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# An Empirical Investigation of Accounting Outsourcing in Iranian SMEs: Transaction Cost Economics and Resource-Based Views

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## Abstract

This study aims to identify the factors affect Iranian SME decision to outsource accounting functions in term of transaction cost economics (TCE) and resource- based view (RBV) perspectives in manufacturing sector. Data collected by using a 658 questionnaire survey with SME owner/ managers. Our multiple linear regression analysis shows that higher asset specificity was associated with lower levels of outsourcing of accounting functions. In addition, outsourcing intensity is positively and significantly related to trust in external accountant, degree of competition, and corporate strategy. Besides, when we included control variables such as firm size and firm age, education and experience in our regression equation, the association between outsourcing intensity and four independent variables was remained statistically significant.

**Keywords:** Outsourcing, Professional accountant, Transaction cost economics theory (TCE), Resource-based view (RBV) and SMEs

## 1. Introduction

Small and Medium-Sized enterprises (SMEs) play an important role in all economies and are the key generators of employment and income in over the world (Samujh and Devi, 2008; OECD, 2009; IFAC, 2010). For example, SMEs in Iran are a most significant source of employment generation and diversification of economy as in many other developed and developing economies around the world (ILO, 2003; Bayati and Taghavi, 2007; Zohari, 2008). However, majority of SMEs in emerging economy cannot compete in an effective way due to their internal resource gap (UNIDO, 2003; ILO, 2003; IFAC, 2010). For example, resource- based view (RBV) argues smaller firms are more vulnerable than larger firms because they lack the necessary resources and capability for survival and growth (Gooderham et al, 2004). "SMEs in global value chains are even more vulnerable as they often bear the brunt of the difficulties of the large firms" (OECD, 2009, p.6). Indeed, SMEs face with resource gap and competitive pressures, they are forced to lessen their costs and create new opportunities through optimized utilization of external resources (Mahmoodzadeh et al., 2009; IFAC, 2010). Evidently, outsourcing practices is the best way to reduce costs and create opportunity for growth (Jayabalan et al., 2009). Outsourcing not only looks at overall business improvement and competitive advantages but also it will cut costs (Gilley et al., 2004; Delmotte and Sels, 2008; Mahmoodzadeh et al., 2009). Furthermore, outsourcing can add value through the higher quality available from external sources (Gilley and Rasheed, 2000; Gilley et al., 2004; Jiang and Qureshi, 2006).

Given that, accounting functions outsourcing is an option for SMEs so as to sustain a competitive benefit in the competitive environment as outsourcing could diminish the burden suffered by SMEs (Jayabalan et al., 2009). Because SMEs often lack the necessary skills and resources to carry out accounting functions in-house, gaining access to the expertise and specialized knowledge of the professional accountant clearly was the major reason to outsource (Everaert et al., 2007). In this context, Ismail and King (2005) claim that external accountants can assist SMEs operating in a competitive environment, to integrate operational considerations within long-term plans to enhance their sustainability. Furthermore, in more complex conditions, external accountants are in a

unique position to provide approaches and assist SME owner/managers to achieve their business objectives (Martin, 2005; Devi and Samujh, 2010).

Transaction cost economics (TCE) theory has become as a standard framework and described why some SMEs outsource accounting functions to external accountants, and how professional accountants can help them to diminish transaction costs (Carey et al., 2006; Everaert et al., 2010). TCE is also used to explain as source of economic efficiency when the professional accountant provides professional and accounting services (Carey et al., 2006). Furthermore, the RBV has been become a framework to use an external accountant by SMEs in competitive environment (Gooderham et al., 2004). Given that argument, TCE and RBV are employed as independent methods for outsourcing decision (McIvor, 2009), but there is a growing body of literature that shows the RBV and TCE are complementary for outsourcing decision (Poppo and Zenger, 1998; Madhok, 2002; Gottschalk and Solli-Sæther, 2006; Espino Rodríguez et al., 2008; McIvor, 2009). TCE focuses on the role of efficient governance (insourcing or outsourcing), and the RBV focuses on competitive advantage (Gottschalk and Solli-Sæther, 2006; McIvor, 2009). TCE describes that asset specificity (i.e. knowledge, language and skills) and trust in professional accountant are important factors influence outsourcing decision (Lamminmaki, 2005; Watjatrakul, 2005; Spekle' et al., 2007; Everaert et al., 2010). Asset specificity should be analysed not only from the perspective of TCE but also from the RBV perspective (McIvor et al., 2009; Watjatrakul, 2005). Furthermore, trust in service provider is one of significant driver affects on outsourcing decisions (Brouthers and Brouthers, 2003). Consistent with TCE, corporate strategy is another factor can affect a firm decision to outsource accounting services to an external accountant because the company can concentrate on the core competencies of a business (Carey et al., 2006). Indeed, in practice, outsourcing decision is being influenced by both RBV and TCE considerations (McNally and Griffin, 2004). The RBV also explains that SMEs utilise external accountant while the face competitive pressure to achieve competitive advantage (Gooderham et al., 2004).

Empirical studies show that SMEs outsource accounting services to external accountants (Carey et al. 2006; Gooderham et al., 2004; Everaert et al., 2006, 2007, 2010). However, these are conducted in more developed economies where the outsourcing of accounting services is examined. Moreover, these didn't consider combination of both TCE and RBV perspectives. Jayabalan et al. (2009) evidence a shift towards outsourcing of accounting services among Malaysian SMEs, an emerging economy. However, the TCE and RBV variables have not been examined in an emerging economy context. It is also argued that empirical evidence from the most developed economies may not be relevant to economies such as Iran (Mashayekhi and Mashayekh, 2008) due to differing institutional context (Devi and Samujh, 2010) and level of state intervention in economic activities (Ismail and Zin, 2009). Taken as a whole, a study of accounting outsourcing to look at combination of TCE and RBV perspectives is missing.

Given that, the nature of accounting services is people-intensive (Everaert et al., 2010), and internal resource gap and competitive environment faced by SMEs (Gooderham et al., 2004; IFAC, 2010), it is interesting to examine what factors influence on SMEs' decisions to outsource accounting functions in the context of emerging economy. Therefore, this study aims to identify the factors affect Iranian SMEs to outsource accounting functions by applying combination of RBV and TCE perspectives.

The rest of the discussion is organised as follows: Section two provides the background of study. Section three develops hypotheses utilising the RBT and TCE to guide the framework to investigate the outsourcing of accounting functions. Section four explains the research methodology. Section five presents the findings and discussions the implications thereon. Section six concludes with suggestions for future research.

## **2. Background of Study**

### *2.1 An Overview of the Iranian Economy*

Iran has a population of 73 million (Nejad, 2010). Most of these people are young people (Nejad, 2010). Iranian economy is largely dependent on oil revenue (ILO, 2003). In fact, the dependence on oil exports placed the Iran's economy in a weak position (UNIDO, 2003). For example, "With about 19 percent of the population living below the poverty line, the GDP of \$599.2 billion, the real growth rate of 4.3 percent, unemployment rate of about 22 percent and inflation rate above 18.5 percent, the country has a very challenging and unstable economical situation" (Zohari, 2008, p.18). Hence, one of the most challenging problems in Iranian economy is to facilitate and produce new jobs for those who are ready to enter the labor market for unemployment position in Iran (Nejad, 2010). Accordingly, recognizing the importance of SMEs in generating employment, Iran's national development plans (Third Economic Plan (1999-2004) and The Fourth National Development Plan (2005-2009)) continue to place a great deal of importance on their growth (Feizpour and Jamali, 2009; ILO, 2003).

## *2.2 Small and Medium Enterprises (SMEs) in Iran*

There is a little agreement regarding the definition of SMEs in Iran, but the Iranian Statistical Yearbook categorizes enterprises into four classes, e.g. businesses with 1-9 employees, 10 to 49 employees, 50 to 99 employees, and more than 100 workers (Zohari, 2008). However, most studies in Iran define SMEs in terms of number of employees in the range of less than 250 employees (UNIDO, 2003; Zohari, 2008). However, “more than 63 percent of total Iranian manpower in the industrial sector are employed by SMEs, and the share of SMEs in value amounts to approximately 30 percent, and, in total, represents 99.9 percent of all businesses in Iran” (Zohari, 2008, p.7).

## *2.3 Professional Accountants and Financial Reporting in Iran*

As a result of the privatisation programmes in 1991, the Iranian Association of Certified Public Accountants (IACPA) was established in 2001 as an independent professional body (Mashayekhi and Mashayekh, 2008). Therefore, the law requires the use of a member of the Iranian Association of Certified Public Accountants (IACPA), to audit all listed public Companies, Public joint stock companies, natural persons and legal entities whose turn-over exceeds eight billion Rials (800000USD) annually or whose total assets exceed sixteen billion Rials must be audited (ArabSalehi and Velashani, 2009). Iran has over one million firms (including SMEs and large firms), but only 10000 of those firms should be audited (Naderian, 2010). In Iran, the largest accounting firms have less than 200 employees, so there is a big gap between these firms and the international accounting firms in terms of size (Naderian, 2010). However, there is no Big 4 accounting firms operating in Iran, and all Iranian accounting firms are small (Naderian, 2010). IACPA is an Iranian accountancy body with 1684 members which offers the Certified Public Accountant (CPA) qualification (<http://www.iacpa.ir>). In fact, professional accountants play a vital role in Iranian SME environment which encompass about ninety percent of enterprises of Iran (Mirshekary and Saudagaran, 2005).

## *2.4 Outsourcing of accounting functions in SMEs*

The term of outsourcing was created at the end of the 1980s for contracting out information systems (Hussey and Jenster, 2003; Espino Rodríguez and Padrón-Robaina, 2004). Outsourcing is usually explained as the contracting with an external service provider to provide a service or function (Carey et al., 2006). Overall, in accounting, the process of outsourcing involves the ‘external accountant,’ including both the professional accountant and the accounting firm on one hand (Everaert et al., 2010). For instance, in Iran, external accountant refers to both the professional accountant and the accounting firm with valid practising certificates can hold themselves out as CPA, and set up firms providing auditing services (e.g. tax audit and financial audit), accounting services (i.e. accounting systems planning, product / services costing, financial statement), advisory services (e.g. tax advice) (Naderian, 2010). On the other hand, the process of internalizing includes the ‘in-house accountant’ who is the business staff member carrying out the accounting functions (Everaert et al, 2010). Thus, empirical studies revealed that most of SMEs outsource accounting activities to external accountants. For instance, in Belgium SME sector, Everaert et al. (2006, 2007, 2010) reported over two-third of SMEs outsource accounting tasks to external accountants. In Australian, Carey et al. (2006) claim many firms outsource internal audit functions to external accountants. In Norway, Gooderham et al. (2004) indicated that many smaller firms engage external accountant as provider of support services. In the UK, a number of empirical studies reported that majority of SMEs use external accountants’ services (Berry et al., 2006; Scott and Irwin, 2009; Sian and Roberts, 2009). In Malaysia, Jayabalan et al., (2009) assert majority of SMEs outsource accounting activities to external accountants. Whilst these studies discussed above have been performed in more developed countries, but literature on outsourcing of accounting functions in emerging economies such as Iran is missing except a limited research done in Malaysia by Jayabalan et al. (2009).

## **3. Theoretical Framework and Hypothesis**

Resource-based view (RBV) is defined as a unique bundle of assets and resources or capabilities that if a company utilises it in distinctive ways, can produce competitive benefit (Conner, 1991; Barney, 1991). “The central theme of transaction costs theory is that the properties of the transaction determine the governance structure” (McIvor, 2000, p.23). TCE is focusing primarily on governance skills whilst the RBV focuses primarily on production skills (Gottschalk and Solli-Sæther, 2006). The RBT can aid with analyzing organisational capabilities, which can connect outsourcing with the competitive priorities of the company and performance (McIvor, 2009). TCE can improve our understanding of whether it is more appropriate to insource or outsource an activity (Stratman, 2008). The TCE indicates the functions that are not firm-specific should be outsourced, while the RBV indicates that functions not critical to core competencies ought to be outsourced (Gilley et al., 2004). In practice, outsourcing is affected by the TCE and RBV (Gottschalk and Solli-Sæther, 2006;

McIvor, 2009). However, we provide some empirical evidence that a company outsource accounting functions to an external accountant as follows.

### *3.1 Asset specificity*

Two general types of specific assets include physical assets (e.g. specific equipment and machinery) and human assets (i.e. human capital) describing transaction-specific knowledge and skills (Lamminmaki, 2005; Ellram et al., 2008; McIvor, 2009). Rieple and Helm (2008) argue that “asset-specificity refers to the degree to which an asset is valuable in the context of a specific transaction; this is relevant because of its interplay with opportunism” (p. 281). For example, asset specificity refers to specialized knowledge, language, skills and expertise concerning the specific characteristics of the enterprise, related to accounting functions (Everaert et al., 2010). In fact, human assets are specific when professional accountants require specialized knowledge of the specific characteristics of the firm so as to carry out a specific accounting function (Everaert et al., 2010). According to TCE, when asset specificity is low, and transactions are relatively frequent, transactions might be governed by outsourcing (Watjatrakul, 2005; Jiang et al., 2007; Chang et al., 2009). In other words, higher levels of asset specificity would lead to a lower amount of the core businesses being outsourced (Chang et al., 2009; Jiang et al., 2007). However, human asset specificity is an important driver for the outsourcing in internal audit function (Spekle’ et al., 2007), and accounting services (Everaert et al., 2010). Therefore, Everaert et al. (2010) found that outsourcing of accounting tasks is significantly associated with asset specificity. Overall, the TCE and RBV perspectives argue asset specificity is a critical factor influence outsourcing decisions (Watjatrakul, 2005; Everaert et al., 2010). Consequently, our first hypothesis based on the earlier discussion is as follows:

Hypothesis 1: The higher the level of the asset specificity of accounting functions, the lower the intensity of outsourcing of accounting functions.

### *3.2 Trust of the SME owner/manager in an external accountant*

The trust in service providers was defined as one party believes to the other party based on the economic indication that the other party would carry out the commitment and act in a predictable way (Lee et al., 2008). For example, Everaert et al. (2010) defined trust in the external accountant as the expectation of the owner/manager that the accountant (1) can be relied upon to carry out legal commitments, (2) will act in a predictable manner, and (3) will take action and negotiate fairly when the possibility for opportunism is present. Many claim that the association between outsourcing and trust in external service provider should be analysed based on TCE (Brouthers and Brouthers, 2003; Everaert et al., 2010; Greenberg et al., 2008). Greenberg et al. (2008) found in the TCE literature that trust appears to have a significant role in the governance of business process outsourcing relationships. Consistent with TCE, Kim et al. (2007) indicated that trust is key significant driver affecting outsourcing. Everaert et al. (2010) indicate that the SME’s decision to outsource accounting services is based on the characteristics of the transaction and the interpersonal trust of the owner/manager in the external accountant. They found that the owner/manager’s level of trust in the external accountant was significantly and positively associated with outsourcing of accounting services. Zaheer and Venkatraman (1995) suggest that trust is a sociological factor and complementary to economic factors in the governance of exchange relationships. Hence, the previous arguments are summarized in the following hypothesis:

Hypothesis 2: The higher the level of trust of the SME owner/manager in the external accountant, the more intensely the accounting functions are outsourced.

### *3.3 Competitive pressure*

Markets are defined using the economic concept of competition, and transaction costs occur when markets fail to meet the requirements of perfect markets (i.e. perfect information, homogeneous products and free resource mobility) (Nicholson et al., 2006; Greenberg et al., 2008). TCE leads companies to choose the most appropriate governance structure form of outsourcing relationship in order to minimise transaction costs (Nicholson et al., 2006; Greenberg et al., 2008). RBV focuses on company capabilities and resource and influence its competitive position (McIvor, 2009). For instance, Espino Rodríguez and Padrón-Robaina, (2005) describe that companies operating in the competitive environment, need consider outsourcing due to their internal resource gaps. In this context, RBV argues as competitive pressures intensify, smaller firms are forced to obtain external resource for survival and development (Gooderham et al, 2004). In fact, intensifying competitive pressures have forced smaller firms to cut costs, and outsourcing is the best method for achieving those goals (Quinn, 1992; Jiang and Qureshi, 2006; Delmotte and Sels, 2008). In this context, SMEs rely on their external accountant to achieve competitive advantage while they face with vulnerable competition (Gooderham et al., 2004). Hence, Guilding and McManus (2002) found that competition intensity was positively associated with customer accounting usage. In addition, Chenhall (2003) found that utilization of formal controls was positively associated with the degree of

competition. Based on TCE and RBV predictions and earlier discussion, we hypothesise that the outsourcing of accounting functions should be associated with competitive pressures.

Hypothesis 3: The firms that face more intense competition will outsource more accounting functions.

### *3.4 Corporate strategy*

One of the aspects that the company must consider when developing a company strategy is the extent of outsourcing versus internalization of its functions (Espino Rodríguez and Padrón-Robaina, 2004). Thus, the decision to outsource should be included in the company strategy, reviewing the processes and assessing the strategic and financial consequences (Espino Rodríguez and Padrón-Robaina, 2004). Traditionally the research of outsourcing and its determinants has concentrated on economic approaches (Espino Rodríguez and Padrón-Robaina, 2005). Carey et al. (2006) describe that outsourcing of non-traditional functions (i.e. accounting functions) increases at the same time as an enterprise adopts a strategy to outsource non-core functions. In effect, this argument that firms laying emphasis on a strategy to outsource non-core activities are likely to increase greater experience and competencies in managing the risks of outsourcing (Carey et al., 2006). Consequently, the propensity for outsourcing non-traditional services (e.g. accounting functions) is likely to be higher in companies that actively outsource their business processes than in companies with low-outsourcing activity (Carey et al., 2006). Consequently, our hypothesis based on the earlier discussion is as follows:

Hypothesis 4: The stronger the strategy of a firm on outsourcing of non-core activities, the greater the tendency for outsourcing of accounting functions.

## **4. Research method**

### *4.1 Data Collection*

According to prior studies as discussed earlier, we defined SMEs as companies employing fewer than 250 employees and excluded micro firms because Small and medium sized enterprises (10- 250 employees) account for a relatively large share of Iran's exports (UNIDO, 2003). We utilised the Iran Small Industries & Industrial Parks Organization (ISIPO) database (<http://www.iraniec.ir>), excluding services and public companies, and included only manufacturing sector SMEs fewer than 250 workers. This resulted in a population of 17,100 enterprises. Then, we selected a sample of 1750 manufacturing SMEs randomly, using a systematic probability method. A questionnaire survey was designed and developed based on prior studies, and then the questionnaires were sent to each SME owner/manager by post mail at 5 March 2010. Hence, we conducted two stages to collect data. In the first stage of the data collection, from 1750 questionnaires distributed, only twenty percent (350 questionnaires) were collected. Due to the low response rate, the second stage of data collection was conducted. Questionnaires with a reminder letter were sent again to those SME owner/managers who had not responded to the questionnaire survey. Another 420 responses were received, giving a total of 770 respondents. Nevertheless, 112 questionnaires were excluded because of the repeated or incomplete responses by the respondents. However, we finally had only 658 usable answers, representing an effective response rate of 38 percent. The response rate is very high in contrast to preceding research of SME context by Everaert et al. (2007) who obtained a low response rate (10 percent). In addition, based on suggestion by Armstrong and Overton (1997), we tested for response bias by examining the differences between the early and late respondents in terms of model variables and the number of employees, so we did not find any significant differences.

### *4.2 Variable measurement*

The dependent and independent variables were measured and rated on a seven point Likert-type scale and found adequately high Cronbach's alpha for all variables (above 70%). The details are presented in Table 2.

#### *4.2.1 Dependent variable: Outsourcing intensity*

Based on IACPA (2003) and interview with ten professional accountants and eight SME owner/managers, we have considered the fifteen types of services (see Table 1) that are frequently performed by accountants and that are necessary and applicable in Iranian SMEs are similar to that derived from MIA (2008), Everaert et al. (2007) and Doran (2006). The measurement was developed by Espino-Rodríguez and Padrón-Robaina, (2004) and Espino-Rodríguez et al. (2008), asking respondents to indicate the level of outsourcing on each item of the accounting function on a 7-point Likert type scale, with 1= not outsourced to 7= totally outsourced.

#### *4.2.2 Independent variables*

Asset specificity measure was taken from Everaert et al. (2010), including five items (see Table 1) to capture the extent to which physical assets and human asset were specific to the SMEs. Then, respondents were asked how much they are agree or disagree with each of those statements on a 7-point Likert scale with the range from 1-

totally disagree to 7-totally agree.

In compliance with Everaert et al. (2010), we measured the trust of the SME owner/manager in external accountant with four items (see Table 1), the respondents were asked how much they trust to their external accountants on a 7-point Likert scale with the range from 1- totally disagree to 7-totally agree.

For measuring of competition, we drew on items 1, 2, 3, 4 derived from Rivard et al. (2006) and item 5 from Lamminmaki (2008) (see Table 1). We applied the measure was developed by Rivard et al. (2006), asking respondents to record the intensity of their firm competition regarding above mentioned items on a 7-point Likert scale with ranging from 1- very weak competition to 7- very fierce competition.

We applied four items (Table 1) for measuring corporate strategy similar to Carey et al. (2006); asking participants to indicate their company strategy with respect outsourcing of non-core functions on a 7-point Likert scale with the range from 1- lower score to 7- higher score.

#### 4.2.3 Control variables

The RBV explained that the use of external services interacts with the size and age of the firm (Bennett and Robson, 2003). Furthermore, TCE indicates that outsourcing provides smaller firms with the opportunity to utilise external accountants' services at a cheaper price (Carey et al., 2006). Dyer and Ross (2008) and Bennett and Robson (1999) found that firm size is a significant factor affecting the extent to which SMEs use external services. Consequently, we used the size and age of the firm as control variables and measured firm size based on number of employees similar to Gooderham et al. (2004), asking respondents how many people work in the business. Furthermore, we measure firm age, asking respondents in what year was your business registered similar to Mole et al. (2008). Besides, Everaert et al. (2010) and Park and Krishnan (2001) found that educational background of the SME executive was related to degree of outsourcing. Therefore, we utilise the measure derived by Everaert et al. (2010), asking the respondent to indicate their highest degree of Education. Finally, Audet and St-Jean (2007) found that utilisation of external services was negatively associated with experience of the SME owner/manager. We drew on the measure developed by Audet and St-Jean (2007), asking respondents how long they have worked in business.

## 5. Results

### 5.1 Descriptive Statistics

Table 2 shows the demographic profile. Our sample included 78 percent male and 22 percent female. Most of the respondents were quite well educated, and the common level of managerial experience was high with nearly three-fourth of respondents having over five years of experience. The details are shown in Table 2.

Descriptive statistics are shown in Table 3. Descriptive statistics describe means and standard deviation (S.D) and correlations among variables. The correlation between independent variables was such that multicollinearity is not a concern because multicollinearity will be created while results of the correlation coefficients are above 0.80 and to be considered "very high" (Burns and Bush, 2000).

### 5.2 Hypotheses testing

#### 5.2.1 Testing for direct effects

Table 4 shows regression coefficients and standard error (S.E) for all variables. Adjusted  $R^2$  revealed that 60% of the variance of "outsourcing intensity" is explained by Model 1 of Table 4. The multiple linear regression analysis in Model 1 of Table 4 shows a significant negative coefficient for asset specificity (Asset\_Spec), suggesting that the outsourcing intensity is significantly negatively related to the asset specificity, thereby confirming Hypothesis 1 ( $p < 0.01$ ). It also indicates that the outsourcing intensity also is significantly positively associated with the trust in the external accountant, which supports for Hypothesis 2 ( $p < 0.01$ ). In addition, the hypothesis 3 receiving support which posits a positive relationship between competitive pressures (Competition) and outsourcing intensity ( $p < 0.01$ ). Support is also provided for hypothesis 4 ( $p < 0.01$ ) which posits the more non-core functions that a firm outsources, the greater the propensity for outsourcing of accounting functions. In other words, outsourcing intensity is significantly positively associated with corporate strategy (Strategy) ( $p < 0.01$ ).

#### 5.2.2 Testing for control variables effects

We noted that size and age of the firm, educational background and experience of SME owner/manager might also have an impact on outsourcing of accounting functions. Adjusted  $R^2$  indicates that 61% of the variance of "outsourcing intensity" is explained by the Model 2 of Table 4. Multiple linear regression analysis (Model 2) suggested that all independent variables (asset specificity, trust in the external accountant, competitive pressures

and corporate strategy) have significant impact on outsourcing intensity while control variables were included in regression equation ( $p < 0.01$  respectively). Therefore, Hypotheses 1, 2, 3 and 4 are also supported. It is remarkable that outsourcing intensity by itself is not associated with firm size, educational background and experience of SME owner/manager ( $p > 0.10$ ).

## 6. Discussion and conclusions

This paper has examined the factors affecting a firm's tendency to outsource accounting functions in terms of TCE and RBV perspectives from an emerging economy's context. By using 658 questionnaire survey, findings of this study indicate that the outsourcing of accounting functions in SMEs support TCE predictions and RBV considerations, i.e., for asset specificity, trust in accountant, competitive pressures and corporate strategy. Therefore, our empirical analysis indicates that the higher the level of the asset specificity of accounting functions, the less intensely the accounting functions are outsourced. In other words, asset specificity is significantly negatively associated with outsourcing intensity. Hence, our finding corroborates previous study (Everaert et al., 2010) which indicated asset specificity was statistically and negatively related to outsourcing of routine and non-routine accounting tasks. This finding is also consistent with preceding studies on other service functions where asset specificity involved significant driver for the outsourcing, such as internal audit (Spekle' et al. 2007), information technology (IT) (Barthelemy and Geyer 2005; Watjatrakul, 2005). Furthermore, this research also clarified that outsourcing intensity is positively associated with trust of the SME owner/manager in an external accountant. Hence, this result provides empirical validation of prior study obtained a positive association between outsourcing of accounting tasks and the interpersonal trust of the SME executive in the external service provider (Everaert et al., 2010).

It is remarkable that the degree of competition is significantly positively associated with the outsourcing of accounting functions. This finding is similar to previous studies conducted by Chenhall (2003) which demonstrated the competition intensity positively associated with the use of formal controls and Guilding and McManus (2002) which found the degree of competition related to client accounting usage. However, our findings contradict with a previous study conducted in Norway (Gooderham et al., 2004), which found that the use of external accountants' service was not associated with competitive pressure. Two reasons can be stated as follows: Firstly, the prior research was undertaken in a more developed country, while current research was done in lesser developing country, Iran, hence emphasising the importance of the RBV consideration and TCE predictions. For example, transaction costs happen while markets fail to meet the requirements of perfect markets (i.e. markets are defined as the economic concept of competition) (Nicholson et al., 2006), and RBV argues a firms capabilities and resource influence its competitive situation (McIvor, 2009). Finally, this study examined outsourcing of accounting and advisory services, whereas prior research tested only external accountants' advisory services, clearly this indicates the importance of variety of services for an emerging economy.

Surprisingly, this study found that corporate strategy is positively related to outsourcing of accounting functions. This finding appears to be inconsistent with a prior research conducted (Carey et al., 2006) indicated the corporate strategy was not associated outsourcing of internal auditing services. We believe the reasons could be threefold: firstly, the sample of present study comprises small and medium sized- enterprises whereas sample in the prior research (Carey et al., 2006) constituted large companies, hence suggesting an impact of size on the need for outsourcing of services; secondly, current study included a large sample (658 questionnaire survey), while preceding research comprised a small sample (99 questionnaire survey). Finally, we examined accounting functions (e.g. accounting, advisory and internal audit services) provided by external accountant, whereas prior research tested only internal auditing services, obviously this indicates the importance of accounting functions for an emerging economy.

More importantly, after included four control variables (firm size, firm age, educational background and experience of owner/manager) in our regression equation in Model 2 of Table 4, all four independent variables appearing as statistically significant. It is noteworthy that outsourcing intensity by itself is not associated with firm size, educational background and experience of owner/managers. This results are in line with previous research (Carey et al., 2006) revealed that firm size is not associated with level of internal audit outsourcing, and Everaert et al. (2010) found that university degree of SME executive is unrelated to outsourcing of routine accounting tasks in Logit Model.

### 6.1 Research and practical implications

This study revealed some research and practical implications. First, this study examined some important factors affecting outsourcing intensity of accounting functions and this findings confirm prior study (Everaert et al.,

2010), and also extends by two independent variables including competitive pressure and corporate strategy as critical factors effecting a firm's decision to outsource accountants' services, this makes a contribution to the literature on emerging economies. Second, this study is the first that analysed outsourcing intensity in accounting from the combination of RBV and TCE perspectives that was not shown in prior studies, hence, providing some empirical evidence on the applicability of such theories in an emerging economy context. Third, this study is the first to analyse the external accountants' services in the Iranian context of an emerging economy and it also explicitly demonstrates the services that SMEs outsource to professional accountants. Consequently, by identifying the broader range of services currently provided by external accountants to SMEs and the benefit attached to these services brings into focus the broader range of choices available to SME owner/managers. Fourth, majority of SMEs in developing countries are faced with internal resource gaps; they generally refer to professional accountant to fill up these gaps. Clearly, professional accountants are in a unique position to fulfill the needs of SMEs, but it is important that the services are provided by professional accountants to SMEs are fit for purposes (e.g. relevant and high quality). Finally, if professional accountants are to expand their services to SMEs, this study emphasises that they should enhance their multidisciplinary and expertise and move to be knowledge professions. Whether or not professional accountants can be able to achieve this shift is questionable. This implies the accounting profession should explore avenues to improve the services offered by professional accountants.

### 6.2 Limitations and suggestion future research

Our results of this study may require to be interpreted in view of a few constraints. First, this research is limited to the manufacturing sector, so generalization to other sectors may be made with caution. Second, this study examined accounting outsourcing based on quantitative method using questionnaire survey; further research should concentrate on qualitative methodology. Finally, the TCE and RBV theories revealed that SMEs get benefit from outsourcing of accounting services, but we were not able to examine its effect on firm performance. Hence, future study is needed to more fully investigate the effect of outsourcing of accounting functions on firm performance.

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Table 1. Multi-item variable measurement

Variables	Items	Source	Cronbach's alpha
Outsourcing intensity	1-Bookkeeping 2-Interim reporting 3-Period-end accounting 4- Preparation of financial statements 5-Product/services costing 6-Budgeting/forecasting 7-Customer profitability analysis 8- Financial planning 9- Management accounting 10- Internal audit 11- Tax consultancy 12-Business advice 13-Management consultancy 14-Financing advice 15- IT consultancy	Everaert et al. (2007) and Doran (2006); MIA (2008); IACPA (2003); Espino-Rodríguez and Padrón-Robaina, (2004); Espino-Rodríguez et al. (2008)	0.92
Asset specificity	1-To obtain the accounting functions the accountant needs to acquire company specific information 2-To perform the advisory services the accountant needs to obtain company-specific information 3-The accounting software is custom-tailored to our firm 4- The way we perform the accounting functions is unique to our firm 5-It would be costly in terms of time and resources to switch to an external accountant at the end of the financial year.	Everaert et al. (2010)	0.77
Trust in accountant	1-The owner/manager has confidence that the external accountant will treat fairly, this means to correctly charge for the performed duties 2- The owner/manager has confidence that the external accountant will inform correctly 3-The owner/manager has confidence that the external accountant will accurately perform the duties 4-The relationship between the owner-manager and the external accountant is based on trust.	Everaert et al. (2010)	0.88
Degree of Competition	1-Product characteristics 2- Promotional strategies among rivals 3-Access to distribution channels 4- Service strategies to customers 5-Product (Service) variety	Rivard et al. (2006); Lamminmaki (2008)	0.80
Corporate strategy	1-Information technology 2-Human resource management 3-Facilities management 3-Logistics.	Carey et al. (2006)	0.84

Table 2. Demographic profile of respondents

Variable	Item	N	Percentage (%)
Gender	Male	516	78
	Female	142	22
Education	University degree	604	92
	Lower than university degree	54	8
Firm age	Less than 2 years	27	4
	2-5 years	126	19
	6-10 years	173	26
	11-15 years	104	16
	16-20 years	60	9
	More than 20	168	26
Firm size	Less than 20 employees	148	22
	20-30 employees	173	26
	31-50 employees	129	20
	51-100 employees	77	12
	More than 100 employees	131	20
Experience	less than 5 years	142	22
	5 -10 years	178	27
	11-15 years	154	23
	16-20 years	66	10
	More than 20	118	18

Table 3. Descriptive statistics and correlation matrix

Variables	Mean	S.D	1	2	3	4	5	6	7	8	9
1-Outsourcing	63.62	23.68	1								
2-Asset_Spec	17.67	7.88	-0.434**	1							
3-Trust	21.04	6.22	.0730**	-0.294**	1						
4-Competition	23.68	7.07	0.527**	-0.322**	0.474**	1					
5-Strategy	19.12	6.29	0.512**	-0.350**	0.388**	0.436**	1				
6-Firm Size	2.79	1.42	0.027	-0.045	-0.039	-0.043	0.004	1			
7-Firm Age	3.82	1.57	0.073	-0.035	-0.006	-0.019	0.052	0.503**	1		
8-Education	3.71	0.77	0.023	0.011	-0.017	0.004	-0.034	0.200**	0.096*	1	
9-Experience	2.63	1.31	-0.078	0.052	-0.049	-0.028	-0.063	0.275**	0.371**	0.014	1

\*\*correlation is significant at the 0.01 level (2-tailed)

\*correlation is significant at the 0.05 level (2-tailed)

Table 4. Result of regression analyses

Variables	Outsourcing	
	Model 1	Model 1
	Coefficient(S.E)	Coefficient(S.E)
Asset specificity	-0.475(0.094)***	-0.453(0.095)***
Trust in accountant	1.979(0.139)***	1.960(0.143)***
Competitive pressure	0.378(0.117)***	0.438(0.119)***
Corporate strategy	0.780(0.125)***	0.772(0.128)***
Firm Size	-	0.417(0.579)
Firm Age	-	0.928(0.552)*
Education	-	0.160(0.954)
Experience	-	-0.456(0.601)
Constant	8.114(4.277)	2.766(5.784)
<b>R<sup>2</sup></b>	0.605	.615
Adjusted <b>R<sup>2</sup></b>	0.602	.607
F-value	166.913	81.118
DF-Model	4	8

Note: n=658. Unstandardized coefficients reported. Numbers in parentheses are Standard Errors (S.E).

\*\*\* Significant at 1% level; \* significant at 10% level