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ARTICLES

Personal factors, psychological work climate, and role related factors as precursors of organizational commitment of records management employees in state civil services of Northwest, Nigeria
Kutu Jacob O and S.O. Popoola

Audit risk and corporate governance: Italian auditors’ perception after the global financial crisis
Chiara Demartini and Sara Trucco
Personal factors, psychological work climate, and role related factors as precursors of organizational commitment of records management employees in state civil services of Northwest, Nigeria

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The purpose of the present study was to find out if personal factors, psychological work climate, and role related factors are the precursors of organizational commitment. The study data were collected from a sample of 651 records management employees in State Civil Services of North-west, Nigeria, using a self-designed biographical and occupational questionnaire; a psychological work climate questionnaire adopted from Brown and Leigh; a role-related factors questionnaire adopted from Rizzo et al.; and an organizational commitment (OC) questionnaire adopted from Meyer and Allen. The present study found that age, educational qualification, job tenure psychological work climate, role conflict and role ambiguity have significant correlations with organizational commitment of records management employees in State Civil Services of North-west, Nigeria. It was further found that age, educational qualification, job tenure, psychological work climate, role conflict and role ambiguity have an additive effect on organizational commitment of records management employees in State Civil Services of North-west, Nigeria. Recommendations on how to improve organizational commitment of records management employees were also given.

Key words: Personal factors, psychological work climate, role-related factors, organizational commitment, civil service, record management personnel, Nigeria.

INTRODUCTION

Records management is the management of the information life cycle which consists of production, dissemination and use, storage and provision for current access, decisions on the retention or destruction, and archiving of documents (Robek et al., 1996). Scholars further stated that the main goals of records management are: (1) to furnish accurate, timely, and complete information in order to enable efficient decision making processes; (2) to process recorded information as efficiently as possible; (3) to provide information and documents at the lowest cost; (4) to render the maximum utility to the users of documents; and (5) to dispose of records which are no longer needed. Records management employees are recruited into the state civil services.
in Nigeria to achieve these main goals. The state governments and civil service administrators expect records management employees to be totally committed to the ideals of civil service. The main ideals of civil service are to allocate resources (that is, employees, money, machines, materials and information) efficiently and effectively to formulate public policy to render high quality administrative services to the populace; to advise the state government on their programmes and projects for alleviating poverty among the people, and to develop its employee base to meet the international standard. When records management employees are able to render effective information services for the state civil services in Nigeria to achieve its ideals, it is then that they are regarded as organizationally committed. A thorough understanding of organizational commitment of records management employees by the state government and civil service administrators will enable them to reduce lateness to work, work absenteeism, turnover intentions and actual turnover, job dissatisfaction and low productivity among records management employees. It has been well documented in the literature that organizational commitment is a potential predictor of employee turnover, job satisfaction, work absenteeism, and job performance (Mowday et al., 1982; Becker et al., 1996; Meyer et al., 1989; Popoola, 2006; Tella et al., 2007; Somers and Birnbaum, 1998). However, it has been found that it records management employees’ work in a psychologically safe and meaningful environment with great job challenge and high demanding roles in State civil services in Nigeria. It has been also generally found that workers in public service of which records management employees are a subset, have low organizational commitment than their counterparts in private sectors organizations in Nigeria (References). Scholars argue that biographical factors of gender, age, marital status, education, religion, job tenure and job status may be also used to understand the employees’ organizational commitment (References). The present study therefore, seeks to determine if personal factors, psychological work climate, and role related factors as precursors of the organizational commitment of records management employees in State Civil Services of North-west, Nigeria.

Objectives of study

The main purpose of the present study is to find out if personal factors, psychological work climate, and role related factors are precursors of the organizational commitment of records management employees in State Civil Services of North-west, Nigeria.

Significance of the study

The study is devoted to personal factors, psychological work climate, and role related factors as precursors of organizational commitment of records management employees in State Civil Services of Northwest, Nigeria. Therefore, this study is very timely. It is anticipated that the result of this study will contribute to a large body of literature on records management personnel in state civil services in Nigeria. It will also help to establish a foundation for the study of organizational commitment in records management; and assist health policy makers in identifying the factors and strategies for enhancing the organizational commitment of records management’s personnel in state civil services.

Organizational commitment

Organizational commitment is viewed as an attitude about employee’s loyalty and desire to remain a member of a particular organization; and a group process through which employees express their concern for the organization and its continued success and well-being (Azubuine, 1994). Herscovith and Meyer (2002) also defined organizational commitment as the degree to which an employee identifies with the goals and values of the organization and is willing to exert effort to help it to succeed. Other scholars argued that it is important to recognize that the development of commitment may involve the subtle interplay of attitude and behaviours over a period of time (Muthuveloo and CheRose, 2005). The process through which commitment is developed may involve self-reinforcing cycles of attitude and behaviours that evolve on the job, and over time, strengthen employee commitment to the organization. Meyer and Allen (1991) proposed three factors of organizational commitment that can be exhibited by any group of workers across organizational domains or settings. These include affective commitment which is explained as an emotional attachment to the organization; continuance commitment which is explained by the perceived costs associated with leaving the organization, and normative commitment which refers to the perceived obligation to remain in the organization (Meyer et al., 2001). Previous researchers indicate that the three facets are necessary to adequately explain organizational commitment of workers in the world of work (Ferris and Aranya, 1983; Matthew and Zajac, 1990; Randall, 1990; Day, 1987; Blau, 1986; Dienhart and Gregoire, 1993; Cohen, 2003; Randall et al., 1994; Matthew and Farr, 1991).

Personal factors and organizational commitment

Scholars argue that there is a relationship between gender and organizational commitment across workplaces (Opayemi, 2004; Angle and Perry, 1981; Lok and Crawford, 2001; Hrebiniai and Alutto, 1972). Nevertheless, some scholars argue that there is no
significant correlation between gender and organizational commitment across organizational settings (Ellemers et al., 1998; Ahmad and Abubakar, 2003). Other previous scholars revealed that age has a significant positive relationship with organizational commitment of workers (Anyee and Debrah, 1992; Hrebinjak, 1974; Lee, 1971). Age has been associated with different forms of commitment, possibly for different reasons (Irving et al., 1997). Meyer and Allen (1984) also argued that age might be correlated with affective commitment because it serves as a proxy for investments one makes in one’s organization or occupation. Meyer et al. (1993) found that age was related to affective commitment and normative commitment among nurses in United Kingdom, but it was not related to continuance commitment for this group. Some researchers argued that the positive relationship between age and organizational commitment of workers is caused by the association between age and job tenure (Buchanan, 1974; Farrell and Rusbult, 1981; Morris and Sherman, 1981).

Several past studies have shown that the education of the workers has inverse relationship with their organizational commitment (Angle and Perry, 1981; Morris and Shearman, 1981; Mathieu and Zajac, 1990; Huseled and Day, 1991; Opayemi, 2004; Ahmad and Abubakar, 2003). Similarly, Aryee and Debroh (1992) reiterated that high educational status has a negative effect on organizational commitment of workers. They argued that workers with high educational qualification are less likely to be committed to their employing organization due to job prospects that are available to them. Johns (2005) established that education was negatively related to organizational commitment among workers in America. Nonetheless, most researchers reported that education of the workers has no significant correlation with their organizational commitment (Ajila and Okeowo, 2004; Ellemers et al., 1998). The role of job tenure cannot be downplayed in explaining the organizational commitment of workers in both public and private sector organizations. Past studies showed that job tenure plays a significant role in the development of affective commitment among workers across workplaces (Irving and Meyer, 1994; Keller, 1997; Meyer and Allen, 1991). Age and job tenure had been found to have significant correlations with organizational commitment of workers (Ellemers et al., 1998; Trimble, 2006; Shoemaker et al., 1977). In the same way, Popoola (2006) found out that there is a significant positive relationship between length of service and organizational commitment of records management employees in State Universities in Nigeria. Also, Popoola (2007) reported that there is a significant difference in organizational commitment of records officers in Federal Universities in Nigeria based on their levels of job tenure. Harrison and Hubbard (1998) also found that there was a significant positive correlation between job tenure and organizational commitment among Mexican employees.

Marital status is one of the critical antecedents of organizational commitment of employees in the world of work. Scholars argued that there is a significant relationship between marital status and organizational commitment of workers in both white and blue collar jobs (Alutto et al., 1973; Shore and Wayne, 1993; Akintayo and Abu, 2005). Similarly, Meyer and Allen (1984) stated that married workers exhibited more organizational commitment than single workers. Cohen (1992) also reiterated that there was stronger relationship between marital status and organizational commitment of workers in low status occupations than those in higher status occupation in both private and public sector organizations. Popoola (2006) also found out that there is a significant difference in organizational commitment of records management employees in Nigerian state universities based on their marital status. And that, single records management employees were more committed to their organization than their married counterparts. From the foregoing arguments, it can therefore be argued that personal factors such as gender, age, education, marital status, job tenure are critical antecedents of organizational commitment of workers in the world of work. These arguments lead to the following hypothesis:

\[ H_1: \text{Personal factors are a significant precursor of organizational commitment of the records management employees} \]

**Psychological work climate and organizational commitment**

Psychological work climate is a critical factor that is being given to be considered in the present study. Kahn (1990) defined it as the extent to which employees perceive the organization to be a psychologically safe and meaningful work environment. When employees perceive the organizational environment positively, that is, as consistent with their own values and self-interests; they are likely to identify their personal goals with those of the organization and to invest greater effort into pursuing them. Studying the dimensions of psychological climate may reveal vital aspects of the relationship between the workers and the organization that are related to greater commitment, effort and work performance. Psychological work climate therefore, refers to how an organizational environment is perceived and interpreted by the employees (James et al., 1978; James and James, 1989; James et al., 1990).

These scholars suggested that perceptions of the organizational environment produce personal meaning and motivational or emotional significance for workers through a process of evaluation, in which a cognitive representation of the features of the environment is interpreted in light of the individual’s values and in terms of its significance for the individual’s wellbeing. More so James and James (1989) proposed the dimensions of
psychological work climate as role stress and lack of harmony, job challenge and autonomy, leadership facilitation and support; and work group cooperation, friendliness, and warmth. As such, psychological work climate is multidimensional in nature. And the identified components represent the employee’s global interpretation of the degree to which the environment is personally beneficial or detrimental to one’s sense of being (Brown and Leigh, 1996). They have six dimensions of psychological work climate namely; the extent to which management is perceived to be flexible and supportive, role clarity, freedom of expression, the employee’s perceived contribution towards organizational goals, adequacy of recognition received from the organization, and job challenge. These factors are an indicator of how psychologically safe and meaningful the employee perceives the organizational environment to be.

Currently, the literature in the field of Library, Archival and Information Science is silent on the linkage between psychological work climate and organizational commitment of information employees in the world of work. Nevertheless, Popoola (2005) argued that gender and psychological work climate have main and interaction effects on job satisfaction and work performance of the registry employees in the Nigerian federal civil service. Turner (2004) argued that organizational communication and psychological climate as well as job stress may be related to organizational commitment of information managers in some government organizations in Canada. When records management employees in state civil service in Nigeria perceive the potential for satisfying their psychological needs, there may be a tendency for them to exhibit high organizational commitment level. Anecdotal evidence suggests that favorable employee perceptions of organizational environments lead to organizational commitment, and then improved job performance (Keller, 1997). The extent arguments therefore, lead to the following hypothesis:

\[ H_2: \text{Psychological work climate is a significant precursor of organizational commitment of the records management employees} \]

**Role related factors and organizational commitment**

Records management employees in both public and private sector organizations are given different roles. These roles include records capturing, records creation and control, management of active records, records centre management operations, records storage and retrieval, records classification, preservation and conservation of records, records scheduling, staff training and development, budgeting for records management among others. These roles may be compatible as long as they are to be enacted at different times. The two roles related factors that are critical in the present study are role ambiguity and role conflict.

Role ambiguity has been defined by Kahn et al. (1964), as the single or multiple roles that confront the role incumbent, which may not be clearly articulated in terms of behaviours (i.e., the role activities or tasks or priorities) or performance levels (i.e., the criteria that the role incumbent will be judged by). Naylor et al. (1980) stated that the role ambiguity exists when role incumbents are uncertain about the product-to-evaluation contingencies and are aware of their own uncertainty about them. Breauh and Colihan (1994) also stated that role ambiguity is a job ambiguity and an indication that job ambiguity possesses three distinct aspects: work methods, scheduling and performance criteria. And role conflict on the other side is defined as the experience of employee in attempting to satisfy competing and incompatible role demands concurrently in an organization. However, Rizzo et al. (1970) defined role conflict as a situation of incompatible expectations, conflicting requests from others and incompatible standards of evaluation. They also argued that role ambiguity is the clarity of behavioural requirements and the existence of policies and specifications of duties to guide behaviour at work. Role conflict and role ambiguity have been found to be having a significant correlation with organizational commitment of workers across occupational settings (Allens and Meyer, 1990; Lopopolo, 2002; Becker and Kerman, 2003). From the review of available literature, it is noted that most previous research has tried to explain organizational commitment of records management employees and other category of information workers in public and private sector organizations from the standpoint of psychological work climate and personal factors, but information related to role related variables (i.e., role ambiguity and role conflict) like the present study is very limited.

Popoola (2007) also reported that there is a significant difference in organizational commitment of records officers in the federal universities in Nigeria based on their marital status.

\[ H_3: \text{There is no significant difference in organizational commitment of the records management employees by their workplaces} \]

**METHODOLOGY**

**Sample and procedure**

A quantitative descriptive research design of survey type was adopted for the present study. The study population comprised of (N=931) records management employees in State Civil Services of Northwest, Nigeria. The stratified random sampling technique with probability proportionate to size method was used to select a total sample size of (n=651) from the population of management employees. This was achieved by multiplying a chosen sampling
fraction of 70 percent across the population size of records management employees in each of the seven state civil services in North-west, Nigeria. The choice of 70 percent sampling fraction was to ensure that the samples were true representatives of the population. The psychological work climate, organizational commitment, personal and role-related factors questionnaire named (POCPARRF) was the main research instrument used for data gathering. The questionnaire was structured into four main parts. Part ‘A’ deals with personal factors of the respondents like name, gender, age, marital status, educational qualifications, and job tenure. Part ‘B’ deals with psychological work climate of the respondents; and Part ‘C’ deals with Role-related factors of role ambiguity and role conflict of the respondents. The copies of the questionnaire were administered on 651 records management employees with the help of seven hired and trained research assistants, out of which 600 responded positively and their copies were found valid for analysis. The response rate achieved was 92 percent as shown in Table 1. The data collection lasted for twelve weeks (February-April, 2009). The descriptive statistics, correlation and multiple regression analysis methods were employed in analyzing data collected from the field with the aid of statistical package for social sciences (SPSS).

Research instruments

**Personal factors:** a self-designed biographical and occupational questionnaire was employed to gather data on gender, age, marital status, educational qualifications, and job tenure.

**Psychological work climate:** is a 21-item psychological work climate scale developed by Brown and Leigh (1996) was used. The sample items in this scale include: “it takes all my resources to achieve my work objectives”, “my boss is flexible about how I accomplish my job objectives”. It has a reliability level of Cronbach’s alpha for the subscale of 0.79.

**Role ambiguity:** it was measured using the scales developed by Rizzo et al. (1970). It is a 6-items scale. The sample items include: “clear, planned goals and objectives exist for my job”, “I feel certain about how much authority I have”. All the items were reverse-scored. It has a reliability level of Cronbach’s alpha for the subscale of 0.66.

**Role conflict:** it was measured using the scales developed by Rizzo et al. (1970). It is an 8-items scale. The sample items include: “I have to do things that should be done differently”, “I work on unnecessary things”. It has a reliability level of Cronbach’s alpha for the subscale of 0.72.

**Organizational commitment (OC) scale** developed by Meyer and Allen (1997). The sample items include: “I enjoy discussing my organization with people outside”, “I would not feel it was right to leave my organization”, “I owe a great deal to this organization”. The OC scale addressed Affective Commitment with 8 items, Normative Commitment with 6 items and Continuance Commitment with 8 items. It has a reliability level of Cronbach’s alpha for the subscale of 0.78.

### RESULTS

**Demographic profile the respondents**

Out of the 600 respondents, the distribution of the respondents by gender revealed that 245(40.8%) were males, and 355(59.2%) were females. The distribution of the respondents by marital status revealed that 349(58%) were married and 252(42%) were single. The age distribution of the respondents varied between 19 and 50 years with mean (x= 19.85; SD= 6.54) years. Also, the highest educational qualification of the respondents showed that 230(38.3%) possessed senior secondary school certificate, 185(30.8%) possessed Ordinary National Diploma Certificate, 144(24%) possessed Higher National Diploma Certificate, and 41(6.8%) possessed Bachelor Degree Certificate. Of the 600 respondents, 306(51%) worked in the open record offices and 294(49%) worked in the confidential record offices of their various ministries or establishments in the state civil services of North-west geopolitical zone of Nigeria. The distribution of their job tenure ranged between 5 and 33 years with mean (x= 19.85; SD= 6.54) years.

**Correlation results**

To measure the correlations among personal factors (gender, marital status, age, educational qualification and job tenure), psychological work climate, and role-related factors (role ambiguity and role conflict) and organizational commitment of the respondents, a Pearson Product Moment Correlation Method was used. The results are presented in Table 2.

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<th>Sample</th>
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<th>Response rate</th>
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<td>115</td>
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<td>82</td>
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<td>Jigawa State</td>
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<td>92</td>
<td>88</td>
<td>95.7</td>
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<tr>
<td>Sokoto State</td>
<td>Sokoto</td>
<td>180</td>
<td>126</td>
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<td>Zamfara State</td>
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<tr>
<td>Kaduna State</td>
<td>Kaduna</td>
<td>105</td>
<td>74</td>
<td>74</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>931</td>
<td>652</td>
<td>600</td>
<td>92</td>
</tr>
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</table>

Table 1. A questionnaire administration and retrieval.
For hypothesis one, the present study found that some personal factors are a significant precursor of organizational commitment of the records management employees, and that some are not significant precursor of organizational commitment of the records management employees.

As such, the study found that age is a significant predictor of organizational commitment of respondents (r=0.5221; p=0.0416), and that education is also a significant predictor of organizational commitment of respondents (r=-0.5448; p=0.0321).

Moreover, the present study found that job tenure is also a significant predictor of organizational commitment of respondents (r=0.6222; p=0.0228). These findings therefore, show that hypothesis one was accepted at level 0.05. However, the study also found that gender is not a significant predictor of organizational commitment of respondents (r=0.1213; p=0.0622), and that marital status is also not a significant predictor of organizational commitment of respondents (r= 0.1806; p=0.0589). These findings therefore, also imply that hypothesis one was rejected at level 0.05.

For hypothesis two, the present study found that psychological work climate is a significant predictor of organizational commitment of the records management employees (r=0.6648, p=0.0168). This finding therefore, implies that hypothesis two is accepted at level 0.05. Furthermore, for hypothesis three, the present study found that role-related factors are a significant predictor of organizational commitment of the records management employees. As such, the study found that a lack of role conflict is a significant predictor of organizational commitment of respondents (r=-0.6248; p= 0.0238), and that a lack of role ambiguity is a significant predictor of organizational commitment of respondents (r= -0.6054; p= 0.0144). These results therefore, mean that hypothesis three was accepted at level 0.05.

Regression results

To measure the extent at which psychological work climate, personal and role-related factors are additively significant precursors of organizational commitment of the records management employees, a multiple regression analysis method was employed. It measures the additive effect of these factors on organizational commitment. The results are presented in Tables 3 and 4. The results showed that the multiple correlation value is 0.8017, with the R-squared value being (R²=0.6428). This therefore, shows that 64.28 percent of the variance on organisational commitment can be attributed to the independent variables of psychological work climate, personal and role-related factors entered into the regression equation. The F-statistics of 31.36 is significant at the 0.0326 level showing that this is a significant relationship. They also shows a Beta weights of (β =0.4428; p<0.0029; β=0.2164; p<0.0389; β=-0.3226; p<0.0078; β=0.2444; p<0.0064; β=-0.3416; p<0.0266; β=-0.3811; p<0.0124) for the relationship between psychological work climate, age, education level, job tenure, role conflict and role ambiguity and organisational commitment respectively. These mean that psychological work climate, age, education level, job tenure, role conflict and role ambiguity account for 44.28, 21.64, 32.26, 24.44, 34.16, and 38.11 percent of the variance on organisational commitment respectively. These results, moreover, show that R-squared is (R²=0.6428). This means that the six independent variables of psychological work climate, age, education level, job tenure, role conflict and role ambiguity together account for 64.28 percent of the variance on organisational commitment. This finding is in support of hypothesis four that, 0. 6428 is higher than the Beta weights for psychological work climate, age, education level, job tenure, role conflict and role ambiguity (β

Table 2. Correlations among psychological work climate, personal factors, role-related factors and organizational commitment.

<table>
<thead>
<tr>
<th>Variables</th>
<th>X</th>
<th>SD</th>
<th>OC (r)</th>
<th>Sig. P</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Personal factors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>1.36</td>
<td>0.08</td>
<td>0.1213</td>
<td>0.0622</td>
</tr>
<tr>
<td>Marital Status</td>
<td>1.84</td>
<td>0.16</td>
<td>0.1806</td>
<td>0.0589</td>
</tr>
<tr>
<td>Age</td>
<td>21.08</td>
<td>7.60</td>
<td>0.5221</td>
<td>0.0416*</td>
</tr>
<tr>
<td>Educational qualification</td>
<td>2.44</td>
<td>0.42</td>
<td>-0.5448</td>
<td>0.0321*</td>
</tr>
<tr>
<td>Job tenure</td>
<td>19.85</td>
<td>6.54</td>
<td>0.6222</td>
<td>0.0228*</td>
</tr>
<tr>
<td>Psychological work climate</td>
<td>18.42</td>
<td>9.72</td>
<td>0.6648</td>
<td>0.0168*</td>
</tr>
<tr>
<td><strong>Role-related factors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Role conflict</td>
<td>8.62</td>
<td>2.46</td>
<td>-0.6248</td>
<td>0.0238*</td>
</tr>
<tr>
<td>Role ambiguity</td>
<td>9.42</td>
<td>3.58</td>
<td>-0.6054</td>
<td>0.0144*</td>
</tr>
<tr>
<td>Organizational Commitment</td>
<td>22.48</td>
<td>8.24</td>
<td>1.0000</td>
<td>-</td>
</tr>
</tbody>
</table>

*P< 0.05.
Table 3. Summary of regression analysis of organizational commitment on personal factors, psychological work climate and role-related factors of respondents (n=651).

<table>
<thead>
<tr>
<th>Source of variation</th>
<th>Df</th>
<th>SS</th>
<th>MS</th>
<th>F-ratio</th>
<th>Sig. P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Due to regression</td>
<td>6</td>
<td>10298</td>
<td>1716.3333</td>
<td>31.36</td>
<td>0.0326</td>
</tr>
<tr>
<td>Due to Residuals</td>
<td>593</td>
<td>32456</td>
<td>54.7319</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>599</td>
<td>42754</td>
<td>1771.0652</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Adjusted R-squared = 0.6428; Adjusted R= 0.8017; Standard Error of Estimate (SEE) = 7.3981.

Table 4. Summary of test of significance of independent variables as precursors of organizational commitment of the respondents (n=651).

<table>
<thead>
<tr>
<th>Variables</th>
<th>Reg. Coeff. (B)</th>
<th>SE(B)</th>
<th>Beta</th>
<th>t</th>
<th>Sig. P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>1.0241</td>
<td>0.2421</td>
<td>-</td>
<td>4.23</td>
<td>0.0428</td>
</tr>
<tr>
<td>Psychological work climate</td>
<td>0.5228</td>
<td>0.0841</td>
<td>0.4428</td>
<td>6.22</td>
<td>0.0029</td>
</tr>
<tr>
<td>Age</td>
<td>0.3244</td>
<td>0.0624</td>
<td>0.2164</td>
<td>5.20</td>
<td>0.0389</td>
</tr>
<tr>
<td>Educational qualification</td>
<td>-0.4025</td>
<td>0.0785</td>
<td>-0.3226</td>
<td>5.13</td>
<td>0.0078</td>
</tr>
<tr>
<td>Job tenure</td>
<td>0.4884</td>
<td>0.0598</td>
<td>0.2444</td>
<td>8.17</td>
<td>0.0064</td>
</tr>
<tr>
<td>Role conflict</td>
<td>-0.4226</td>
<td>0.0987</td>
<td>-0.3416</td>
<td>4.48</td>
<td>0.0266</td>
</tr>
<tr>
<td>Role ambiguity</td>
<td>-0.4416</td>
<td>0.0866</td>
<td>-0.3811</td>
<td>5.10</td>
<td>0.0124</td>
</tr>
</tbody>
</table>

Analysis of variance results

To measure the differences in organizational commitment of the records management employees by their workplaces, a one-way analysis of variance was employed. The results are presented in Table 5. For hypothesis five, the present study found that there is no significant difference in organizational commitment of the respondents based on their workplace ($F = 3.54$, df= 6; 593, $p > 0.0892$). This finding therefore, implies that hypothesis five was accepted.

DISCUSSION

The purpose of the present study was to determine if personal factors, psychological work climate and role-related factors are precursors of the organizational commitment of records management employees in State Civil Services of Northwest, Nigeria. The first hypothesis determined if the personal factors are precursors of organizational commitment. The present study found that the personal factors of age, education and job tenure are the precursors of organizational commitment. As such, the age, education level and job tenure of records management employees in State Civil Services of Northwest Nigeria are related to commitment to their organization. These finding are supported by scholars who found that age and job tenure have a significant correlations with organizational commitment of workers (Ellemers et al., 1998; Trimble, 2006; Summer, Bac and Williams, 1996; Shoemaker et al., 1977). However, for education previous researchers had found opposite results that it has negative relationship with their organizational commitment (Angle and Perry, 1981; Morris and Shearman. 1981; Matheiu and Zajac, 1990; Huselid and Day, 1991; Opayemi, 2004; Ahmad and Abubakar, 2003). The present study also found that the personal factors of gender and marital status are not the precursors of organizational commitment. These personal factors of records management employees in State Civil Services of Northwest Nigeria are not related to commitment to their organization. The findings for gender are also supported by previous scholars who found that there is no significant correlation between gender and organizational commitment across organizational settings (Ellemers et al., 1998; Ahmad and Abubakar, 2003).
However, for marital status, the findings are not consistent with the previous scholars. They found that there is a significant relationship between marital status and organizational commitment of workers (Alttoo et al., 1973; Shore and Wayne, 1993; Akintayo and Abu, 2005).

The second hypothesis determined if the psychological work climate is a precursor of organizational commitment. The present study found that psychological climate is the precursors of organizational commitment. This therefore, implies that the psychological work climate of the records management employees in State Civil Services of Northwest Nigeria is associated with commitment to their organization. The employees perceive the State Civil Services organization to be a psychologically safe and meaningful work environment which is consistent with their own values and self-interests and they identify their personal goals with those of the organization. And because of this, they invest greater effort into pursuing the goals of the organization (Kahn, 1990). The results are also supported by previous research which found that favorable employee perceptions of organizational environments lead to organizational commitment (Keller, 1997).

The third hypothesis determined if the role-related factors are a precursor of organizational commitment. The present study found that role-related factors of role conflict and role ambiguity are the precursors of organizational commitment. The role-related factors of the records management employees in State Civil Services of Northwest Nigeria are associated with commitment to their organization. This means that the single or multiple roles that confront the records management employees in State Civil Services of Northwest Nigeria are clearly articulated in terms of behaviours or performance standards (Kahn et al., 1964). It also means that these employees do not experience the situations of incompatible expectations, conflicting requests from others and incompatible standards of evaluation (Rizzo et al., 1970). These findings are also supported by the previous scholars who found that role conflict and role ambiguity have significant correlation with the organizational commitment of workers across work settings (Allens and Meyer, 1990; Lopopolo, 2002; Becker and Kerman, 2003).

### CONCLUSION AND RECOMMENDATIONS

The following suggestions are made for further research.

1. Investigate the influence of work locus of control, work commitment, self-efficacy on organizational commitment of records personnel in state civil service in Nigeria.

2. Investigate the influence of demographic variables, career commitment, self-esteem on job performance of records personnel in university teaching hospitals in Nigeria.

Employees’ commitment allows an organization like civil service to grow and gain in competitiveness with private sector organization in Nigeria and is thus a key factor determining employee work performance. Committed records management personnel add value to the civil service administration by ensuring that needed information are supplied on time for policy making, budgeting, programmes and projects planning, execution, monitoring and evaluation as well as staff productivity measurement. Understanding organizational commitment of records management personnel in any organization such as civil service will assist in reducing staff turnover, work absenteeism, job dissatisfaction, lateness to work and divulge of information to unauthorized persons. Gaining workers’ trust and commitment is extremely important for organizational effectiveness of the civil service system.

However, this study found that there was no significant difference in organizational commitment of the respondents based on their workplace. It was also found that psychological work climate, age, education, job tenure, role conflict and role ambiguity had significant correlations with organizational commitment of the respondents while gender and marital status did not. Nevertheless, personal factors (age, job tenure, educational qualification), psychological work climate, and role- related factors (role ambiguity and role conflict) were jointly and individually the significant precursors of organizational commitment of the records management personnel in the state civil services of North-west geopolitical zone of Nigeria. Based on the findings of this study, it is therefore recommended that: the state governments and civil service administrators should consider age, educational qualifications and job tenure when formulating records management manpower policies and planning in order to improve their organizational commitment. They should ensure that the roles of the records management are clearly specified and not conflicting with any other roles in order to enhance their organizational commitment. They must also provide safety psychological work climate to the

### Table 5. Summary of One-way Analysis of Variance showing test of significant difference in organizational commitment of the respondents by their Workplace (n=651).

<table>
<thead>
<tr>
<th>Source of variation</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F-ratio</th>
<th>Sig. P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>6</td>
<td>8,698</td>
<td>1,449.667</td>
<td>3.54</td>
<td>0.0892</td>
</tr>
<tr>
<td>Within Groups</td>
<td>593</td>
<td>243,104</td>
<td>409.956</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>599</td>
<td>251,802</td>
<td>1859.623</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
records management personnel so as to achieve higher organizational commitment.

**Conflict of Interests**

The author has not declared any conflict of interests.

**REFERENCES**


Organizational Commitment and Job Performance: It’s the Nature of the Commitment that Counts. J. Appl. Psychol. 74:152-156.
Audit risk and corporate governance: Italian auditors’ perception after the global financial crisis

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This paper aims at analysing the most relevant factors for auditors when they estimate audit risk of their client company, and charge the client for it. We did so, by asking partners of audit firms to rate their agreement on the relevance of a set of audit risk factors drawn from the literature. In order to investigate further, we analysed results after the 2007-2008 financial crisis, for new client firms. We ended up with a dynamic analysis of the factors auditors pay attention to when auditing a company’s financial statement, by including the effect of a financial crisis in the auditing model. Therefore, this paper contributes to the auditing and corporate governance literature, by identifying those factors such as, among others, sector, effectiveness of internal control procedures and auditor’s experience, which are considered as relevant in assessing the components of audit risk, as well as by highlighting the role of corporate governance as perceived by auditors in the estimation of the audit risk in the client-acceptance decision.

Key words: Corporate governance, auditors, audit firms, audit risk, global financial crisis.

INTRODUCTION

The capability of accounting and financial reports to provide the board and stakeholders at large with reliable information to make effective decisions, coupled with risk-related variables, especially after the latest financial crisis, has been questioned (Magnan and Markarian 2011). The analysis of the audit profession within its context has received some attention, after the 2007-2008 financial crisis (Humphrey et al., 2009). The auditing market is not a local and national one any longer (Humphrey et al., 2009), therefore any regulatory effort aimed at controlling the national auditing practice might result in limited, if any, improvements in the quality of the audited accounting information (Humphrey et al., 2011). As a matter of fact, national auditing standard setters rely more and more on international standards when they issue auditing principles (Consiglio Nazionale dei Dottori Commercialisti e degli Esperti Contabili, 2015). However, some regulatory requirements and some contingent variables might have affected the focus of the accounting and auditing profession before and after the 2007-2008 financial crisis.

Some recent literature addressed criticisms to the effectiveness of accounting regulations in providing a tool for the disclosure of high quality accounting information, at the time of the 2007-2008 financial crisis (Sikka, 2015a; Persakis and Iatridis, 2016). It is generally agreed that accounting and auditing principles are aimed as supporting the credibility and the quality of the financial

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statements, and thus to foster trust in financial markets (Kohler, 2013). One of the evidences of that regards the “silence” of the auditors over the financial years immediately before the 2007-2008 financial crisis (Sikka, 2009), which is related to the issue of unqualified audit opinion with regard to companies, that went bankrupt in the following financial year, producing fraudulent disclosures also. On a similar vein, scholars found that the likelihood to issue a going-concern modified opinion for financially distressed clients increased after the global financial crisis (Geiger et al., 2013). However, the modified opinion due to going concern uncertainty is primarily issued because of previous year opinion or financial status, rather than earnings management reasons (Tsiouridou and Spathis, 2014). Therefore, the trust on the audit quality by both institutional and private investors, as well as by governments has flawed (Holm and Zaman, 2012). Indeed, some governments have been questioned on whether they are effectively taking actions to prevent future financial crises (Sikka, 2015b). The global financial crisis and some recent financial collapses of listed firms, such as Enron and Parmalat reduced stakeholders and investors’ trust in the reliability of the audit opinion. Even though auditors should perform their activity in a strong independent position with regard to the client firm, there is opposite evidence. Indeed, some scholars found that larger client firms receive more unqualified audit opinion, than smaller ones (Carcello et al., 2009). This might be due to the fact that auditors do not want to lose their major clients (Dogui et al., 2014). Moreover, the role of risk management itself after the global financial crisis has undergone a severe criticism (Huber and Scheytt, 2013). As a matter of fact, some authors reported on the consequence of modern risk management, that is a “risk management of nothing” (Power, 2009: 7), which resulted in a failure of mechanisms actually aimed at preventing the worst consequences of risks. In order to overcome shortcomings in the previous audit models, both regulators and audit firms tried and redesigned the audit model and the audit procedure. For instance, the Financial Reporting Council issued the Audit Quality Framework (Financial Reporting Council, 2008), which investigates factors that affect the quality of the audit profession. Some of them are under the auditor’s responsibilities, whereas some others are not. On the other hand, PriceWaterhouseCoopers (Big-4 audit firm) published a procedure to assess third-party risks (PriceWaterhouseCoopers, 2016). Among those that are outside the control of auditors, there is the strength of the company’s corporate governance. On the other hand, after the global financial crisis, auditors commit more effort in assessing their clients’ audit risk, compared to previous years (Xu et al., 2013). Similarly, auditors are more willing to rely on internal audit work in a continuous audit environment compared to a traditional one (Malaescu and Sutton, 2014). When introducing mandatory rotation policies, audit firms commit more effort with the new client compared to clients already served (Kwon et al., 2014). Even though some scholars found better quality of audited financial statements after audit firm rotation (DeFond and Subramanyam, 1998; Myers et al., 2003; Chen et al., 2008), others pointed out that this mandatory requirement does not necessarily lead to better quality in terms of audited financial information (Davidson et al., 2006; Cameran et al., 2013). Less tenured auditors are less knowledgeable of their clients’ risk; therefore they may want to rely on other than mandatory accounting information. What is still unclear in the literature is the set of information and client’s features the auditor wish to include into their risk assessment model when assessing new clients’ audit risk after the global financial crisis. Moreover, after the global financial crisis some scholars analysed the audit risk and found that there is an increase in the client’s business risk without analysing which factor is riskier than others (Xu et al., 2013). Furthermore, the topic of corporate governance has been developed especially after failures of firms depending on the features of corporate governance. Some scholars questioned whether some characteristics of corporate governance could have some effects on the entire process of audit and in particular of the quality of this procedure (Cohen et al., 2002). Despite these considerations, to our best knowledge, few scholars analysed this topic in the Italian setting after the global financial crisis. Moreover, there is a call for field research on the components of risks that should be considered as relevant when analysing corporate annual reports, in different national settings (Abraham and Shrives, 2014) and for a cross-country investigation of the adoption of international auditing standards (Sormunen et al., 2013).

The main research question of this paper is: Which are the most crucial features that auditors consider in order to evaluate the audit risk of the client company? Our study surveyed 56 partners of audit firms in the Italian setting. We especially validate the components of audit risk in the light of the global financial crisis, for new client firms. Our paper contributes to the literature in several ways. First, we validated the auditing model in the Italian setting by highlighting the components of audit risk (quality of corporate governance, detection risk, inherent risk) for new client firms, after the global financial crisis. Second, we ranked which are the most and the less relevant items within each components of audit risk on which auditors rely most when they evaluate the business client risk. Third, we extended the literature on the effect that corporate governance may have on the assessment of the audit risk. From a practical standpoint, our study is useful to a wide range of stakeholders, such as partners of audit firms in order to better design and use the auditing model, managers of the audited firms to appraise the quality of their financial statements, corporate governance procedures and internal control, and financial analysts at large to better understand which are the
factors that can affect the quality of disclosures.

The remainder of the paper is organized as follows: section 2 presents a literature review on the assessment of the audit risk; section 3 presents a literature review on the relationship between corporate governance and audit risk; section 4 shows data collection and the measurement of the research variables; section 5 shows empirical model and results; section 6 discusses findings, by highlighting academic and practical contributions, limitations and future researches.

The assessment of the audit risk

Practitioners, standard setters and scholars agree that Audit Risk (AR) is the likelihood that auditors fail to issue a correct and fair opinion on the financial statement of a client firm. This can occur when either auditors fail to detect a material misstatement and, thus, issue an unqualified opinion instead of a modified opinion or if the auditor overestimates the audit risk and thus issue a qualified opinion rather than an unqualified one (ISA 200).

An unqualified opinion is the independent auditor judgement in which auditors state that the financial report is fairly and appropriately presented in accordance with Generally Accepted Accounting Principles (GAAP). Instead, a qualified opinion is when auditors issue a judgement in which the client firm has an annual report that is not in accordance with GAAP and/or the information collected by auditors are limited in scope. The concept of materiality recognizes that some matters are important for fair presentation of financial statements in conformity with GAAP, while other matters are not important. SAS No. 39 and 47 (American Institute of Certified Public Accountants (AICPA) 1997) provide the auditors with the guide to assess the audit risk and define the audit risk model, identifying the key determinants of the audit risk which are Inherent Risk (IR), Control Risk (CR) and Detection Risk (DR). Inherent risk is the likelihood that an account balance or class of transactions contains a material misstatement without considering the internal accounting controls; whereas control risk is the probability that a material misstatement will not be detected by the internal controls of a firm, and finally detection risk is the likelihood that a material misstatement will not be caught by the auditor’s procedures (IFAC 2007). The audit risk model may be expressed as follows:

\[
AR = IR \times CR \times DR
\]  

Or as follows:

\[
DR = \frac{\text{Acceptable Audit Risk}}{(IR \times CR)}
\]  

According to the audit risk model, auditors need to set materiality and assess acceptable audit risk, inherent risk and control risk, whereas the detection risk is defined by solving equation 2.

Previous literature about the audit risk highlights the difficulties to assess it and to test the dependencies among components of risk (Dusenbury et al., 2000; Fukukawa and Mock, 2011; Budescu et al., 2012; Contessotto and Moroney, 2014). Similarly, DeAngelo found difficult to define the concept of audit quality (DeAngelo, 1981). Furthermore, corporate failures from 2002 revealed the need to revise the audit risk model and the weakness of the methodology that auditors use to evaluate it (Botez, 2015).

Despite these considerations, some scholars attempted to assess the overall audit risk and its components, taking advantage from the game theory and the strategic-testing theory (Shibano, 1990) and from a survey submitted to auditors (Strawser, 1991; Matarneh, 2011). Furthermore, prior literature attempts to identify the practical key determinants of the audit risk, like the clients’ business risk (Bell et al., 2001; Stanley, 2011), the clients’ internal corporate governance features (Bedard and Johnstone, 2004; Hogan and Martin, 2009), the litigation risk (Pratt and Stice, 1994), book-tax differences (Heltzer and Shelton, 2015), reputation risk (Beatty, 1989), non-Big4 auditors (McKinley et al., 1985) and the client financial condition (Pratt and Stice, 1994). Within this framework, some scholars identified proxies for each component of the audit risk; inherent risk seems to be associated with the nature of client’s business, size, complexity, leverage and to significant accruals such as receivables and inventory, as well as experience of employees, internal incentive systems (Maletta and Kida, 1993; Mock and Wright, 1993; Arens et al., 2007). Control risk seems to be determined by the management’s attitude toward internal controls, corporate governance quality and the audit committee quality expressed in terms of audit committee independence and audit committee financial experience (Cohen et al., 2010). Both inherent risk and control risk have been found to be closely linked to audit adjustments (Ruhnek and Schmidt, 2014). Literature about the measurement of the detection risk seems to be scantily addressed, even if the auditing standards (American Institute of Certified Public Accountants - AICPA - 1997) seem to suggest that detection risk may be especially associated to external auditor tenure.

To overcome the difficulties to evaluate audit risk, other scholars usually use audit fees as a proxy of the auditor’s effort, in terms of resources that auditors have to employ in the evaluation of the business risk of their clients, and therefore audit fees could be considered as a proxy of audit risk (Simunic, 1980; Hay et al., 2006; Hogan and Wilkins, 2008; Chen et al., 2012).

However, a wide literature about audit fees examines the relationship between audit risk and auditor effort, finding mixed results. Few scholars found no evidence about the relationship between audit plan and audit risk.
(Mock and Wright, 1993; Mock and Wright, 1999), whereas most scholars demonstrated the relationships between the level of audit fees and audit risk (Hay et al., 2006; Hogan and Wilkins, 2008). Other studies put forward that audit fees, and in particular unexpected audit fees can be used to assess the client’s accounting quality, since it is predictive of frauds, restatements and SEC comment letters (Hribar et al., 2014).

Within this framework, some scholars analysed the impact of the global financial crisis on auditing model, finding an increase in the propensity to issue a going concern opinion and audit effort in terms of higher audit fees and audit reporting lag in the period after financial crisis than the previous one (Xu et al., 2013). Also, standard setters, such as the International Auditing and Assurance Standards Board (IAASB) issued a set of guidelines in 2009 to highlight the importance of carefully assessing going concern issues during the financial crisis, since financial crisis increased the business risks of clients and thus the audit risk for audit firms (Xu et al., 2013). Sikka (2009) pointed out that auditors were not prepared to face massive financial problems during the financial crisis, producing uncertainty and some scholars found that firms are willing to change from non-big4 to big4 audit firms in order to have higher credibility and reliability for their financial statements (Pong et al., 2007).

As previously mentioned, auditors should perform an independent audit activity on the client’s financial statement (American Institute of Certified Public Accountants (AICPA), 1997). However, in order to keep the relationship with major clients, nonBig4 firms might be incentivised to adopt dysfunctional behaviours and therefore losing their independency.

The assessment of the audit risk is particularly pivotal in the client-acceptance decisions when auditors have to evaluate features of their potential new clients when making client portfolio management decisions (Bedard and Johnstone, 2004). Scholars pointed out that auditors spend more effort in evaluating financial risk, litigation risk and audit risk when assessing potential new clients (Johnstone, 2000; Johnstone and Bedard, 2003).

Despite these considerations, to our knowledge, very few studies analyze the set of information and client’s features which auditors use in the evaluation of audit risk in the client-acceptance decision after the global financial crisis. Since there is a little evidence in the Italian context on how auditors evaluate the audit risk of new clients, we aim at contributing to reduce the gap in the literature and to shed some light on this issue even from a professional’s viewpoint.

On the basis of the literature review, we posed the first research question:

**RQ 1: How Italian auditors evaluate components of audit risk in the client-acceptance decision after the global financial crisis?**

The relationship between corporate governance and audit risk

The role of corporate governance is crucial in order to ensure the integrity of the financial reporting process and to deter fraud (Cohen et al., 2002). In 2002, the collapse of one of the Big5 audit firms, Arthur Andersen witnessed the need for a stronger corporate governance in order to prevent future corporate failures. Especially during the global financial crisis, weaknesses of corporate governance have brought about failure of several companies and financial institutions (Kirkpatrick, 2009).

In particular, Cohen et al. (2002) investigated the effects that features of corporate governance have on the overall audit process, finding that auditors consider some factors of corporate governance especially in the evaluation of new clients and in international context. Strong corporate governance has been found to be associated with good quality in financial reporting and the appointment of accounting financial experts to the company’s audit committee (Beasley and Salterio, 2001; Krishnan and Lee, 2009; Gull et al., 2013). As a matter of fact, internal audit function is effective when it has a positive effect on the quality of corporate governance (Sarens, 2009).

On the other hand, the weakness in corporate governance quality could bring about earnings manipulation and financial statement frauds (Dechow et al., 1996; Carcello and Neal, 2000). Within this framework, Krishnan (2001) found a correlation between a sound corporate governance and internal control problems, highlighting that the quality of the corporate governance could affect the evaluation of the audit risk for new clients and therefore, the clients’ acceptance decision.

Cassell et al. (2012) found that big4 auditors consider some characteristics of corporate governance in audit strategy, especially after the introduction of Sarbanes-Oxley Act of 2002 (SOX), which increased the public’s focus on corporate governance. In particular they created an index of corporate governance, which encompasses board and audit committee independence, diligence and expertise based on prior literature (Dechow et al., 1996; Carcello et al., 2002; Barac and Van Staden, 2009). Some scholars found that clients showing strong corporate governance are associated with higher quality in the auditing procedure since it reduces the audit effort (Cohen and Hanno, 2000). Indeed very few scholars did not find any kind of correlation between the audit model and features of corporate governance (Dittmann et al., 2010).

As mentioned above, in the evaluation of audit risk, the components of corporate governance are encompassed in control risk, which seems to be determined by the management’s attitude toward internal controls, corporate governance quality and the audit committee quality, expressed in terms of audit committee independence and audit committee financial experiences (Johnstone, 2000; Krishnan, 2005; Cohen et al., 2010).
Since there is little evidence in the Italian context on how auditors perceive features of corporate governance as relevant factors in evaluating the audit risk of their client, we aim at contributing to reduce this gap in the literature. Moreover, there is a little practical guidance on how auditors should consider the several features of corporate governance in evaluating the risk associated to new clients (Cohen et al., 2002), especially after the global financial crisis (Cao et al., 2015). Indeed, the attention of mass media regarding this topic has increased recently in both national and international context (Cassell et al., 2012). We expect a positive relationship between corporate governance and audit quality, since if the auditors can rely on a sound corporate governance of the client firm, then they will be able to reduce their control effort. In this way, auditors can divert resources that are generally committed to assess the control risk towards other value-adding activities in the process of evaluation of the overall audit risk. Consequently, the quality of the audit procedure can improve. Therefore, on the basis of these considerations, we posit the second research question:

RQ2: How auditors consider features of corporate governance in evaluating the audit risk in the client-acceptance decision after the global financial crisis?

METHODOLOGY

In order to answer the research questions developed above, the present study was conducted on a sample of Italian audit managers, who work for big4 (Deloitte, KPMG, Price Water house Coopers, Ernst & Young) and non-big4 audit firms. We decided to include both kinds of audit firms because prior studies put forward that non-Big4 companies might face higher pressure, than Big4 companies, when they evaluate their clients’ audit risk (Pong et al., 2007).

Research design

The research was conducted by adopting a mixed method approach. In social sciences, the joint action of qualitative and quantitative methods can enhance the overall quality of doing research, by triangulating sources (Jick, 1979). Indeed, we first run a set of interviews to audit partners and academics; and then we administered a paper-based questionnaire (Dillman, 2008). This combined method of interviews and survey has allowed the researchers to understand audit managers’ perspectives. This methodology is particularly useful in evaluating perceptions and interpretations of social actors (Colwyn Jones, 1992) and reflects the participants’ experience in business activities (Giddens, 2013). Furthermore, the joint use of both research methods allows the authors to overcome possible weaknesses and limitations of the single research method.

Instrument and data collection

The research was conducted in two main phases. During the first phase, preliminary in-depth pilot interviews were carried out from January to March 2013 and during the second, an Italian survey was sent to audit managers in October 2013.

During the first step, a paper-based questionnaire has been tested by academics and audit managers; this allow us to elicit early qualitative feedback and to better refine the research design, the research hypotheses and the subsequent survey (Chen et al., 2010). In the second research phase, a paper questionnaire was sent to the board of all of the Italian branches of big 4 audit firms and to the main non-big 4 audit firms. We decided to choose a specific national setting, because the international standard on auditing (ISA, 330 2009) makes room for discretion in the audit procedure.

Thus, we decided to choose the Italian setting, because Italy is a civil law country, where written rules overcome judges’ decisions. In these legal systems less room for discretion is given to judges, compared to common law countries.

Thus, the legal system can have an impact on how auditors deploy international auditing standards, compared to common law countries. This is in line with prior research investigating the role of rules and discretion in other European auditing settings (Carcello et al., 2009).

The survey questions were sent to those audit firms who showed they were particularly willing to collaborate in the current research project (Kvale and Brinkmann, 2009; Yin, 2011; Rubin and Rubin, 2011).

The main aim of the survey was to test the research design and to generalize the empirical results in order to enrich the current literature on this topic (Gable, 1994). The survey was split into 3 main sections as follows: 1) personal data of the interviewee; 2) features of the client; 3) perceptions about the evaluation of the audit risk in the client-acceptance decision after the global financial crisis (listed companies). We sent 100 paper questionnaires to partners of audit firms and we received back 56 valid questionnaires, therefore the survey response rate was around 56%. However, our study is a preliminary step to further investigate this topic. Furthermore, our statistical method is in line with a small sample size (Jung et al., 2009). As a matter of fact, the number of observations is consistent with prior studies in the accounting literature (Bisbe and Otley, 2004).

The measurement of the research variables

The measurement of all research variables included in the research design is based on the survey questions sent to Italian audit managers. As the empirical analysis is based on a survey, most of the research variables measure managers’ perceptions. Personal cognitive processes are deemed to be highly relevant for the life of the firms and for decision-making processes (Mintzberg et al., 1976; Hambrick and Mason, 1984). The data that we collected regards the evaluation of the audit risk for new clients after the global financial crisis in Italy from an auditors’ perspective (Table 1).

With regard to audit risk, according to literature and professionals’ recommendations (Johnstone, 2000; Krishnan, 2005; Cohen et al., 2010), we identified three components, namely: Inherent Risk (IR), Quality of Corporate Governance (QCG) and Detection Risk (DR). Inherent Risk is composed of the following items: 1) sector; 2) sales; 3) inventory and 4) receivables. Quality of Corporate Governance is composed of the following items: 1) effectiveness of the internal control procedures. It regards the quality of procedures that affect internal control system; 2) experience of the audit committee, which regards the level of experience of each component of the audit committee in terms of years that they covered in the same position; 3) level of compliance with the independence of the board of directors, which captures the quantity of independent directors following the Italian law; 4) level of independence of the board of directors aside compliance threshold,
which measures the quantity of independent directors that are beyond the level set by the Italian law; 5) level of independence of the audit committee, that is the quantity of independent auditors sitting in the audit committee; 6) effectiveness of the procedures of the corporate governance. On the basis of the previous literature, we can argue that the items encompassed in the Quality of Corporate Governance could be considered as features of corporate governance (Carcello et al., 2002; Cassell et al., 2012). The detection risk is composed of the following items: 1) auditors’ experience; 2) size of the audit team; 3) previous auditor belonging to Big4 Audit firms; 4) confirming of engagement of auditors in the same company, that is the number of years auditors audited the same client firm. These items allow us to control for the pressure of audit firm with regard to their independence from the client. In particular, the item 4) Confirming of engagement of auditors in the same company, which is included in the measurement of the Detection Risk, witnesses a low pressure on the audit firm, since it can continue its activity for an additional term. Moreover in the Italian setting, there is a general tendency to carry on the engagement until the natural end of the contract, which lasts a maximum of 9 years (Cameran, 2005).

The survey question for each item was: “In the evaluation of the audit risk for new clients (listed firms), which factors do you think have more/less relevance in the last three years (2010-2013) (0 less relevance; 7 more relevance)?”

Data analysis
The first step of our empirical analysis was to perform a principal component analysis (Table 3) in order to build audit risk and its components (Williams et al., 2012). To test the validity and reliability of the factor analysis we performed Keiser-Meyer-Olkin test to test the sampling adequacy (Kaiser 1960), Bartlett’s sphericity test (Snedecor and Cochran 1989) and assessed the scale reliability through the analysis of the Cronbach’s alpha (Nunnally and Bernstein, 1994). We also checked for the eigenvalue of each item in order to check how many factors should be retained into the analysis (Hayton et al., 2004).

In order to answer the second research question (How auditors consider features of corporate governance in evaluating the audit risk in the client-acceptance decision after the global financial crisis?), we perform descriptive statistics analysis. We also performed a two-sample t test with equal variances, since this variable is an ordinal one (Armstrong and Overton, 1977) in order to verify whether the quality of corporate governance is more relevant in evaluating audit risk after the financial crisis in auditors’ perception than detection risk and inherent risk. We also performed a correlation analysis with Pearson’s index in order to show some possible relationships among the components of audit risk. All the statistical analyses have been performed with SPSS 20.0.

**Table 1.** Descriptive statistics of the research variables and items in the research variables.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs.</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inherent risk</td>
<td>55.000</td>
<td>3.250</td>
<td>7.000</td>
<td>5.236</td>
<td>0.868</td>
</tr>
<tr>
<td>Sector</td>
<td>55.000</td>
<td>4.000</td>
<td>7.000</td>
<td>6.130</td>
<td>0.840</td>
</tr>
<tr>
<td>Sales</td>
<td>55.000</td>
<td>2.000</td>
<td>7.000</td>
<td>4.930</td>
<td>1.016</td>
</tr>
<tr>
<td>Receivables</td>
<td>55.000</td>
<td>1.000</td>
<td>7.000</td>
<td>4.400</td>
<td>0.993</td>
</tr>
<tr>
<td>Inventories</td>
<td>55.000</td>
<td>2.000</td>
<td>7.000</td>
<td>4.950</td>
<td>1.079</td>
</tr>
<tr>
<td>Quality of corporate governance</td>
<td>55.000</td>
<td>4.000</td>
<td>7.000</td>
<td>5.639</td>
<td>0.847</td>
</tr>
<tr>
<td>Effectiveness of the internal control procedures</td>
<td>55.000</td>
<td>4.000</td>
<td>7.000</td>
<td>6.150</td>
<td>0.911</td>
</tr>
<tr>
<td>Experience of the audit committee</td>
<td>55.000</td>
<td>4.000</td>
<td>7.000</td>
<td>5.620</td>
<td>1.009</td>
</tr>
<tr>
<td>Level of compliance with the independence of the board of directors</td>
<td>55.000</td>
<td>4.000</td>
<td>7.000</td>
<td>5.550</td>
<td>1.015</td>
</tr>
<tr>
<td>Level of independence of the board of directors aside compliance threshold</td>
<td>55.000</td>
<td>3.000</td>
<td>7.000</td>
<td>5.400</td>
<td>1.011</td>
</tr>
<tr>
<td>Level of independence of the audit committee</td>
<td>55.000</td>
<td>3.000</td>
<td>7.000</td>
<td>5.420</td>
<td>1.117</td>
</tr>
<tr>
<td>Effectiveness of the procedures of the corporate governance</td>
<td>55.000</td>
<td>4.000</td>
<td>7.000</td>
<td>5.710</td>
<td>1.031</td>
</tr>
<tr>
<td>Detection risk</td>
<td>55.000</td>
<td>3.000</td>
<td>6.600</td>
<td>5.046</td>
<td>0.789</td>
</tr>
<tr>
<td>Auditors’ experience</td>
<td>54.000</td>
<td>3.000</td>
<td>7.000</td>
<td>6.090</td>
<td>0.937</td>
</tr>
<tr>
<td>Size of the audit team</td>
<td>54.000</td>
<td>2.000</td>
<td>7.000</td>
<td>4.740</td>
<td>0.994</td>
</tr>
<tr>
<td>Previous auditor belonging to Big4 Audit firms</td>
<td>55.000</td>
<td>1.000</td>
<td>7.000</td>
<td>4.710</td>
<td>1.536</td>
</tr>
<tr>
<td>Confirm of engagement of auditors in the same company</td>
<td>52.000</td>
<td>1.000</td>
<td>7.000</td>
<td>4.900</td>
<td>1.142</td>
</tr>
<tr>
<td>Number of years in the same company</td>
<td>55.000</td>
<td>2.000</td>
<td>7.000</td>
<td>4.820</td>
<td>0.983</td>
</tr>
</tbody>
</table>

**FINDINGS**

We build up the final research variables: Inherent Risk, Quality of Corporate Governance and Detection Risk through the mean of the items encompassed in each variable (Table 3). Factor analysis confirms previous literature by identifying which items could be encompassed in each research variable, thus answering the first research question (RQ 1: How Italian auditors evaluate components of audit risk in the client-acceptance decision after the global financial crisis?).
Table 2. Correlation matrix and Person index of the research variables.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Inherent risk</th>
<th>Quality of corporate governance</th>
<th>Detection risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inherent Risk Pearson Sig (two-tailed)</td>
<td>1</td>
<td>0.416** (0.002)</td>
<td>0.012*</td>
</tr>
<tr>
<td>Quality of Corporate Governance Pearson Sig (two-tailed)</td>
<td>0.335*</td>
<td>1, 0.383**</td>
<td>0.004**</td>
</tr>
<tr>
<td>Detection Risk Pearson Sig (two-tailed)</td>
<td>0.012*</td>
<td>0.004**</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 1 shows some descriptive statistics of our research variables. As shown in Table 1, results from descriptive statistics suggest that quality of corporate governance is a more relevant factor in evaluating the audit risk, compared to inherent risk and detection risk, since the minimum value and the mean of quality of corporate governance (mean: 5.639) are higher than the minimum value and the mean of the other two research variables. It is worth noting that the minimum value of corporate governance is 4. Whereas the other two components show a minimum reported level of 3.25 (inherent risk) and 3.00 (detection risk). Instead, the less relevant component of audit risk is detection risk (mean: 5.046). Among items encompassed in the quality of corporate governance variable, we can notice that effectiveness of the internal control procedure is considered by auditors as the most relevant item after the financial crisis in evaluating the audit risk for new clients (mean: 6.15). The less relevant item for the corporate governance factor is the level of independence of the board of directors aside compliance threshold (mean: 5.400), followed by the level of independence of the audit committee (mean: 5.420). Both items have a minimum value of 3.00 whereas the other components of quality of corporate governance have a minimum value of 4.00. Among items encompassed in the inherent risk variable, we can notice that the sector where the client operates is considered by auditors as the most relevant item after the financial crisis in evaluating the audit risk for new clients (mean: 6.13). Among the items that affect inherent risk, receivable is the less important one (mean: 4.4), showing and a minimum value of 1.00. Sales (mean: 4.93) and inventory (4.95) seem to have the same relevance for the assessment of the inherent risk. Finally, among items encompassed in the detection risk variable, we can notice that auditors’ experience is considered by auditors the most relevant item after the financial crisis in evaluating the audit risk for new clients (mean: 6.09). We can observe a stark difference between auditor’s experience and all of the other items included in the detection risk measurement. As a matter of fact, the second most important item - Confirm of engagement of auditors in the same company - shows a mean value of 4.90. The less relevant item for detection risk is previous auditor belonging to Big4 Audit firms, whose mean value is 4.71.

From the t test analysis, we found statistically significant differences between quality of corporate governance and detection risk (p-value = 0.000) and between quality of corporate governance and inherent risk (p-value = 0.015); therefore, the second research question is supported by empirical findings.

Correlation matrix (Table 2) highlights some interesting relationships among components of audit risk. As a matter of fact, inherent risk is correlated with quality of corporate governance (Pearson: 0.416**) and detection risk (Pearson: 0.335*); and detection risk is correlated with quality of corporate governance (Pearson: 0.383**). Amongst these relationships, the relationship between inherent risk and quality of corporate governance seems to be the highest one.

As shown in Table 2, some audit risk components show a moderate level of correlation. A strong interplay between components of audit risk might have a negative effect on the measure of the audit risk. However the international auditing standard setters are aware of a certain degree of correlation among the different components (ISA).

Reported eigenvalue is the only one that showed a value higher than 1 (Kaiser 1960). As shown in Table 3, the reliability of the factor analysis is satisfactory for each item. As a matter of fact, Table 3 outlines factor loadings of the three items included into the audit risk. The KMO measure of sampling adequacy achieves satisfactory levels, being higher than 0.7 (Hair et al., 2006) in all cases but detection risk, where a mediocre but sufficient level was achieved (Kaiser, 1960). Similarly, Bartlett’s test reports satisfactory level of goodness of fit of each component of the audit risk (Snedecor and Cochran, 1989). Communality values are consistently higher than the threshold level of 0.50. The only item showing a communality value below the threshold level – auditor’s experience – has been retained because it is generally considered as important in the auditing literature (American Institute of Certified Public Accountants (AICPA) 1997). Moreover, the scale reliability for each component is very good, achieving a level of 0.822 for Inherent Risk, 0.912 for Quality of Corporate Governance.
Table 3. Factor analysis of the research variables.

<table>
<thead>
<tr>
<th>Item</th>
<th>Factor loading</th>
<th>Communality</th>
<th>Eigen value</th>
<th>% of variance</th>
<th>Cronbach’s alpha</th>
<th>Bartlett’s sphericity test</th>
<th>KMO*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inherent risk</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sector</td>
<td>0.716</td>
<td>0.512</td>
<td>2.611</td>
<td>65.284</td>
<td>0.822</td>
<td>Chi2 = 78.223</td>
<td>0.776</td>
</tr>
<tr>
<td>Sales</td>
<td>0.874</td>
<td>0.763</td>
<td>0.637</td>
<td>15.935</td>
<td></td>
<td>p-value = 0.000***</td>
<td></td>
</tr>
<tr>
<td>Inventories</td>
<td>0.861</td>
<td>0.741</td>
<td>0.466</td>
<td>11.661</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Receivables</td>
<td>0.771</td>
<td>0.595</td>
<td>0.285</td>
<td>7.120</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Quality of corporate governance</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Effectiveness of the internal control procedures</td>
<td>0.801</td>
<td>0.642</td>
<td>4.176</td>
<td>69.607</td>
<td>0.912</td>
<td>Chi2 = 218.407</td>
<td>0.834</td>
</tr>
<tr>
<td>Experience of the audit committee</td>
<td>0.799</td>
<td>0.638</td>
<td>0.640</td>
<td>10.674</td>
<td></td>
<td>p-value = 0.000***</td>
<td></td>
</tr>
<tr>
<td>Level of compliance with the independence of the board of directors</td>
<td>0.899</td>
<td>0.809</td>
<td>0.494</td>
<td>8.227</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level of independence of the board of directors aside compliance threshold</td>
<td>0.747</td>
<td>0.557</td>
<td>0.317</td>
<td>5.289</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level of independence of the audit committee</td>
<td>0.879</td>
<td>0.772</td>
<td>0.221</td>
<td>3.682</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Effectiveness of the procedures of the Corporate governance</td>
<td>0.871</td>
<td>0.758</td>
<td>0.151</td>
<td>2.522</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Detection risk</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Auditors’ experience</td>
<td>0.581</td>
<td>0.337</td>
<td>2.565</td>
<td>51.305</td>
<td>0.747</td>
<td>Chi2 = 73.606</td>
<td>0.613</td>
</tr>
<tr>
<td>Size of the audit team</td>
<td>0.727</td>
<td>0.529</td>
<td>0.913</td>
<td>18.256</td>
<td></td>
<td>p-value = 0.000***</td>
<td></td>
</tr>
<tr>
<td>Previous auditor belonging to Big4 Audit firms</td>
<td>0.719</td>
<td>0.517</td>
<td>0.844</td>
<td>16.877</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Confirm of engagement of auditors in the same company</td>
<td>0.812</td>
<td>0.659</td>
<td>0.444</td>
<td>8.881</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of years in the same company</td>
<td>0.724</td>
<td>0.524</td>
<td>0.234</td>
<td>4.681</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

and 0.747 for Detection risk, which could be considered as ideal when making relevant decisions (Nunnally and Bernstein, 1994).

Finally, Table 4 presents frequency distribution (in %) for each variable (Variable measurement: A score from 1 to 7 on a Likert scale, where 1 not relevant,....., 7 extremely relevant). The table of frequency distribution confirms the trend described for each research variable for descriptive statistics and it is useful to answer the first research question. In particular, with regard to the Inherent Risk, we can notice that most of respondents for sales, inventories and receivables identified a score of 5 or 4, whereas for sector they mostly identified a score of 6 on a Likert scale. With regard to the Quality of Corporate Governance, we can observe that most of respondents for Effectiveness of the internal control procedures identified a score of 7, whereas for the other items, they mostly identified a score of 6. Finally, we regard to the Detection Risk, we can observe that that most of respondents identified a score of 5 or 6.

**DISCUSSION**

Preliminary results from this study highlighted
<table>
<thead>
<tr>
<th>Research variable name</th>
<th>Item</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inherent Risk</td>
<td>Sector</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>5.454</td>
<td>12.727</td>
<td>45.454</td>
<td>36.363</td>
</tr>
<tr>
<td></td>
<td>Sales</td>
<td>0.000</td>
<td>1.818</td>
<td>3.636</td>
<td>29.091</td>
<td>34.545</td>
<td>27.273</td>
<td>7.273</td>
</tr>
<tr>
<td></td>
<td>Inventories</td>
<td>0.000</td>
<td>1.818</td>
<td>1.818</td>
<td>36.363</td>
<td>27.273</td>
<td>25.454</td>
<td>7.273</td>
</tr>
<tr>
<td></td>
<td>Receivables</td>
<td>1.818</td>
<td>1.818</td>
<td>5.454</td>
<td>49.091</td>
<td>30.909</td>
<td>9.091</td>
<td>1.818</td>
</tr>
<tr>
<td>Quality of Corporate Governance</td>
<td>Effectiveness of the internal control procedures</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>7.273</td>
<td>12.727</td>
<td>38.182</td>
<td>41.818</td>
</tr>
<tr>
<td></td>
<td>Experience of the audit committee</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>18.182</td>
<td>21.818</td>
<td>40.000</td>
<td>20.000</td>
</tr>
<tr>
<td></td>
<td>Level of compliance with the independence of the board of directors</td>
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<td>0.000</td>
<td>0.000</td>
<td>20.000</td>
<td>23.636</td>
<td>38.182</td>
<td>18.182</td>
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<tr>
<td></td>
<td>Level of independence of the board of directors aside compliance threshold</td>
<td>0.000</td>
<td>0.000</td>
<td>1.818</td>
<td>20.000</td>
<td>27.273</td>
<td>38.182</td>
<td>12.727</td>
</tr>
<tr>
<td></td>
<td>Level of independence of the audit committee</td>
<td>0.000</td>
<td>0.000</td>
<td>1.818</td>
<td>23.636</td>
<td>25.454</td>
<td>29.091</td>
<td>20.000</td>
</tr>
<tr>
<td></td>
<td>Effectiveness of the procedures of the corporate governance</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>18.182</td>
<td>16.363</td>
<td>41.818</td>
<td>23.636</td>
</tr>
<tr>
<td>Detection Risk</td>
<td>Auditors' experience</td>
<td>0.000</td>
<td>0.000</td>
<td>1.852</td>
<td>7.407</td>
<td>5.555</td>
<td>50.000</td>
<td>35.185</td>
</tr>
<tr>
<td></td>
<td>Size of the audit team</td>
<td>0.000</td>
<td>1.852</td>
<td>7.407</td>
<td>29.629</td>
<td>38.888</td>
<td>20.370</td>
<td>1.852</td>
</tr>
<tr>
<td></td>
<td>Previous auditor belonging to Big4 Audit firms</td>
<td>5.454</td>
<td>3.636</td>
<td>5.454</td>
<td>30.909</td>
<td>20.000</td>
<td>23.636</td>
<td>10.909</td>
</tr>
<tr>
<td></td>
<td>Confirm of engagement of auditors in the same company</td>
<td>1.923</td>
<td>1.923</td>
<td>1.923</td>
<td>30.769</td>
<td>26.923</td>
<td>34.615</td>
<td>1.923</td>
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<tr>
<td></td>
<td>Number of years in the same company</td>
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<td>1.818</td>
<td>1.818</td>
<td>40.000</td>
<td>27.272</td>
<td>27.272</td>
<td>1.818</td>
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</table>

interesting considerations in the evaluation of the audit risk for new listed clients after global financial crisis from Italian auditors’ perception and shed some light on the auditing model. Empirical findings from this study contribute to the literature in several ways. First of all, this study contributes to that part of literature which is focused on the evaluation of the audit risk. As a matter of fact, little literature in the Italian context based on auditors’ perception was carried out. We chose the Italian setting, since Italy is a civil law country, in which the international auditing standards give auditors some degree of discretion in their auditing activity. The agency theory argues that there is an impact of the common/civil law legal system origins on accounting and auditing practice (Ball et al., 2000; Hope 2003). In common law countries, companies deal with capital markets and numerous investors, without any specific written practice (Bozzolan et al. 2006). This produces a high demand for information from “anonymous” investors at a distance (Ball et al., 2000). In civil law countries, there is a high level of insider (Hope, 2003) and crossover (Ball et al., 2000) ownership by banks or other organisations. Therefore, management can directly access information (Jaggi and Low, 2000; Hope, 2003).

Our survey highlights the relevance of the three components of the audit risk (the quality of corporate governance, detection risk and inherent risk), by confirming prior literature (Stanley, 2011) and supporting the relevance of quality of corporate governance in evaluating audit risk for a new client. Empirical results show that inherent risk is determined by some features of new potential client such as sector, sales, inventory and receivables, confirming findings achieved by other scholars (Maletta and Kida, 1993; Mock and Wright, 1993; Arens et al., 2007). However, in our
study accounts receivable are not considered as important as other items. This is in contrast with prior research reporting high reliance on receivables by auditors (Cohen and Kida, 1989). On the other hand, the sector where the client is operating is very important and this might be due to the fact that firms working in specific sectors, such as banking, were more exposed to financial failures than others (Berger et al., 2016). As for detection risk, size of audit team and the fact that the previous auditor belongs to a Big4 audit firm is not as important as the auditor’s experience. This contradicts prior literature saying that there is a close link between Big4 audit firms and higher audit quality (McKinley et al., 1985).

Quality of corporate governance is determined by features of the board of directors and the audit committee in terms of their independence and experience, and by the quality of the internal control system as have been found by previous studies (Johnstone, 2000; Krishnan, 2005; Cohen et al., 2010). The main contribution of that part of our study was to systematize features which could be encompassed in each component of the audit risk in the perception of Italian auditors, since to our knowledge few scholars use survey in the field of audit risk (Matarneh, 2011).

Furthermore, results show that the quality of corporate governance is more relevant as a factor in evaluating the audit risk for new clients after the global financial crisis, in the Italian context, compared to inherent risk and detection risk. Indeed, some studies found that after the global financial crisis the public attention towards the topic of corporate governance has increased. Our results contributed to the literature investigating which features of corporate governance affect the quality of audit (Cohen et al., 2002). We replied to a call for further research by investigating which are the main components of business risk in a specific country (Abraham and Shrives, 2014).

This result is consistent with prior studies in the corporate governance field, stating that the quality of the corporate governance could affect the evaluation of the audit risk for new clients and therefore, the clients' acceptance decision (Krishnan, 2001). Furthermore, in line with previous research (Houston et al., 1999), we found that among items encompassed in the quality of corporate governance variable, effectiveness of the internal control procedure is considered by auditors the most relevant item in evaluating the audit risk for new clients and we confirm that relevance even after the global financial crisis.

From a methodological perspective, we attempt to test the components of the audit risk and to evaluate the items, which could be encompassed in the evaluation of the audit risk for new potential listed clients. From the analysis some implications for practitioners emerge. As a matter of fact, the awareness of the composition of the audit risk could be considered useful by auditors in

in setting audit fees, which has been often considered as a proxy of the audit risk in prior literature (Simunic, 1980; Chen et al., 2012). As suggested by other scholars, the audit risk model should be revised to capture the quality of corporate governance (Botez, 2015).

Furthermore, the definition of the auditing model is also useful for: 1) managers inside the audited firms in order to improve their procedures of internal control and the effectiveness of the procedures which affect the sphere of the corporate governance as well; 2) investors at large in order to evaluate the quality of a listed firm; 3) partners of audit firms in order to design and use the revised audit model; 4) standard setters, at both the national and international level, who should focus their regulatory effort in the light of major contribution of corporate governance of the audited firm in the evaluation of the audit risk.

However, this study is not without its limitations. First, the study is a preliminary investigation on a small sample of auditors, therefore it deserves further investigation. Thus, caution should be used in generalizing such findings. Moreover, some measures used in this study are based on auditors’ perceptions. Another limitation of our study regards the fact that we have not considered social and behavioral items in the measurement of the three components of audit risk.

Thus, we encourage to investigate further this issue in future studies. Further studies could be addressed at extending our investigation, by extending the survey to other managers in the same country and in other countries in order to highlight similarities and differences among different contexts (Abraham and Shrives, 2014). Moreover, other studies could be carried out to further investigate the relationship between the three components of AR, since interesting considerations could arise from the present study.

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Conflict of interests

The authors have not declared any conflict of interests.
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