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Import of Information Sources in the Industrial Purchase Decision in Maiduguri, Borno State Nigeria

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Abstract
The basic objective of any industrial activity is to develop, manufacture and market products that can meet identified customer/consumer needs and wants at a profit. In order to accomplish this objective "men machines and management" must be carefully acquired and coordinated. A field survey was employed through semi-structured in-depth interviews to secure the basic data on the general purchasing procedure. Some specific purchase case studies were employed to examine the functions of information in the adoption and use of a product. Both qualitative and quantitative analyses were utilised for the discussion of results. The study focuses on the information sources of industrial buyers in the purchase of three different categories of items from ten different organisations purposively selected in Maiduguri, Nigeria. The findings indicate that the problem of shortages and disrupted supply of raw materials equipment among Nigerian industries can be attributed to lack of active search and qualification of sources of supplies in the purchasing procedure. The buyers' search efforts are inadequate and they rely much on suppliers' salesmen for almost all their information. The suppliers' personal calls are considered the most important source of information of organisational buyers. The sort of information required by these buyers mostly cantered on price, quality and reputation of supplier, non-task factors largely influence buyers' decisions as they lack more formalised procedure for search and analysis. It was recommended that information for buying industrial products are needed at all stages of the decision processes and therefore information should be directed at the right people, right time, through personal selling effort than those selling consumer items. The industrial salesmen must contact potential buyers earlier and must play greater role in generating interest and re-enforce contacts and approaches at the final stage of evaluation and trial of the adoption process.
Keywords: Information Sources, *Adoption Process,* Industrial Purchasing, Decision Making

Introduction

Regardless of industry, purchasing is generally perceived as a core activity of companies (Van Weele, 2004).The basic objective of any industrial activity is to develop, manufacture and market products that can meet identified customer/consumer needs and wants at a profit. In order to accomplish this objective "men machines and management" must be carefully acquired coordinated. Machines and materials constitute the primary inputs and constitute the most strategic of the resources of the firm because of the long term effects that decisions regarding them can have on the firm (Alejandro, Kowalkowski, Ritter, Marccrtti & Prado, 2010). Purchase and installation of the wrong machines or those whose spare parts cannot be assured or which are out-modelled for example, can lead to premature closure of the company. Similarly, using raw materials that cannot be made available at the right time in the right quantity and at the right price and place, or those whose continued supply cannot be assured, can have a damaging effect on the company's ability to engage in uninterrupted production. The magnitude of the consequence of wrong decisions regarding the purchase of these basic inputs becomes more noticeable when organisations realised that they usually involve heavy expenditure, long run commitments and are least easily substitutable. The utilisation and influence of information sources are likely to differ depending on the type of buying (e.g. basic or complex offerings) and the buyer's characteristics (Johnston & Lewin, 1996).

Nigeria has in the recent past been laying serious emphasis on backward integration by manufacturing organisations to provide for all their raw yet many Nigerian firms (large and small) continue to import production technologies spare parts and components, product patent etc., that have either been developed already or that can be developed by local research activities. This could be attributed to a clear absence of communication between researchers and industrial buyers. The result of this apparent absence of information exchange is that the institutions are alienated from production activities or "marginalised" because there is no demand for locally developed products and technologies from productive sector. However, some researchers have come out with various explanations (Hambagda, 1982). They all seem to agree that perceived risk by investors concerning investing locally developed technologies and products is a significant factor inhibiting adoption and commercialisation of locally developed machines and equipment.

Perceived risk is conceptualised by Cunningham (1967) as a function of the uncertainly which an individual has about the outcome of a given course of action and consequences associated with alternative outcomes. This may be uncertainly inherent in the product; uncertainly in place and mode of purchase; degree of financial and psychological consequences; and/or the subjective uncertainly experienced by the buyer (Stem Jr. & Mactachlan, nd). The incidence of perceived risk in organisational buying decision-making has been studied

in a variety of situations, The concept of the risk is rooted in the notion that buyers are faced with constant uncertainly in deciding what machines, products or equipment to buy and what suppliers to patronise in order to ensure continuity. In consequence, buyers devise various risk reducing strategies. The conceptualisation of perceived risk offered above is suggestive of major strategies available to organisational buyers for reducing perceived risk. Since perceived risk is a product of uncertainly and its consequences, it follows that perceived risk can be reduced.

One common strategy which organisational buyers adopt to reduce perceived risk is information gathering Webster and Wind (1972) "Information about products and vendors reduces the amount of perceived risk by narrowing the range of expected outcomes". Thus the adoption or non-adoption of a given machine, equipment or product by industrialist is a function of the amount importance. Thus in this era of accelerated change and technological development, new materials, new equipment and new technologies are the order of the day. To meet with this new developments', organisations engage in great deal of information search and evaluation of their sources of supply to ensure continuity of supply of material components and equipment for growth and survival at a profit. The utilisation and influence of information sources are likely to differ depending on the type of buying (e.g. basic or complex offerings) and the buyer's characteristics (Johnston & Lewin, 1996).Therefore, this article reports on an exploratory study in some selected manufacturing organisations in Nigeria concerning the sources of information used in their innovation adoption process

On the basis of these considerations, the following research questions are worth asking regarding information sources in the industrial buying process in Maiduguri, Nigeria.

i. Do Nigerian industrial activities search for information to procure production equipment, components, spare parts and raw materials?
ii. What sort of information do they seek about these products to set criteria
iii. What sources do they consult to get such information
iv. What is the function of information sources in the adoption process..

Literature Review

Industrial buying is a complex process of decision-making and communication which takes place overtime, and which involves interaction among participating members of the organisation and establishment of relationships with other organisation, institutions. More formally defined, it is a decision-making process by which formal organisations establish the need for purchased products and services, and identify, evaluate and choose among alternative brands and suppliers (Wind & Webter, 1972). Buying decision process begins in an organisation when members perceive a problem, when a need or want situation arises (Weber et al., 1991). Such occasions may be generated by assortment differences; the need to replace stock; change in production technique; pressure to lower costs; competitive development and new programmes etc. (Woodside, Sheth & Benneth, 1977). Industrial decision process may be referred to as the whole process leading to the various buying-decisions. The industrial buying is described by Parkinsson and Baker (1986) as the buyer of a product which is made to please the entire organisation instead of satisfying just one individual. Industrial buying behaviour is considered as being a elementary concept when it comes to investigating buyer behaviour in all types of organisations. Also, in industrial buying situations there is a perception of greater use of marketing information, greater exploratory objective in information collection and greater formalisation (Deshpande & Zaltman, 1987. Consequently, many classifications of the stages or phases in the buying process have been proposed (Robinson and Paris, 1967; Ozanne & Churchill 1977; Webster & Wind, 1972; Hill & Hillier, 1972).

Ozanne and Churchull (1977) analysed the industrial-adoption process, which has been considered to be a decision process leading to the purchase of an industrial innovation. This has been divided into five stages, namely awareness, interest, evaluation, trial and adoption (Rogers 1962). Ozanne and Churchull (1977) defined the industrial adoption process as that set of activities and decisions through which decision makers in an individual firm move from awareness of the industrial innovation to its final adoption or rejection. A conceptual model of the industrial adoption process serves as a framework to determine the function of information sources in the adoption process.

Sources of Information in Complex Industrial Buying

A key matter for effective marketing activities by selling firms is the understanding of their existing and potential clients' buying behaviour (McQuiston, 1989; Johnston & Lewin, 1996). It includes the identification of information sources utilised by clients during their buying decision and the understanding of what factors influence their actual search effort. Therefore, even if such an understanding can be difficult to achieve due to the complexity of communication networks, knowledge about clients' information seeking is of major concern of industrial marketing professionals. Research on industrial buying behaviour has shown the importance of personal and commercial information sources and the considerable influence of the industrial sales representative during the buying decision process. Buyers are likely to utilise commercial sources of information to a greater

extent during the earlier stages of the decision process, whereas personal sources of information may become more important as the decision process progresses (Johnston & Lewin, 1996). Furthermore, compared to buying situations with low complexity, buyers rely more heavily on personal sources of information in complex buying situations (Bienstock & Royne, 2007; Kennedy & Deeter-Schmelz, 2001). Studies suggest that the information provided by a trusted party is used more and therefore provides more value to the buying firm (e.g. Moorman, Deshpande, & Zaltman, 1993). Buyers come to trust salespersons (sales calls or business presentations) mainly at the stage of need recognition and later in the stage of seeking alternative sellers (Moriarty & Spekman, 1984). In the industrial buying context, both trust of the salesperson and trust of the selling firm do increase the probability that buyers expect doing continued and future business with the selling firm (Doney & Cannon, 1997). Furthermore, industrial buyers place more trust in personal and commercial sources when the buying decision involves high levels of conflict.

More specifically, industrial buyers seem to trust more in personal and commercial information sources when high levels of economic risk are involved in the purchase (Brossard, 1998). However, despite the great deal of trust generally placed in information provided by sales representatives, Moriarty and Spekman (1984) note that buyers also consider the content of this information as biased and may not fully trust (or even believe) parts of the sales presentation. Additionally, the authors show that as the buying decision process advances, there is also a considerable increased dependence on personal and non-commercial information sources on the part of buyers, such as consultants outside of the organisation. More recent study Pavlou (2002) also point at the importance of establishing trust-building structural mechanisms in relatively new sources of information, such as online B2B marketplaces, in order to increase trust in the selling firm. To sum up, industrial buyers generally use multiple information sources during a complex decision making process, which allows them to check the quality of their information and, consequently, lower their uncertainty in the decision-making process. This broad access to different sources allows buying companies in search of credibility to compare the information obtained from one source with that of the other sources (Spekman & Stern, 1979). Suppliers who deal with these processes should not restrict their efforts to one or two communication tools but rather consider a mix of these instruments.

A Model of the Industrial Adoption Process

The adoption process concerns a sequence of stages a potential adopter of an innovation passes through, before acceptance of the new product. Rogers (1995) defines the adoption process as “the process through which an individual or other decision making unit passes from first knowledge of an innovation, to forming an attitude toward the innovation, to a decision to adopt or reject, to implementation of the new idea, and to confirmation of this decision”. Rogers (1962) outlined an adoption model of three element (1) antecedents, (2) process, and (3) Results. The actual adoption decision occurs between the initiation and the implementation phase. In the initiation stage, the organisation becomes aware of the innovation, forms an attitude towards it and evaluates the new product or idea (Gopalakrishnan & Damanpour, 1994); it encompasses the awareness, consideration and intention stages. In the implementation stage, the organisation decides to purchase and make use of the innovation (adoption and continued use). However, this organisational adoption decision marks merely the beginning of the actual implementation of an The antecedent include the adoption firm's identity, the decision-group's identity, and the participant's perception of the situation. The firm's identity influences the adoption process of new items; it is composed of such variables as; the firm's age, its research and development commitment its rate of growth, its industrial environment, its economic constraints, and its profitability (Rogers, 1995).

The industrial adoption process model implicitly recognises that a decision-making group is the most likely unit of adoption. The characteristics of individual decision group members are aggregated to form the decision group identity variables. Among these characteristics of the members are age, education, cosmopolitan, mental ability, length of company service, level of the organisational hierarchy, previous experience and technical orientation. The perception of the situation held by each member of the decision making group influences his adoption behaviour. The second major element in the model is the process itself. It has been broken into series of stages with different activity occurring during each stage. The five stages of the traditional adoption model serves as the stages in the model of the industrial adoption process (Rogers, 1962).

i. Awareness - At this stage, the adopting units (members) are exposed to the new idea.
   Interest - Additional information's about the innovation are searched.
ii. Evaluation - The potential adopters weigh the advantages of the innovation against costs. If the advantages are perceived to outweigh the cost, the process will continue.
iii. Trial - The potential adopter employs the innovation on a limited scale in order to test its application to the particular situation.
iv. Adoption - At this stage, the adopting unit decides to continue full use of the innovation.

Information search and qualification of alternative sources of supply is an important step in the adoption process. Research has indicated that usually dissatisfaction is required before search is undertaken or if the

professional buyer simple wishes to update information. Other factors which have been considered to act as a stimuli include change in the ultimate customer's requirement; changes in suppliers products; the possibility of financial saving; technological improvement requirement which includes the need for new equipment (Hill & Hillier, 1977). Deloitte (2003) noted a mounting complexity across industries, markets, and supply networks makes, the search and coordination of information more demanding. As the importance, complexity, uncertainty, and time pressure associated with an organisational purchase increase, the information search needs to be more active, with a wider variety of information sources to be used to facilitate the purchase decision. Because industrial buying behaviour is generally "a multi-phase, multi-person, multi-departmental, and multi-objective process" (Johnston & Lewin, 1996), the increasing complexity and dynamics of industrial buying puts even more requisites on active information searches throughout the purchasing process.

Search for relevant information will depend upon the value and cost perceived by the buyer to obtain the information and the buyer's existing state of knowledge, (Nelson, 1961). Furthermore, those who make decisions must exercise the care to obtain and use the right type and amount of information. The quality of decisions made by management is a function of qualitative information obtained. Information sources of organisational buyers are regarded as medium through which qualitative information about suppliers can be obtained. A key matter for effective marketing activities by selling firms is the understanding of their existing and potential clients' buying behaviour (McQuiston, 1989; Johnston & Lewin, 1996). It includes the identification of information sources utilised by clients during their buying decision and the understanding of what factors influence their actual search effort. Therefore, even if such an understanding can be difficult to achieve due to the complexity of communication networks, knowledge about clients' information seeking is of major concern of industrial marketing professionals. Although some buyers rely on memories and experience for knowledge of source of supplier, most writers indicated that competent buyers more correctly rely on the department's own records, publications and personal contacts (Ozanne & Churchull, 1977; Webster, 1970).

Methodology

A field survey was employed through semi-structured in-depth interviews to secure the basic data on the general purchasing procedure. Some specific purchase case studies were employed to examine the functions of information in the adoption process. Both qualitative and quantitative analyses were utilised and discussions were based on the analyses. The study focuses on the information sources of industrial buyers in the purchase of three different categories of items from ten different organisations purposively selected in Maiduguri, Nigeria. These items include:

i. Raw materials (Bulk foods, Enamel flints, transfer papers, wheat etc.)
ii. Spare parts and components (motor van, spare parts, flat sheets, steel sheets etc.).
iii. Supplies and accessories (Air conditioners, fridges and office supplies etc.).

The researcher felt that it is restrictive to specify the particular purchase item to be used for the study; consequently, the investigation focuses on two dimensions. First, general questions on the general purchasing procedure of the organisations were discovered. Secondly, a particular item to be considered were jointly agreed upon with the principal interviewees in each of the participating organisations as a case item. The product/item agreed upon was based on the recently of the purchase, the value of the product, and potentiality of many sources of supply that can be obtained from. All company purchase groups were expected to be the typical decision unit. Consequently, the selection of individuals interviewed was based on their involvement in the buying decision, convenience, willingness and accessibility. The individuals concerned in all the organisations include: the General Manager and Administration Manager; Commercial or Purchasing Manager; and the Product Engineer/Manager.

Analysis and Discussions

Decision Making Process

Normally, decision-making starts from the need for a purchase which typically originates from one of the firm's operating department or in the store/inventory control system of the organisation. Usually these operating departments prepare specification/characteristics of product required together with the request to the management. The management will deliberate on this and give out tender notice or invite quotation from suppliers. At the same time information about suppliers will be gathered and evaluated. Usually three to four suppliers will be considered for evaluation and negotiation. The choice and approval of the deserving supplier/product is finally made.

However, in this study the five stages industrial adoption process was considered as process leading to the purchase of materials components and equipment. The study did not however, considered the adoption process of innovation as in the diffusion theory which originally set to apply to activities and decision through which decision makers in an individual firm move from awareness of the industrial innovation to its final adoption or rejection. The process was used as a frame of reference to categorise the decision process and assess

information requirement and the sources of information at each stage of the decision process. Operationally, the awareness stage closely approximates its conceptualisation (precipitation) stage. In other words, the concept of first coming into contract with supplier and the idea of an information source that brought about this awareness were important to the respondent.

Evaluation stage could be related to when quotations were invited and criteria set and assessed. The interest stage proved to be quite relevant or clearer for the respondents to specify. Often, particular incidences such as salesman's call could clearly be recalled by the respondents. The stage is an extremely difficult stage to define operationally and to investigate. Rogers has noted that the evaluation stage is probably least district of the five adoption stages and imperially one of the most difficult about which to question respondents. During the interview it became apparent that most respondents initiated their evaluation of information upon receipt of a formal "price quotation proposal". Thus the receipt of the proposal was regarded as the beginning of the evaluation stage.

The trial stage could be related to the choice of and purchase of the product. At this stage, a sample of the materials, equipment and component be brought to the supplier's plant for a test demonstration. This was done in few cases but only after the decision to, purchase had been made and order is placed. The function of information at this stage could not be as important in the process as the three stages identified earlier.
At the adoption stage the decision-making in the firm not only to purchase the innovation but also decide to continue its use throughout the organisation.

Decision- making group
The decision-makers in most organisation comprises of the management team. They include the Board members, managing- director, General Manager, production/design engineer, commercial and purchasing officers, Administrative manager. In some few cases, there is a buying committee mostly drawn from same or different departments, from the same or different managerial hierarchy. They are individually or collectively responsible for tender preparation purchasing research and the actual purchase. Most of those identified only give professional advices especially for purchase of new products. Their major responsibilities are to invite quotations, issuing and receiving quotation forms and finally analyse and select the best and reliable supplier. The group are referred to as committee and sometimes referred to as procurement and equipment advisory committee.

Purchasing research activity
Information search by industrial buyers is a crucial and important element for qualitative evaluation. The study showed that all the organisations studied try to inquire to know about their supplier’s products for evaluation. The extent of search activity depends on the buy situation and the task that is at hand. Usually for routine purchases information search activity is minimal. But for new task purchase, information about suppliers has been normally filed in with the various organisations through invited quotations and catalogues, Journals sent to these organisations by suppliers. Sales calls are also good source of information at this stage. This continuous contact with the various suppliers and their product's information are means of reducing perceived risks thereby reduces the work load of external search whenever the need arises.

However, the method of search activity varies with organisations. About 1/3 of the organisation studied engage in information search through invitation of quotation, search by organisation's own sales men and contact with supplier's *salesmen. They have a formal* purchasing research procedure which involved all the possible means of gathering information and their analysis are based on the information provided. The remaining 2/3 of the sample studies engage in search and analysis without well-established formal purchasing research procedure. The information in such cases was gathered through contacts with supplier's salesmen who brought quotations and catalogues. Mostly, they have an established long standing company supplier relationship that when the need arises, they only need to make necessary contacts with the relevant supplier. Most of these organisations have the fear that information gathering and evaluation is costly and time consuming. They also believe that information searching is common clerical work, therefore, uneconomical to allocate funds for information search. Consequently, these organisations vested the responsibility of information search to purchasing clerk in the lower managerial hierarchy and to be forwarded to the top-management for deliberation and final decision.

Selection Criteria
The respondents were asked to identify the sort of information the buyer requires in analysing suppliers/products. Information requirement varies with the stages of the buying and task involved. The criteria are considered at the evaluation and choice of supply and when the task involved is a new buying. Product related information required is cantered on price and quality. Price and quality are considered partly due to the general economic condition of the country which has made companies to be cost conscious. The availability or otherwise of

foreign exchange is a major factor determining import of materials, components and major equipment. Although, specifications are made as to the products required, criteria should also be established in order to select among alternatives. The supplier's reputation, delivery terms and brand names are some of the information considered about suppliers. Others include technical competence, and business size.

Sources of Information

The sources of information of most organisations include supplier's salesmen company salesmen, advertisements, (journals, directories and catalogues), personal influences (professional associations), trade shows and exhibitions and experiences of other organisations (for instance subsidiary organisations). The combinations of the sources are used by most organisations for their information depending on the situation. Relating this to the adoption process of awareness interest, evaluation and trial the respondents were asked to specify the most important information sources at each stage. In other words, they should indicate which source of information brought about awareness, arouses interest and proved most useful in evaluation. At the trial stage, information source many not be much relevant as in the first three stages.

Table (1) below suggest the range of information sources gathered during the study and their classification.

Table (1) Classification of information sources

	Personal sources	**Impersonal sources**
1	Personal influence (friends and company associate)	Advertising (trade Journals and catalogues)
2	Personal contact through company sales persons	Sale promotion (trade shows and exhibitions)
3	Personal selling by suppliers salesmen	Technical source (Quotations)
4	Direct mail e information (e-mails, Telecommunication and Social media)	Web- site and electronic media
5		Previous experience of subsidiary companies

Table 2: Stages in the decision process (adoption process verses the most important information source

S/No	**Sources of information**	**Awareness**	**Interest**	**Evaluation**	**Total**
1	Personal influence	-	2	2	4
2	Company Salesmen	-	1	2	3
3	Suppliers' Salesmen	5	4	3	12
4	Trade Exhibitions	2	1	-	3
5	Advertising	3	-	-	3
6	Technical sources	-	2	2	4
7	Past Experiences	-	-	1	1

Chi-square X^2 test of the assumption of independence is employed to examine the relationship between stages in the decision process and the most important information source. A contingency table for the computation is shown in table three (3) below. The analysis shows whether the use of personal or impersonal sources of information is dependent of the stage of the process. The calculated X^2 value is 1.145. When compared to a table values for two degrees of freedom at a 5% significance. The result is 5.091.

Table 3: Conditional Probability of the most important source versus the stage in the decision adoption process

Adoption Stages/source of information	Personal source	Impersonal source	Total
Awareness	0.500	0.500	1.00
Interest	0.700	0.300	1.00
Evaluation	0.700	0.300	1.00

Viewing the proportions a condition probability provides a clear presentation of the association. The conditional probability suggests that personal contracts and impersonal contacts have equal influence at the awareness stage with 0.500 each. The probability of personal sources rises to 0.700 given that the group is at interest stage and stays important even at the evaluation stage. Impersonal sources are most important at the awareness stage with 0.500 and decline as the group progress to interest and evaluation with 0.300 at both stages. In any case personal sources proved most important in all the decision process. With this, it shows that the use of personal or impersonal sources of information is independent of the stages of the process since the computed value of the X^2 1.45 is within the critical value of 5.091 at 5% significance.

Conclusion

Organisations acquires materials, component for their operations and those items involving large amount of

money and effort are task oriented than non-task factors in their selection procedure.. Consequently, more organised and formal purchasing research procedure was established in all relevant organisations. This effort enables them compare many products and evaluate them to the best interest of the organisations. The problem of shortages and disrupted supply of raw materials equipment among Nigerian industries can be attributed to lack of active search and qualification of sources of supplies in the purchasing procedure. The buyers search efforts are inadequate and they rely much on suppliers salesmen for almost all their information. The supplier's personal calls are considered the most important source of information of organisational buyers. The sort of information required by these buyers mostly cantered on price, quality and reputation of supplier, non-task factors largely influence buyers' decision as they lack a more formalised procedure for search and analysis.

Recommendations

i. Information is needed at all stages of the decision process and therefore information should be directed at the right people right time through personal selling effort than those selling consumer items. The industrial salesmen must contact potential buyers earlier and must play a greater role in generating interest and re enforce contacts and approaches at the final stage of evaluation and trial.
ii. Where the products are specified, it is crucial that marketer identifies those who prepare the specifications, the information sources use and their roles in the decision-making.
iii. Furthermore, in trying to communicate their products, they should use the most important sources of information to the buyers and try to precipitate a purchase situation. This should be done while taking into consideration the individuals involved and the factors that influence their decisions.
iv. The marketer should understand the responsibility vested on the individual concerned and channel their information to the right individuals.

REFERENCES

Hambagda, A.O. (1982). "Some Aspects of organisational Buying Behaviour" A Preliminary investigation into public sector buying behaviour in Nigeria..

Hill, R.W. & Hillier, I.J. (1977). *Organisational Buying Behaviour* (Macmillan.

Weber et al. (1991) "Vendor Selection Criteria and Methods", *European Journal of Operational Research,* 502-18.

Van Weele, A. (2004). *Purchasing and Supply Chain Management* (Fourth ed.). London: Thomson Learning.

Alejandro, .B. Kowalkowski, C. Ritter, J. S. Marchetti, R. Z. &Prado, P.H. (2010). Information search in complex industrial buying: *Empirical Evidence from Brazil Journal of Industrial Marketing Management,* (40), 1, 7-27.

Brossard, H.L. (1998). Information sources used by an organisation during a complex decision process: an exploratory study. *Industrial Marketing Management*, 27, 41-50.

Bienstock, C.C. & Royne, M.B. (2007). The differential value of information in industrial purchasing decisions: Applying an economics of information framework. *International Journal of Physical Distribution & Logistics Management*, 37 (5), 389-408.

Deloitte, (2003). *Mastering Complexity in Global Manufacturing: Driving Profits and Growth through Value Chain Synchronisation*. London, UK.

Doney, P.M. & Cannon, J.P. (1997). An examination of the nature of trust in buyer-seller relationships. *Journal of Marketing*, 61 (April), 35-51.

Johnston, W.J. & Lewin, J.E. (1996). Organisational buying behaviour: toward an integrative framework. *Journal of Business Research*, 35 (1), 1-15.

Kennedy, K.N. & Deeter-Schmelz, D.R. (2001). Descriptive and predictive analyses of industrial buyers' use of online information for purchasing. *Journal of Personal Selling & Sales Management*, 21 (4), 279-90.

McQuiston, D.H. (1989). Novelty, complexity, and importance as causal determinants of industrial buyer behaviour. *Journal of Marketing*, 53 (2), 66-79.

Moorman, C., Deshpande, R. & Zaltman, G. (1993). Factors affecting trust in market research relationships. *Journal of Marketing*, 57 (January), 81-101.

Rogers, E. M. (1995). *Diffusion of Innovations*, 4th ed. New York: The Free Press,

Gopalakrishnan, S. & Fariborz, D. (1994). Patterns of generation and adoption of innovation in organisations: Contingency models of innovation attributes, *Journal of Engineering and Technology Management*, 11, 95-116.

Webster, F.E., & Wind, Y. (1972). A general model for understanding organisational buying behaviour. *Journal of Marketing,* 36 (2), 12-19.

Robinson, P., Paris, C. & Wind, Y. (1967). *Industrial Buying and Creative Marketing*. Boston, MA: Allyn and Bacon.

Sheth, J.N. (1973). A model of industrial buyer behaviour. *Journal of Marketing,* 37 (4), 50-56.