TRANSACTION COST ANALYSIS, RESOURCE BASED VIEW AND MODE OF OFFSHORING OF SERVICES
Anand Pore

Abstract
Since offshoring of services is increasingly becoming an important part of the firm’s global strategy, the way a firm offshores services or in other words, Mode of Offshoring of Services (MOS) plays a significant role in helping the firm achieve it’s strategic objectives (Pore, Shah & Sterrett, 2012; Pore, 2013). Offshoring of services is a widely researched area in International Business and Management (IBM) field and Management Information Systems (MIS) field and numerous theoretical lenses have been applied to study the phenomena of offshoring of services. From the review of the literature it seems that numerous studies in IBM have focused on either Transaction Cost Analysis (TCA) and/or Resource Based View (RBV) and these two theories are also widely used in MIS to explain offshoring of services. Also since the primary motives for offshoring of services is to either reduce cost (and TCA is more focused on cost minimization) and/or access resources (and per RBV, firm’s resources are a source of firm’s competitive advantage) both TCA and RBV can be very useful in studying MOS. Also it is not possible to study all the theories used in IBM and MIS in one study, hence this study is focused on TCA and RBV and their applicability to MOS.

INTRODUCTION
Offshoring of services is the relocation of service activities that used to be performed in the home country to a foreign country (US Bureau of Economic Analysis, 2011). Because of globalization and advancements in information and communication technology offshoring of services has emerged as an important strategy for businesses to either reduce cost and/or access resources. Offshoring of services started in the early 1990s and has grown rapidly ever since. The method by which a firm procures/produces services from/in a foreign location is referred to as Mode of Offshoring of Services (MOS) (Pore, Shah & Sterrett, 2012; Pore, 2013). A firm can offshore services through a variety of MOS ranging from i) complete internalization (foreign subsidiary) characterized by high degree of control and high level of resource commitment to ii) complete externalization (arm’s length transactions), characterized by low degree of control and low level of resource commitment or iii) intermediate cooperative modes (such as licensing, joint venture etc), characterized by medium degree of control and medium level of resource commitment (Pore et al, 2012; Pore, 2013).

Since offshoring of services is increasingly becoming an important part of the firm’s global strategy, the way the firm offshores services or in other words, MOS plays a significant role in helping the firm achieve it’s strategic objective (Pore et al, 2012; Pore, 2013). Also, offshoring is a complex phenomena and MOS can be influenced by variety of factors such as cost savings, time savings, host country incentives, access to skilled resources and markets and at the same time concerns regarding security/privacy of data, intellectual property rights, host country political/economic uncertainty, cultural distance between the host country and the home country and lack of partners/vendors in the host country may discourage firms from either offshoring services completely or may limit the choice of MOS available to the firm in the host country. Also, factors related to the service such as strategic importance of the service to the firm, customization needs of the customer and use of proprietary technology in the production/performance of the service and firm capabilities may play a part in deciding the MOS. Looking at the complexity of the

1 University of Houston-Downtown
E-mail: andypore@gmail.com
factors influencing the MOS the researcher feels that MOS needs to be studied using multiple theoretical frameworks.

So far except for a handful of studies (Pore et al, 2012; Pore, 2013) most of the researchers have either studied MOS using just Transaction Cost Analysis (TCA) or Resource Based View (RBV) or some other theoretical lens. Since TCA and RBV are not contradictory but complementary theories (Kogut and Zander, 1993; Madhok, 1997, Williamson, 1999) and seem to the most popular theoretical frameworks used to explain the phenomena of offshoring, this study explores the applicability of TCA and RBV to MOS.

LITERATURE ON MOS

Offshoring of services has emerged as a widely researched area in IBM and MIS.

“Multinational business issues are enriched by analysis from multiple perspectives.” (Niederman, 2005:187). Niederman (2005) has identified offshoring as one of the area where both IBM and MIS can gain a lot by cross-fertilization of ideas.

Also this study looks at another widely researched area ‘mode of entry’ in IBM, in order to identify theories used to explain offshoring mode choice. Mode of entry is the method by which a firm enters and serves a foreign market (Erramilli, 1987) and the factors influencing mode of entry are very similar to MOS.

The following section first briefly discusses literature on MOS in MIS followed by brief discussion of literature on mode of offshoring of services in the field of IBM, followed by a discussion of TCA and RBV and their applicability to MOS.

Literature on MOS in MIS

Offshoring has been widely researched in MIS and there is no shortage of theoretical concepts used to explain the phenomena of offshoring. But, MIS literature on offshoring is mostly focused on outsourcing and/or offshore outsourcing of Information Technology (IT) services. Outsourcing and/or offshore outsourcing is similar to external sourcing. Furthermore since the researchers in MIS field, mostly base their studies on IT services, the generalizability of the results of these studies to other types of services (other than IT services) may be limited.


It is not possible to study all the theories mentioned in the preceding paragraph, in one study. Also, out of these nine theories, numerous MIS studies have focused on TCA and RBV and these two theories are also widely used in IBM to explain international operations of multinational enterprises.

Since TCA and RBV have been used to explain international operations of multinational enterprises in MIS fields, this study will focus on TCA and RBV, and explore the explanatory power of these theories for non IT services as well.

Literature on MOS in IBM

In addition to MOS this section also discusses mode of entry as it is the term used in IBM literature to explain the entry of a firm in a foreign country and most of the theories used to explain mode of entry also apply to MOS.
“The Foreign market entry mode is an institutional arrangement that makes possible the entry of a company’s products, technology, human skills, management, or other resources into a foreign market.” (Root, 1987:5). This definition of entry mode is considered bedrock of entry mode definitions and subsequent definitions of entry modes were developed around it (Sharma and Erramilli, 2004). Mode of entry is the method by which a firm enters and serves a foreign market (Erramilli, 1987). Mode of entry and entry mode, mean the same thing and are used interchangeably in this study. Also Mode of entry is very similar to MOS.

Dunning (1993a), identified four reasons for Multinational Enterprise (MNE) to go overseas: First is resource seeking - primary motive for firms to go overseas is to acquire raw materials and minerals at a lower cost or to access cheap unskilled or semi-skilled labor, or to acquire technological capability, management, marketing, or organizational skills (Dunning, 1993a). Second, market seeking – Entry into foreign markets is motivated by the desire to market goods and services to markets in that region. The size of the market usually dictates the mode of entry. Markets with heavy local demand, justifies local production; for low local market potential exporting is the preferred method (Dunning, 1993a). Third, efficiency seeking - firms rationalize production between a group of affiliates within a region, or between parent and number of affiliates. Hence instead of producing the same or similar products in each market, each affiliate specializes in fewer products and supplies the market of all countries (Dunning, 1988; 1993a). Fourth, Strategic asset and capability seeking – Firms acquire assets that enhance their existing capabilities and give them competitive advantage. Firms are more focused on maintaining or strengthening their long term competitive position than on short term cost savings (Dunning, 2002a; Hamel and Prahlad, 1985).

In terms of Offshoring, motives for firms to go overseas are to: reduce cost, by using cheap foreign labor (similar to resource seeking); rationalize production of services (efficiency seeking) and as part of a growth strategy, to access strategic foreign assets (for ex. foreign highly skilled professionals), that are scarce in their home country (strategic asset seeking). Market seeking motive is not the primary motive in offshoring. Results of various offshoring surveys seem to support this view. Duke University CIBER/Archstone Consulting (2005) survey found that cost reduction was the number one motive (reported by 97% of the respondents); followed by growth strategy (73%); access to qualified professionals (70%) and access to new markets was cited as a motive only by 25% of the respondents. Other studies (Mann, 2003; Yourdon, 2004; Ventoro, 2005) have reported similar results.

The major difference between ‘mode of entry’ and MOS is that the studies on mode of entry are primarily focused on market seeking objective, whereas offshoring studies are primarily focused on cost minimization aspect (resource seeking and efficiency seeking).

Entry modes are generally classified based on level of control (Anderson and Gatignon, 1986; Hill, Hwang and Kim, 1990; Root, 1994) or resource commitment (Hill et al., 1990). Most of the entry modes can be broadly classified into three general categories: exporting (direct exporting and indirect exporting), contractual modes (licensing and franchising) and investment modes (wholly owned subsidiary, majority or minority joint venture) (Anderson and Gatignon, 1986; Driscoll and Paliwoda, 1997; Root, 1987; Sharma and Erramilli, 2004).

Similarly, firms could offshore services through a wide spectrum of modes ranging from complete internationalization (foreign subsidiary) to complete externalization (arms length transaction) or intermediate modes (licensing, strategic partnership, joint venture etc).

Some of the theories that have been used to explain entry mode choice in IBM are Hymer’s theory, International Product Life Cycle theory, Internationalization theory, Internalization theory, Eclectic Paradigm, TCA and RBV.

The most widely used theory in IBM to explain entry mode is TCA (Coase, 1937; Pore et al, 2012; Pore, 2013; Vivek, Richey and Dalela, 2009 and Williamson, 1975; 1981; 1985), recently RBV (Barney, 1991; Penrose, 1959; Pfeffer and Salancik, 1978) is gaining lot of attention (Peng, 2001). RBV has better explanatory power for predicting firms entry mode, than other theories (Ekeledo and Sivakumar, 2004; Makhija, 2003).
According to TCA, external factors (market failure) drive firm’s structure, whereas per RBV, internal factors (firm’s strategy and resources) drive firm’s structure. TCA generally favors low control entry modes (Anderson and Gatignon, 1986) and RBV favors high control mode (Gatignon and Anderson, 1988). Hence studying offshoring mode using both TCA and RBV helps in better understanding of the phenomena, as TCA and RBV are not contradictory but complementary theories (Kogut and Zander, 1993; Madhok, 1997; Williamson, 1999).

It is clear from the preceding discussion that both TCA and RBV have been used to explain international operations of multinational enterprises in both IB and MIS fields. This section discusses TCA and RBV theories, their limitations and their ability to explain/predict/support various MOS.

TCA

According to Teece, TCA “provides a framework for discriminating between those transactions which need to be internalized and those which do not. Without such a framework, internalization theories of the multinational enterprise must be considered incomplete, and perhaps even tautological.” (1986:24-25).

TCA is a principal theoretical framework used to explain and predict global sourcing of products (Murray and Kotabe, 1999). TCA is more concerned with cost minimization (Williamson, 1975). TCA is also referred to as Transaction Cost Economics (TCE) and Transaction Cost Theory (TCT) or Transaction cost (TC) in other studies.

Also according to TCA, firms can organize transactions through market (no integration or externalization) or internalize them within the organization (full integration or internalization), or by some other mode reflecting an intermediate degree of integration (cooperative sourcing). In the long run, the method that economizes transaction cost is the most efficient method (Williamson, 1985).

Per TCA, firms employ modes of operation that minimize production and transaction cost (Williamson, 1985). Production cost includes the direct cost of producing and delivering a product or a service (Poppo and Zenger, 1998). Transaction cost, is the cost associated with discovering prices, undertaking negotiations, drawing up contracts and settling disputes (Williamson, 1985).

TCA generally favors low control entry modes, (Anderson and Gatignon, 1986) as one of the main underlying assumptions in TCA is that markets are competitive (Hennart, 1989). In competitive markets there are many potential suppliers; hence more chances that firm will be able to buy a particular input at a competitive price, without worrying about supplier’s opportunistic behavior (Anderson and Gatignon, 1986). Only under conditions of market failure TCA recommends hierarchies (internalized transactions). Also, under conditions of market failure TCA does not suggest that equity modes of entry are always superior to markets (Hennart, 1989), depending upon the circumstances, either equity modes or contractual agreements negotiated through markets may be more efficient (Brouthers and Nakos, 2004).

TCA identifies two main costs: market transaction cost and control cost (Williamson, 1985). Market transaction costs are the costs associated with buying the inputs, whereas control costs are the costs associated with making the inputs. According to Hennart (1989) it is efficient for a company to organize itself as a hierarchy, only when internal organizational costs are lower than market transaction costs.

Transaction cost is influenced by various factors such as bounded rationality, opportunism, asset specificity, uncertainty, information impactedness and small numbers bargaining (Jones and Hill, 1988). Any of these six variables alone or in combination may lead to market failure and the firms may choose hierarchy over market (Jones and Hill, 1988). In addition to these six variables, transaction frequency also influences transaction cost.

**Bounded rationality** - In a realistic world, decision makers cannot look at all the possibilities and reach an optimal solution, instead they ‘satisfice’ or in other words pick an alternative that meets a certain threshold (Simon, 1957; 1979). This human limitation is called bounded rationality (Jones and Hill, 1988).

**Opportunism** - Opportunism is the seeking of self-interest with guile (Williamson, 1985). Opportunism or the perception of opportunistic behavior leads to complex contracting and hierarchy (Williamson, 1983).


Asset specificity – Asset specificity refers to the physical and human resources that are specific to a narrow range of transactions and lose value outside these narrow ranges of transactions (Williamson, 1985; Williamson and Ouchi, 1981).

Asset specificity is usually associated with proprietary knowledge or technology, which may be the basis for a firm’s competitive advantage (Anderson & Gatignon, 1986) and hence the firm is more concerned with protecting this asset (Erramilli & Rao, 1993). Hence increase in asset specificity results in increased use of hierarchy to gain greater control over the asset and also to protect it from misuse (Hennart, 1991). Since increase in asset specificity makes the asset less valuable outside the transaction, suppliers are reluctant to invest in those assets, this also may leave the firm with no choice, but to either enter in a long term contract or internalize the operation. Hence asset specificity may also create switching costs in case of unsatisfactory performance by the initial supplier (Erramilli & Rao, 1993).

Uncertainty – When operating domestically firms face uncertainties related to supply of product (such as quality, quantity and performance of the product) or changes in technology, consumer preference and so on, whereas in international operations firms face additional uncertainties related to host country political and legal environment and the ability to enforce contracts (Erramilli & Rao, 1993; Gatignon & Anderson, 1988; Williamson, 1985). Firms are better off selecting non-equity or low-investment mode in countries with high environmental uncertainty (Anderson & Gatignon, 1986), as this gives them flexibility to change partners or exit the market, if needed.

Information impactedness - Information impactedness refers to the information asymmetry between the transacting parties (Jones and Hill, 1988). One partner may have more information than others and may use it to his advantage (Jones and Hill, 1988) or partners may misrepresent their capabilities (Eisenhardt, 1989). Information impactedness may result in firms internalizing transaction, in an attempt to resolve information asymmetry (Williamson, 1991).

Small numbers bargaining – Small numbers bargaining is the result of limited number of exchange partners. Lack of competition between existing suppliers may results in opportunistic behavior by some of the existing suppliers. Transaction costs may be minimized through internalization of production, under conditions of limited supplier competition (Williamson, 1988). Various studies (Caves and Bradburd, 1988; Levy, 1985; McDonald, 1985; Pisano, 1990) have found support for internalization, as a result of lack of supplier competition.

Transaction Frequency - Transaction frequency is the frequency with which transactions recur (Williamson, 1983). High transaction frequency does not necessarily imply internal mode of sourcing, but high transaction frequency coupled with high asset specificity increases the odds of firms using internal mode of sourcing (Williamson, 1983). Also, in situations of high asset specificity and low transaction frequency, firms should not use internal mode of sourcing (Williamson, 1983).

TCA limitations
TCA is not effective for polytomous choices (e.g. internal, external and shared control modes), but is effective only for dichotomous choices (e.g. internal vs external modes) (Gatignon and Anderson 1988; Erramilli and Rao 1993).

“TC [Transaction Cost] economics is fundamentally incapable of being a complete theory of economic organization. The notion of the firm as a bundle of transactions or contracts is an inadequate and shallow basis for a theory of the firm since it basically ignores the essential notion of the firm as a bundle of knowledge, and the underlying processes therein.” (Madhok, 1996: 577).

TCA arguments need to be supplemented with considerations from institutional and cultural environments (Brouthers, 2002). According to Madhok (1996), TCA is a static approach and does not consider issues pertinent to firm capabilities. According to Porter (1980), entry mode decision must go beyond the analysis of costs and investment requirements and must consider the broader strategic issues of integration versus use of market transactions.

Applicability of TCA to predict mode of offshoring of services
A study by Murray and Kotabe (1996) on sourcing of goods, indicated that TCA may be relevant in predicting the sourcing of tangible goods, but not intangible ones and since services are similar to intangible goods, TCA may not be applicable. According to Murray and Kotabe (1999), conventional TCA
may not be applicable to sourcing of services, but modifications to TCA could provide an important first step towards developing a general theory for global sourcing of services.

TCA favors cost minimization and results of various offshoring surveys (Mann, 2003; Duke University CIBER/Archstone Consulting, 2005; Yourdon, 2004; Ventoro, 2005) indicate that cost reduction is the primary driver for offshoring. According to TCA, external factors (market failure) drive firm’s structure, Murray and Kotabe (1999) argue that external environment would influence the mode of sourcing of services. Also asset specificity, an important variable influencing transaction cost, per Murray and Kotabe (1999) influences entry mode decisions. Further according to TCA high transaction frequency coupled with high asset specificity increases the odds of firms using internal mode of sourcing (Williamson, 1983), this argument was also supported by Murray and Kotabe (1999). Finally, small numbers bargaining also influences transaction cost. Kotabe et. al., (1998) argue that external availability of services influences mode of sourcing. Also several other studies (Grote and Taube, 2007; Manning, Lewin and Schuerch, 2011; Mudambi and Venzin, 2010; Pore et al, 2012; Pore, 2013 and Vivek, Richey and Dalela, 2009) have applied TCA or modified forms of TCA to offshoring of services.

Hence it is clear form the preceding paragraph that TCA can be applied to study/predict MOS.

RBV

Industrial Organization (IO) model, prevalent during the 1960s through 1980s viewed external environment as a primary determinant of firm strategies (Hoskisson, Hitt, Wan and Yiu, 1999) and industry in which a firm competes having stronger influence on firm performance than managerial decisions (Bowman and Helfat, 2001). IO model assumed the firms (competing within an industry or a certain segment of the industry) to control similar resources and pursue similar strategies (Porter, 1981) and also the resources controlled by the firms to be highly mobile across firms (Barney, 1986a).

RBV takes a completely different view, according to Barney (1991), the resources firms control may be heterogeneous and these resources may not be perfectly mobile (contrary to IO models assumption of homogeneous and perfectly mobile resources). Also firm’s resources (and not the industry as assumed under IO model) are a source of competitive advantage (Barney, 1991). Per Barney (1991), only the resources that are valuable, rare, inimitable and non-substitutable can be sources of competitive advantage.

Firm resources include all assets, capabilities, organizational processes, firm attributes, information and knowledge controlled by a firm that enable it to conceive and implement strategies efficiently and effectively (Barney, 1991). Resources are valuable when they enable a firm to conceive of or implement strategies to take advantage of opportunities and/or neutralize threats in the external environment. Resources are rare when they are possessed by only the firm or few of its current or potential competitors. Resources are inimitable, when either they are difficult to imitate or the cost of imitation is prohibitively high. And finally resources are non-substitutable when competing firms cannot come up with their strategically equivalent resources (Barney, 1991).

Sole ownership is the default entry mode for RBV, as full control over the foreign operations ensures protection of firm’s competitive advantage (Gatignon and Anderson, 1988; Erramilli and Rao, 1993). RBV favors high control mode (Gatignon and Anderson, 1988), whereas TCA generally favors low control entry modes (Anderson and Gatignon, 1986)

According to Madhok (1997), framework based on resource based theory, provides a better explanation of entry mode strategies. On similar lines Ekeledo and Sivakumar’s (2004) empirical findings suggest that U.S. manufacturing and service firms' entry mode strategies are better explained by RBV.

Traditional theories of the firm assumed static state of competition whereas RBV assumes dynamic competition, which is a very realistic assumption in light of spread of globalization. RBV provides an explanation for entry mode choices based not only on the exploitation of existing advantages but also on the generation of new ones (Peng, 2001). “RBV has made IB research more theoretically rigorous” (Peng 2001:819). RBV’s origin could be traced back to Penrose (1955, 1959). Wernerfelt (1984) revived the theory by analyzing the firm from the resources side rather than product/market side.
According to RBV a firm’s foreign market entry strategy is based on its assets, capabilities and competitive advantage (Grant, 1991). Firm’s resources determine firm capabilities and limitations (Grant, 1991). Firm’s entry mode choice is a fit between the firm’s resources and external opportunities (Conner, 1991, Johanson and Valhne, 1977). Also, several factors related to the host country such as host country political, legal and business environment, supporting infrastructure, availability of vendors/ partners and availability of raw materials and skilled labor may also influence the type of entry mode a firm ‘can’ choose.

RBV limitations
Despite the merits of RBV, Mahoney and Pandian,(1992) claim that it is not a comprehensive theory of expansion of the firm and researchers (Acedo, Barroso and Galan, 2006; Newbert, 2007) suggests that it is not a standalone theory. Also, some (Kogut and Zander, 1993; Madhok, 1997, Williamson, 1999) view RBV as complementary to TCA. RBV has not looked beyond the properties of resources and resource markets to explain firm heterogeneity (Oliver, 1997). Also, RBV has not looked at the social context (firm tradition, network ties and regulatory pressures) within which resource selection decisions are embedded (Ginsberg, 1994) and how firms actually make or fail to make rational resource choices in pursuit of economic rent (Oliver, 1997).

Applicability of RBV to predict MOS
RBV (and its variant Organizational Capability (OC) perspective) has been used by various scholars (Ekledo and Sivkumar, 2004; Erramilli, Agarwal and Dev, 2002; Sanchez-Peinado, Pla-Barber and Hebert, 2006; Tsang, 1997) to explain entry mode.
Under RBV, several factors related to the host country such as host country political, legal and business environment, supporting infrastructure, availability of vendors/ partners and availability of raw materials and skilled labor are believed to influence the type of entry mode a firm can choose. Also since RBV focuses on firm resources and capabilities, RBV is suitable for explaining offshoring of services and is especially usual for complex and knowledge intensive service activities (Bunyaratavej, Hahn and Doh, 2011; Javalgi, Dixit and Scherer, 2009)

CONCLUSION
Offshoring of services is a widely researched area in the field of MIS as well as IBM and it is clear from the discussion in this paper that numerous theoretical lenses have been applied to study the phenomena of offshoring in general and it seems that numerous MIS studies have focused on TCA and RBV and these two theories are also widely used in IBM to explain international operations of multinational enterprises. Also it is not possible to study all the theories used in MIS and IBM in one study, hence the researcher chose to focus on TCA and RBV.
According to TCA, external factors (market failure) drive firm’s structure, whereas per RBV, internal factors (firm’s strategy and resources) drive firm’s structure. TCA generally favors low control entry modes (Anderson and Gatignon, 1986) and RBV favors high control mode (Gatignon and Anderson, 1988). TCA favors cost minimization, whereas RBV is focused on resource acquisition, maintenance and deployment (Penrose, 1959; Barney, 1991; Peng, 2001). Various scholars (Boehe 2010, Kedia and Lahiri, 2007; Martínez-Noya, Garcia-Canal and Guille´n, 2012; Pereira and Anderson, 2012; Pore et al, 2012; Pore, 2013; Roza, Van den Bosch, and Volberda, 2011; Vivek et al. 2009) have used both TCA and RBV to study offshoring of services. Hence studying MOS using both TCA and RBV helps in better understanding of the phenomena, as TCA and RBV are not contradictory but complementary theories (Kogut and Zander, 1993; Madhok, 1997, Williamson, 1999).

REFERENCES


Bureau of Economic Analysis, ‘Summary data for trade in private services by type’, retrieved electronically on 2/08/2011 from [http://www.bea.gov/international/index.htm#trade](http://www.bea.gov/international/index.htm#trade)


©Society for Business and Management Dynamics


