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Undergraduate business students' perception of auditing: Impact of proximity and knowledge on auditors' stereotype

Abstract

Purpose - This study explores undergraduate students' stereotype of auditing and the influence of knowledge of the profession and its sources on the stereotype.

Design/methodology/approach - This study is based on a questionnaire distributed among 360 undergraduate business students at 21 Higher Education Institutions in Spain.

Findings –The study reveals that undergraduate business students consider auditors competent and ethical. Auditing is viewed as an interesting and rigorous activity, which requires high responsibility and contributes significantly to society. Students perceive that the auditing career is difficult but contributes to professional development. The knowledge acquired through the business studies influences the creation of a positive image of the profession and of auditors.

Practical implications - The profession could benefit from the fact that having more information about the profession improves students' perceptions of it. The provision of auditing courses through the degree as well as related activities to increase the visibility of the profession during the first years of the degree could improve the auditor stereotype and enhance students' intentions to enter this profession.

Originality/value - Previous studies have analyzed the image of the accounting professional as an homogeneous professional status. This study specifically addresses the image of auditors, who are at the core of the traditional accounting domain. It analyzes the influence of sources of knowledge (academic training, having familiars and media) on auditors´ stereotype. Moreover, it provides evidence concerning the perceptions of the new generations (Gen Z).

Keywords – Auditing, stereotypes, students' perceptions, business studies, proximity, academic training, media.

1. Introduction

Selecting and attracting the best professionals is key for organizations' survival and success (Carlson *et al.,* 2002; Durocher *et al.,* 2016). This is especially true for the accounting profession (Daoust, 2020; Saemann and Crooker, 1999; Smith and Graves, 2002) due to the high technical and professional competence required for the provision of its services, which is becoming increasingly complicated (Accountancy Europe, 2017; Jeacle, 2008). This becomes even more important as the pool of qualified accountants continues to shrink (AAA and AICPA, 2012; Durocher *et al*., 2016).

This research draws on perspectives of the stereotype theory to analyze undergraduate students' perception of auditors and the profession. Stereotypes play a key role in the attractiveness of a profession. The stereotypes contribute to building a public attitude and are relevant in the selection of those who want to be a part of the profession (Albu *et al*., 2011).

Previous literature reveals that accountants have been represented as being boring, conservative, and dull (Dimnik and Felton, 2006; Friedman and Lyne, 2001; Jeacle, 2008; Picard *et al.,* 2014; Richardson *et al.,* 2015). This negative view of accountants may be driving a lack of interest in belonging to the accounting profession (Durocher *et al*., 2016; Richardson *et al.*, 2015; Saemann and Croocker, 1999). However, this traditional view also represents accountants as trusted and ethical, reliable, and professional individuals (Bougen, 1994; Caglio *et al.*, 2018; Carnegie and Napier, 2010; Daoust, 2020; Jeacle, 2008; Richardson *et al*., 2015).

Literature (Daoust, 2020) suggests that there is a change in the image of the auditing profession. The traditional professional identity of auditing firms and of the profession generally is changing from one of homogeneity to one of diversity and inclusivity (Bujaki *et al*., 2018; Edgley *et al*., 2016; Picard *et al.*, 2014). Accounting firms are devoting considerable efforts to attracting prospects in order to change the "bean counter" stereotype and enhance their legitimacy in the eyes of prospective trainee accountants (Durocher *et al*., 2016). The recruitment policies of accounting firms use a discourse that depicts colourful accountants who are happy, young trendsetters with exciting social lives, replacing the emphasis on professional values for a commercial orientation (Daoust, 2020; Jeacle, 2008; Picard *et al.*, 2014).

This discourse could put at risk the professionalism, credibility, and integrity of the profession (Jeacle, 2008) and raise critical questions about the type of students who will be attracted (Daoust, 2020, Picard *et al*., 2014). The commercial representations of auditing can lead students to develop a commercial interpretation of what it means to be an auditor (Daoust, 2020). Even more, this colourful accountant stereotype may increase the audit expectation gap as students and other prospective

accountants may dismiss the key relevance of professional values as integrity, independence and responsibility (Siddiqui *et al.,* 2009).

This shift may have a negative effect in the professional interest of the new generation that is now entering the market and will represent one-third of the global workforce (IFAC, 2018). This new generation (Gen Z), defined by technology, cultural aggregation, fluidity, and contradiction (WGSN, 2018), will have to decide which professions to enter. They look for authenticity; are socially responsible; and pay attention to quality, trust, and transparency (ACCA, 2016; Dries *et al*., 2008; EY, 2015; IFAC, 2018).

Being effective in recruiting the best talent requires an understanding of how this generation perceives auditors and the profession (IFAC, 2018). Stereotypes are generated from different sources, are transmitted through varied media, and are associated with a range of subtly different nuances. These information sources influence students' perception of audit firms and the accounting profession (Brouard *et al.*, 2017, Bujaki *et al.*, 2018, Durocher *et al*., 2016, Picard *et al*., 2014).

Proximity and the level and source of knowledge of the profession can affect the nature of the relationships different groups have with the stereotyped group, as well as their perceptions of it (Caglio *et al.,* 2018; Friedman and Line, 2001; Navallas *et al*., 2017; Richardson *et al.*, 2015). Formal education is one of the main sources of stereotypes for students, as lecturers may project a particular view of a profession.

This study has two objectives. First, it explores undergraduate business students' perceptions of auditors, their career and their work. Second, it examines how the level of knowledge of the profession and the nature of the knowledge source influence those perceptions. This research is conducted among undergraduate students in business and economics programs at 21 Higher Educations Institutions in Spain, where most of those entering the auditing profession have degrees in business and economics. The study's analysis is based on 360 surveys.

The results of this study contribute to a better understanding of the profession's stereotype, providing new insights into the perception of the auditing career, auditing work and auditors' image. Findings reveal that academic training has an impact on the stereotype, which provides an opportunity to improve it using the accounting curriculum.

This study addresses the call made by accounting scholars for new empirical studies on current perceptions of the accounting profession. Previous studies on accountant stereotypes have analyzed the image of accountants as a single and homogeneous professional status including both, professional accountants in public practice and professional accountants in business. This study focuses on the auditor stereotype. In Spain, the external auditor is the only professional figure related to accounting who is legally regulated. In many other European civil law countries as well, the regulations on and responsibilities of auditors differ from those of other professional accountants. Therefore, the study contributes to the literature on accountant stereotypes by specifically addressing the image of auditors, who are at the core of the traditional accounting domain.

Further, most studies have been carried out in Anglo-American countries (Albu *et al.*, 2011; Caglio and Cameran, 2017; Dimnik and Felton, 2006), indicating a need to examine socio-politically different contexts. Spain's auditing profession is characterized by a high level of legalism, as in other civil law countries; the Spanish auditing profession is subject to very strict regulations and compliance requirements. Therefore, future professionals' stereotype about the audit profession in this particular institutional setting is of upmost importance for the situation in many continental European countries, and investigating it offers an important contribution to the international literature.

This study also contributes to the literature on accounting stereotypes by analyzing the influence of different knowledge sources on auditors and the auditor stereotype. Moreover, it provides evidence concerning the perceptions of the new generation, Gen Z, which few studies have examined. Studies show that audit firms run the risk of personnel shortages; this could worsen if the potential auditors decide not to enter the profession (IFAC, 2018; PWC, 2018).

This study offers practical implications. First, the profession could use the fact that greater knowledge of the profession affects students' perceptions of the stereotype and try to broaden this knowledge by offering auditing courses at universities. Taking these courses could improve students' stereotype of auditors and their work and thus foster the intention to enter the profession. Second, our results suggest that the auditing profession would be successful in improving auditors' image by conducting extra-curricular activities to increase its visibility among university students (Navallas *et al.,* 2017).

The remainder of this paper is organized as follows. The next section reviews the literature and develops the study's research hypotheses. The third section describes the study's research method, and the fourth section reports the results. Finally, the fifth section outlines the study's primary conclusions, explains its limitations, and discusses possibilities for future research.

2. Literature Review and Formulation of Research Questions and Hypotheses

2.1. Stereotype

Lippmann (1922) was the first to use of the concept of stereotype to refer to the typical picture that comes to mind when thinking about a particular social group. Stereotypes reflect beliefs about the traits of the referred group and contain information about other aspects such as the social roles and the degree to which the individuals of the group share specific qualities (Dovidio *et al*., 2010). Stereotypes have been widely studied by social psychologists. The socio-cognitive theory perspective of stereotypes (Tajfel, 1984) states that stereotypes play a key functional and adaptative role helping individuals to understand the world in a simplistic but structured and coherent way.

Stereotypes simplify the complexity of people and personalities by generalizing about groups and group members based on characteristics, attributes, and behaviors considered typical of the group (Ashmore and Del Boca, 1981; Carnegie and Napier, 2010; Dimnik and Felton, 2006; Hilton and von Hippel, 1996; Richardson *et al*., 2015). Therefore, stereotypes can be defined as external perceptions

of the categories that are considered typical of a group (Thorne, 2017). A stereotype may be defined as the sum of attributes considered as best describing the members of a social group (Albu *et al*., 2011).

Stereotypes are influenced by cognitive, affective, socio-motivational, and cultural mechanisms operating in social settings (Hilton and von Hippel, 1996; Wells, 2017) and they generate expectations about the anticipated behavior of groups members in front of new situations (Oakes and Turner, 1990). Stereotypes are formed through the act of categorizing people into groups, through exposure to out-group members, through the motivation to maintain a positive social identity based on the group to which one belongs, and through social transmission of the stereotype (Wells, 2017). The stereotypes play an important part in building a public attitude and in attracting the right people to the profession (Albu et al., 2011).

The image of the accounting profession can be viewed as part of the interaction between the accounting profession and society (Picard *et al.,* 2014). The research indicates that professional accounting associations and accounting firms play key roles in shaping the identity of individual accountants and the image of the accounting profession overall (Carnegie and Napier, 2010; Dimnik and Felton, 2006; Jeacle, 2008; Picard *et al*. 2014).

Accounting stereotypes have been investigated in the literature, which has revealed that accountants are seen as boring, conservative, and dull (Dimnik and Felton 2006; Friedman and Lyne 2001; Jeacle 2008; Picard *et al.*, 2014; Richardson *et al.*, 2015). Other studies have found that the stereotype of the traditional accountant has both positive and negative characteristics. On the positive side, the traditional accountant is seen as trusted and ethical, careful with money, meticulous, reliable, and professional. On the negative side, studies find that the traditional accountant is seen as dull, boring, and colourless, excessively fixated on money, manipulative, inept, and obsessive (Bougen, 1994; Caglio *et al.*, 2018; Carnegie and Napier, 2010; Daoust, 2020; Jeacle, 2008; Richardson *et al*., 2015).

Most recent studies about how accountants are perceived among accounting and business students suggest that the negative stereotype is beginning to change. Nga and Mun (2013) analyze the image of auditing professionals and their personal traits, finding that students see auditors as leaders and as ethical professionals. On the other hand, Jackling *et al.* (2012) and Bekoe *et al*. (2018) analyze students' perceptions of accounting as work (tasks) and as a profession (prestige), finding that students perceive accountants' work as consisting of interactions with people rather than rule-memorizing or working alone. Students also perceive it as a respected and prestigious career. Caglio *et al*. (2018) find that undergraduate students in accounting-related fields lack a well-formed image of accountants but that graduate students in accounting-related fields seem to have something close to the "bean counter" image.

These studies have analyzed professional accountants' image, work, or career, or have studied some combination of them but without clearly differentiating between them. Richardson *et al.* (2015) suggest that it is unclear whether the stereotype of accountants is a result of personal characteristics or the duties they perform. The negative perception of accountants could be due to the complexity of the accountant´s image, which is derived from the perceived personal characteristics of the accountant and of accounting tasks (Wells, 2019).

Moreover, most of the existing research on the accountant stereotype comes from Anglo-Saxon countries where the professional accountant has been usually studied as a single and homogeneous group without differentiating among accounting professionals working in different settings, such as professional accountants in business working in commerce, industry, education, public services, and non-profit sectors, professional accountants working as tax and accounting advisors and external auditors. In Anglo-American contexts all accountants, in different settings, have similar legal requirements and are included in the official professional title of Chartered Accountants or Certified Public Accountant. However, this is not the case for Spanish professionals. The distinction between auditors and the rest of the professional accountants is crucial for the case of Spain and most European

countries (Amat and Bové, 2015). The audit profession in Spain is different from the other accounting activities. Unlike the other professional accountants, auditors need an official license and their activity is legally recognized as a profession. Therefore, this research specifically focuses on the audit profession stereotype.

Most studies have focused on particular attributes of the profession and audit professionals. This study carries out an extensive examination of the attributes identified in the research, ordered into three categories: the auditing career, the auditor's work, and the professional auditor. The 'auditing career' category refers to the opportunities that the career grants for professional development, as well as to the difficulties individuals encounter in achieving the auditing career. The 'auditors' work' assesses the perception of the tasks and activities that auditors perform when carrying out their work. Finally, this study tries to measure auditors' image or stereotype by including features about auditors themselves.

We formulate our first research question based on the unique characteristics of today's university students and the strategies accounting firms require in order to make auditing more attractive to them:

> *RQ: What is undergraduate business students' perception of the auditing profession (career, work, and auditors' image)?*

2.2. Factors Influencing the Auditor Stereotype

Social psychologists studied the permanency of stereotypes. Tajfel (1969) and Allport *et al.* (1954) rejected the idea that prejudice and stereotypes are irrational and pathological and defended the idea that stereotypes may change through social cognition. Hilton and von Hippel (1996) point out that, though it is generally assumed that maintaining a stereotype is easier than changing it, stereotypes can be changed through the use of motivation and resources. They affirm that stereotypes are updated incrementally, that stereotypes change when faced with a critical level of inconsistency that re-

categorizes the inconsistent information, and that stereotypes change when new and different exemplars are identified as members of the stereotyped group.

Hiltebeitel *et al.* (2000) indicate that students tend to develop their career aspirations based on preconceived ideas. This suggests that any inaccurate and negative perceptions students have about auditing will most likely affect their interest in studying accounting and pursuing a career in the field.

Accordingly, the accounting profession has used a range of change strategies to manage its image in the eyes of external stakeholders (Carnegie and Napier, 2010; Dimnik and Felton, 2006; Jeacle, 2008; Wells, 2017). Accounting firms are trying to change their negative stereotype through various strategies, such as increasing public exposure to and contact with accountants (Accountancy Europe, 2017; Daoust, 2020).

Literature has suggested the relevance of education for auditors as a way of reducing the performance gap and to make sure that future auditors understand their responsibility and the standard of work they are expected to perform (Humphrey *et al*., 1992; Porter and Gowthorpe, 2004, Siddiqui *et al*., 2009). In this sense, education is expected to have an influence on the view of auditors and its activity.

The literature suggests that proximity to the profession and, consequently, a better knowledge of its individuals and tasks may influence the stereotype (Navallas *et al.,* 2017; Richardson *et al*., 2015; Wells, 2019). Caglio *et al.* (2018) find that the most strongly negative opinions were exhibited by respondents who were not close to the profession. Therefore, we formulate the following hypothesis:

> *H1: There is a positive relationship between knowledge of the auditing profession and a positive perception of it (career, work, and auditors' image)*

Friedman and Lyne (2001) suggest that stereotypes can be generated by different sources, transmitted through varied media, and associated with a range of subtly different nuances. Stereotypes are transmitted through socialization, the media, the language and discourse (Dovidio *et al.,* 2010). They

suggest that stereotypes can be affected by the nature of the relationships different groups have with the stereotyped group.

Richardson *et al.* (2015) affirm that, where direct relations are experienced with members of a group, the stereotype of that group will develop around their particular exemplar attributes (physical and attitudinal). When no direct or frequent contact occurs between an individual and the profession, the stereotype is developed via social and cultural transmission (e.g., people, institutions, popular media). This means that family members, course instructors, and other referent groups play a crucial role in influencing students (Bekoe *et al.*, 2018; Richardson *et al.*, 2015).

One of the objectives of this study is to analyze how different sources of knowledge about the audit profession (i.e., family and friends, media, academic training) affect the stereotype of auditing.

People can form an image or stereotype of an auditor by knowing one. This can happen when a relative or friend is an auditor. Having direct contact with an auditor can provide a wide knowledge about auditors' work and personal characteristics. In such a case, the image or stereotype is formed based on the prototype, under the supposition that this professional represents all auditors. The following hypotheses are thus proposed:

> *H2: There is a significant relationship between having relatives or friends who work as auditors and having a positive perception of the auditing profession (career, work, and auditors' image).*
>
> *H3: There is a significant relationship between having relatives or friends as the main sources of information on auditing and having a positive perception of the auditing profession (career, work, and auditors' image)*

A second way to form a stereotype of auditors is through the media, such as the press (Friedman and Lyne, 2001), films or TV series (Dimnik and Felton, 2006), and literature (Carnegie and Napier, 2010; Evans and Fraser, 2012). In this study, we analyze the media as the source of knowledge about

the audit profession in general, without distinguishing between films, press, literature or social media. Previous studies show that most of the stereotypes of accountants conveyed in the media are negative and that they affect observers' perceptions of the characteristics of accountants. Newspapers and magazines show accountants as being conservative and precise and having unappealing and dull personalities (Friedman and Lyne, 2001; Miley and Read, 2012). Caglio *et al*. (2018) found that those who were influenced by the media held an image of auditors close to the "bean counter" image.

However, new generations, and particularly, Gen Z are more exposed to media than previous generations were and are used to interacting and communicating through social media platforms. Their main source of information is not the press or films but the new social media. Accounting firms are turning to social and professional networking sites in order to offer a positive image of their profession through branding and marketing strategies (Daoust, 2020; Eschenbrenner *et al*., 2015; Herbold and Douma, 2013).

Based on the previous literature, this study cannot predict if having media as the main source of information about auditing has a positive or negative influence on the stereotype. Therefore, the following is proposed:

> *H4: There is a significant relationship between being Media the main source of information of auditing and the perception about auditing (career, work and auditors' image)*

The third source of knowledge about auditing is through academic training. Perception studies conducted among students suggest that the accounting curriculum is a principal influence on the accountant stereotype. The findings suggest that students form their image of accounting and accountants from their accounting studies (Bekoe *et al.*, 2018; Caglio and Cameran, 2017; Chen *et al.,* 2008; Jackling and Calero, 2006).

The first undergraduate accounting course students take has been considered important in shaping students' perceptions of the profession and the aptitudes and skills needed for successful accounting

careers (Accounting Education Change Commission, 1992). Several studies suggest that students generally perceive the content of accounting programs to require rule memorization and routine recording, and to be boring (Allen, 2004; Byrne *et al*., 2012; Marriot and Marriot, 2003; Parker, 2001). Jackling (2002) points out that students develop such negative perceptions in their first year of accounting studies.

Other studies find that enjoying accounting topics and course satisfaction are important predictors of an intention to undertake careers in accounting (Jackling and Calero, 2006; Saemman and Crooker, 1999). Bekoe *et al*. (2018) find that students with prior exposure to accounting have a positive perception of accounting.

Literature on the field has studied the effect of education on the view of the auditing profession and on the audit expectation gap, defined this as the gap between society's expectations of auditors and society's perceptions of auditors' performance (Boyle and Canning, 2005; Humphrey *et al*., 1992; Porter and Gowthorpe, 2004; Siddiqui *et al.* 2009). Various studies concluded that auditing training reduce the audit expectation gap (Brown and Jones, 2011; Monroe and Woodliff, 1993; Pierce and Kilcommins, 1997; Siddiqui *et al*., 2009) as the students' views of audit responsibility and other professional values changed significantly after students took an auditing course.

Therefore, considering previous literature, we thus formulate the following hypotheses:

H5: There is a positive relationship between having academic training as the main source of information of auditing and having a positive perception of the auditing profession (career, work, and auditors' image).

H6: There is a positive relationship between being highly satisfied with the first accounting course and having a positive perception of the auditing profession (career, work, and auditors' image).

H7: There is a positive relationship between having taken an auditing course and having a positive perception of the auditing profession (career, work, and auditors' image).

3. Methodology

3.1. Sample and Data Collection

The study's sample is composed of undergraduate business students. This sample was chosen for two reasons. First, they represent the new generation that is now entering the market. Second, they may have some knowledge or preconceived idea of what auditors are and do, and the study requires a sample comprising people with clear perceptions about the auditing profession. The sample's students are following a degree in business and economics. In Spain, most auditors hold a university degree related to business and economics programs.

The study tested the hypotheses using a survey. Before the questionnaire was distributed, a pilot test was conducted among various groups of university students. Only minor changes were made to the questionnaire, as the respondents in the pilot test exhibited no comprehension difficulties.

The survey was distributed to undergraduates at 21 Spanish faculties of Economics and Business. The questionnaire was administered in the first semester of the 2017/2018 academic year to students in the third and fourth years of their degree.

Respondents were assured that the survey information would be used solely for the purpose of this study, and that the data-collection process guaranteed their anonymity. The questionnaires were distributed via an online software system during lectures, and the responses were collected directly through the software. Approximately 760 questionnaires were distributed, and a total of 360 usable responses were obtained, which represents a response rate of 47%.

3.2. Questionnaire and Measurement of Variables

The first part of the questionnaire asked general questions about the characteristics of the respondents (see the questionnaire in Appendix 1). The respondents indicated the degree of their knowledge of the audit profession by reporting whether they had completed an auditing course and whether they had family members or friends who were working as auditors. The survey also collected data on the degree to which the students' knowledge of auditing came from family or friends; from the media, such as press, novels, films, and social networks; and from academic training. The students also had to indicate their degree of satisfaction with the first accounting course they took.

The questionnaire also asked a series of close-ended questions concerning their image and perception of the auditing profession. Studies suggest that stereotypes of the auditing profession are the result of auditors' personal characteristics, the tasks involved in their work, and the profession itself (Richardson *et al*., 2015; Wells, 2019). A literature review conducted to find variables for measuring the auditor stereotype revealed three approaches to reflect various aspects of the audit profession: audit profession or career, auditors' work, and the auditor himself/herself. (Bekoe *et al*., 2018; Caglio *et al*., 2018; Gertsson *et al.,* 2017; Jackling *et al*., 2012; Marriot and Marriot, 2003; McDowall and Jackling, 2010; Richardson *et al.*, 2015).

Therefore, the instrument developed measures three components of the auditing profession: auditing as a career, auditors' work, and auditors' image.

Auditing career. This scale captures the students' perception of auditing as a professional career. The instrument includes 7 items related to the opportunities that the audit career grants for professional development, as well as those related to the difficulty of achieving an auditing career (see questions in Table 2). These were selected based on instruments previously used in the academic literature on accounting and auditing (Gertsson *et al.,* 2017, Marriot and Marriot, 2003; McDowall and Jackling, 2010).

Auditing work. These items were designed to assess students' perception of the work auditors carry out (Table 3). This scale included 10 items drawn from previous studies (Bekoe *et al.*, 2018; Jackling *et al.,* 2012; Marriot and Marriot, 2003; McDowall and Jackling, 2010).

Auditors' Image. This scale measured students' perceptions of auditors' image (Table 4). This scale included 16 items based on previous studies of accountant stereotypes (Caglio and Cameran, 2017; Nga and Mun, 2013).

The respondents indicated how much they agreed or disagreed with the statements of the three components, measured on a Likert scale ranging from 1 ("completely disagree") to 5 ("completely agree").

3.3. Participants' Characteristics

A total of 360 responses were examined in this study. The general characteristics of the respondents are shown in Table 1.

[Table 1 here]

Respondents' average age was 23 years, and 59% of the sample was female. The data in our sample is similar to the percentage found in the Spanish population, since slightly more than half of the students in the degrees related to Business, Administration and Law are women.

Most of the students were enrolled in a Business Administration program (68%), 22% were enrolled in a Finance and Accounting program, and 6% were taking a Double Degree in Business Administration and Law. The rest of the students (4%) were enrolled in other programs, such as Economics or Finance and Insurance. Selected students were enrolled in the third (53%) and fourth

(47%) academic years. Independence T tests (not tabulated) proved that responses were not statistically different between the academic years.

The students had to report whether they had completed an auditing course and whether they had family members or friends who worked as auditors. As Table 1 shows, slightly more than half of the sample (53%) had studied auditing. The auditing course in Spanish faculties of Economics and Business is taken in the third and fourth academic year and the course is optional or compulsory depending on the institution. For the 190 students that have studied auditing, 66% have taken the course on a compulsory basis and 34% have chosen the course optionally. Only 21% had relatives or friends who worked as an auditor. We were unable to include the students' own experience in auditing because in Spain, audit firms hire students that are enrolled in masters or postgraduate degrees, but, only on very few occasions, do they recruit undergraduate students. Therefore, the sample participants did not report any work experience in auditing.

4. Results

4.1. Descriptive Statistics for the Statements and Results of the Factor Loadings

Given that all the data were collected from the questionnaire sent to students, we conducted Harman's Single-Factor Test to check to what extent common method variance is present in our data. The results of the test reveal that there are more than one factors and that a single factor does not account for the majority of variance. This provides some assurance that no problems with common method bias exist.

Exploratory factor analysis was used to identify the salient attributes of auditors and auditors' profession. The Kaiser-Meyer-Oklin (KMO) measure of sampling adequacy and Bartlett's test of sphericity were applied to determine the appropriateness of the data for factor analysis.

Auditing career

Table 2 displays the descriptive statistics for the statements intended to measure the *Auditing Career* scale. The results of a principal component factor analysis are shown in Table 2.

Principal component factor analysis using Varimax rotation was conducted. Both Bartlett test of sphericity (876.81; $p < 0.000$) and the Kaiser-Meyer Olkin (KMO) measure of sampling adequacy (0.83) indicated that factor analysis was appropriate for the data. Results reveal two factors with eigenvalues greater than one. All items were loaded above 0.5 for each factor, and there were no cross-loadings over 0.4. These two factors explained 63% of the variance, and the first factor included four items reflecting opportunities for professional development during an auditing career. Therefore, this factor is denoted *Professional Development*. It explains 36% of the variance and has an internal reliability, measured through Cronbach's alpha, of 0.79. Three items were loaded in factor 2. These items refer to the difficulty and stress of the career; this factor is thus denoted *Difficult*. This factor explains 27% of the variance and the internal reliability as measured by Cronbach's alpha is 0.63.

[Table 2 here]

Auditors' Work

The descriptive statistics for the statements and the factor analysis results for the *Auditors' Work* scale are shown in Table 3.

Results of the KMO (0.78) Bartlett (1278.21; $p < 0.000$) tests indicated that the scale was suitable for factor analysis. The factor solution of the principal component factor analysis reveals that three factors had eigenvalues greater than 1. All items loaded above 0.5 for each factor, and there were no cross-loadings over 0.4. These three factors explained 64% of the variance. The first factor included three items presenting auditing work as rigorous, and responsibility-driven. This factor, denoted as *Rigorous/ Responsibility demanding*, explains 22% of the variance and has an internal reliability of 0.78. Three items were loaded in factor 2. These items referred to the perception of auditors' work as strict rule-compliance and solitary. This factor, denoted as *Solitary*, explains 21% of the variance and has an internal reliability of 0.79. Finally, the third factor included four items referring to auditing as

an interesting activity that makes an important contribution to society. This variable was denoted as *Interesting.* This variable explains 21% of the variance and has an internal reliability of 0.7.

[Table 3 here]

Auditors' Image

The descriptive statistics for the statements and the factor analysis results for the *Auditors' Image* scale are shown in Table 4.

Results of the KMO (0.89) Bartlett (2295.14; $p < 0.000$) tests indicated that the scale was suitable for factor analysis. The factor analysis results reveal that three factors had eigenvalues greater than 1. All items were loaded above 0.5 for each factor, and there were no cross-loadings greater than 0.4, except for the items "Auditors are aware of their duty" and "Auditors are enthusiastic." These items were excluded from the factors. These three factors explained 58% of the variance. The first factor included six items reflecting auditors' competence and skills. Therefore, this factor was denoted *Competent*. This factor explains 23% of the variance, and its Cronbach's alpha is 0.82. Five items were loaded in factor 2. These items portray auditors as ethical, trustworthy, and compliant with the law. This factor was denoted as *Ethical*. This factor explains 23% of the variance and has an internal reliability of 0.82. Finally, the third factor included three items reflecting auditors' negative features, such as being boring and easily influenced. This factor was denoted as *Negative Image*. This factor explains 12% of the variance and has an internal reliability of 0.66.

[Table 4 here]

4.2. Descriptive Statistics and t-test Results for Dependent and Independent Variables

Table 5 displays the descriptive statistics and sample t-test results for the variables in the study. We used different scale anchors to mitigate the potential problems of common method variance bias. First, descriptive statistics for the five independent variables that are continuous are displayed. Table 5 also shows the descriptive statistics for the dependent variables. These were measured by combining the responses to the statements for each of the eight factors shown in Tables 2, 3, and 4. The Cronbach's alpha is over 0.70 for all the factors except for two, which are near this value. The scales thus show sufficient internal reliability. Compliance with key assumptions (linearity between the dependent and independent variables, constant error variance, and normality of the error distribution) was confirmed through the appropriate tests.

[Table 5 here]

Table 5 shows that the respondents do not consider that they have wide knowledge about the auditing profession. The mean score for this variable is close to the mid-point of the Likert scale (4).

The descriptive results reveal that participants' main source of information on the auditing profession is their academic training (mean of 5,083) and, to a much lesser extent, from their relatives and friends or the media. Moreover, the midpoint scale t-test shows that undergraduate students' satisfaction with accounting courses is relatively high (the mean is 4.719).

Regarding the dependent variables, the results in Table 5 reveal that students see the auditing career as offering opportunities for professional development (mean of 4,106 out of 5). However, the students also perceive the auditing career as difficult. The results also show that the students believe that auditors' work is rigorous and requires high responsibility (4,339) and interesting (3,785). Participants do not seem to consider auditors' work to be solitary, as the value is near the midpoint of the scale (3). The responses on auditors' image suggest that the students see auditors as competent (4,077) and ethical (3,534). Finally, the students do not have a negative image of auditors as being boring or easily influenced.

4.3. Correlation and Regression Analysis

4.3.1. Correlation Analysis and Independence Test Results

A correlation analysis was conducted to test the relationship among the dependent and independent variables. Table 6 presents the Pearson correlation coefficients for the variables.

[Table 6 here]

The correlation matrix shows the relationships between the eight dependent variables, regarding auditing career, work as well as auditors' image, and the independent variables (*Knowledge, Source: Family/Friends, Source: Media; Source: Academic Training; Satisfaction Accounting Subject*). The correlation coefficients show that the variable *Knowledge* is positively correlated with the variables *Professional Development, Difficult, Rigorous/ Responsibility demanding, Interesting, Competent*, and *Ethical* but negatively related with *Solitary* and *Negative Image*. These correlations are the same if we consider the relationships between the variables indicating academic training as the information source and the eight independent variables. Contrariwise, *Family and Friends* is positively correlated with *Solitary* but negatively correlated with *Professional Development, Difficult*, and *Rigorous/ Responsibility demanding.* Further, Media as the main source of information has a positive relationship with *Negative Image* and a negative relationship with *Professional Development, Difficult*, and *Rigorous/ Responsibility demanding*. *Satisfaction Accounting Subject* is positively correlated to *Professional Development, Difficult, Rigorous/ Responsibility demanding, Interesting* and *Ethical*.

4.3.2. Regression Analysis

This section tests the study's hypotheses via multiple regression analyzes. The dependent variables are the eight factors concerning perceptions of the auditing career (*Professional Development* and

Difficult in Table 7 Section A), auditors' work (*Rigorous/ Responsibility demanding, Solitary*, and *Interesting* in Table 7 Section B), and auditors' image (*Competent, Ethical*, and *Negative Image* in Table 7 Section C).

The regression models include the following independent variables: the level of knowledge about the auditing profession (*Knowledge*); the degree to which students' knowledge about auditing comes from family or friends, set to 1 if the student has a family member or a friend who is an auditor and 0 otherwise (source: *Family/Friends*); the degree to which students' knowledge about auditing comes from the media (source: *Media*); the degree to which students' knowledge about auditing comes from academic training (source: *Academic Training*); the degree of satisfaction with accounting courses (*Satisfaction Accounting*); and *Auditing Subject*, set to 1 if the student has completed an auditing course and 0 otherwise.

In the regression model employed to test the hypothesis, the study controlled for individual differences in age and gender. *Gender* takes 1 if the student is male, and 2 if the student is female. The results are shown in Table 7.

[Table 7 here]

All the regression models presented for each of the eight dependent variables are significant at the 0.05 or 0.01 level.

Regression results confirm Hypothesis 1. The results show that the degree of knowledge about the profession influences the perception of auditors' work and the auditors' image. In this regard, students with wide knowledge about auditing consider auditors' work more rigorous and responsibility demanding, less solitary and more interesting. Besides, they consider that auditors are more competent and ethical than students with low knowledge about the profession. The negative perception of the profession is also lower for students that report a wide knowledge about auditing.

The regression results also reveal that the source of the knowledge about the profession is significant to explain some features of auditors' stereotype.

Results reveal that students having family or friends as the main source of information consider auditors' work to be more solitary. Further, the results of the regression model show that having relatives or friends who work as auditors have a significantly negative relationship with *Negative Image* while having family and friends as the main sources of information has a significantly positive relationship with *Negative Image*. This opposite effect is contradictory and may be due to the strong relationship between both variables. The regression analysis was repeated without the variable measuring if the students have relatives or friends working as auditors; the positive effect of the variable reflecting relatives and friends as the main sources of information disappeared. Results also show that those students for whom the having family or friends is the main source of information consider auditors' work to be more solitary.

Regression results also support hypothesis 4 as they show that students for whom the Media is the main source of information about the profession consider the auditing career as less difficult and auditors' work as less rigorous and responsibility demanding. Moreover, these students have a more negative image of the profession.

The following independent variables in the regression models refer to academic training as student's source of knowledge. In line with hypothesis 5, results show that students whose main source of information on the auditing profession is academic training consider that the auditing career offers more opportunities for professional development, consider auditors' work as more rigorous and responsibility demanding as well as less solitary, and see auditors as more competent.

With respect to the last hypotheses, 6 and 7, the results show that students with a higher degree of satisfaction with the first accounting course consider auditors' work as more rigorous and responsibility demanding as well as more interesting, and believe that auditors are more ethical than students who have a lower degree of satisfaction with the first accounting course. Finally, students

that have taken the auditing subject consider the profession to be more interesting and see auditors as more ethical than students that have not taking the auditing course.

Regression results also revealed significant gender differences on the auditor stereotype. Female students consider that auditing career offers more opportunities for professional development and consider the profession to be more interesting. Further, findings show that women see auditors as more competent and that male students' image of auditors is worse.

The regression results were the same when the control variables were excluded from the models, except for the case of the regression model with *Negative Image* as the dependent variable. In this case, when gender and age were excluded, the relationship between having relatives and friends as the main source of information and *Negative Image* was not significant. This result is in line with the explanation above regarding the effect of this variable.

4.4. Additional Analyzes

Regression results show that the knowledge acquired through academic training positively influences the perception of the profession and the auditors. In this regard, students that took audit courses have higher knowledge about the profession and their main source of information is the academic training[1]. However, the positive perception about the profession could be the reason to major in the auditing course and not the consequence. This may be the case when the auditing course is optional. In this regard, we have conducted additional analyzes to discover the effect of the auditing course on the

[1] The correlation matrix (Table 6) shows that knowledge about the auditing profession is positively related to academic training being the main source of information. Further, independent samples t-test were employed to check for the differences between students that have taken the audit course and those who did not. Results revealed that students that took audit courses report statistically higher knowledge about the profession (t = 8,088; p = 0.000) and their main source of information is the academic training (t = 9,516; p = 0.000).

variables under study. To this end, we have conducted ANOVA tests to explore the differences between students who have taken the audit course optionally, on a compulsory basis or have not taken the course. Table 8 shows descriptive statistics for the three groups and ANOVA test results.

[Table 8 here]

Mean responses in Table 8 show that students that have taken the subject optionally have the best perception about audit profession and auditors. Further, those students that have taken the audit subject on a compulsory basis have a better perception than those who have not taken the subject. ANOVA and the post-hoc test results reveal that the differences between the groups are statistically significant. The better perception of those students that have chosen the audit subject might indicate that these students had a positive preconceived image of the audit profession that has led them to enroll in that subject. Nevertheless, the fact that those students that have the auditing subject compulsory in their degree have a better perception of the profession than those who did not take the subject reinforces the regression results that proximity to the profession through academic training and, consequently, a better knowledge of it, leads to a better image of the auditing profession.

In order to obtain a more precise analysis of the effect of taking the audit course on the image of the profession the regression analyzes were repeated excluding those students who have chosen the course optionally. To this end, the variable audit subject takes 1 if the student has completed a compulsory auditing course and 0 otherwise. Overall, the regression results (not tabulated) were the same except for minor changes in the case of the regression models regarding auditor's image as the dependent variables. For the dependent variable *Competent,* those students that had taken the compulsory audit subject considered auditors as being less competent and besides, having taken the compulsory audit subject was not statistically significant for the variable *Ethical*. This result might signal the positive image, prior to taking the subject, on the part of the students that choose the audit course optionally. Finally, contrary to previous results in table 7, having relatives or friends who work

as auditors and having relatives and friends as the main source of information were not significant to explain the *Negative Image*.

Finally, as supplementary analysis we have conducted the factor analysis for all items of the three scales (auditing career, auditors' work and auditors' image) simultaneously. The factor analysis results (not tabulated) reveal 6 factors with eigenvalues greater than 1, instead of the 8 factors obtained if we run the three scales separately. The items "The audit career offers the possibility of achieving a good long-term salary", "The audit career offers good professional training", "Auditing is a very precise activity that works the information in depth" and "Auditing involves a very structured work, following very defined processes" did not load above 0.5 in any factor and they presented cross-loadings greater than 0.4. These items were eliminated.

The resulting factors were the same in the case of the variables "Difficult", "Solitary", "Ethical" and "Negative view". The factor denoted "Interesting" included the four items presented in Table 3 plus the item "Auditing career offers great opportunities for professional development". The regression results were the same as in the previous analysis presented in Table 7 for the variable "Interesting".

The factor denoted "Competent" included the six items presented in Table 4 plus the items "Auditing is a prestigious profession" and "Auditing implies a great responsibility". The regression results were the same as in the previous analysis presented in Table 7 for the variable "Competent".

Despite these slight variations, the analysis running the scales simultaneously are consistent with the main results presented previously in the results section.

5. Discussion and Conclusions

Our study builds on previous literature about the accounting stereotype. Previous studies have focused mainly on the accounting profession as a whole without distinguishing among the different types of

professional settings. Further, very scarce prior research has delved into the stereotype differences due to the level of knowledge or proximity to the profession. Therefore, this paper explores undergraduate business students' perceptions of auditors and of their job. Further, it examines how the level of knowledge of the profession and the source of that knowledge impact those perceptions. The perception of the auditing profession of undergraduate business and accounting students is of key importance for the future of the auditing profession due to the fact that, at least in Spain and other European countries, this degree is the main way leading to the auditing profession.

Caglio et al. (2018) found that accounting related undergraduate students seem to not have a well-formed image of accountants, with little relationship to either boringness or professionalism. Our students found auditing as a quite interesting job, which involves a variety of tasks and contributes significantly to society. In addition, above all, they see auditing as rigorous work that requires high responsibility. This image resembles the traditional image of auditing as a precise and a diligent profession that is perceived reliable as well (Bougen, 1994).

The results of this study reveal that undergraduate business students consider the auditing career a difficult one, with many opportunities for professional development. The results also reveal that auditors are considered competent professionals and ethical individuals, and not boring or easily influenced. This better image on the part of Spanish undergraduate students might be due to the fact that only auditors, and no other accounting professionals, were considered in the present study. The work conducted by Friedman and Lyne (2001) found that accountants working in business had a more negative image than auditors. Our study supports prior studies that have also analyzed the ethical stereotype of accountants (Caglio and Cameran, 2017) that conclude that accountants are not viewed as unethical. Furthermore, this study does not support some of the previous concerns about the future of auditing with respect to the kind of prospects that it could attract, as our results reveal that Gen Z continues to consider auditing as a responsible, rigorous and ethical profession.

With respect to the influence of the source of knowledge on the stereotype, our results support Caglio *et al.* (2018) as proximity leads to a more positive view of auditors. Similarly, our results reveal that students with wide knowledge of the auditing profession have a more positive image of auditing work and of auditors. The main source of information on auditing for most of the undergraduate students is their academic training, and the results show that the knowledge acquired through their business studies influences the creation of a positive image of the profession and of auditors. This finding confirms the value of offering an attractive image of the profession, which supports the efforts made by national professional accountant organizations and universities to deepen the connection between practice and academia and to increase the likelihood that students consider accounting as a professional option early in their career decision-making process (AICPA, 2019, Bishop-Monroe *et al.*, 2019). Moreover, satisfaction with the first accounting course and taking an auditing course lead to a better image of auditors and of their work. Findings reveal that although taking the audit courses, whether voluntarily or on a compulsory basis, improves auditors' image, the students that have taken the subject optionally have the best perception about the audit profession and auditors.

These results have practical implications. The profession could take advantage of the fact that having more information about the profession improves students' perceptions of it. The profession could benefit from offering an auditing course in those universities where the audit subject is not offered along the degree. Second, the auditing profession is succeeding in developing different activities such as "Auditor for one day" as a strategy for widening the knowledge and contact with the profession on the part of undergraduate business students (Navallas *et al*., 2017). Further, the better perception of the students that have chosen the audit subject voluntarily highlights the need to conduct these activities at the beginning of the degree, rather than at the end, to increase business students' willingness to take auditing courses as well as to major in accounting and auditing.

Moreover, in line with the literature (Caglio *et al*. 2018; Friedman and Lyne, 2001), this study finds that the image of the auditing profession portrayed in the media (e.g., the press, movies, social

networks) is predominantly negative. This negative image seems to remain despite the fact that new generations rely less on movies and press and more on social networks. Exposure to media leads undergraduate students to have a worse image of auditors and to consider them boring or easily influenced. This is a relevant and worrying result that the profession and audit firms should take into account when seeking to attract Gen Z, who are digital-natives that are more reliant on social media than any previous generation.

Although auditing firms have made considerable efforts to enhance the profession's stereotype, results suggest that accounting firms could improve the knowledge and the visibility of the profession by creating an engaging social media presence. Social media heavily influences students' job search. Therefore, to attract the attention of potential new recruits, the auditing profession should create a successful multiplatform online presence.

Finally, our results also support previous literature (Caglio *et al*., 2018) related to a more positive stereotype on the part of females. This result is significant for the three features of the profession studied: work, career and auditors' image. This better perception of auditor stereotype on the part of female students may explain the considerable increase of women entering the profession in last years, (AICPA, 2019; ICAC, 2018; ICJCE, 2017). This result may suggest that the change in auditing firms' recruitment attraction policies towards a more inclusive and diverse profession are reaching female perspectives. This result is of utmost relevance for the audit profession as previous literature (Aguilar Agreda *et al.*, 2019; Cameran *et al*., 2018; Hardiest *et al*., 2016; Ittonen *et al*., 2013; Sweeney *et al.*, 2010) points to the advantages of gender diversity for audit firms, among which studies highlight the higher quality of the service provided, greater customer retention capacity and generation of greater confidence in teams.

Therefore, future studies could investigate which are audit firms' human resource strategies to attracting and retaining women in the organizations as well as to investigate the barriers that prevent women career advancement in the audit profession.

This study is subject to several limitations. The questionnaire methodology employed in the study implies that data for both the predictor and dependent variables have been gathered from the same source. This condition is believed to cause potential problems of common method bias that can influence the research results. Several procedural remedies were applied to reduce the effects of methods bias, such as separating the measurements of the variables, employing different scale anchors, and including reverse-scored items in the questionnaire. Further, it is important to note that, although the questionnaire was developed based on instruments used in prior studies, several questions were developed by the authors to gather data on audit-specific issues.

Another limitation is the use of undergraduate students as the sample. They are not the only group representing future auditing professionals, and the results obtained have to be interpreted in light of this limitation.

Another limitation relates to the context of this study. Spanish business students' perceptions of auditors may differ from these of students in other cultural contexts. International comparisons that highlight the differences in the audit profession, the influence of cultural values, and the social and legal characteristics of different countries would represent an important contribution to this stream of research.

Students' stereotypes of the audit profession and of auditors could influence their intention to pursue an auditing career. Therefore, future studies on how students' perceptions affect their intention to become an auditor would be of interest to the literature and to the profession.

Finally, future studies could analyze the expectations or elements that students value when choosing a job and investigate to what extent these expectations match with the image they have developed about the auditing profession.

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Undergraduate business students' perception of auditing: Impact of proximity and knowledge on auditors' stereotype

Table 1

Characteristics of participants

Age (mean)		23
Gender	%	N
Female	59%	212
Male	41%	148
Academic degree	%	N
Business Administration	68%	243
Finance and Accounting	22%	80
Double Degree in Business Administration and Law	6%	23
Other	4%	14
Academic year	%	N
3rd Academic year	53%	190
4th Academic year	47%	170
Auditing subject	%	N
No	47%	170
Yes	53%	190
Compulsory subject	66%	125
Optional subject	34%	65
Family members or friends who are auditors	%	N
Yes	21%	74
No	79%	286
Total sample		**360**

Table 2

Descriptive statistics and summary of factor loading for *Auditing Career*

		Factor loadings	
		1	2
	Mean (SD)	Professional Development	Difficult
Auditing career offers great opportunities for professional development	3.901 (0.898)	**0.755**	0.023
The auditing career offers the possibility of achieving a good long-term salary	4.207 (0.839)	**0.699**	0.368
The auditing career offers good professional training	4.238 (0.804)	**0.789**	0.271
Auditing is a prestigious profession	3.939 (0.933)	**0.775**	0.157
Auditing is a very stressful job	3.833 (1.072)	0.016	**0.837**
The auditing career is difficult to achieve	3.850 (0.945)	0.392	**0.575**
In the auditing career, many hours are worked	4.218 (0.867)	0.238	**0.778**
Percentage of variance explained		*36%*	*27%*
Cronbach's alpha		*0.79*	*0.63*

Bold font in the table indicates the factors to which the items have loaded more strongly

Table 3

Descriptive statistics and summary of factor loading for *Auditors' Work*

		Factor loadings		
		1	2	3
	Mean (SD)	Rigorous/ Responsibility demanding	Solitary	Interesting
Auditing is a very precise activity that works the information in depth	4.197 (0.794)	**0.807**	-0.013	0.251
Auditing involves very structured work, following very defined processes	4.156 (0.856)	**0.804**	0.112	0.156
Auditing implies great responsibility	4.415 (0.782)	**0.831**	-0.091	0.194
Auditors are number-crunchers; they seldom work with people	2.949 (1.172)	-0.030	**0.845**	0.001
Auditing involves a lot of fixed rules; it doesn't involve conceptual skills or judgment	3.102 (1.227)	-0.007	**0.818**	0.110
Auditors work alone more than they work with people	3.020 (1.114)	0.058	**0.836**	-0.163
Auditing involves a variety of tasks	3.813 (0.921)	0.067	-0.026	**0.769**
Auditing contributes significantly to society	3.827 (0.928)	0.390	0.095	**0.637**
Auditing requires working as a team	3.861 (1.011)	0.287	-0.172	**0.649**
Auditing is interesting	3.707 (1.100)	0.135	0.049	**0.736**
Percentage of variance explained		*22%*	*21%*	*21%*
Cronbach's alpha		*0.78*	*0.79*	*0.70*

Bold font in the table indicates the factors to which the items have loaded more strongly

Table 4

Descriptive statistics and summary of factor loadings for *Auditors' Image*

		Factor loadings		
		1	2	3
	Mean (SD)	Competent	Ethical	Negative view
Auditors are hard workers	4.177 (0.781)	**0.701**	0.256	-0.127
Auditors are capable/competent in their work	4.041 (0.821)	**0.631**	0.399	-0.145
Auditors have prestige	3.973 (0.889)	**0.713**	0.148	0.041
Auditors have leadership ability	3.782 (0.859)	**0.651**	0.199	0.179
Auditors are experts	4.102 (0.856)	**0.750**	0.176	-0.137
Auditors are intelligent	4.105 (0.813)	**0.733**	0.134	-0.023
Auditors are trustworthy	3.741 (0.883)	0.295	**0.744**	-0.019
Auditors are honest	3.653 (0.902)	0.280	**0.749**	-0.013
Auditors are incorruptible	2.745 (1.177)	0.001	**0.730**	0.157
Auditors behave ethically	3.619 (0.969)	0.272	**0.778**	-0.083
Auditors comply with the law	3.884 (0.916)	0.250	**0.707**	-0.137
Auditors are easily influenced	2.881 (1.201)	0.068	-0.096	**0.756**
Auditors do not have social skills	2.626 (1.227)	-0.092	0.161	**0.780**
Auditors are boring people	2.857 (1.177)	-0.047	-0.090	**0.733**
Auditors are aware of their duty	4.048 (0.851)	0.474	0.555	-0.102
Auditors are enthusiastic	3.512 (1.001)	0.434	0.423	0.082
Percentage of variance explained		*23%*	*23%*	*12%*
Cronbach's alpha		*0.82*	*0.82*	*0.66*

Bold font in the table indicates the factors to which the items have loaded more strongly

Table 5

Descriptive statistics and midpoint scale t-test results

	Mean	SD	Min	Max	t-test	Sign.
Independent variables						
Knowledge	4.136	1.461	1	7	1.768	0.078
Source: Family/Friends	2.539	1.721	1	7	-16.107	0.000
Source: Media	2.536	1.468	1	7	-18.922	0.000
Source: Academic Training	5.083	1.822	1	7	11.283	0.000
Satisfaction Accounting Subject	4.719	1.596	1	7	8.552	0.000
Dependent variables						
Professional Development	4.106	0.682	1	5	34.196	0.000
Difficult	4.006	0.716	1	5	30.727	0.000
Rigorous/ Responsibility demanding	4.339	0.656	1	5	47.562	0.000
Solitary	3.068	1.022	1	5	1.426	0.155
Interesting	3.785	0.742	1	5	22.886	0.000
Competent	4.077	0.602	1	5	38.14	0.000
Ethical	3.534	0.768	1	5	14.521	0.000
Negative Image	2.805	0.938	1	5	-4.231	0.000

Table 6
Pearson correlation coefficients and significance levels of dependent and independent variables

	Professional Development	Difficult	Rigorous/ Responsibility demanding	Solitary	Interesting	Competent	Ethical	Negative Image	Knowledge	Source: Family/Friends	Source: Media	Source: Academic Training	Satisfaction Accounting Subject
Professional Development	1	0.498***	0.519**	0.070	0.542***	0.643***	0.251***	-0.118**	0.190***	-0.110**	-0.111**	0.298***	0.138***
		0.000	0.000	0.169	0.000	0.000	0.000	0.032	0.000	0.018	0.017	0.000	0.003
Difficult		1	0.375***	0.137***	0.250***	0.406***	0.045	0.057	0.093**	-0.116**	-0.123***	0.129***	0.091**
			0.000	0.006	0.000	0.000	0.410	0.289	0.037	0.010	0.006	0.004	0.043
Rigorous/ Responsibility demanding			1	0.000	0.000	0.529***	0.151***	-0.195***	0.210***	-0.174***	-0.202***	0.337***	0.121**
				1.000	1.000	0.000	0.007	0.000	0.000	0.000	0.000	0.000	0.013
Solitary				1	0.000	0.080	0.078	0.485***	-0.230***	0.170***	0.057	-0.265***	-0.095*
					1.000	0.150	0.160	0.000	0.000	0.000	0.239	0.000	0.053
Interesting					1	0.295***	0.374***	-0.099*	0.312***	-0.033	0.017	0.224***	0.221***
						0.000	0.000	0.076	0.000	0.500	0.723	0.000	0.000
Competent						1	0.000	0.000	0.194***	-0.099*	-0.067	0.282***	0.070
							1.000	1.000	0.000	0.056	0.196	0.000	0.180
Ethical							1	0.000	0.205***	0.019	-0.004	0.121**	0.188***
								1.000	0.000	0.716	0.937	0.019	0.000
Negative Image								1	-0.226***	0.101*	0.202***	-0.171***	-0.084
									0.000	0.051	0.000	0.001	0.105
Knowledge									1	0.057	0.092**	0.581***	0.273***
										0.141	0.018	0.000	0.000
Source: Family/Friends										1	0.302***	-0.323***	0.006
											0.000	0.000	0.888
Source: Media											1	-0.075*	0.047
												0.055	0.232
Source: Academic Training												1	0.225***
													0.000
Satisfaction Accounting Subject													1

Notes: *, **, and *** indicate significance at the 0.1, 0.05, and 0.01 levels respectively.

Table 7

Regression results for the models, with dependent variables the eight factors extracted in the principal component factor analysis

Section A. Dependent variables related to **Auditing Career**: Professional Development and Difficult

	Professional Development			Difficult		
Independent variables	*Coefficient*	*SE*	*Sig. t*	*Coefficient*	*SE*	*Sig. t*
Constant	-1.303	0.349	0.000	-0.323	0.354	0.362
Knowledge	0.045	0.039	0.253	0.043	0.040	0.287
Family/Friends auditors	0.136	0.125	0.278	-0.064	0.128	0.616
Source: Family/Friends	-0.008	0.033	0.819	-0.037	0.033	0.267
Source: Media	-0.047	0.032	0.135	-0.065	0.033	0.048**
Source: Academic Training	0.131	0.034	0.000***	0.019	0.035	0.593
Satisfaction Accounting Subject	0.045	0.029	0.120	0.043	0.029	0.147
Auditing Subject	0.001	0.102	0.988	0.061	0.103	0.552
Gender	0.374	0.090	0.000***	0.100	0.093	0.282
Age	-0.010	0.010	0.310	-0.003	0.010	0.750
Model Summary	*Adjust* R^2 = 0.123; *F*= 7.960; *Sig.* = 0.000			*Adjust* R^2 = 0.025; *F*= 2.363; *Sig.* = 0.013		

Section B. Dependent variables related to **Auditors' Work**: Rigorous/ Responsibility demanding, Solitary and Interesting

	Rigorous/ Responsibility demanding			Solitary			Interesting		
Independent variables	*Coefficient*	*SE*	*Sig. t*	*Coefficient*	*SE*	*Sig. t*	*Coefficient*	*SE*	*Sig. t*
Constant	-1.228	0.325	0.000	0.759	0.355	0.033	-1.972	0.326	0.000

Knowledge	0.085	0.035	0.016**	-0.088	0.040	0.028**	0.151	0.037	0.000***
Family/Friends auditors	0.065	0.114	0.567	-0.200	0.124	0.110	0.099	0.113	0.382
Source: Family/Friends	-0.034	0.030	0.246	0.074	0.033	0.026**	-0.032	0.030	0.287
Source: Media	-0.093	0.029	0.001***	0.022	0.032	0.498	0.010	0.030	0.733
Source: Academic Training	0.088	0.030	0.004***	-0.067	0.034	0.050**	0.037	0.032	0.252
Satisfaction Accounting Subject	0.067	0.026	0.010**	-0.003	0.029	0.926	0.075	0.026	0.005***
Auditing Subject	-0.034	0.092	0.708	-0.089	0.104	0.393	0.380	0.095	0.000***
Gender	0.144	0.082	0.080*	0.043	0.092	0.638	0.261	0.085	0.002***
Age	0.010	0.010	0.317	-0.013	0.009	0.180	0.011	0.009	0.218
Model Summary	*Adjust* R^2 = 0.115; *F*= 8.854; *Sig.* = 0.000			*Adjust* R^2 = 0.080; *F*= 5.378; *Sig.* = 0.000			*Adjust* R^2 = 0.189; *F*= 13.156; *Sig.* = 0.000		

Section C. Dependent variables related to **Auditors' Image**: Competent, Ethical and Negative Image

	Competent			Ethical			Negative Image		
Independent variables	*Coefficient*	*SE*	*Sig. t*	*Coefficient*	*SE*	*Sig. t*	*Coefficient*	*SE*	*Sig. t*
Constant	-1.880	0.350	0.000	-0.932	0.369	0.012	0.484	0.377	0.200
Knowledge	0.106	0.038	0.006***	0.102	0.041	0.013**	-0.122	0.041	0.003***
Family/Friends auditors	0.054	0.124	0.666	-0.037	0.126	0.768	-0.292	0.130	0.025**
Source: Family/Friends	-0.006	0.034	0.867	0.019	0.034	0.577	0.075	0.035	0.032**
Source: Media	-0.025	0.031	0.416	-0.027	0.033	0.411	0.097	0.033	0.003***

Source: Academic Training	0.120	0.034	0.000***	0.009	0.034	0.790	0.000	0.035	0.996
Satisfaction Accounting Subject	0.026	0.029	0.371	0.080	0.030	0.008***	-0.030	0.030	0.325
Auditing Subject	-0.117	0.100	0.243	0.267	0.106	0.012**	-0.016	0.106	0.880
Gender	0.370	0.091	0.000***	0.109	0.095	0.250	-0.334	0.095	0.001***
Age	0.012	0.010	0.254	-0.008	0.011	0.448	0.012	0.012	0.314
Model Summary	*Adjust* R^2 = 0.118; *F*= 7.754; *Sig.* = 0.000			*Adjust* R^2 = 0.074; *F*= 4.856; *Sig.* = 0.000			*Adjust* R^2 = 0.095; *F*= 5.815; *Sig.* = 0.000		

Notes: *, **, and *** indicate significance at the 0.1, 0.05, and 0.01 levels respectively.

Table 8

ANOVA test results for Auditing Subject

	Optional subject		Compulsory subject		Not enrolled		ANOVA test	
Variables	Mean	SD	Mean	SD	Mean	SD	*F* *(p value)*	Post-hoc test
Professional Development	4.296	0.550	4.118	0.650	3.962	0.737	6.208 (0.002***)	OP > NE
Difficult	4.218	0.561	3.952	0.779	3.898	0.780	4.435 (0.012**)	OP > CO, NE
Rigorous/Responsibility demanding	4.464	0.510	4.360	0.651	4.104	0.760	8.845 (0.000***)	OP, CO > NE
Solitary	3.073	1.140	2.784	1.075	3.255	0.868	8.394 (0.000***)	NE > OP,CO
Interesting	4.191	0.558	3.924	0.674	3.562	0.742	23.182 (0.000***)	OP > CO > NE
Competent	4.288	0.523	4.055	0.643	3.981	0.613	3.495 (0.031**)	OP > NE
Ethical	3.793	0.667	3.619	0.733	3.405	0.783	6.593 (0.002***)	OP > NE
Negative Image	2.672	0.968	2.713	1.034	2.973	0.906	3.285 (0.039**)	ns

*** significant at the 0.01 level; ** significant at the 0.05 level; NS not significant

Letters in the last column indicate the groups that present statistically significant differences based on the Tukey b and Scheffe Post-hoc test results, being OP = Optional subject, CO = Compulsory subject and NE = Not Enrolled.