

## Multinational transfer pricing: A transaction cost and resource based view

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### ABSTRACT

Transfer pricing stands at the heart of a MNE management control system. We review the theories of TCE and RBV and develop antecedents and consequences of transfer prices based on these theories. We propose viewing transfer pricing decisions through a TCE and RBV value chain framework. We review a sample of transfer pricing literature based on this theoretical perspective and show how it fits within our framework. Our framework suggests that setting transfer pricing policy is indeed a complex problem that includes many factors and has many consequences, some of which may be at odds with each other. We give some suggestions for future research based on this framework.

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### 1. Introduction

Multinational enterprises (MNEs), by their very nature, have advantages and disadvantages. A major advantage (and thus major motivation) is that operating in many countries provides the opportunity to exploit structural market imperfections for competitive advantage. However, this potential advantage can only be realized if the entities that comprise the MNE are well-coordinated. In cases where coordination is not achieved, a MNE can become unwieldy, providing limited advantage. Transfer pricing policy can help a MNE take advantage of complex international market imperfections while managing costs and risks.

A process which is critical to determining the success of a MNE is its value chain, both internal and external. Managing a value chain involves a number of things, the first of which is the organization of

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entities, whether they are divisions of the same organization, or are separate organizations operating together as a joint venture. These entities may be segmented by country, by legal entity, or by product line. The goal of the value chain is to maximize their joint value. In a vertically integrated organization consisting of a number of decentralized autonomous entities, an important coordination procedure is the transfer price charged for goods and services transferred from division to division (entity). Transfer pricing refers to the prices placed on goods, services, and intangibles as they move between economic entities of a MNE. Transfer pricing policy is particularly difficult for a MNE because they need to not only determine a transfer price that is in the best interest of the organization and the individual entities in the value chain, but also one that will satisfy the regulatory requirements of host countries where foreign divisions are located. This problem is compounded by the decision of where to locate worldwide resources in order to exploit market imperfections and maximize the organization's value chain. These decisions will be determined by the nature of the product created, market structure, environmental factors including tax policies, relative power and dependence among entities, governance procedures, socioeconomic and geopolitical risks, transaction risk, and the nature of the resources used to create value. These issues make transfer pricing one of the most important problems facing MNEs today, as Ernst and Young (2007) found in a survey of 850 MNEs.

To assess the state of research involving MNE transfer pricing, we consider two theories regarding boundary procedures among entities in a value chain, and provide a framework for relating these theories to transfer pricing issues and extant literature. These two value (supply) chain boundary theories are transaction cost economics (TCE) and the resource based view (RBV) of an organization. Traditionally, these theories have been applied to inter-organizational value chains (e.g., Anderson & Dekker, 2009); we apply them intra-organizationally to provide a framework to study and review MNE transfer pricing issues and literature. We further suggest a way to move forward to help MNEs manage their organizational boundaries by better understanding the complex set of objectives and constraints engendered in the transfer pricing decision, such as those outlined in Leitch and Barrett (1992), Smith (2002b), Baldenius, Melumad, and Reichelstein (2004), Chan, Lo, and Mo (2006), Gox and Schiller (2007), Villegas and Ouenniche (2008) and Doupnik and Perera (2009). We suggest a framework based on TCE and RBV theories to assess the antecedents and consequences of MNE transfer prices.

In general, TCE focuses on minimizing risks associated with transaction costs through cooperation among entities. In particular, the main risks considered are those associated with the exchange of goods and services among entities (sometimes called performance risk), and concerns of opportunism on the part of some entities (sometimes called relational risks) (e.g., Anderson & Dekker, 2009; Das & Teng, 2001; Williamson, 1985). In contrast, the resource based view (RBV) of the firm focuses on the strategic benefits of cooperation among entities (Anderson & Dekker, 2009). An organization's ability to accumulate and strategically deploy resources can lead to competitive advantage (Das & Teng, 2000). TCE and RBV are often considered in supply chain literature. We view a MNE as a closely held supply chain, borne out of strategic or tactical necessity to generate value. MNEs often arise from the need to vertically integrate operations. Therefore, we can view this type of organization as a value chain, where transfer prices provide economic, contractual, managerial, and relational governance policies, which are used to achieve this value generating objective.

MNE transfer pricing decisions can involve multiple objectives, such as: the maximization of global profit, or its counterpart, the minimization of global taxes; the maximization or equitable division of entity profits to reward and motivate entity managers (Baldenius et al., 2004; Chan et al., 2006; Gox & Schiller, 2007; Smith, 2002b; Villegas & Ouenniche, 2008)<sup>1</sup>; preservation of entity autonomy; reduction of risks related to economic, currency, and geopolitical concerns; and minimization of government intervention and compliance with operational constraints (e.g., Doupnik & Perera, 2009; Leitch & Barrett, 1992; Villegas & Ouenniche, 2008). MNE entities are interrelated along legal lines as well as potentially product, activity, resource, and business process lines. As a result of these interrelationships, the nature of the transactions between entities may be very complex. This complexity requires the consideration of additional relationships beyond the traditional dyadic relationships considered in much of the transfer pricing literature and regulation.

<sup>1</sup> This can be stated in numerous ways such as the efficient allocation of resources and the incentives for efficient trade.

As in a value chain, viewing an MNE as an economic ecosystem where the success of the parent entity is dependent upon the success of its subsidiary entities allows us to consider the transfer pricing decision from TCE and RBV perspectives. The rest of the paper is organized as follows. In the next section, we explain TCE and RBV in detail. In Section 3 we propose a framework that considers antecedents to transfer prices and consequences of transfer prices from TCE and RBV perspectives. In this section we also review some important transfer pricing papers, showing where each fits into our proposed framework. In Section 4 we conclude and suggest potential areas of research based on this extended view of transfer pricing.

## 2. Transaction cost economics and resource based view theories

Two economic theories that describe how divisions in MNE value chains interact with each other are transaction cost economics (TCE) and the resource based view (RBV). Both theories are relevant to MNE transfer pricing because they focus on the coordination of activities at the boundary between entities. They consider the effects of the nature of a value chain, markets, environmental factors including taxes and regulations, power and dependency, and governance structures on transfer prices. In MNEs, entities in the internal value chain may be located domestically as well as in foreign countries. Goods and services are transferred from entity to entity as they progress through the value chain. Governance of activities at the boundaries is important to each entity as well as the organization as a whole. Transfer pricing policy is an essential element of a sound governance policy.

### 2.1. Transaction cost economics (TCE)

TCE (Williamson, 1985) is a framework for analyzing boundary and organizational design choices among entities in a supply chain. In general, TCE focuses on transaction costs associated with cooperation among entities, emphasizing the potential downside or risk associated with the interaction of entities in a value chain (Anderson & Dekker, 2009).

TCE focuses on two important factors (Dekker, 2004; Grover & Malhotra, 2003). First, there are the transaction costs and the associated performance risks (Anderson & Dekker, 2009; Das & Teng, 2001). Examples of transaction costs include the coordination costs of exchanging information and incorporating that information into the decision process, such as searching for partners, negotiating and writing contracts, monitoring and enforcing contract compliance, and dispute resolution.

Second, the other important factor TCE focuses on is opportunistic behavior, where entities in an exchange relationship may be guided by self-interest considerations to take advantage of other entities in a value chain. This includes such behaviors as cheating, lying, subtle forms of violation in agreements, and using leverage to take unfair advantage of trading partners. Using leverage unfairly becomes more acute when one entity has more power or influence than another. These opportunistic risks are often called relational risks (Anderson & Dekker, 2009; Das & Teng, 2001). Relational risks may cause a firm to incur monitoring costs to monitor activities, safeguard assets, and make sure parties to the transaction do not engage in opportunistic behavior (Grover & Malhotra, 2003). Often relational risks result from an investment in specific assets by one entity that are necessary for the efficient functioning of the value chain such as human assets (e.g., specialized knowledge, experience, training), intangible assets (e.g., brand name), and physical property (e.g., location of production facilities, specialized machinery) (Williamson, 1991). Once such an investment is made by one entity, another entity with enough power in the relationship can reap all the economic rents (benefits) based on the transfer pricing policy of the firm (this is known in economics as the “hold-up” problem (Cabral, 2000)). These opportunistic risks might disincentivize managers from undertaking investments which are important to the value chain.

In summary, TCE tends to focus on a contractual view of governance and does not consider other organizational and relational control mechanisms for coordinating activities, business process, and related governance structures, or the dynamics of social mechanisms among business partners (Dekker, 2004; Gulati & Singh, 1998). Unfortunately, these contracts are incomplete due to the many risk factors (i.e., product, market, environmental), which are present in any relationship between entities as well as the human limitations of bounded rationality. In particular, informal and social

control mechanisms, such as trust and collaboration,<sup>2</sup> are not considered in TCE (Dekker, 2004). Thus, TCE is an incomplete foundation for our formulation of transfer pricing as a governance and control mechanism for transactions among entities in an internal MNE value chain.

## 2.2. Resource based view (RBV)

In contrast to TCE, the resource based view (RBV) of the firm focuses on the strategic benefits of cooperation among organizational entities (Anderson & Dekker, 2009). The resources needed to conceive, choose and implement strategies are likely to be heterogeneously distributed across entities. This heterogeneity is posited to account for differences in a firm's performance (Barney, 1991; Grant, 1991). RBV views the firm as a broad set of resources consisting of tangible and intangible assets that are unique (Wernerfelt, 1984). Resources can lead to a competitive advantage when they are valuable, rare, imperfectly inimitable (i.e., unique), and have no equivalent substitutes (Barney, 1991; Dyer & Singh, 1998; Holweg & Pil, 2008; Hoyt & Hug, 2000; Lambert, Stock, & Elram, 1998; Wade & Hulland, 2004). Through the ability to accumulate and strategically deploy such resources, firms are able to achieve a competitive advantage leading to above-normal returns (Barney, 1991; Das & Teng, 2000; Dietrickx & Cool, 1989; Reed & Defilippi, 1990; Rumelt, 1984). It follows that similar win-win benefits can accrue to entities within an intra-organizational value chain as different divisions through vertical integration create value from the pooling of their resources and capabilities.

Thus, from a RBV perspective, value chains can be formed through vertical integration (or alliances) to create value from the pooling of resources and capabilities of entities as they leverage each other's scarce and inimitable resources to maximize their returns (Combs & Ketchen, 1999; Das & Teng, 2000; Fayard, Lee, Leitch, & Kettinger, 2012). Resources that span entity boundaries can include physical and financial assets, managerial know-how, human capital, technological know-how, communication and knowledge sharing routines, and complex inter-organizational social networks and relationships (e.g., Anderson, 1990; Das & Teng, 1998; Dyer & Singh, 1998; Fayard et al., 2012; Holweg & Pil, 2008; Ireland, Hitt, & Vaidyanath, 2002; Wade & Hulland, 2004). They may also include governance controls to coordinate and manage the information flows and activities of a supply chain (e.g., Dekker, 2004; Dyer & Singh, 1998; Gulati & Singh, 1998; Ireland et al., 2002). In general, RBV suggests that an organization or joint venture creates value by aggregating, sharing, and exchanging valuable resources and the business processes associated with these resources throughout the value chain.

Several studies have suggested that productivity gains in the value chain are possible when trading partners are willing to make relation-specific investments and combine resources in unique ways (e.g., Asanuma, 1989; Dyer, 1996). MNEs may be able to raise barriers to entry by exploiting a portfolio of unique attributes including economies of scale, superior knowledge, more efficient distribution networks, product diversification, and credit advantages. From a RBV perspective, MNEs are able to use international markets to locate assets and restructure production facilities within their value chain, and in doing so manipulate transfer prices (Dunning & Rugman, 1985). For example, locating production in low tax regions would be part of an overall RBV strategy to maximize product line profits or company value. However, transfer prices may be subservient to larger issues such as *proximity to natural resources, and the attainment of human resource capabilities*.

Governance activities from a RBV perspective focus on the social and political relationships, such as those based on policies, routines, procedures, trust, and reputation (see Fehr and Gächter (2000) for a discussion of trust and reputation). This suggests that an entity's critical resources may span its boundaries and be embedded in inter-entity policies, routines, and processes (Fayard et al., 2012). These relationships (linkages) may also be a source of relational rents and competitive advantage (Dyer & Singh, 1998). Relationship resources include human assets related to transaction-specific know-how accumulated through long-standing relationships (e.g., dedicated supplier engineers, who learn the systems). Such human co-specialization increases as intra-organizational (or alliance) entities develop experience working together and accumulate specialized information, language, and know-how. This allows them to communicate efficiently and effectively (Asanuma, 1989; Dyer, 1996).

<sup>2</sup> Trust may be built through interaction, reputation and social networking; see Dekker (2004) for an extensive discussion of trust building and relevant references.

To facilitate effective communication, an information system (IS) can be an important value-adding resource. An IS facilitates the coordination of activities and the flow of information as well as provides a basis for relationships among entities. As a result, it can be argued that a well-integrated IS is an important resource from a RBV perspective. Beyond tangible resources, relationships such as trust and communication networks are important (Dekker, 2004; Fayard et al., 2012). They include the routines and processes between entities that help the coordination of activities, which cannot be accomplished via incomplete contracts and physical communication networks. These relationships can be adversarial, where entities are self-serving and focus only on their bottom line, resulting in little cooperation and value creation; or, they can be amicable and share information, share resources, engage in fair treatment of their fellow entities, and cooperate resulting in value creation through their relational resources.

In general, RBV focuses on value maximization through the effective use of resources, and as a result, tends to be considered more of a strategic approach to value chain management than TCE, which focuses on minimizing risks associated with transaction costs. In the next section we develop the framework that shows how RBV and TCE relate to transfer pricing.

### 3. Extended framework

A firm can be subdivided in several ways based on its activities, business processes, legal entities, product line entities, and resources (Brem & Tucha, 2006). Each of the entities within the firm can buy and sell to one another. Each product line, as well as the entities which comprise it, may have its own managerial responsibilities, such as maximization of resource utilization, product line profit, overall company profit, cost reduction, and risk minimization. This results in the development of transfer prices having multiple objectives, which need to be balanced (e.g., Leitch & Barrett, 1992; Villegas & Ouenniche, 2008). Transfer prices must be established to coordinate the value chain and govern transfers among activities, resources, and business processes.

Our framework focuses on the antecedents and consequences of transfer pricing policies between entities. Our framework shows transfer pricing in the context of TCE and RBV, illustrating how TCE and RBV theories are antecedents to transfer prices and then how transfer prices (once set) have consequences for TCE and RBV (see Fig. 1).

In the following sections we explain in detail the factors behind each oval of Fig. 1 and then follow with related literature.

#### 3.1. TCE antecedent factors

The nature of the value chain for each product line or entity can affect the transfer price. In particular, many of the traditionally recommended OECD (2001/2009) MNE transfer pricing procedures rely on comparable information for products (or companies) at a similar level of product completion. Comparable information is difficult to obtain and rarely found in databases (Brem & Tucha, 2006). There is considerable debate as to what basis should be used for comparability (Ernst & Young, 2007). Partial recognition of these issues is seen in the regulations regarding the methods recommended by OECD that use comparable markups. Issues include determining which functions are to be performed by the buyer and the seller, contractual terms, risks that could affect prices or profit, economic conditions, and, nature of the transfer [e.g., US Treasury Regulation, §1.482-1(d)]. Other factors include research and development, design and engineering, production processes, marketing and distribution, transportation and warehousing, contractual terms, and collateral [US Treasury Regulations, §1.482-1(d); Doupnik & Perera, 2009]. The nature of the production and distribution process is of particular importance from a TCE perspective because this is where many of the performance risks occur related to the value chain and its potential disruptions. Costs associated with the flow of coordination information (transaction processing) such as those associated with sales orders, inventory, and just-in-time systems on the procurement side, as well as the flow of funds on the payment side of the transactions, are also related to performance risk.

Accounting policies (e.g., depreciation and accruals) and cost structure (fixed vs. variable) may also be important from a TCE perspective. Which entities bear these costs and which entities benefit?

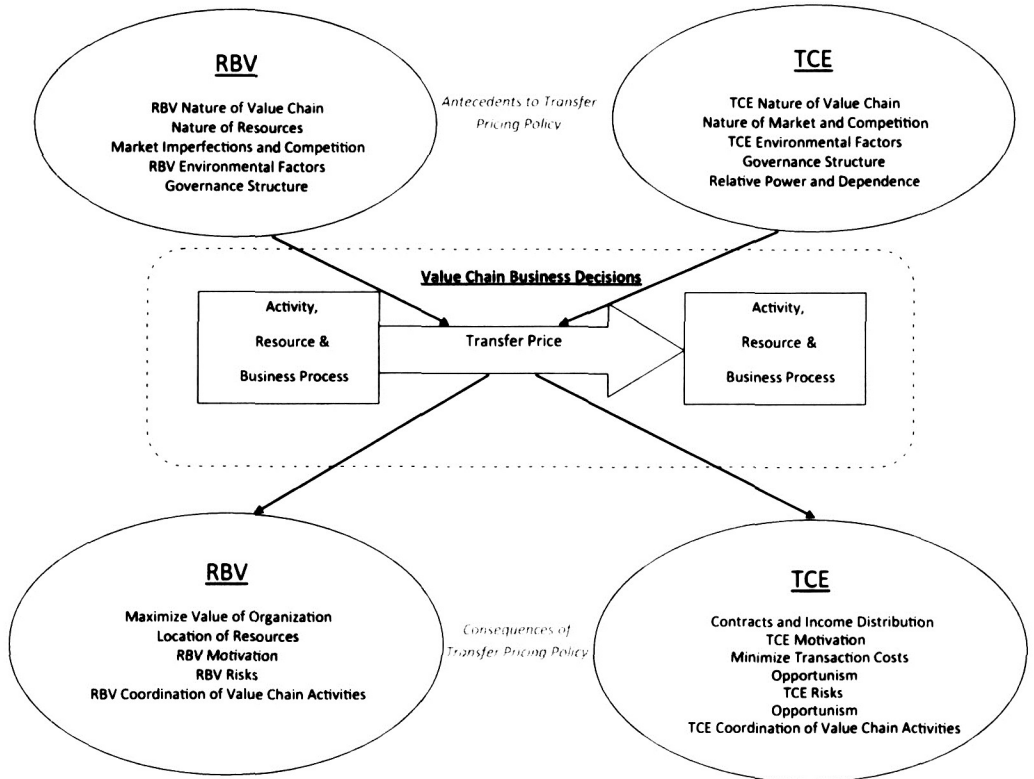


Fig. 1. RBV and TCE transfer pricing framework.

Further, how do these transaction costs factor into the transfer price? In addition, the value added at each step in the business process in a product value chain can affect the applicability of a particular transfer price according to US Treasury Regulation, §1.482, as well as similar authoritative bodies in other countries. Is a cost plus method, resale method, or a comparable markup method more appropriate?

The *nature of the market* for each entity's intermediate product can affect a transfer price. In particular, what is the nature of the *competition*? While the traditional arms-length principle (ALP) is the international benchmark for transfer pricing (OECD, 2001/2009), it is appropriate only when the market is perfectly competitive and there exists an external market for an intermediate product. The foundation of the ALP is that income, and in turn taxes from a related party, should be the same as that of an unrelated party. When there is not a perfectly competitive intermediate market, proxies are suggested by the OECD to approximate a market price for goods and services transferred. The acceptable proxies are: the uncontrolled price method; the cost plus method; the resale price method; the profit split method; and the transactional net margin method (in the US, this is tantamount to comparable uncontrollable price (CUP); or comparable profit (CPM) methods) (OECD, 2001/2009).<sup>3</sup> Moreover, if a comparable markup method is used, what is the basis of comparison?

*Environmental factors* play a significant role in the determination of a transfer price. Environmental factors that may be relevant include: credit risks associated with the market; currency fluctuations and interest rates; business risks related to property plant and equipment; economic conditions; size of market; level (retail or wholesale) of market; market share; industry conditions; alternatives available; and, nature of property transferred (US Treasury Regulations, §1.482-1(d); Doupnik &

<sup>3</sup> For a full review of acceptable methods see OECD (2001/2009). See Doupnik and Perera (2009) for how these are used.

Perera, 2009). Moreover, from a TCE perspective, regulations including tax policies and tax rates affect transfer prices. These environmental factors differ widely from one legal entity (country) to another and comprise an important dimension of MNE market imperfections.

MNEs are highly integrated organizations organized around activities, resources, and product lines with complex *governance structures*. Governance structures are affected by the complexity of the organization's value chain as well as uncertainty in the business process. These governance structures are responsible for the flow of goods and services, complex sourcing, integrated manufacturing, complex distribution channels, financial resources, risk management (e.g., dealing with warranties and accounts receivable), and generation and coordination of intellectual capital throughout the organization (Brem & Tucha, 2006). The degree of authority and autonomy given each entity, as well as market characteristics, may also affect decisions regarding the appropriateness of a transfer price. That is, should divisions be permitted to maximize their own goals or are they subject to the overall goals of the organization? Can external "arms length" market prices be used, or must hierarchical arrangements consisting of a host of policies and procedures serve as the foundation for governing the relationships between entities?

The *relative power and degree of dependence* among entities that comprise the value chain can also affect transfer prices through opportunistic risk. Opportunistic risk is the likelihood that one entity may take advantage of another by virtue of its leverage and expropriate most of the profit for itself, whether it is an individual entity, a product line, or a legal entity. Opportunistic risk may be a function of alternative options for the buyer and seller, which have a bearing on one entity's dependence on another. If one entity, for example, has no alternative other than to sell inside the organization to another entity, it has little leverage in any transfer price negotiation compared to an entity that has other options to sell its intermediate product. This issue also arises when one entity acquires a specific asset with little value outside the value chain and returns on the asset can be appropriated by others in the value chain that have more leverage. This problem is exacerbated when negotiated pricing policies are used to govern the transactions among entities in a value chain. Generally, negotiated prices are not acceptable by country tax bodies; but, negotiations play a key role in management control systems. Those entities that have some leverage can act opportunistically and expropriate profits or rents associated with this asset from other entities with little leverage.

### 3.2. TCE antecedent literature

The most commonly understood concern of management when deciding on a transfer price is the minimization of taxes, which is accomplished by shifting income toward lower tax rate jurisdictions and away from the higher ones. Klassen, Lang, and Wolfson (1993) investigated geographic income shifting by 191 U.S. MNEs in response to worldwide changes in tax rates during 1984–1990. Between 1984 and 1986, the United Kingdom reduced corporate tax rates from a maximum of 45% to 35%, and in 1985 France reduced rates from 50% to 45%. Following these reductions in European rates, the United States reduced top corporate tax rates from 46% to 34% between 1986 and 1988. Canadian rates increased between 1984 and 1986 and then decreased through 1989. Beginning in 1988, numerous countries enacted tax cuts, apparently in response to those that occurred earlier in other countries. They found that MNEs shifted income from higher tax regions to lower tax regions with the change in relative tax rates. They found that the extent of income shifting is generally significant, both statistically and economically. They documented shifting in the range of 2–4% of shareholder's equity per year on an average pre-tax return on equity of approximately 20%, which suggests a shifting of 10–20% of income.

Clausing (2003) analyzed monthly data on US international trade prices between 1997 and 1999 in order to investigate the impact of tax influences on intrafirm trade prices. An empirical analysis of Bureau of Labor Statistics data on export and import prices was undertaken in order to understand whether there was evidence of tax-motivated transfer pricing for intrafirm trade. In particular, Clausing (2003) set out to determine if there was evidence that the prices of intrafirm trade transactions were sensitive to the tax rates of the countries in question. The results found direct evidence indicating that intrafirm trade prices are likely influenced by the tax-minimization strategies of multinational firms. In particular, there is a strong and statistically significant relationship between

a country's tax rate and the prices of intrafirm imports and exports traded with that country. The estimates indicate that a tax rate 1% lower in the country of destination/origin is associated with intrafirm export prices that are 1.8% lower and intrafirm import prices that are 2.0% higher, relative to non-intrafirm goods. Estimates that employ effective tax rates find smaller but still important tax effects. This finding indicates that tax rates have a major effect on transfer pricing policies.

Pfeiffer, Schiller, and Wagner (2011) examine three cost-based transfer pricing regimes and consider uncertainty (risk) in their models. They find that: (a) centralized standard-cost transfer pricing dominates other methods if the *ex ante* cost uncertainty is sufficiently low; (b) reported standard-cost transfer pricing dominates if the *ex ante* cost uncertainty is sufficiently high and the buyer does not obtain sufficient cost information at the trading stage; and (c) actual cost-based transfer pricing becomes the superior method if *ex ante* cost uncertainty is sufficiently high and the buyer is sufficiently well informed about the supplier's costs. If the central office can condition the markup on the joint contribution margin, contribution-margin transfer pricing dominates cost-plus transfer pricing. These results are diametrically opposed to the OECD guidelines. The OECD calls for centralized standard cost-based transfer prices if *ex ante* uncertainty is high. However, if uncertainty is low, OECD suggests firms use transfer prices based on historical costs.

Vaysman (1997) analytically examines two transfer pricing regimes, one with perfect information between all parties, and the other with communication limitations. In the former case, the firm is best served by making all pricing decisions centrally. In the latter more realistic situation, the firm does better by decentralizing the production and pricing decisions to reduce the likelihood of transaction risks.

The relative power and degree of dependence among entities that comprise the value chain can also affect the transfer price through opportunistic risk. If one entity, for example, has no alternative other than to sell inside the organization to another entity, it has little leverage in any transfer price negotiation. Another entity might have a robust market for its intermediate product, thus its leverage rises. Leverage also comes into play when one entity acquires a specific asset with little value outside the value chain and returns on the asset can be appropriated by others in the value chain that have more leverage. This problem can be exacerbated when negotiated pricing policies are used to govern transactions among entities in a value chain. Abdel-khalik and Lusk (1974) found that even though transfer prices may be determined by rather sophisticated techniques, they are often followed by negotiation and/or directives specified by headquarters. Under these circumstances, it would appear that bargaining skill may prove more useful than analysis and pricing skills. Kachelmeier and Towry (2002) find that the desire for fairness is related to the method of negotiation. In an experimental setting they show that face to face negotiations produce a desire for fairness (even in situations where one party holds a significant portion of the bargaining power), whereas, when using computer based negotiation methods that desire is less apparent allowing for a more purely economic outcome. Svejnar and Smith (1984) using a game-theoretic analysis, indicate that transfer prices provide an important channel for the distribution of joint venture profits in the presence of taxation and profit sharing agreements. These agreements are shown to be a function of relative bargaining prowess, often based on the relative power and dependence of the respective parties participating in the joint venture.

Raising the specter of opportunistic risk, Dikolli and Vaysman (2006) find that coarse IT (i.e., summary and not detailed information) prevents divisional managers from transferring local knowledge about the firm's production process. This results in an informational advantage for negotiated transfer pricing over a cost-based method. With sufficiently fine IT, however, a cost-based method provides higher profits than negotiated transfer pricing because, all else being equal, the remaining opportunity and organizational costs of managerial bargaining outweigh the profit destroyed by inefficient internal trade under cost-based transfer pricing.

Alles and Datar (1998) assume that in a decentralized firm pricing decisions are made by the marketing department. In order to maximize profit, the marketing department needs to obtain cost information from the firm's cost system. As a result, the cost information that is reported becomes a component of the price determination. They show that there is a "strategic component" to the reported costs. In a cost-based transfer pricing context, this is the equivalent of marking up transfer prices over marginal costs, where marginal cost equals variable cost. Their results draw a clear



distinction between knowledge of an organization's actual cost structure, and the use that is made of the information in determining transfer prices.

Al-Eryani, Alam, and Akhter (1990) empirically find that legal constraints and firm size are significant determinants of transfer pricing strategies. This conclusion is confirmed by a number of other studies (Benvignati, 1985; the Treasury Department and Internal Revenue Service White Paper, 1988; Borkowski, 1990).

Chan and Chow (1997) study government tax audits of transfer pricing practices involving eighty-one MNEs. Their study revealed that tax rate differential does not appear to be the major consideration for transfer pricing manipulations by companies with an adverse determination in tax audits. Other factors, such as foreign exchange control and risk of devaluation of the local currency may play an even more prominent part in a MNEs transfer pricing decisions because of their potential to affect performance risks. Persistent loss, low profitability, and the lack of monitoring by local partners have been the most common circumstances which draw the attention of tax authorities. Import and export prices being controlled by foreign parents, loss on export, and an incompatible trend between sales and profit are also frequently cited. Chan et al. (2006) find that local management autonomy in transfer pricing decisions significantly impacts a company's profit shifting. Specifically, their study considered foreign investment enterprises (FIEs) in China that have autonomy to set transfer prices or source from outsiders. Their study found that those with autonomy have smaller audit adjustments than those whose transfer pricing policies are imposed by parent companies.

### 3.3. TCE consequence factors

The consequences of transfer pricing policies affect many aspects of an organization and its value chain. Whether there are external markets where an arm's length standard can be applied, or whether another method is needed because of an imperfect market (e.g., Gox & Schiller, 2007), transactions will be effected by the transfer price that is applicable under OECD guidelines (2001/2009) and tax regulations appropriate for each legal entity (country). The distribution of overall firm income among entities is the most obvious effect of a transfer price. Transfer prices also effect buying and selling decisions by entities as generally noted in most management accounting texts (e.g., Blocher, Stout, & Cokins, 2010), such as how much to buy and sell and whether to buy or sell internally or externally (e.g., Abdel-khalik & Lusk, 1974; Gox & Schiller, 2007; Hirshleifer, 1956). Each of the above consequences has contract implications.

Transfer pricing policy can affect division autonomy as well as motivation of entity managers. Often behavioral managerial objectives (i.e., motivation of employees from individual entities) conflict with the usual goal of maximization of net income (Baldeus et al., 2004; Chan et al., 2006; Cools & Emmanuel, 2007; Gox & Schiller, 2007; Smith, 2002b; Villegas & Ouenniche, 2008). Indeed sometimes sub-optimal business decisions are made as a consequence of tax compliance (Cools & Slagmulder, 2009).

Transaction costs (performance risk and opportunistic risk) are affected by transfer pricing policies. Transaction performance risks are related to the flow of goods among entities and management of financial resources of the organization. Transfer pricing policies may lead to sub-optimal decisions which affect the overall value of an organization. Transfer pricing processes can affect the degree of opportunism among entities as well. Indeed, if the process is not fair, one entity can opportunistically extract rents from another due to its political or economic leverage. Opportunistic behavior such as this can result in adverse consequences for the relationships between entities. For example, coordination of value chain activities may suffer because one entity may accrue all the income from the relationship or investment at the expense of the other. Appropriate governance policies and procedures used to set transfer prices can mitigate this effect. Moreover, transfer prices can affect risks related to economic, currency, and geopolitical concerns. Transfer price can also affect the probability of government intervention and ensure compliance with operational constraints (e.g., Doupnik & Perera, 2009; Leitch & Barrett, 1992; Villegas & Ouenniche, 2008).

In summary, transfer prices effect value chain coordination, income distribution, risks, and motivation of entity or product line managers, which in turn are affected by environmental factors,

specifically the regulatory and taxing authorities of the legal jurisdictions in which each entity resides. Negative effects of transfer pricing policies tend to lead to increased transaction costs.

#### 3.4. TCE consequence literature

An Advance Pricing Agreement (APA) is an agreement between a taxpayer and the IRS, and one or more foreign countries as to the proper transfer pricing method to use. Such an agreement can be an effective governance policy for it enables organizations to systematically plan ahead to avoid uncertainty and risk regarding transfer pricing policies. Taxpayers have been urged to enter the APA program to seek bilateral and multilateral APAs when competent and authoritative procedures are available with respect to the foreign country (or countries) involved. If there is no competent authority available, then unilateral APAs are issued [IRS-ANNCMT]. Following the lead of the IRS, other countries have adopted their own rules for MNEs to use in applying for and negotiating APAs. Countries in the European Union that have signed the Arbitrage Convention on the elimination of double taxation also have another means of settling transfer pricing disputes. Borkowski (2006) finds that transfer pricing expertise is difficult to find so high profile law firms and accounting firms have vigorously recruited APA directors. In the 13 years since the inception of APA there have been 8 directors. Waegenaere, Sansing, and Wielhouwer (2006) used a strategic tax compliance model to examine the effect of inconsistencies in the application of arm's length transfer pricing methods among taxing authorities. They find that greater inconsistency from authorities leads, on average, to a decrease in firm tax liability as a consequence of organizations trying to set transfer prices to their advantage to minimize transaction costs.

The inherent problem of conflict between divisional and firm-wide interests is characterized as an investment "hold-up" problem (Williamson, 1985). In Williamson (1985), two divisional managers engage in interdivisional trade. Both managers are risk-averse, effort-averse agents who negotiate a contract between themselves. Each division manager is concerned about getting a bonus for his own division and has to balance that concern against the good of the firm as a whole. Williamson determines that firm-wide performance evaluation is necessary unless one manager somehow captures the entire surplus from interdivisional trade. This result explains the importance simultaneously of the transfer price, the performance measure, and the power of negotiation. This analysis also uncovers interdivisional risk-sharing as an important factor, which, when properly applied, can result in reduced transaction costs.

Johnson (2006) examines the transference of intangibles from a research and development division to other divisions within the firm. Per Johnson (2006), an intangible asset has many features of a public good. When an asset is a public good, it is not possible to find an initial contract that provides efficient incentives to both parties, but agreeing upon an inefficient contract that can be renegotiated can increase the bargaining power of the first investor and, in some circumstances, provide first best investment incentives for both parties. Whenever negotiation is allowed after only one party has invested, the second party can potentially "hold-up" the first investor. That is, they will attempt to extract some of the initial investor's investment return in the negotiation process, and anticipating this, the first party will under-invest. Transfer pricing methodologies can be tested to mediate this complicated relationship. The authors analytically test royalty-based transfer pricing (with and without renegotiation) and negotiated transfer pricing. In general, royalty-based transfer pricing schemes provide efficient incentives for the buyer, but create a hold-up problem for the seller. A royalty scheme that can be renegotiated provides efficient investment incentives for the buyer while protecting the seller from the hold-up problem. Baldenius, Reichelstein, and Savita (1999) compare negotiated transfer pricing against cost-based transfer pricing and find that cost-based transfer pricing is superior for avoiding the hold-up problem. However, the authors note that cost-based methods can cause other divisional distortions based on the transfer prices.

Arya and Mittendorf (2007) examine the impact of distortions wrought by transfer prices when a firm is engaged in both internal production and external procurement of inputs. Using a Cournot model, the authors show that the presence of an external supplier introduces a delicate interaction, potentially distorting the intra-firm value chain and impacting pricing. Forced to pay more than marginal cost even for an internal good, a downstream division exhibits dampened enthusiasm or

motivation to produce, which, in turn, seeps over to the supplier's pricing. Decentralization introduces competing tensions; there are transaction costs stemming from production distortions brought by internal price markups; but, there are also the benefits of reining in external supplier prices.

Baldenius et al. (2004) examined the effects of decoupling a firm's internal price from the arm's length price used for tax purposes. They conclude that for both cost and market-based transfer pricing, an internal transfer price set equal to the arm's length price will generally result in inefficiently low intra-company transfers. They found the optimal cost-based transfer price is a weighted average of the pre-tax unit cost and the most favorable arm's length price.

Cools and Emmanuel (2007) note that in an era of heightened emphasis on internal systems and processes that contribute to corporate governance practice (PCAOB, auditing standard no. 2, 2005; Sarbanes-Oxley Act, section 404, 2002), the mere existence of alternative records may suggest an intention of deceiving. Due to the strictness of tax compliance, the motivation for an all-encompassing, universal transfer pricing policy that is tax compliant may seem more attractive to an MNE than using separate records for managerial objectives.

Cloyd, Pratt, and Stock (1996) found that accounting methods chosen for tax purposes can influence managers' financial accounting choices. In their study, financial executives of large and middle-size manufacturing firms recommended accounting methods that conformed to aggressive tax positions in an effort to increase the probability of successfully defending the tax position, if challenged by the IRS. Cools and Slagmulder (2009) undertook an in-depth case study of a single MNE. The firm began by using a single set of transfer prices for both tax compliance and management control. First the firm switched from negotiation in favor of a cost-plus method. This led to psychologically disagreeable and sometimes economically harmful consequences for the organization in terms of transaction costs. As a result of the firm simplifying the determination transfer prices, it was shown that sub-optimal business decisions were being made. Tax compliance induced a profit-center designation for business units that were primarily responsible for costs or revenues. Later the firm tried two separate sets of books, but ultimately became convinced of the benefits of a profit-center treatment for all purposes and started to convert the cost and revenue centers into profit centers. The study showed the difficulty of using one set of books for both tax compliance and management control purposes.

### 3.5. RBV antecedent factors

The *nature (or structure) of the value chain* determines in large part what flexibility a firm has in vertical collaborations (and integrations). When a firm vertically integrates, it is usually to increase efficiencies or create structural impediments to the competition. In the former case, efficiency is gained by reorganizing value chain assets, theoretically called resources, in such a way as to improve overall profitability and value of the firm. The strategic assumption is that it is often advantageous to the firm to own more links on the value chain. That is, it may become cheaper to make than to buy. Or, it may allow for intrafirm collaborations that improve the firm's overall competitive stance. Often this is due to improving the human infrastructure of the firm, elevating the capabilities of employees. The functioning of intrafirm collaborations is mediated by transfer prices. The resource based value of the intrafirm value chain is based on the inimitable strengths of the firm. These strengths rely on the relationships among entities, and thus the transfer price will play an important role in governing these relationships. For example, a transfer price may be chosen to make the upstream link a cost center or a profit center. The incentives of a cost center are different than those of a profit center.

In order for a firm to erect barriers to entry (structural impediments) they must do something unique that is also difficult to copy. One way to create a structural impediment by vertical integration is to uniquely control valuable (rare) resources. These resources may be physical, economic, informational or relational. The decisions the firm makes as to how to use these resources within the firm will help determine the transfer price between entities. For example, the location of production resources (internationally or domestically) will affect the transfer price between these entities. Further, a policy that allows for an upstream entity to price goods produced by valuable resources at market prices may ultimately dampen demand from a downstream entity for these goods and

services. Care needs to be taken in forming the transfer price to take advantage of *market imperfections* resulting from the use and location of these resources.

Barriers can be erected based on the legal and regulatory *environment* facing the firm, which may affect the use and location of valuable resources. A firm on the outside of a heavily regulated industry has a difficult time breaking through while a firm on the inside has significant advantages. For example, in the heavily regulated utility industry a utility company must have both unique assets and unique capabilities. Therefore, they are often given monopoly control over territories. The lack of a competitive market for intermediate products makes it difficult to form transfer prices, leaving room for management judgment. From a strategic planning perspective this allowance for judgment gives management choices as to where they want to locate economic resources. This judgment is usually codified into a *governance structure* that affects the use and location of these valuable resources.

### 3.6. RBV antecedent literature

Kassiech (1981) recognized the importance of resource location using a single objective model depicting the transfer pricing decision setting of a MNE. The model was developed using an iterative process that considered increasingly more complex transfer pricing decision settings. The final model depicts a MNE maximizing world-wide profits given the following: (1) relevant profit tax differentials; (2) tariffs; (3) §482 transfer pricing methods; (4) resource supply and demand restrictions; (5) cost functions (the cost functions are capable of capturing nonlinear cost behavior and reflecting both fixed and variable components); (6) revenue generating activities of the MNEs economic units in addition to intra-company activity; (7) risk rates assessed by the Foreign Credit Insurance Association; and (8) interdependencies. Kassiech's model also considers from a RBV perspective where to locate production resources in the value chain, as well as the transfer pricing decision.

From empirical research we find that market advantages are not uniform by industry (Dunning, 1980). Thus industry structure must be taken into consideration when deciding on the location of resources before making transfer pricing decisions. Harris et al. (1991), using a five year panel of data for two hundred large U.S. manufacturing organizations, found that U.S. tax liability, as a fraction either of U.S. sales or U.S. assets, is related to the location of foreign subsidiaries (entities) in a way consistent with tax-motivated income shifting. Having a subsidiary in a tax haven characterized by low tax rates is associated with lower U.S. tax ratios. Having a subsidiary in a high-tax region is associated with higher U.S. tax ratios. This suggests that U.S. manufacturing companies shift income out of high-tax countries into the U.S. and from the U.S. to low-tax countries. This suggests that the location of resources were strategically determined since taxes are generally accrued where the value (i.e., production) is added. Such behavior certainly lowers worldwide tax liabilities for larger U.S. manufacturing companies and appears to significantly lower their U.S. tax liabilities as well as affect transfer prices. Harris et al. (1991) also found that, for MNEs as a whole, income shifting leads to a moderate reduction in aggregate U.S. tax payments. Their results also support the idea that MNEs conduct income shifting for non-tax related factors, such as reducing socioeconomic and geopolitical risks.

Narayanan and Smith (2000) show that a firm can combine a decentralized organizational structure with a transfer pricing strategy and use these control models as a commitment device to obtain strategic advantage in a product market. The authors show that this can only happen when there are nonstrategic reasons to decentralize and transfer prices are distorted away from marginal costs. Wielenberg (2000) presents a transfer pricing scheme which induces efficient investment in production capacity when divisions are free to negotiate transfer prices. The upstream division is incented to under invest a priori (holdup problem), but a contract with provisions stipulating a minimum order quantity and a transfer price for excessive quantities induces efficient investment and use of valuable resources.

### 3.7. RBV consequence factors

Maximizing the *long term value of the organization* is not always synonymous with maximizing short term profits. While profits are an important metric, they are not always totally congruent with

business strategy and overall long term value. Viewing the company as a bundle of unique resources, the custodianship of those resources is paramount to long term success. These resources will grow or shrink in part due to the policies of the company. Transfer pricing can have effects on the value of the organization by helping to promote optimal resource allocation (and *resource location*) or by hindering such. The profits of individual entities in the company value chain ultimately determine the long term resources available to that entity. It is certainly clear by now that entity profitability is heavily influenced by transfer pricing policy.

In many cases transfer pricing policy can affect the *motivation* of entities. Agency theory tells us that an entity will not push to produce the maximum amount of an intermediate product if its employees are not receiving a portion of the profits from their work. As a result, the acceptable tax policies (according to OECD) may have unintended consequences for the firm as they affect profit sharing, thus affecting the motivation of employees at the entity level. These policies may encourage firms to locate their assets sub-optimally, increasing long-term *risk*. These policies may also lead to a distribution of income among entities that affects divisional or individual entity employees in ways that may seem inequitable thereby affecting motivation.

*Value chain coordination* requires information sharing and the organization of production activities so there is an effective flow from raw materials to completed product. The factors which enable precise transfer pricing also can enable this coordination. The main enablers to both are effective record keeping and effective communication between the entities. Effective communication is enabled by strong governance policies and information systems that allow for the sharing of information at all levels between entities. Effective record keeping is also enabled by information systems.

### 3.8. RBV consequence literature

Dopuch and Drake (1964) find that a single measure of performance such as a profit and loss index is not sufficient for transfer pricing. If a market exists for units of output at a particular stage in production, then a simple profit and loss index may be appropriate as a basis for a transfer price. However, if it is necessary to develop fictitious prices, then decision-making and evaluation will not be served at the same time. While it may be possible to develop a system of transfer prices to guide divisional managers in a manner consistent with an overall plan of resource allocation, the same system of prices cannot be relied upon to motivate divisional managers toward some higher level of profits since managers will have only a token amount of control over these profits. They conclude that the relationships between decision-making and the control and evaluation phases of managerial functions be kept in the forefront in considering the design of accounting systems, i.e., transfer pricing governance policies for decentralized organizations.

Halperin and Srinidhi (1991) find that the use of the resale-price and cost-plus methods for internal transfer pricing distorts the resource allocation pattern both under unconstrained optimum and centralized optimum assumptions. In the resale-price method example, there was an effective bargained solution that resulted in a range in which both the most similar and the final products were overproduced. In the case of the cost-plus method, a similar product is under-produced in the first division if the percent retained of overall after-tax firm profit is low and over-produced in the second division when there is a greater percentage of overall after-tax firm profit retained. The results demonstrate the types of production and resource location distortions possible in a decentralized organization using generally accepted transfer pricing rules. While the reduction in optimal profit in the centralized case represents the joint cost of having differential taxes and transfer pricing rules, there is an additional cost of decentralization. Knowledge of the incremental cost of decentralization is useful to MNE management in efficiently trading it off with the political costs of modifying transfer prices for internal purposes. However, when the objective is to generate value via a product line that spans legal entities, it may be in the best interest of a MNE to use transfer prices as a governing mechanism to coordinate activities across a value chain, even though it may appear detrimental to a MNE in the short run.

An example of resource location, intellectual property (IP) migration, has been used as part of a MNEs transfer pricing strategy by companies that do not wish to shift their company headquarters. Intellectual property includes items such as patents, trademarks, and trade secrets. MNEs can use

various approaches to manage their IP, including sales to affiliates, cost sharing, and licensing. Ireland, Singapore and Luxembourg (Enyatten & Brauns, 2010) are examples of countries that have recently changed their tax laws in such a way that they are now favorable locations for allocating IP income (Wus, Curatola, & McGhee, 2010).

Harris and Sansing (1998) analyzed the consequences of using CUP for tax purposes in the presence of double marginalization between independent parties. They found that the CUP method allocates to the manufacturer a higher proportion of gross margin per unit than what is earned by a manufacturer, when it deals with an unrelated seller. When the demand function is linear, all of the taxable income is allocated to a manufacturer, which can have an adverse effect on individual entity motivation. The resulting allocation of taxable income will not be the same as what independent parties will earn. When the tax rates of two countries differ, use of CUP can distort a MNE's production and resource location decisions, as well as the decision whether to vertically integrate or use an independent seller. They find that the non-distorting transfer price is a profit-split method where the allocation of profit reflects the elasticity of demand and bears no relation to the value of capital investments made by the manufacturer and the seller. They suggest using prices that arise between independent parties to allocate income within a vertically integrated group is an inherently flawed approach because it ignores the economic forces that caused the firms to choose different organizational structures and their associated resource location strategies in the first place. Thus, CUP can be at odds with the company goal of maximizing the value chain across legal entities.

Sansing (1999) shows that the CUP method allocates more income to the subsidiary than does the comparable price method (CPM). The pattern suggests that, if the IRS prefers the method that increases the taxable income of the U.S. firm, then it will prefer to use CPM in disputes involving U.S. parent firms and foreign subsidiaries, and the CUP method in disputes with U.S. subsidiaries of foreign firms. Sansing observes that this result is consistent with what is known about transfer pricing disputes.

Smith (2002a) finds that MNEs can influence directly or indirectly the transfer prices they use to allocate profits across divisions for tax purposes. Income can be shifted in two ways. Because it is difficult to identify comparable uncontrolled transactions, the tax auditor often can identify only a range of acceptable transfer prices. Hence, it is not always easy to detect a deviation from the "true" arms length price. Because the firm's investment choices may affect the definition of comparability, a firm can manipulate the transfer price *ex ante* by locating resource investments (both assets and knowledge based) at particular locations. *Ex post* shifting may mitigate *ex ante* investment distortions. If the firm can deviate more from the true transfer price *ex post*, then it may distort the original inputs less with *ex ante* shifting, which can have efficiency implications resulting from the location of resources. Depending on the transfer pricing method used and the relative tax rates, *ex post* shifting either exacerbates or alleviates *ex ante* investment. Smith finds that *ex post* discretion may have efficiency benefits. *Ex ante* discretion over the transfer price affects the absolute amount of income the firm has, while *ex post* discretion determines how that income is allocated between divisions. Choosing more efficient value chain activities and resource locations (i.e., inputs) may result in a regulatory transfer price that is less favorable for tax purposes, but produces higher pre-tax profits. These higher profits may more than offset a higher marginal tax rate.

Sahay (2003) analyzes two cost-plus methods: the multiplicative method and the additive method. The paper shows that the additive method is optimal among the class of cost-plus methods. Under a multiplicative markup the selling division's income is proportional to the production cost, so its manager has less incentive to invest in resources and control costs effectively. In contrast, additive markups motivate the selling division to increase the number of units transferred. Because higher transfer levels are facilitated by lower cost (the buying division's demand increases as the cost declines), the seller has an incentive to reduce the cost. However, without appropriate incentives, division managers will not be motivated to make decisions to further the long-term interests of the firm. The result provides theoretical justification for the common use of markups in practice. Smith (2002b) considers the consequences of transfer pricing on performance measures and ultimately motivational issues at the divisional level, concluding that aggregate subsidiary profit may be a superior performance measure even if it does entangle tax management and performance evaluation. The paper further suggests the setting of performance measures independent of the consequences of

the transfer price on an agent's contract. Gjerdrum, Shah, and Papageorgiou (2002) use a mixed-integer programming approach to determine the most appropriate transfer price as well as optimal production levels. Results show that the proposed method produces profits very close to the optima while distributing profits more equitably. The key assumption of this model is that sharing production information between entities (via integrated information systems (resources)) creates an advantage over just optimizing transfer pricing alone.

#### 4. Conclusions and recommendations

MNEs must make many strategic and tactical decisions in order to coordinate their intra-organizational value chain activities. Strategic decisions include but are not limited to: what product to produce; where to produce it; and how to get the most out of limited resources. Tactical decisions include, but are not limited to: how to create incentives to coordinate the value chain; how to control quality across the value chain; how to limit transaction risks; and how to distribute income among divisions to fairly evaluate and motivate managers in a decentralized organization. Transfer pricing policy is used to mediate these activities affecting both strategic and tactical decisions. Transfer pricing policy is affected by the nature of the value chain, including: the products and services that are produced; markets; environmental factors including taxes and regulations; power and dependence dynamics; resources; and governance structures including divisional relationships. Transfer pricing policy affects the coordination of value chain activities, opportunistic behavior, the location of resources, risks and motivation. For these reasons transfer pricing decisions are of paramount importance to a MNE. Moreover, in addition to these factors, there are often multiple objectives to consider which make MNE transfer price policy decisions especially complex.

We consider an organization as a matrix of overlapping legal jurisdictional boundaries and value chains to capture some of the interactions among entities. We develop a framework viewing antecedents and consequences of transfer prices from TCE and RBV theoretical perspectives. TCE is especially useful for framing tactical issue, while RBV is useful as a strategic framework. We view transfer pricing as a function of the antecedent factors noted above, an important governing mechanism that affects relationships at the boundary among entities, and as a policy that has important consequences for the organization in terms of promoting the goals of the organization. We look to recent research in the fields of RBV and TCE to better understand these antecedents and their affect on risk reduction from a TCE perspective and value added from a RBV perspective. We then consider the consequences transfer pricing policies have on the organization and its goals. Our proposed framework is an effort to better understand transfer pricing's impact from a holistic perspective. Future research using this framework can include economic models, mathematical models, and field research. Some possible topics of study are listed below.

There is a rich literature on economic models and mathematical models for TCE (Gibbons, 2010). These models are commonly applied and extended in value (supply) chain settings. Further, there is extensive economic and strategic management literature emphasizing the importance of the location of resources in the value chain using RBV (Connor, 2002). Thus, there are opportunities to extend existing research by focusing on transfer pricing policy in a value chain setting, while considering the effect of the antecedent factors noted throughout the paper, including the governance structure, and their consequences from a TCE or RBV perspective.

It is not clear how closely industry follows any of the proposed models in the literature to help govern the relationships among the entities or the affect of the many antecedents or consequences. Future field research using the proposed framework may reveal more about the dynamics among separate entities in a value chain and how they fit (or do not fit) within our framework. Questions about the nature of the value chain, markets, environmental factors, power and dependence, resources, and governance structure, including relationships among entities may yield insight into how heavily a company weighs each with respect to its transfer pricing policy decisions.

A categorization of firms by antecedents and consequences may also yield new insights regarding organization and industry characteristics. One potential insight is a better understanding of the process a company goes through before selecting a particular pricing mechanism. This research may further reveal which transfer pricing mechanism helps maximize company value chains. Finally,

analysis from an organizational matrix perspective that focuses on a broad set of entities rather than traditional legal entities may further our understanding of the processes that lead to transfer pricing policies.

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