

# Internet Sales Channel and Manufacturers' Brand: A Transaction Cost Analysis

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**Abstract**—In modern age, Internet has brought massive impact to the distribution channel management. Especially to the manufacturers, harnessing the power of Internet is deemed a strategic step to reinforce the products' awareness among consumers and further improve market share. However, the outcomes of setting up Internet sales channel are mixed. Although some organizations do exemplify the success of online sales channel, there are manufacturers who simply fail in this aspect. This paper aims to provide insights into the factors which manufacturers must take into consideration in contemplating to setting up Internet sales channel. By using transaction cost analysis (TCA), we set up a research model, which composed of various factors which are critical to the success of Internet sales channel and elaborate the role of these factors on this issue. Subsequently, appropriate propositions are instigated and investigated in order to determine the impact of these variables on the manufacturers' decision making in this area.

**Keywords**— *teamwork quality, new product development speed, internal market orientation, incremental validity*

## 1. Introduction

The recent developments in business world have suggested firms are relying heavily on Internet to gain competitive advantage. In particular, Internet has become critical in the channel management. To gain strategic advantage and bigger market share, manufacturers and distributors do employ Internet in their marketing strategy. This step will benefit them from two aspects – cost and efficiency. First, Internet can effectively cut down the cost needed in the communication and information exchange. [1] had looked into the effect of using Internet on exchange relationship between buyers and sellers in plastic industry in USA. On the other hand, internet assists customer to choose hotel using online platform based on the hotels' star ratings and previous customer ratings [2]. In addition, a study by [3] examined how the social media influence the price promotion strategy of the hotel service industry. Its result shows that by using Internet, the interfirm communication increases. By using the Internet technology,

manufacturers and distributors can initiate closer and tighter collaboration. Second, the rapid communication and information exchange can facilitate decision making and problem detection [4]. Faster and timely decision making will subsequently result in the greater efficiency and effectiveness in marketing strategy and channel management. This particularly reflects the channel management nowadays which disintermediation is profound, primarily due to the massive growth of electronic platform to aid in business transaction such as e-commerce. [5], [6] had recognized the colossal impact brought by E-Commerce and its growth potential as an alternative distribution channel for businesses. In short, Internet is now critical and indispensable to the businesses [7], [8].

Therefore, it's understandable that the recent trend also shows that many brick-and-mortar manufacturers and distributors are setting up their own Internet sales channel to reach to their consumers directly. This step, another strategic use of Internet, has drastically revolutionized the channel management. Manufacturers and distributors enjoy better profit and bigger customer base at lowest possible cost by selling online [9]. On the other hand, the disintermediation happens. Due to the direct approach adopted by the manufacturers and distributors, many intermediaries in the supply chain are eliminated [10]. As a result, the traditional supply chain has turned into a chain which is shorter, more efficient and has fewer participants. The change in the downstream of supply chain has benefited manufacturers and distributors.

Nevertheless, setting up Internet sales channel doesn't guarantee success in the marketplace. Apart from the likes of Amazon.com and Alibaba.com, others do not seem to reap significant benefit from Internet sales channel. The collapse of dotcom, failure of click-and-mortar manufacturers and the recent sharp loss posted by online giants such as Boo.com, Kozmo.com, have greatly put the Internet sales channel in challenging situation. Many other manufacturers and distributors have doubted the decision to sell online, fearing that the losses suffered will outweigh the benefit

gained [11]. This fear has impeded their interest and effort on setting up online sales channel.

This phenomenon has raised an interesting question – what factors will influence the manufacturers' decision in setting up Internet sales channel? Furthermore, what factors contribute to the channel's success, or failure? Although these are very important questions to answer, yet little is done toward understanding these factors. This concern is especially voiced by [12], [13], [14], [15] who had urged researches to be conducted to exam the impacts of the Internet as sales-distribution channel. This paper aims to provide some insights into these gaps, by offering a set of factors which will directly affect the manufacturers' decision-making in setting up Internet sales channel and the factors that contribute to the success or failure of Internet sales channel. It is unique in the ways that we analyze the precedent by transaction cost analysis (TCA) and propose a set of factors that affect the success or failure of the channel. The first section of this paper will discuss the past literature related to marketing channel and Internet. The second section will propose a research model and develop the hypotheses. The third section covers the methodology of the paper.

## 2. Literature Review

The marketing literatures related to Internet and marketing channel are a considerably little giving its prevalence in the marketplace nowadays. [16] had emphasized the need to investigate the use of Internet sales-distribution channel and its impact on the industry structure. [17], [3], [18], [19]. In his view, companies can form a new sales channel in relatively cost-saving manner by including the information of their products and services on Internet. But, the issue which concerns manufacturers the most is whether the Internet sales channel should be used as a site to provide information and communication or to conclude sales as well. This is particularly important if the manufacturer has existing distribution channel which are carrying their product and doing good sales. The Internet sales channel operated by the manufacturer will be competing directly with them and subsequently erode their sales and revenue to survive in the market.

[20], [21], [22], [23], linked the effectiveness of Internet channel addition to the performance of company's stock performance. They argued that adding Internet sales channel to the existing distribution channel can be performance-enhancing or performance-destroying. According to them, the demand- and

supply-side advantages and disadvantages will determine the channel's performance. By using the event study method, they found out that a firm's performance potential is directly related to the channel power, level of publicity and negatively related to the scope of direct channel experience. This study is important in the way that it does provide a guideline for firms' decision making in contemplating Internet sales channel. This view is supported by [24], [25], [2], [26] that there are gaps in the demand- and supply-side. In the demand-side, the online sellers will need to consider the bulk-breaking, spatial convenience, waiting and delivery time, assortment and variety, and customer service. Meanwhile, in the supply-side, the gaps included are the physical possession, promotion, negotiation, risking, ordering and payment. These gaps need to be closed so that the online sales channels can reduce costs associated and increase their performance.

In another research conducted by [27], [28], [29], they further distinguished the Internet sales channel from the conventional distribution channel and put both channels on the comparison according to the channel functions. The functions performed by the conventional distribution channel are not fully supported by the Internet sales channel. For communication, transaction and distribution functions, they argued that Internet can only performed part of the functions and cannot fully substitute conventional distribution channel, unless in some specific conditions. Furthermore, in their research to find out the impacts of Internet on marketing on consumers, they set out the consumers' decision making process and sequences. This helps understanding the consumers' perception toward Internet sales channel.

According to [30], setting Internet sales channel will create channel conflict. In his study of the impact of Internet on channel conflict, he views the goal incompatibility, domain dissensus and differing perceptions of reality are the three primary causes of conflict among channel members. He further proposed the strategies to manage channel conflict which mainly encompassing pricing, distribution, promotion, product and communication and coordination. [24], [31], [32] as well emphasized that channel conflict is mainly a result of goal incompatibility, domain dissensus and differing perceptions. Moreover, this conflict is exacerbated by the free-riding phenomenon. Many consumers will conduct product searching and information gathering activities in distributors' outlet but will proceed to buy from manufacturer's Internet sales channel as it generally displays price lower than the distributors. In another paper, [33], [3], [34]

had studied the possibility of using Internet as a marketing channel for complex product. In their study, the Internet channel is not really suitable for promoting complex product such as Irish specialty foods because of lack of perceived consumer benefit. This benefit is influenced by the product characteristic, medium characteristic and consumer attributes.

There are literatures related to this field which examine the threat posed by Internet sales channel to the traditional sales-distribution channel. In a study conducted to investigate the cannibalization of Internet sales channel, [35], [36], [37] found out that the new channel's threat to the existing channel is overstated. By using structural-break time-series econometrics method, the 10 years performance of 85 Internet channel addition in the newspaper industries in UK and the Netherlands had been examined. The result showed that in this information-goods industry, the cannibalization of Internet is not disruptive to established companies and channels. However, they warned that setting up Internet sales channel requires thorough consideration. Should the Internet channel closely mimicked to existing channel, substantial cannibalization will happen. [38] provide further evidence of threat of Internet sales channel to traditional distribution channel. In their research to exam the consumer acceptance of the Internet as a channel of distribution, they found out that if the WWW can offer consumers with risk relievers such as money-back guarantee, it can pose stern challenge to typical specialty stores. Nevertheless, the Internet sales channel is still not accepted as physical distribution channel, although its reservation function is highly valued by consumers.

Similarly, [5], [39], had discussed about the diffusion of E-Commerce in developed and developing countries. They stressed the importance of growth of E-Commerce and identified the four components – social cultural infrastructure, commercial infrastructure, computer and telecommunication infrastructure, and government and legal infrastructure, as the enzyme to its growth. They also examined the role of Internet as the global distribution channel. The four components provided a framework of decision making for the policymakers in setting up Internet as global distribution channel. In service industry, Internet as well plays major part in the business revolution. In banking industry nowadays, the customers are separated into two different segments – Internet banking segment and branch banking segment [40], [41], [42]. This has prompted the banks to devise different channel strategies to cater to these different customer segments.

The TCA literature related to this issue is scarce. As most of the TCA researches were conducted before 2000, this is understandable that TCA is never applied on explaining the use of Internet as sales channel. However, there are a few literatures which are found to be related to this issue. In the study conducted by [43] regarding forward integration into distribution, they found out that manufacturers will rely on direct channel if the level of specific asset needed to support distribution activities is high, the downstream environment uncertainties increases and difficulty to assess performance of downstream channel members is high. This result was found consistent with Anderson's work on examining the use of direct sales force or manufacturer representatives [44], [45]. She found out that the manufacturers will rely on direct sales force if these TCA variables are found significant. In another study by [46] to exam the international market entry via independent or integrated distribution channel, asset specificity, product differentiation, region of entry are important elements of decision making of manufacturers.

### 3. Research Method and Propositions

Transaction cost analysis (TCA) is famously used in investigating the decisions relating to vertical integration, foreign market entry strategy, sales force control and compensation issues, industrial purchasing strategy and distribution channel management [47], [48], [50]. In essence, it is widely applied in the following contexts – vertical integration, horizontal interorganizational relationship and vertical interorganization relationship.

Governance structure and transaction cost are the primary elements of TCA. It states that in any market exchange, there are transaction costs involved. The transaction costs are the costs to run the system, which include ex ante costs like searching, drafting and negotiating contract, and ex post costs like monitoring and enforcing contract [47], [49], [50]. Transaction costs encompass the direct cost of managing a system and the opportunity cost of making inferior governance. According to TCA, when transaction costs are low, firm will favor market governance. However, when transaction costs are high, firm will prefer to internal governance. There are three assumptions (bounded rationality, opportunism and risk neutrality) and three dimensions (transaction-specific assets, uncertainty and transaction frequency) which must be considered during applying TCA in any case [47], [48], [49]. The interplay between these assumptions and

dimensions will affect governance structure decision.

TCA treats market contracting as more efficient than vertical integration *a priori* based on the benefits of competition [50], [51], [52]. In a competitive market, the pressure will ensure the suppliers or agents to honor the contract. They are encouraged to cooperate with and be obedient to the firms. In addition, they will behave honestly and being “good faith” in most of the time. Thus, according to TCA, firms will choose market contracting should the conditions result in market failure don’t exist. However, firms will prefer to integration if market fails and subsequently increases the transaction cost.

In general, there are two types of distribution channel – direct and indirect channel [43], [52]. In the direct channel, manufacturers will retain the ownership of the good until it’s passed to the final users. They don’t employ any independent resellers to help push the goods. Rather, all the downstream tasks are performed by the manufacturers and the profits are entitled only to manufacturers. In contrast, in the indirect channel structure, the manufacturers will assign single or many resellers, namely distributors, to help push their goods down the supply chain to final users. The distributors will take title to the goods and perform all the marketing functions including promotion, pricing and physical distribution themselves. In most of the cases, they will determine the profit margin. From TCA standpoint, the blatant difference between both channels is the control. TCA treats direct channel as full-control mode while indirect channel as marketing contract. As discussed before, TCA will favor market contract as the default governance structure, unless the transaction cost incurred is high. In this

situation, the manufacturers will resort to full-control mode.

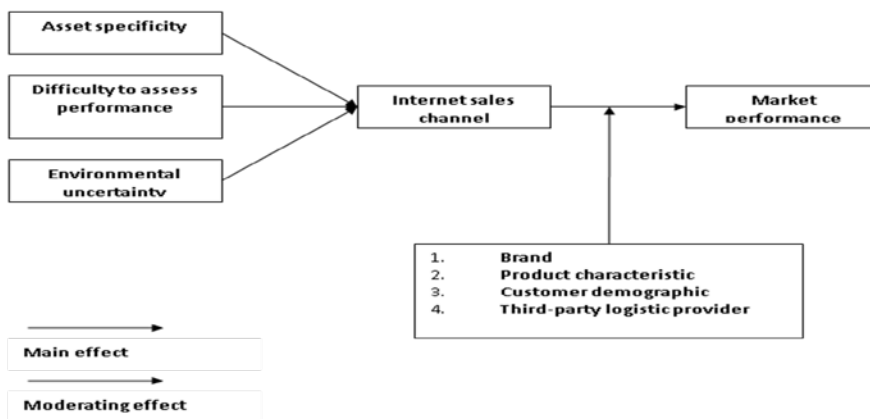
### 3.1 Research Question 1: TCA and the Decision to Set Up Internet Sales Channel

We propose that transaction cost is the main factor which drives the manufacturers to set up another sales channel – Internet sales channel. Model 1 clearly depicts the factors which have direct influence on the decision-making of setting up Internet sales channel for manufacturer. Asset specificity, environmental uncertainty and difficulty to assess performance are the factors mentioned, which will be elaborated below.

#### Asset Specificity

According to [53], there are six types of asset specificity – site specificity, physical asset specificity, human asset specificity, brand name capital, dedicated assets and temporal specificity [54], [55]. In this study, the transaction-specific assets refer primarily to the physical asset specificity, human specificity and brand name capital. Transaction-specific assets are the non-deployable assets which is valuable in a specific transaction only. But to other transactions, the values of these assets are greatly reduced. Should it must be used in other transactions, the switching cost involved will be high. For example, in an automobile manufacturing process, the molding machine is specific and uniquely designed to produce a certain product line. Volkswagen’s molding machine works only for its car, but not General Motors’. If the molding machines are to be modified to produce other type of cars, the cost to modify the machine will be too large to the extent which makes it uneconomical to be implemented.

**Model 1: Factors Influencing Internet Sales Channel Set-Up and Its Performance.**



In the channel management, the human specificity is highly valued by the manufacturers. In particular, the unique selling skills and closely-knitted relationship are critical elements in this human capital. The manufacturers usually have to give special training to the distributors to help them in selling the products and hitting sales target. In addition, the manufacturers also provide them with the key information such as account, marketing strategy and comprehensive product knowledge. In return, the supports provided by the manufacturers are rewarded by the successful relationship built between final customers and the distributors. This will ensure the continuous sales and profit in long term. In this circumstance, the distribution channel is hardly replaced and thus is a type of transaction-specific assets.

Market failure happens when there are transaction-specific assets involved in a market exchange [56], [57], [58]. In a market exchange, if the distributors possess the transaction-specific assets which are necessary to carry out the transaction, they will have the tendency to behave opportunistically. As the switching costs are too expensive to bear, manufacturers will have to concede to the opportunistic behavior of distributors such as higher final cost and refusal to coordinate their marketing strategy. In this case, manufacturers tend to seek alternative sales channel which grant full-control mode. The motive is to curb the opportunistic behavior mentioned earlier and take major control, if not full, on the specific assets. Internet sales channel will be an ideal alternative sales channel as it can be integrated into the manufacturers' channel strategy and fully controlled. This channel helps retain the transaction-specific assets to the manufacturers and therefore reduce the likelihood of increased transaction cost. Therefore, it's proposed that:

$P_1$ : The greater the transaction specificity of assets, the more likelihood of using Internet sales channel.

#### Environmental Uncertainty

TCA defines environmental uncertainty as the "unanticipated changes in circumstances surrounding an exchange" [47], [59], [60], [61]. In uncertain environment, the changes are rapid and volatile. This creates problems when writing contracts for manufacturers and distributors because of the inability to foresee the contingencies which may arise in the future. When the contingencies do arise, the market contract will experience strain in adapting to the changed circumstances and subsequently the opportunistic parties will exploit the loopholes to maximize their benefits [43]. In the channel management, the manufacturers will confront this environmental uncertainty in many marketing activities such as sales target, strategies coordination and promotion

[62], [43], [63]. In this circumstance, the ability to make adaptive decisions is needed. Yet, the inability of contract to define the uncertainties will certainly inhibit the effective decision making and hence the situation will get worse.

Therefore, there is a need for the manufacturers to possess a governance structure which will permit adaptive decisions in the uncertain environment. Internet sales channel offers the manufacturers with this authority. Because this channel is primarily owned by the manufacturers, they can make amendment and sequential decisions on the channel management whenever contingencies arise. This will enable the manufacturers to respond better and faster to the uncertain environment. Hence, it's proposed that:

$P_2$ : The higher degree of environmental uncertainty, the more likelihood of using Internet sales channel.

#### Difficulty to Assess Performance

Difficulty to monitor the contractual performance of exchange partners is another type of uncertainty faced by manufacturers called behavioral uncertainty [47], [64]. It concerns with the difficulties to verify whether the distributors are fulfilling the established contract. Manufacturers can't evaluate the performance of its distributors due to lack of appropriate measurement of output. Even if the performance can be measured, the information gathering and processing cost incurred may be substantial and increase the transaction cost as a consequence [47], [64], [65]. Therefore, in the situation where performance is difficult to measure, the governance structure which offers more control is preferred. Internet sales channel provides an alternative for the manufacturers. It's easier for the manufacturers to gauge the performance of the Internet sales channel because manufacturers can run the site themselves and identifying the sales and costs easily.

$P_3$ : The more difficult to evaluate the sales performance, the more likelihood of using Internet sales channel.

### 3.2 Research Question 2: Factors to Decide Success or Failure of Internet Sales Channel

In the second research question, we link the market performance of Internet sales channel to a set of factors which are discussed below. We argue that these factors are the moderating variables, which magnitude and direction will eventually affect the outcome – market performance.

Brand is one of the most important components of a manufacturer. It's the "name, term, symbol, or design, or a combination of them, intended to identify the goods and services of one seller or a group of sellers and to differentiate them from those of competition" [66], [67]. In other word, it represents the manufacturer's image, reputation, quality and popularity in the market. For a manufacturer with strong brand, it can attract a lot of customers and thus distributors. This is helpful in the manufacturer's marketing strategy and channel management. In addition, the brand is also one of the key factors which influence the decision of setting up Internet sales channel. A manufacturer with strong brand can contemplate setting up online sales channel because it will meet fewer obstacles. First, due to its strong brand, it can attract customers to visit its online sales channel and make purchases. The customers have full confidence on the credibility and reliability of the manufacturer and are willing to shop from its online store. [68] had identified the marketing advantage of a strong brand. A strong brand will have profound impact on the different stages of consumer behaviors – attention and learning, interpretation and evaluation, and choice.

Second, the manufacturer's move to selling online will trigger less resistance from its distributors, because of its strong brand. The distributors will abide by the decision although the online sales channel will compete directly with the traditional stores. This is primarily due to the strong brand of the manufacturer can continue to attract customers to visit the distributors' stores [69]. Apart from it, a strong brand confers the manufacturer with greater channel power to the extent which it can exert more control on its channel partners. Therefore, its move to set up Internet sales channel will meet less resistance from the distributors.

*P<sub>4</sub>*: The market performance of the Internet sales channel is positively related to the strength of the manufacturer's brand.

#### Product Characteristic

The product characteristic is one of the determinants of setting up Internet sales channel. Manufacturers must consider the products' value, size, durability and form before selling it online [70]. We will concentrate our focus here to the value-to-size of the product due to the prominent role it holds in the selling process. The manufacturer must be selling products with higher value-to-size to gain higher profit. For instance, it will be probably reasonable to sell television and computer through online channel. Furthermore, the value of the product must be high enough to cover the delivery cost. This will as well justify the customer's decision to buy online. If the economy

gained from purchasing online is far lower than purchasing from nearby distributors, the customers are discouraged to try to shop from the online sales channel. Hence, it is proposed that:

*P<sub>5</sub>*: The market performance of the Internet sales channel is positively related to the manufacturer's product characteristic.

#### Customer Demographic

For an Internet sales channel to be successful, the customers are very important. The manufacturer must be aware of the customer demographic. Among the demographics, Internet-literacy is the most important to the success of the channel [71], [72]. The market segment which will probably makes purchase from Internet sales channel, is the customers who are Internet-literate. The manufacturer must cater to the needs and wants of this segment in setting up Internet sales channel in order to gain success selling online as the customers are now more empowered and sensitive [73], [74]. The outlook design and the technical details are the aspects to be cautioned because these criteria will determine the attractiveness and convenience of the website. The fast-loading, simple-design and user-friendly webpage will attract more customers to shop online. In the case where the Internet-literate customers are the dominant force manufacturer's existing market pool, the Internet sales channel is likely to be more successful, and vice versa.

*P<sub>6</sub>*: The market performance of the Internet sales channel is positively related to the Internet-literate customers.

#### Third-Party Logistic Provider

To complete the transactions through Internet sales channel, the physical delivery of the product to the customers is another factor which manufacturers must consider. However, this is not easy as the cost to deliver the products of small quantity to customers around a large geographic area will be very costly to the extent that the delivery cost might exceed the product cost. This is different from the typical bulk-breaking process for the manufacturers in traditional distribution channel. For the bulk-breaking process, the manufacturers deliver a large quantity of goods to the small number of retailers and wholesalers before the goods are further broken into small quantity for purchase of customers [75]. The delivery cost is much lower, if compared to the direct delivery to the end-users from manufacturers. Hence, manufacturers must outsource their logistic function to achieve lower delivery cost. This is because these third-party logistic providers can perform more efficiently than manufacturers to deliver products to the customers worldwide at lower cost.

In this case, the third-party logistic providers, like UPS and Fedex, are the solution. They are adroit at delivering small quantity of products to the customers in large area at lowest possible cost. Thanks to the power of Internet as well, these third-party logistic providers can assist on the tasks of manufacturers to deliver the products to customers who shop from their online sales channel [76], [77], [78]. Furthermore, the services offered by the logistic providers can be tailored to the strategic needs of manufacturers as well. Hence, the manufacturers can create a very closely-knitted relationship with the logistic service providers – by integrating them into operation to aid in creating time utility for the customers. As a result, the availability of these third-party logistic providers directly affects the market performance of Internet sales channel.

*P<sub>7</sub>*: The market performance of the Internet sales channel is positively related to the availability of third-party logistic provider.

#### 4. Proposed Methodology

The above hypotheses will be tested across manufacturers from various industries in Malaysia. They represent the variation of characteristics in terms of asset specificity, and uncertainty. First, an insight looks from the managers who are

responsible for the firm's distribution channel will need to be examined. Their opinions and experience will be cross validated through the insights from marketing and/or exporting academicians, and once the scope of the constructs has been finalized, a questionnaire will be developed. A draft questionnaire will be pre-tested upon a convenience, but related sample and necessary amendments will be made on the final set of questionnaires accordingly. Final questionnaire will be administered through mailing procedures to individual managers identified in the interview stage. The data will then be analyzed using appropriate method. Upon completion, this study is expected to be able to explain the managers' decisions regarding the Internet sales channel. Apart from this, the outcome of this study can be used as the guideline in the decision process on a company distribution channel as well. As this study is conducted in wide variety of industries, hence the outcome is conducive and applicable in various businesses.

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