	Making suggestions to management about of improve the working of your section.	.953	.953
	Contributing to discussions about the ny's strategy.	.910	.910
S-EFF6: V work a	Vriting a proposal to spend money in your rea.	.950	.950
S-EFF7: H	Helping to set targets/goals in your work area.	.811	.811
	Contacting people outside the company ppliers, customers) to discuss problems.	.924	.924
S-EFF9: F	resenting information to a group of ues.	.801	.801
	Visiting people from other departments est doing things differently.	.861	.861
Composit	e reliability	.969	.969
Cronbach	's alpha	.964	.964
AVE		.761	.761

<sup>a</sup>Not applicable

In addition, PLS produces standardized path coefficients or  $\beta$ -statistics for each path coefficient (Lisi, 2016). Standardized path coefficients, t-statistics, and  $R^2$  for the two models are shown in Tables 7 and 8 and, graphically, in Figure 2.

As reported in Tables 7 and 8, the two models have good predictive capabilities:  $R^2$  = .71 in the first model and  $R^2$  = .694 in the second one. The coefficient for three out of five hypothesized paths in each model are statistically significant (p < .05).

(Continues)

**TABLE 4** Inter-construct correlations and square root of AVE statistics<sup>a</sup> (n = 127)

	Agency	Independence	Moral courage	Pathway	Resilience	Self-efficacy	PSS
Agency	1.000						
Independence	017	1.000					
Moral Courage	.242	.002	1.000				
Pathway	.079	.031	.359	1.000			
Resilience	.308	060	.724	.326	.820		
Self-efficacy	.351	089	.782	.222	.734	.833	
PSS	.375	104	.811	.325	.763	.920	.863

PSS, perceived support supervisor.

<sup>a</sup>Diagonal elements are the square roots of AVEs. Off-diagonal elements are the correlations between constructs.

**TABLE 5** Inter-construct correlations and square root of AVE statistics<sup>a</sup> (n = 144) (first model)

	CR	Agency	Independence	Moral courage	Pathway	Resilience	PSS
Agency	1.000	1.000					
Independence	1.000	070	1.000				
Moral courage	1.000	.257	014	1.000			
Pathway	1.000	.211	028	.378	1.000		
Resilience	.935	.287	089	.727	.393	.820	
PSS	.940	.349	101	.826	.375	.775	.871

CR, composite reliability; PSS, perceived support supervisor.

**TABLE 6** Inter-construct correlations and square root of AVE statistics<sup>a</sup> (n = 143) (second model)

	CR	Agency	Independence	Moral courage	Pathway	Resilience	Self-efficacy
Agency	1.000	1.000					
Independence	1.000	051	1.000				
Moral courage	1.000	.220	001	1.000			
Pathway	1.000	.130	004	.345	1.000		
Resilience	.934	.264	081	.722	.375	.819	
Self-efficacy	.919	.304	084	.804	.266	.747	.833

CR, composite reliability.

Regarding self-efficacy, the findings reported in Table 8 indicate that the self-efficacy of internal auditor has a positive significant effect on a person's moral courage (p=.000). Such findings provide a strong support for H1 and confirm the suggestions of Hannah et al. (2010) and Sekerka and Bagozzi (2007), who believe that self-efficacy makes an important contribution to the desire to act with moral courage. Similarly, our findings are consistent with Goud (2005) and Amos and Klimoski (2014), who claim that doing what is right in the face of fear requires a great amount of confidence.

As can be observed in Tables 7 and 8, the path between the agency and moral courage as well as the path between the pathway and moral courage are statistically insignificant in the two models (p > .05). Accordingly, H2a and H2b are rejected. These results indicate that the state hope does not have a significant effect on internal auditors' moral courage. Our results are inconsistent with the previous literature (Goud, 2005; Hannah et al., 2010; Sekerka & Bagozzi,

2007), which suggest that increased levels of hope permit decreasing fear and spur courageous action. Similarly, our findings diverge from those of Pury et al. (2007), who found, in the American context, that the greater the participant's judgment that the situation will improve and the outcome will be successful, the more likely the participant is to be assessed as courageous. Our findings demonstrate that moral courage of internal auditors in Tunisia does not depend on their perceptions of their environment and the expectations they draw up based on these perceptions. We can explain this by the fact that the Tunisian context does not provide a motivational environment to internal auditors. Indeed, there is no law that protects the internal auditor in Tunisia. Additionally, we should note that Tunisia is classified among countries with an imperfect democracy (democracy score in 2015 of 6.72).3 This can explain the divergence of our findings from those of Pury et al. (2007), who conducted their study in the USA, which is a fully democratic country (democracy score in 2015 of 8.05).

<sup>&</sup>lt;sup>a</sup>Diagonal elements are the square roots of AVEs. Off-diagonal elements are the correlations between constructs.

<sup>&</sup>lt;sup>a</sup>Diagonal elements are the square roots of AVEs. Off-diagonal elements are the correlations between constructs.

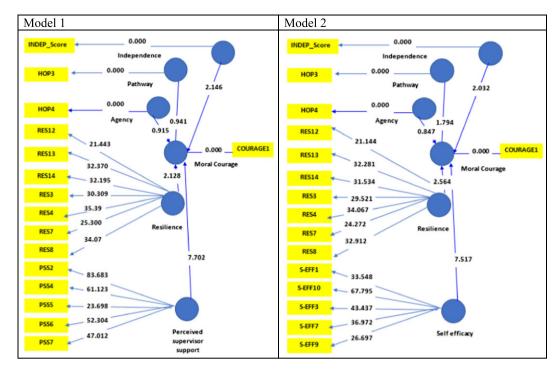


FIGURE 2 PLS structural model [Colour figure can be viewed at wileyonlinelibrary.com]

**TABLE 7** PLS structural model: path coefficients, t-statistics and  $R^2$  (n = 144) (first model)

	SPC	SD	t	р	Decision	Hypothesis
$Agency \to MC$	042	.046	.915	.360	Not supported	H2a
Independence $\rightarrow$ MC	.070	.033	2.146	.032*	Supported	H5
Pathway $\rightarrow$ MC	.058	.061	.941	.347	Not supported	H2b
$PSS \to MC$	.667	.087	7.702	.000*	Supported	НЗ
Resilience $\rightarrow$ MC	.206	.097	2.128	.034*	Supported	H4
$R^2$	.711					

MC, moral courage; PSS, perceived support supervisor; SPC, standardized path coefficient.

**TABLE 8** PLS structural model: path coefficients, t-statistics and  $R^2$  (n = 143) (second model)

	SPC	SD	t	р	Decisions	Hypothesis
$Agency \to MC$	040	.048	.847	.398	Not supported	H2a
Independence $\rightarrow$ MC	.068	.033	2.032	.043*	Supported	H5
Pathway $\rightarrow$ MC	.096	.053	1.794	.073	Not supported	H2b
Resilience $\rightarrow$ MC	.243	.095	2.564	.011*	Supported	H3
$Self\text{-efficacy} \to MC$	.615	.082	7.517	.000*	Supported	H1
R <sup>2</sup>	.694					

MC, moral courage; SPC, standardized path coefficient.

Tables 7 and 8 also indicate that resilience has a positive significant effect on internal auditors' moral courage in both models, since the path between resilience and internal auditors' moral courage is positive and significant (p < .05). Accordingly, H3 is supported.

These findings are consistent with the propositions of Hannah et al. (2010) and Lee et al. (2012), according to whom the positive adaptation in the face of adversity, threats, and risks is important for

the activation of courage. Additionally, our results confirm those of Everett and Tremblay (2014), who find that the courageous behavior of Cynthia Cooper was enhanced due to her resilience and her adaptation capacities in the face of serious risks and threats. According to Khelil et al. (in press), the internal audit activity, in Tunisian firms, is very damaging and tiring for an internal auditor who wants to work in an ethical manner respecting the standards and rules. In this sense,

<sup>\*</sup>Significance at the level of .05.

<sup>\*</sup>Significance at the level of .05.

**TABLE 9** PLS structural model after the integration of gender

	First model				Second mo	Second model			
	SPC	SD	t	р	SPC	SD	t	р	
$Gender \to MC$	.115	.045	2.555	.011*	.127	.044	2.917	.004*	
Agency $\rightarrow$ MC	045	.048	.932	.352	047	.048	.986	.325	
Independence $\rightarrow$ MC	.065	.033	1.980	.048*	.063	.029	2.130	.034*	
Pathway → MC	.060	.064	.940	.348	.095	.054	1.756	.080	
Resilience $\rightarrow$ MC	.179	.088	2.029	.043*	.213	.089	2.408	.016*	
$PSS \to MC$	.686	.079	8.729	.000*					
$Self\text{-efficacy} \to MC$					.638	.076	8.410	.000*	

MC, moral courage; PSS, perceived support supervisor; SPC, standardized path coefficient.

the internal auditor must resist by holding their ground with respect to moral matters even if they are opposing social pressures, and must therefore behave ethically whatever happens.

Regarding the effect of PSS on internal auditors' moral courage, the results reported in Table 7 furnish a strong support for the proposed hypothesis H4. Indeed, the direct path between PSS and moral courage is positive and significant (p = .000). These results support the proposition of Hannah et al. (2010), who affirm that organizations can increase the activation of self-regulatory plans and expectations that individuals will engage in courageous behaviors by enhancing perceptions of a supportive context. Similarly, our findings go along with those of Alleyne et al. (2013), who believe that auditors feel comfortable and courageous reporting unethical acts when they perceive their supervisors' support.

The results emerging from the analysis of both models indicate that the independence of IAF has a positive and significant effect on internal auditors' moral courage (p < .05). Such results provide strong support for H5 and confirm the view of Khelil et al. (2016). According to Khelil et al. (2016), the independence of IAF which is ensured by the audit committee fosters the moral courage among internal auditors, enabling them to speak up about managerial wrongdoings. Similarly, these results are consistent with those of James (2003), who reveals that internal auditors that report solely to the audit committee are more capable of preventing fraudulent reporting than auditors that report to senior management are. This can be explained by the idea of Abbott et al. (2016), who clarifies that a greater audit committee oversight of internal audit activity is associated with greater shielding from possible managerial pressure.

Additionally, these results confirm the pertinence of the international institutes' requirements of reporting directly and solely to the audit committee (IIA. 2009).

The results of the integration of the control variables in the two models using PLS show that the age of internal auditors has no significant effect on moral courage of internal auditors in both models (p > .05). Such results diverge from those found by Near and Miceli (1996), Keenan (2000), and Liyanarachchi and Adler (2011), who reveal that older employees are more likely to report wrongdoing. However, our results are in agreement with those of Cassematis and Wortley (2013), who did not find a significant relationship between age and reporting wrongdoings.

Our findings also indicate that the activity sector does not show a significant effect on internal auditors' moral courage (p > .05) in both models. These results do not confirm our expectation that being supervised by a regulatory body, such as the Central Bank, allows increasing the responsibility of internal auditors for reporting each irregularity and the disclosure of truthful financial statements.

Table 9 shows that gender has a significant effect on internal auditors' moral courage in the two models (p < .05). We find that females experienced higher levels of moral courage than males did. These results are consistent with those of Cohen, Pant, and Sharp (1998) and Borkowski and Ugras (1998), who find that females maintain a higher degree of concern for obligation and duty than males do and then display more ethical behavior. However, our findings diverge from data from previous studies (Liyanarachchi & Adler, 2011; Miceli & Near, 1988), which demonstrate that women are less likely than men to report wrongdoings because they are more reluctant to risk their careers (Liyanarachchi & Adler, 2011).

# 6 | CONCLUSION

Based on 146 questionnaires gathered from Tunisian internal auditors and using the PLS-SEM, this paper offers empirical evidence about the effects of positive states (self-efficacy, state hope, and resilience), the PSS, and the independence of IAF on internal auditors' moral courage. Demographic variables such as gender, age, and activity sector were also considered in our empirical model as control variables.

This study makes several noteworthy contributions to internal audit and moral courage literature. It fills one of the major research gaps in these streams of research by demonstrating that the courageous behavior of internal auditors can be fostered by internal resources such as self-efficacy and resilience. Similarly, external resources such as the audit committee support and IAF independence are revealed as significant factors enabling internal auditors to behave courageously. Additionally, our research demonstrates that females experienced higher levels of moral courage than males do.

We should note that, concerning the IAF independence measure, prior internal audit literature often uses a dichotomous, single-variable measure and then it implicitly ignores other potential independence determinants (e.g., Khelil et al., 2016). To address this gap, we relied

<sup>\*</sup>Significance at the level of .05.

on three critical determinants of IAF independence (reporting lines, termination rights, and budgetary control) defined in the studies of Abbott et al. (2016, 2012).

Furthermore, the use of SEM in this study presents a methodological contribution to audit and accounting behavioral research, as it remains underutilized in these fields compared with related disciplines, such as psychology, management, and information systems (Hampton, 2015).

Given the critical role moral courage plays in enhancing the ethical behaviors of the internal auditors, we believe that our findings carry implications for the understanding of the factors fostering internal auditors' moral courage to speak up when they encounter wrongdoings.

According to Sekerka et al. (2009, p. 575), "if we hope to reach the highest levels of organizational performance, we must understand the factors that foster people's abilities to respond to challenges with courage." We, firstly, contend that our results can provide practical solutions to foster internal auditors' moral courage to speak up so that a high level of organizational performance can be maintained.

Secondly, bearing in mind that Tunisia is adopting an approach to promote good corporate governance, revealing what motivates internal auditors to break their silence and behave courageously can help achieve this goal. Indeed, auditing literature suggests that an ethical and objective IAF can improve corporate governance by deterring employee theft and reporting financial irregularities as well as enhancing firm performance (Gramling, Maletta, Schneider, & Church, 2004). Asiedu and Deffor (2017) go further to say that an effective IAF helps reduce administrative corruption.

Moreover, our paper permits increasing the awareness of the IIA about the necessity to consider certain positive traits that the internal auditors must have to behave ethically. Indeed, it is insufficient to focus only on ethics of auditing and imposing compliance controls.

The role of the audit committee in supporting and ensuring the internal auditors' independence was evident in our findings. Accordingly, our study can provide practical solutions to professional organizations and institutions (e.g., the IIA) that seek to identify what might motivate internal auditors to courageously report corruption. We believe that our findings initiate them into the necessity of providing a supportive context for internal auditors and caring about their independence. Hence, regulators and standard-setters are required to draft regulations and oversee the relationship between audit committees and the IAF to decrease the pressure exerted by the manager and thus reduce the fear of reprisals or threats of dismissal when reporting accurate information.

A limitation of this study is that the internal resources (self-efficacy, resilience, and hope) rely on self-report measures that can induce a bias because of the respondents' desire for social acceptance.

Recognizing that both moral courage (Harbour & Kisfalvi, 2014) and internal auditing activity (Alzeban, 2015) involve normative elements and cultural differences, our study opens the door to further experimental investigations to examine the effect of positive states (self-efficacy, state hope, and resilience), PSS, and the independence of IAF on internal auditors' moral courage in cultures different from

the Tunisian one and thus permitting one to compare the findings emerging from different contexts.

The effects of state hope on internal auditors' moral courage in the Tunisian context will be studied in future work (when a new law will be implemented to protect internal auditors or when the score of democracy improves).

Finally, further research should be conducted to investigate the effect of other internal and external resources (e.g., inner convictions, positive traits, social identity, and group norms).

#### **ENDNOTES**

- <sup>1</sup> See American Psychological Association (n.d.).
- <sup>2</sup> Following Abbott et al. (2016, 2012), survey responses to questions 2a-2i were recalibrated to a scale of 0-4. IAF independence is a continuous variable defined as the sum of the three Likert-scale responses to the three audit committee IAF statements (2a, 2d, 2 g) divided by the sum of all nine Likert-scale responses concerning IAF/CEO/CFO/audit committee relationships per survey questions 2a-2i.
- <sup>3</sup> Source: https://fr.m.wikipedia.org/wiki/Indice\_de\_d%C3%A9mocratie #Indice\_de\_d.C3.A9mocratie\_par\_pays\_2014.5B8.5D\_et\_2015.5B9.5D.

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# **APPENDIX**

# **QUESTIONNAIRE**

Questionnaire no. ..... Date .....

As part of the development of our thesis on the internal auditor. I offer you a questionnaire that will be used to collect data to address our study objectives. It should be noted that the information collected will be treated confidentially.

I would be grateful for your collaboration and your close involvement in this project.

Company Name...../Sector...../Sector.....

Part 1: General information about internal auditor

1.Gender	Male Female					
		Lev	el			
2.Training level	Baccalaureate of	or equivaler	it			
	Baccalaureate d	legree + 2				
	Baccalaureate d	legree +3 =	license			
	Baccalaureated	egree +4				
	Baccalaureate d	legree +5 o	r +6			
	DESS, DEA or	equivalent				
	Doctorate and	+				
	Other					
3. The number of years of experience		4. A	ge			
5. Certifications	CIA	DPAI	CISA	Other		

Part 2: For questions 1–5, think about your typical actions and rate your *level of agreement* with how each statement below *applies* to your behavior. Use the following scale to indicate your level of agreement or disagreement with each statement.

Strongly Disagree	Disagree	Neutral	Agre	e	S	tror	ngly	Agree
1	2	3	4		5			
Statement							_	ement umber)
1a. I will confront munethical act.	y peers if the	ey commit a	n	1	2	3	4	5
1b. I will confront m an unethical act.	y manager if	she/she cor	mmits	1	2	3	4	5
1c. I will always state to my supervisors.		bout ethical	issues	1	2	3	4	5
1d. I will go against it violates my ethi	· .		never	1	2	3	4	5
2a. Internal audit rep	orts to the	Audit Comm	ittee.	1	2	3	4	5
2b. Internal audit rep Officer (CFO).	oorts to the	Chief Financ	ial	1	2	3	4	5
2c. Internal audit rep Officer (CEO).	orts to the (	Chief Execut	ive	1	2	3	4	5
2d. The Audit Comm terminate the Chie			0	1	2	3	4	5
2e. The CFO has aut Chief Audit Execu		o terminate t	the	1	2	3	4	5
2 f. The CEO has au Chief Audit Execu		o terminate	the	1	2	3	4	5
2 g. The Audit Comr Audit's annual bud		mines Interna	al	1	2	3	4	5
2 h. The CFO determ budget.	nines Interna	al Audit's anr	nual	1	2	3	4	5
2i. The CEO determi budget.	nes Internal	Audit's annu	ıal	1	2	3	4	5
3a. If I should find m ways to get out o		m, I could th	ink of	1	2	3	4	5
3b. At the present time my goals.	me, I am ene	ergetically pu	rsuing	1	2	3	4	5
3c. There are lots of I am facing now.	ways around	d any probler	m that	1	2	3	4	5
3d. Right now, I see successful.	myself as be	eing pretty		1	2	3	4	5
3e. I can think of magoals.	ny ways to	reach my cui	rrent	1	2	3	4	5
3 f. At this time, I an set for myself.	n meeting th	e goals that	I have	1	2	3	4	5
4a. I am generous w	ith my friend	ds.		1	2	3	4	5
4b. I quickly get ove startled.	r and recove	er from being	5	1	2	3	4	5
4c. I enjoy dealing w	ith new and	unusual situa	ations.	1	2	3	4	5
4d. I usually succeed impression on pec	_	favorable		1	2	3	4	5
				1	2	3	4	5

(Continues)

# (Continued)

Statement		Level of agreement (circle one number)			
4e. I enjoy trying new foods I have never tasted before.					
4 f. I am regarded as a very energetic person.	1	2	3	4	5
4 g. I like to take different paths to familiar places.	1	2	3	4	5
4 h. I am more curious than most people.	1	2	3	4	5
4i. Most of the people I meet are likable.	1	2	3	4	5
<ol><li>I usually think carefully about something before acting.</li></ol>	1	2	3	4	5
4 k. I like to do new and difficult things.	1	2	3	4	5
4 l. My daily life is full of things that keep me interested.	1	2	3	4	5
4 m. I would be willing to describe myself as a pretty "strong" personality.	1	2	3	4	5
4n. I get over my anger at someone reasonably quickly.	1	2	3	4	5
5a. My Audit Committee strongly considers my goals and values.	1	2	3	4	5
5b. Help is available from my Audit Committee when I have a problem.	1	2	3	4	5
5c. My Audit Committee really cares about my well-being.	1	2	3	4	5
5d. My Audit Committee would forgive an honest mistake on my part.	1	2	3	4	5
5e. If given the opportunity, my Audit Committee would take advantage of me. (R)	1	2	3	4	5
5 f. My Audit Committee is willing to help me if I need a special favor.	1	2	3	4	5
5 g. My Audit Committee shows very little concern for me. (R)	1	2	3	4	5
5 h. My Audit Committee cares about my opinions.	. 1	2	3	4	5
6. How confident do you feel if you are asked to ca tasks?	rry o	ut e	each	of	the 10
Not at all Not confident Neutral Confident confident	Ve	ery o	conf	fide	nt
1 2 3 4	5				
6a. Analyzing a long-term problem to find a solution.	1	2	3	4	5
6b. Representing your work area in meetings with senior management.	1	2	3	4	5
6c. Designing new procedures for your work area.	1	2	3	4	5
6d. Making suggestions to management about ways to improve the working of your section.	1	2	3	4	5
6e. Contributing to discussions about the company's strategy.	1	2	3	4	5
	1	2	3	4	5
6 f. Writing a proposal to spend money in your work area.		2	3	4	5
	. 1	_			
work area.	1	2	3	4	5
work area.  6 g. Helping to set targets/goals in your work area.  6 h. Contacting people outside the company (e.g.,	1		3	4	5