

# Bargaining Power and Information Technology in African–European Business Relationships: Case of the Dutch Flower Auctions

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This article addresses the emergence of African–European business relationships. Its focus is on the role of bargaining power and information technology and its impact on the different stakeholders in (electronic) markets (sellers, market maker, buyers). Information technology is seen as an enabling technology that facilitates reaching a wider customer base (called reach) and providing a channel for increased customer services (called richness). The central question is how African suppliers can create bargaining power by means of information technology and therefore enter and improve their position in European markets. Research is carried out in the flower industry. In this industry African flower growers create competitive advantage and develop business relationships with European buyers (wholesalers, retailers). In this article we investigate three flower markets (Tele Flower Auction, FloraHolland Auction, and Aalsmeer Auction), the role of African flower growers, and the use and impact of information technology in these markets. The results of our research show that there are potentials for African flower growers to enter the European flower markets and to increase their position of bargaining power. A first potential is using and implementing information technology for the access to new and large European markets. African flower growers use information technology to

streamline transaction processes and lower transaction costs. A second potential is related to the quality and specificity of the produced flower products. Information technology can remove the quality uncertainty of products and can provide rich information services to buyers. The results in the flower industry suggest that information technology provides opportunities for the African producers to expand the reach and richness of their product and service offerings, thus creating economic value. © 2004 Elsevier Ltd. All rights reserved.

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## Introduction

In this article the business relationship between African and European businesses are analysed and discussed. Ruigrok and Van Tulder (1995) contend that supplier–buyer relationships were typically analysed in terms of this market setting, which Michael Porter subsequently added to (in the Five-Forces Model (Porter, 1985)) by emphasising the importance of the relative positions of suppliers and buyers in

terms of bargaining relations amongst the stakeholders in a network, such as the Dutch flower business network. Ruigrok and Van Tulder (1995) further contend that Porter's model fails to expose the full dynamism of the network and instead propose an alternative framework incorporating bargaining power as a central explanatory mechanism. Kambil and Van Heck (2002) develop several key insights about the role of Information Technology (IT) for business relationships in markets. The first insight is that "electronic markets are not technological interactions supported by humans... [but]... human interactions supported by technology". This salient insight marks the critical distinction that accounted for the failure of electronic markets in the 1990s. Thus, irrespective of the medium used to conduct business (be it personal contact or cyberspace), humans make markets and are consequently at the core of its functioning. This social context to markets therefore makes the effects of human behaviour critical, both in the design and ultimate use of the trading mechanism. A second insight identified by Kambil and Van Heck (2002) is that trade context processes such as product representation, regulation, risk management, influence, and dispute resolution are important for the overall success of electronic markets. The trade context processes incorporate [stakeholder] influence as a defining factor. The influence processes define how market participants influence each other, build and maintain trust in the market place and establish bargaining power. Bargaining power then becomes fundamental to the establishment and enforcement of feedback and ratings systems. These systems together function as a reputation mechanism designed to increase trust in supplier-buyer relationships, by the establishment of rules of conduct and the enforcement thereof, creating a specific market setting. "Markets are real or virtual meeting places where buyers, sellers and intermediaries meet to exchange or transfer property rights from one party to another", Kambil and Van Heck (1998).

According to Afuah and Tucci (2001), the choice of transactions that are performed over the Internet is a function of the nature of the knowledge on which transactions rest and of the type of people who undertake the transactions. Humans, it is said, are conditioned by bounded rationality. Bounded rationality imposes limitations through the neurophysiological human capabilities (such as the ability to receive and process information without error) and through language, which refers to the inability of people to articulate their knowledge or feelings in such ways that permit them to be understood by others. Similarly, when that knowledge is articulated and transmitted well enough, the recipient may still not understand it. So given these limitations of communicating over the Internet, it begs the question of how market participants conduct meaningful business in terms of interacting socially and articulating their preferences.

Koppius (2002) refers to a number of factors that affect the exchange process, one of which is the degree to which buyers and sellers know and trust each other. This degree of familiarity must surely originate in the behaviour of market participants toward each other; shaped by the participants exercising influence and bargaining power. This then creates the social conditions necessary within the business network for the seller to be willing to invest in a relationship with the buyer and vice-versa through a medium facilitated by information technology.

This article puts emphasis on the questions:

1. *How does the adoption of IT enable the African grower to influence the behaviour of the market maker and create bargaining power in the context of the Dutch flower business network?*
2. *How do market participants influence each other?*
3. *How do market participants establish bargaining power?*
4. *What competitive strategies might the African grower adopt to enable reaching a wider customer base and provide a richness of offering in customer service?*

This article aims:

- ❖ To describe bargaining power and stakeholder influence at play in the context of the Dutch flower business network;
- ❖ To derive competitive strategies for the African grower in terms of reach and richness.

The answers to the above questions are sought in a case study approach, of three empirical settings namely Tele Flower Auction, FloraHolland Auction, and Aalsmeer Auction. The case studies provide a basis upon which theoretical propositions are formulated and generalized (so called analytic generalization). The cases combine a full electronic auction mechanism (Tele Flower) with the mixed auction mechanisms (traditional and electronic auctioning) of FloraHolland and Aalsmeer, all of which represent different points of entry for African growers into the European flower business network. The choice of case settings also embraces the characteristics of a cooperative in which growers are the owners of the auction house (FloraHolland and Aalsmeer) versus a non-cooperative market maker such as Tele Flower auction.

This article is divided into three main sections. First, a literature review of bargaining power and the role of IT in business relationships is developed into a conceptual framework, complemented with five propositions. Second, the empirical setting in the flower industry with research method and data will be explained. Third, an empirical analysis of three cases in the flower industry will be performed. Lessons learned are formulated.

## Literature Review and Conceptual Framework

### Bargaining Power

Ruigrok and Van Tulder (1995) systematically analyse the role of influence and bargaining power in networks of business relationships. "Influence is applicable to a situation where individual A affects individual B, without B subordinating his wishes to those of A... That is to say, A has influence over B" (Ruigrok and Van Tulder, 1995, p. 68–69). An example of an influence relationship may be discerned in the car parts industry where gearboxes may be considered to be of high strategic importance. If the car manufacturer uses a single supplier as the source of this strategic component then the supplier's influence over the manufacturer is defined to be higher than vice-versa. Thus the higher the relative independence and the larger the size of suppliers, the more market makers will be forced to strike coalitions with their suppliers. A central element in the bargaining process is the concept of power, where power is defined as the ability of individual A to make individual B do something that individual B would not otherwise have done, (Ruigrok and Van Tulder, 1995). Power is also clearly distinguished from influence. Influence denotes a situation in which individual A affects individual B over the making of a decision but individual B retains the power finally, to decide.

The act of doing business makes it difficult to determine exactly why and how market participants exercise power. But bargaining certainly fashions the competitive strategies of participants. Contemporary economic theory, as reported by Ruigrok and Van Tulder (1995), advocates, that "the economy is guided not only by the search for gain, but also by that for power". Michael Porter's well-known Five Forces Model lists bargaining power of suppliers and bargaining power of buyers as two of the five competitive forces that determine an industry or market's profitability. And according to Ruigrok and Van Tulder (1995, p. 64), Porter "regards the relative positions of suppliers and buyers in terms of bargaining relations, emphasising the importance of other than simply market-driven motives in a competition strategy".

### Information Technology

Information technology and especially the Internet has brought about two major changes in the conduct of business: (1) It has significantly reduced the cost of doing business; (2) It has established complex relationships between organizations and their stakeholders.

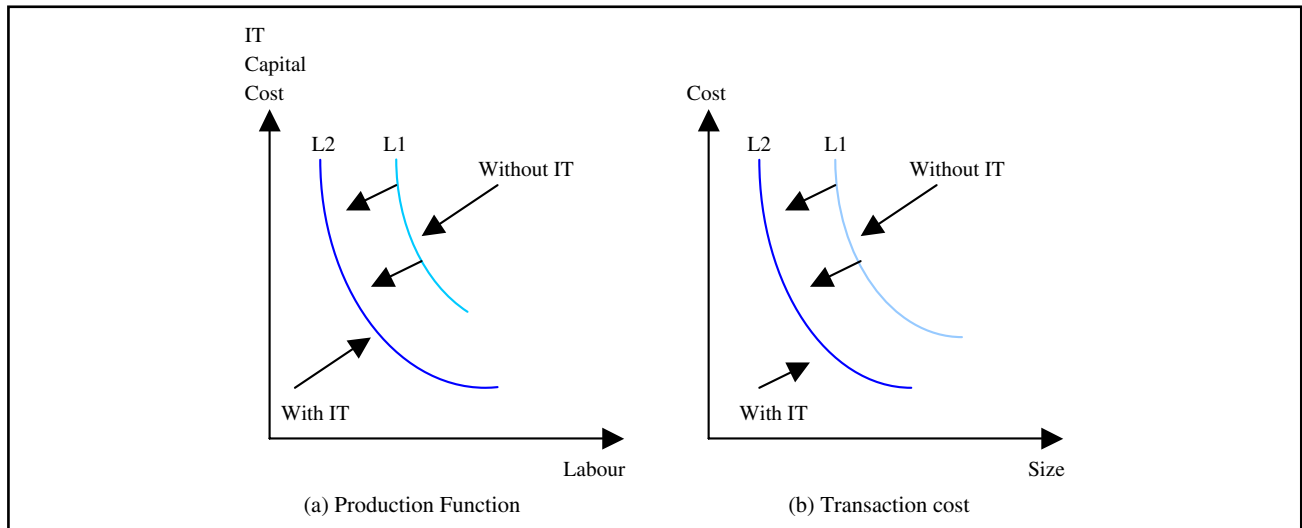
The Internet-enabled technology comprising advanced client-server architectures, globally diffused

hypermedia clients, low-cost communication infrastructure and platform independent software have not only extended the traditional market mechanisms into the electronic realm, but also in areas where no market mechanisms have existed. The Internet makes it possible for the bidders and sellers to now gather electronically via newsgroups, email lists and WebPages thus reducing the transaction costs associated with travelling to physical market-places. "With its open standards, relatively low entry barriers and low cost of communication, the Internet makes gathering people in one place a lot cheaper. . . . Electronic bidding removes a large part of the transaction costs . . ." (Koppius and Van Heck, 2002). It is therefore no longer necessary for the sellers and buyers to physically gather in one place.

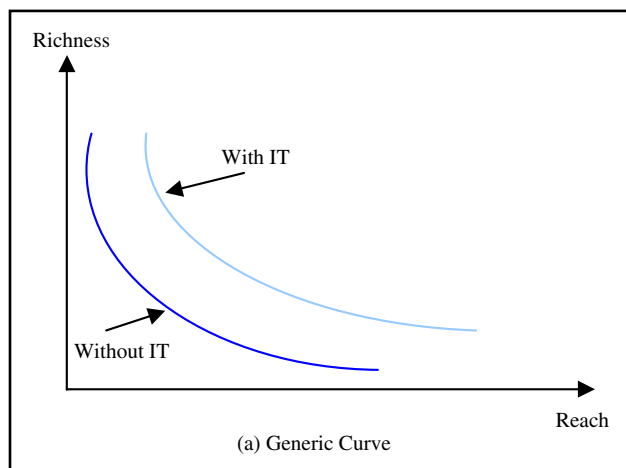
"Technological progress and the proliferation of global hyper-media communication infrastructures have enabled numerous players to not only extend traditional market mechanisms into the electronic realm, but also to use auctions in new application areas where previously no market mechanisms have been employed" (Klein, 1998).

Electronic markets are most useful when they are directly able to match buyers and sellers (Turban *et al.*, 2004). Electronic markets serve to reduce search costs, thus allowing consumers to find sellers offering lower prices. In the long run, this may reduce margins for sellers yet it may also lead to an increase in the number of transactions that do take place, according to Turban *et al.* (2004). The impact of IT on markets may be seen in the economic advantages gained. For example, for a given quantity of production Q, producers can either use a certain amount of labour or invest in more automation. The lower the amount of labour needed, the higher the required IT investment (Turban *et al.*, 2004). However the impact of IT, as illustrated below, shifts the production function from L1 to L2, thus lowering the amount of labour or capital needed to produce the same production quantity, Q. The firm's transaction cost is also shifted from position T1 to position T2. The illustration below implies that the role of IT and electronic commerce makes it possible to have low transaction costs with smaller firm size and much lower transaction costs when the firm size increases (Turban *et al.*, 2004) Figure 1.

"Another economic impact of Electronic Commerce is the trade-off between the number of customers a company can reach (called 'reach') and the amount of interactions and information services they can provide to customers (called 'richness')" (Turban *et al.*, 2004, p. 61). The trade-off is defined in that the more customers a producer wants to reach, the fewer the services provided to them. However, the two concepts are not mutually exclusive and the firm may seek to increase its reach whilst at the same time provide richness in terms of superior customer service. Providing such services by the adoption of IT



**Figure 1 The Economic Impact of IT (Adapted from Turban et al., 2004)**



**Figure 2 Reach versus Richness (Adapted from Turban et al., 2004) originally developed by Evans and Wurster (2000)**

(richness of communication) indeed provides the producer with the ability to increase the number of customers reached, as shown above in Figure 2, adapted from Turban et al. (2004), originally developed by Evans and Wurster (2000).

**Conceptual Framework**

The following conceptual framework depicts the potential influence that the African growers may assert over the market makers given the adoption of IT which provides for increased bargaining power enabling wider reach in customer markets toward selecting the right buyer and successfully concluding a transaction, see Figure 3.

Achieving the objective of concluding profitable transactions does not necessarily ensure a successful business network. However, achieving the objectives against the confluence of all participant interests,

does. The winning formula must therefore incorporate stakeholder influence and bargaining power within the social institution of the market.

Based on the literature review we formulate the following propositions:

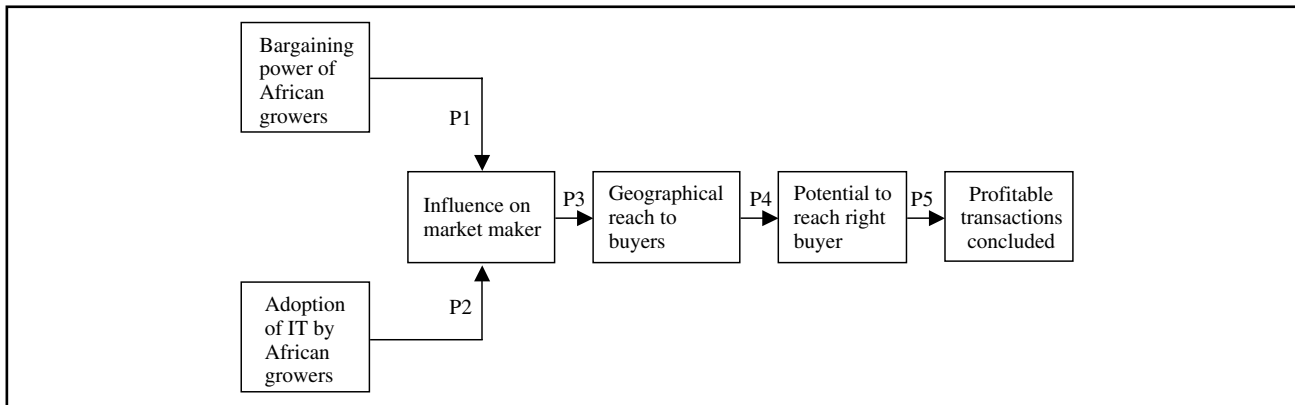
*Proposition 1. More bargaining power of the African grower leads to more influence on the market maker in the negotiation process.*

In the electronic markets’ literature, the adoption of IT has largely been conceptualized to equate to a reduction in transaction costs. However the adoption of IT does incur higher investment capital costs, whilst lowering the labor costs of a firm. Automation further allows the firm or grower to increase the richness of communication by channeling more informational services to the buyer, thus reducing the effect of quality uncertainty in the product. Hence, we have:

*Proposition 2. The adoption of IT by the African growers facilitates the ability to have higher influence over the market maker.*

Different stakeholders have different goals and interests in a market where the market is representative of a socially constructed consensus, “that is constantly renegotiated among stakeholders with different levels of power” (Kambil and Van Heck, 1998). Hence each stakeholder develops unique competitive strategies to achieve those goals, and for the African grower, economic value is measured in terms of attaining a greater geographical reach or reaching more customers and providing a richness in information and customer services designed to conclude successful trade agreements.

*Proposition 3. The more influence that the African grower has over the market-maker, the greater is the geographical reach to buyers.*



**Figure 3 The Conceptual Framework**

The link to the buyer of a product remains one of the most important informational “glues” in the business world and is probably the most pervasive basis of competitive advantage in any consumer-focused business. “The strategy is to build into the consumers mind a deep and locked-in relationship: richness that forecloses reach” (Evans and Wurster, 2000, p. 99). Thus, having reached a select market, a particular buyer is targeted with a wealth of informational and customer value. Hence we have:

*Proposition 4. The further the geographical reach, the higher is the potential to select the right buyer.*

Of course if a grower and buyer fail to come to an agreement over the product being traded it would mean lost profits for both parties. Trade would not take place unless it were advantageous to both parties. Thus it is best to strike as good a bargain as one’s bargaining position permits, however by overreaching one’s profit earning capacity, no bargain is struck and a trade that could have been advantageous to both parties does not come off at all. And so this leads us to:

*Proposition 5. Selecting the right buyer leads to successful and profitable trade agreements.*

The bargaining theory espoused by Raiffa (1982), where bargaining is analyzed in terms of: who, why, what, where, when and how forms the bedrock against which Ruigrok and Van Tulder (1995) develop their dependency continuum scale as a yardstick to assess the relative bargaining positions of market participants.

For example, power is defined as the central element in the bargaining process, however it is difficult to point out how and why firms exercise power. Thus when the questions on technology, business practices and quality control are used to measure how power is exercised in the relationship between the market-maker and a grower, for instance, technology has traditionally been used by large and technologically leading firms to impose the trajectory of global

restructuring upon other firms (Ruigrok and Van Tulder, 1995).

Big firms dominate subcontractors by tightening quality requirements and threatening to turn to alternative suppliers/growers. For example, grower rating is a measure of quality control. However, the higher the quality control the more dependent the grower becomes on the market-maker. (Ruigrok and Van Tulder, 1995).

## Research Methods and Data

### Measuring Bargaining Power

This article provides an analysis of bargaining power in the Dutch flower auctions, based on the framework presented by Ruigrok and Van Tulder (1995). The framework provides a basis for systematic analysis of the stakeholders involved in the auctions and the nature of their interactions and bargaining processes. Ruigrok and Van Tulder (1995) further propose a scale of dependencies ranging from dependent to interdependent to independent positions of the stakeholders in relation to each other as a measure of the impact on bargaining power between the stakeholders. Accordingly, the unit of analysis is identified as the ‘network’ having the following characteristics: (1) It is relatively stable and the stakeholders do not meet accidentally; (2) Stakeholder interaction is aimed at the exchange of goods; (3) There is a system of values governing the interaction.

The auction is recognised as the core firm on the basis that:

1. It generates exceedingly high sales.
2. As the principal stakeholder it has a high degree of independence gained through its control of the core technology, and in exercising its financial muscle.
3. It has direct access to domestic and foreign markets/customers.

4. It manages the value chain.
5. It demonstrates a high commitment to accomplish the vision of the network.
6. It uses leading edge technology.

This article focuses on the core firm’s relationship with its suppliers and wholesalers/retailers, i.e. the relationships within the value chain. Whilst the relationship between the core firm and its workers is also defined to occur within the value chain, this dimension has no impact on the stakeholder inter-relationship aspect.

Ruigrok and Van Tulder (1995) propose a scale to be used as a qualitative yardstick to assess the relative bargaining power within a network, as reproduced in Figure 4. Influence, as defined in Section 2, entails the effect that A has over B in the making of a decision, yet it is B that has the power finally to decide. However the actual process of how power is exercised is interpreted in the outcome of a bargaining relation between the auction and the African grower, given that the act of doing business does not permit a player to talk openly about its business strategy of playing off one player against another. It may also be reasonably assumed that a grower would not voluntarily manoeuvre himself into a position in which the auction largely dictates to him. However, should the bargaining process create such a dependency of grower on the auction, it can only be attributed to the auction occupying a stronger bargaining position than the grower (Ruigrok and Van Tulder, 1995). The bargaining position may be seen as the source of power, however power may be exercised from auction to grower and grower to auction irrespective of the dependency relation. Thus power is largely shaped by the respective influence each player has over the other. The illustration (Figure 4) combines the elements of power and influence on a continuum, which shows the relative bargaining positions of players (auctions and growers) towards each other. The upper categories refer to the dependency

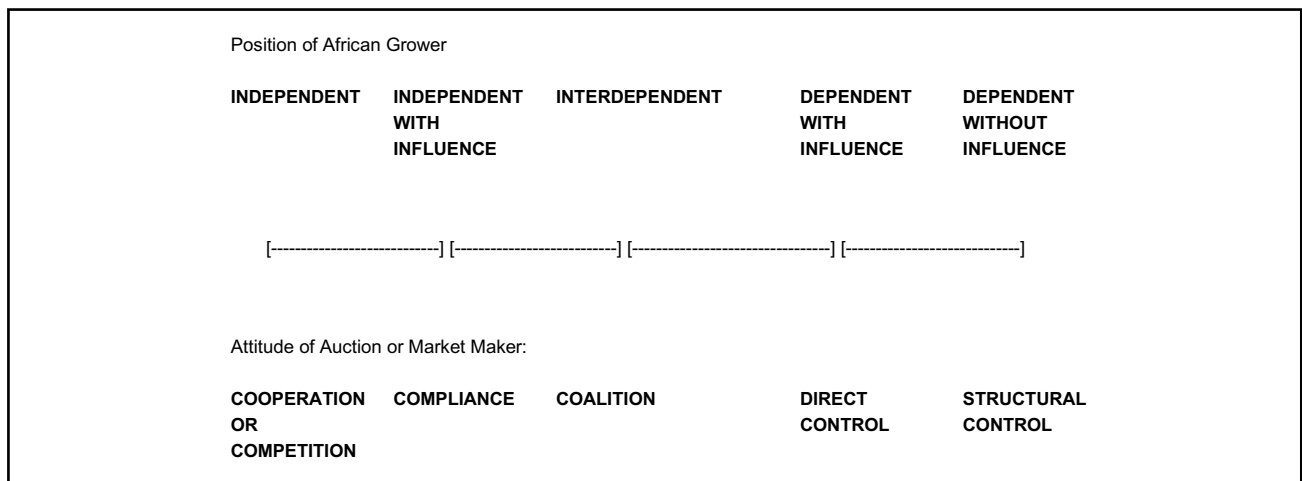
relations in the Dutch flower business network and the lower categories refer to the auction’s attitude or strategy to the African grower. Based on these dimensions of dependency and influence, Ruigrok and Van Tulder (1995) distinguish six bargaining attitudes, namely: cooperation or, competition, compliance, coalition, direct control and structural control. An understanding of these attitudes of the market maker becomes key to the African grower’s internationalization strategy.

**Scale of Dependency**

The scale of dependency (See Figure 4) is used as a qualitative yardstick to assess the relative bargaining patterns within the Dutch flower auctions (a specific market setting), as relationships between the auction maker and growers, as well as the relationship between auction maker and buyers, which in both cases the auction maker is identified as the core firm.

The bargaining configuration organized around the auctions gives the auctions the option of adopting a bargaining attitude such as cooperation or competition based on the bargaining position of the African grower and against which the African grower must in turn fashion his own strategy. Ruigrok and Van Tulder (1995) assert that cooperation often implies “competition by other means” and that genuine cooperation can only be defined as emerging between independent players. Ruigrok and Van Tulder (1995) further assert that both the auctions and growers would shift on the continuum (as described in Figure 4), toward positions of interdependence. This would mean that each player gradually takes into account the situation and objectives of the other and which would make their cooperation less voluntary.

A less dependent African grower can use the interdependent relationship with the auction as a source of power in bargaining over an issue. However, Rui-



**Figure 4 A Continuum of Dependency Relations in a Network**

Source: Ruigrok and Van Tulder, 1995

grok and Van Tulder (1995) contend that interdependence cannot exist if one player has more influence over the other. Clearly it can be seen that the African grower is positioned between interdependence and dependent without influence.

Interdependence implies that the African grower and Dutch auction have substantial and equal influence over each other's activities. Ruigrok and Van Tulder (1995) contend that the type of agreement concluded by two interdependent players is referred to as a coalition. We have seen firstly, that there exist no formal contractual agreements between the Dutch auctions and the African growers, and secondly there exists no strategy of the auctions to exclude an African grower from participating in the Dutch flower business network, as is the general aim of a coalition agreement. Also coalition partners may hold each other hostage and that certainly is not the case in the relationship between the African growers and the Dutch auctions.

The right hand side of the scale presents two distinct positions where the African grower is dependent on the auction, yet the possibility exists for it to still exert some influence over the auction. An African grower who is 'dependent with influence' may end the relationship albeit at a high cost. There it becomes important, that on the basis of this limited freedom, for the African grower to seek to influence the behaviour and actions of the Dutch auctions.

The Dutch auctions have equal opportunity of choices as does the African grower who is dependent on influence, should problems be experienced in the relationship, in addition to exercising 'structural control'. Structural control refers to the exercise of power by the auctions to get the African grower to do what he [the grower] does not want to do, and also to exercise that power to influence, shape and determine the African grower's very wants (Ruigrok and Van Tulder, 1995). Structural control represents the most subtle form of exercising power, which traditional theories hold only shows up in cases of actual conflict. However, Ruigrok and Van Tulder (1995), quoting Steven Lukes, describe the situation of preventing such conflict from arising in the first place, as "the most effective and insidious use of power".

It must be noted however that the dependency scale shows the relative bargaining positions of the auctions and African growers at a given instant and that these positions may shift over time.

### Selected Flower Auctions

For the analysis of bargaining power and the role of IT three flower market makers were selected. The following criteria were used for selection. Firstly, the selected markets had to have a strong business relationship with African growers. Secondly, the

flower markets had to have differences in IT use. One market— Tele Flower Auction —is a complete electronic auction. The other two auctions are Flora-Holland and Aalsmeer Auction are a combination of traditional and electronic auctions. Thirdly, the three auctions differ in terms of ownership. FloraHolland and Aalsmeer Auction are owned by grower cooperatives. Tele Flower Auction is a privately owned company not specifically owned by growers.

#### *Tele Flower Auction*

From 1984, the East African Flower (EAF) Company, which is comprised of a group of east African growers located in Kenya, Tanzania, Zimbabwe and Zambia and supplied flowers (such as roses, carnations & statics) directly to the Dutch Flower Auctions. The flowers were air freighted from Africa to The Netherlands for sale and distribution via the Dutch Flower auctions. Around late 1994, the Dutch Rose Growers who owned the Dutch flower auctions decided to prohibit EAF growers from using the Dutch flower auctions to market their flowers. This restriction was to take effect on 01 November 1995. In a counterpoint move, the EAF developed and set up an alternative flower auction mechanism, specifically to market cut-flowers grown in Africa. This resulted in the creation of Tele Flower Auction (TFA)—<http://www.tfa.nl>—in 1994, which is now housed on the Noorddammerweg in Amstelveen. TFA has just one shareholder.

TFA envisaged beginning operations with 150 buyers, but actually started with 75 buyers. Today buyers on the TFA number 180. In March 1994, TFA faced stiff competition from the traditional Dutch auctions. Internally, the company was faced with operational difficulties in training the employees (who typically fell in the 35–40 year age bracket) in computer usage. For example, employees were not familiar with the use of function keys such as the ALT-key and the use of the computer as a medium to conduct business required a paradigm shift in individual thinking that was not easily achieved. Also, up until mid 2002, only companies registered with the Chamber of Commerce in Holland could participate in the TFA auction mechanism. This required participating companies to be physically based in Holland. This ruling is now being revised and companies based in countries such as Germany, UK, France, and Belgium are allowed to participate in the TFA auction, by electronic means, but only through the Dutch exporter. This means that the foreign buyer may only purchase flowers off the TFA system through an intermediary, that intermediary being the Dutch export company. The requirement of the Dutch exporter as intermediary between the TFA and foreign buyer saw the exporter being transformed simply into a transporter of the goods purchased on auction. TFA did not want to involve itself in customs, transportation and related logistics issues. Hence the need arose for the export companies who carry this responsibility.

Currently 90% of flowers are sourced from Africa with 75% stemming from Kenya alone, the location point of 150 supplier farms. Other African suppliers of flowers are Tanzania, Zimbabwe and Zambia. Ethiopia remains a potential source of growers for the future.

TFA functions as an independent entity. It manages also its own supply, in having a farm in Kenya of about 200 hectares. TFA values loyalty in the growers and honors such relationships. Growers have individual choice of markets in which to sell their produce, but choose to do business with TFA of their own volition. TFA is attentive to farmers' concerns, having an ear to the ground, and do not play off growers against each other.

#### *FloraHolland Auction*

FloraHolland is a cooperative auction network—<http://www.floraholland.nl>. Of the 8200 suppliers, 4500 are members of the cooperative. Suppliers sell their products via 26 auction clocks and the Intermediary Office, which operates nationally across The Netherlands. FloraHolland has several auction locations, each with its own culture and position in the market, totalling approximately 3000 employees. In 2002, FloraHolland recorded total sales of EUR 1.9 billion. Thus FloraHolland represents a significant link to the world market for the African growers.

FloraHolland has earmarked a strategy for growth that is distinguished by a continuous close collaboration with its members and other partners in the chain, as a key feature of its operations. There are five auction locations in the FloraHolland stable, namely, Naaldwijk, Rijnsburg, Bleiswijk, Zon and Eelde. The intermediary office handles direct sales away from the clocks and concerns itself with futures and day trade and is active at all auction locations.

Each of the auction locations has its own coverage area and sales market, tailored to the needs of a particular buyer and/or grower. Growers are based in Europe, Africa, Israel, South America and Asia. The auctioning of flowers is open to international buyers, with 75% of cut flowers being exported. It is also possible to buy from a distance. Buyers who choose this method (so-called "Kopen Op Afstand") can buy at all FloraHolland clocks, from the comfort of their homes or workplaces.

30% of flowers sold on FloraHolland auctions are sourced from outside of the Netherlands. 15% is imported from Africa. With respect to the South African growers, flowers are currently sourced from Protea Du Cap, a consortium formed by fourteen producers of proteas and other indigenous fynbos. These flowers are grown naturally, only in Cape Town.

LivingGold is a SA company which represents a joint venture between Gold Fields SA and the International Development Corporation (IDC) of SA. It is

to debut the (exclusive) auctioning of nine new varieties of the SA rose, through FloraHolland Auction. FloraHolland agents, based in South Africa currently act as a conduit between the grower and FloraHolland auction. The agent exports the flowers directly from SA to FloraHolland. Flexibility and loyalty in growers are viewed as positive traits for business development. Growers are paid on a commission basis. FloraHolland auctions 100% of the flowers supplied by its African growers.

#### *Aalsmeer Auction*

The Aalsmeer Flower Auction (VBA)—<http://www.vba.nl>—like FloraHolland is also a cooperative enterprise, and is the largest covered trade centre in the world. It auctions a daily volume of approximately 20 million flowers and 2 million plants from some 7000 suppliers/growers located globally. Flowers and pot plants are exported daily throughout the world, comprising some 50,000 transactions. As such, it provides a central marketplace for the buying and selling of floricultural products.

As a cooperative VBA is jointly owned by 3500 Dutch member growers. The growers appoint a board of nine from among their ranks to determine the general policy. VBA has its origins in the turn of the 20th century, when Aalsmeer growers joined forces as a reaction to the power of the middlemen. This led to the formation of two separate auctions, Bloemenlust and Central Aalsmeer Auction (CAV), which eventually merged into what is today known as VBA.

Sales turnover achieved through its 1300 buyers and approximately 2000 workforce, totalled over 1.5 billion euro in the year 2002. The growers, as cooperative members, are obliged to sell their entire product via the auction. A percentage of the growers' sales profit pays for the building and staff costs. Buyers are not members, but are required to be registered in the computerised administration system.

Fifteen percent of roses auctioned through Aalsmeer are sourced from Africa. The supply of red roses is however regulated by the auction house. Growers are advised via electronic means (e-mail) as to supply planning and demand growth. Growers are required to submit an electronic based file detailing their supply planning, on a weekly basis. The auction house uses this information to regulate the supply of roses. Kenya represents the biggest import country for Aalsmeer. Of the flowers sourced in Africa, 50% is obtained from Kenya, with other countries such as South Africa, Zambia, Tanzania, Ethiopia and Mozambique accounting for the remainder. The file is Excel based and in free format. It details the quantity and variety of roses to be supplied by the grower. Here the grower deals directly with Aalsmeer auction. No middlemen involvement is called for. IT serves to enable direct communication between Aalsmeer and the growers. Aalsmeer facilitates the process of the grower reach-



ing a wider end market, for example, 95% of flowers grown in Africa end up in Europe, but China presents itself as a viable market for African growers, as the Chinese New Year coincides with high production levels of flowers in Africa to meet that demand. Aalsmeer always welcomes new products. Growers who are able to supply high quality rare product consistently are introduced to prospective buyers by the auction house. Aalsmeer assists such growers with marketing and promotion initiatives.

### Data Collection

Data was collected through personal interviews with employees of Tele Flower Auction, FloraHolland Auction, and Aalsmeer Auction. The validity of this approach to conducting an empirical inquiry into contemporary phenomena is underscored by the specific contextual conditions related to this study, i.e. the Dutch flower auctions. In addition to the technique described above, evidence was also sourced from the various auction and grower websites, previous research and its theoretical proposition so that investigative data may converge in a triangulation fashion, thus enhancing the validity of this methodology. For a more thorough explanation of the research methods and techniques used, we refer to Cunden (2004).

## Analysis of Empirical Data

### African Growers Dependent on Influence

This section presents a view of the stakeholder interaction in terms of bargaining relations, from the perspective of the African grower, within the Dutch flower business network. "The interaction within a network can only be fully understood if one takes into account the power relations between the constituent parties", (Ruigrok and Van Tulder, 1995, p. 64). Ruigrok and Van Tulder (1995) identify five types of bargaining relationships between the core firm (auction) and its relations with (1) its suppliers (growers), (2) its workers, (3) its distributors (wholesalers), (4) its financiers and (5) its government(s), of which the first is the subject of this article and the crux of analysis. Hence the analysis of the relationship between the auctions and the growers is based on the six organizing questions formulated by Raiffa (1982).

According to Dosi *et al.* (1988) a better bargaining position is derived from having and exercising more power, which in turn derives from a technologically leading position with respect to other players in the industry. Technologically leading companies are able to produce new products using innovative technologies, which endows them with more power. In this way, these companies are able to reduce the pros-

pects for new entrants and influence the creation of substitutes (Ruigrok and Van Tulder, 1995). This may be seen in TFA's initiative to establish its own farm in Kenya for the cultivation of roses by use of innovative technologies. The results of the use of these innovative technologies influence the African growers to adopt similar techniques, so as to remain competitive.

In all three cases, the auctions, like all big companies using innovative technologies, position themselves in the core of the flower business network. This position carries the advantage of control over the supply and distribution of flowers, as well as allowing the auctions to play a leading role in the creation of added value (Ruigrok and Van Tulder, 1995). Depicting the export value of cut flowers from Kenya, Zimbabwe and Zambia respectively, shows over 90% of the exports is destined for the Dutch flower business network, thus implying a dependency of the African grower on the auction houses. In terms of the characteristics of a core firm (Ruigrok and Van Tulder, 1995), it is clearly evident that the auctions have the greater power (over growers) in the Dutch flower business network. Their high sales figures serve as *sine qua non* for other factors as described by Ruigrok and Van Tulder (1995) such as:

- ❖ Their high degree of independence from other stakeholders means it will always play a leading role and if it should give up this role, for whatever reason, it will always try to regain control.
- ❖ The auctions in having direct access to foreign end markets and customers control the distribution of the flowers. For example FloraHolland uses the Intermediary Office for importing and distributing the auction's direct sales away from the clocks and on behalf of the African growers, who do not have access to these buyers.
- ❖ The independence of the auctions is also seen in their control over strategic competencies, such as in the provision of the daily statistical data regarding sales of African grower products. The African growers are dependent on the auctions for this information. This information in turn is crucial to the grower's planning activities.
- ❖ The auctions also play a leading role in the management of the internal value chain (for example, the provision of air-freight facilities by Tele Flower Auction in Kenya), and the internal labour process of growers (for example, by stipulation of MPS accreditation).
- ❖ The auctions' ability to determine the rules of the game (for example in terms of grower rating, stipulation of quality controls and accreditation) influence other stakeholders such as the African growers, but also establishes their independence from the growers.
- ❖ A core company is also a user-producer, meaning that it not only produces new products but

is also a leading user of new technologies. This is clearly evident in the case of Tele Flower Auction, which uses new technologies to experiment and produce its own supply of roses in Naivasha, Kenya.

Thus it may be seen that the Dutch flower business network functions as a bargaining configuration organized around the auctions, and consisting of growers, distributors or wholesalers and buyers who are directly or indirectly engaged in the production and distribution of flowers internationally. In addition, this bargaining configuration is regulated by a governance regime, which refers to the institutional setting and social relations amongst stakeholders as sources of influence.

Ruigrok and Van Tulder (1995) contend that, more and more, market makers look for long-term planning horizons in their relations with growers and an indication of this phenomenon is the single-sourcing agreement, as opposed to the multiple-sourcing agreement which traditionally served to play off one grower against another. However our analysis reveals that the relationship between African growers and market makers is devoid of any formal contractual agreements, yet many growers are indeed contracted. In the absence of such formal agreements, it may be seen that quality control then becomes the instrument of contractual agreement: the higher the level of quality control by the market maker, the more dependent will the African grower become. Tightening quality control requirements rather than threatening to turn to a cheaper grower, allows market makers to dominate the African growers. This is because quality control assumes that the growers' entire production process must be continuously monitored to maintain high levels of quality. Grower rating is also another powerful measure of quality control. In such a relationship the market maker regularly evaluates the growers, and determines an overall rating which tells both parties how growers measure up against each other. Growers who pass the test receive a quality award enabling preferred grower status. In this way the market maker not only influences the grower, but achieves a position of dominance over the grower.

The African grower in terms of bargaining position is 'dependent with influence' in his relations with the Dutch auction maker. In summary, the dependency scale illustrates the following possible relationships as bargaining configurations between the Dutch auctions and the African growers:

- ❖ Independent: The two players do not interact, or if they do, only marginally, and thus do not exert any influence over each other. Clearly this is not the case in our analysis.

- ❖ Independent with influence: The balance of influence shifts in favour of the African grower. This marks the only instance in which the auction maker may be driven to act differently than it would otherwise have done (yet in doing so it maintains its independence). Our analysis reveals no such instance to have occurred.
- ❖ Interdependence: Both the African grower and Dutch auction maker have equal influence over the other. Again by analysis this implies a coalition, which does not hold true.
- ❖ Dependent on influence: The Dutch auction maker clearly becomes the stronger partner. The African grower is truly dependent on the Dutch auction maker. Our analysis reveals this to be true.
- ❖ Dependent without influence: The African grower has lost all possibility of influencing the Dutch auction maker. This situation is also revealed by our analysis to be untrue.

In interpreting the bargaining positions of the African growers with respect to the scale of dependency, Ruigrok and Van Tulder (1995) caution that the following points must be taken into consideration:

1. Positions of the African grower are subject to constant change due to the various types of deals that may be transacted between the grower and the market maker.
2. A position on the continuum is at the same time the outcome of the previous bargaining process and the starting point of a future or next bargaining process. The effect of future deals impact the power relationship and cause shifts in bargaining positions.
3. Intervening variables from outside the Dutch flower business network may influence the bilateral relationship, as the use of power does not take place in an economic or political vacuum.
4. The scale offers no conclusive yardstick to position all dimensions of interaction and at times bargaining positions may be somewhat arbitrary and would require motivation.

#### **Electronic Auctions with Higher Reach and Richness**

An automated negotiation phase, in which prices are determined and contracts closed, represents the core of the auction. It is within this core element that stakeholder relationships are forged and driven by information services. The "richness" in the information services provided becomes crucial in determining the number of participants and their levels of interest. Clear and distinct information about trade objects and trade rules prevent friction during and after the auction. However, it is the role and quality of that information which shape the stakeholder rela-

tionships. This relationship in turn influences the physical logistics of the trade objects. The flowers are only moved after being sold. However, currently all flowers are transported to the Netherlands for evaluation before auctioning begins.

The physical shipment of the flowers directly to the buyers would certainly improve the efficiency of the flower auctions. Such a capability can only be built on a high level of trust that is achieved from relationship building between the suppliers/growers and the Dutch wholesalers.

### Lessons Learned

Based on the analysis of the bargaining power position and the use of IT, five propositions in the three cases were analyzed, see Table 1.

The analysis shows that proposition 1 and 5 were in all three cases present, see Table 1. In Table 1 YES indicates that the proposition was present in the specific case, and NO indicates it was not. The analysis indicates that with regard to:

- ❖ Proposition 1: That in all three cases African growers try change their relationship with the flower auctions and work towards an interdependence relationships.
- ❖ Proposition 2: The adoption of IT does not always lead to more influence. The FloraHolland case shows that IT adoption has only a limited effect on influence.

- ❖ Proposition 3: The TeleFlower Auction and FloraHolland Auction cases show that the market maker (the auctioneer) might use its position to restrict the direct access of growers to buyers. The Aalsmeer Auction shows that influence is increasing when electronic access is provided by the auction to link growers and buyers directly, for example via electronic brokerage systems.
- ❖ Proposition 4: The TeleFlower Auction and FloraHolland Auction cases show that the market maker controls the relationship and stimulates growers to use the auction without building direct relationships between growers and buyers. Therefore there is a lower potential to reach the right buyer.
- ❖ Proposition 5: All three cases show that providing 'rich' information will create more profitable transactions.

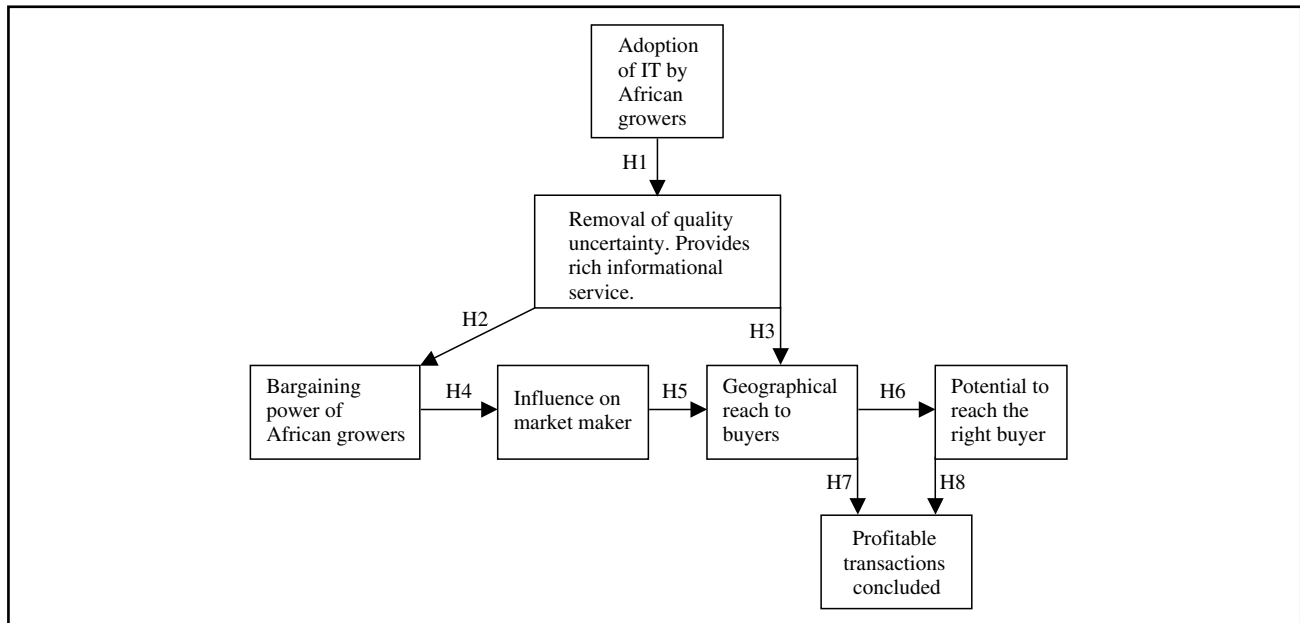
The analysis of the propositions leads to a refined set of hypotheses and therefore a refined conceptual framework, see Figure 5.

*H1: The adoption of IT by African growers leads to the removal of quality uncertainty in products and provides a 'rich' informational service.*

The adoption of IT by African growers will enable a platform upon which real-time quality of information regarding the product could be made available to the auctions as well as buyers. Quality uncertainty, which refers to the absence of knowledge pertaining to the quality of the flower, is thus eliminated. In

**Table 1 A Comparative Analysis of the Propositions per Case Study Auction**

	Tele Flower Auction	FloraHolland Auction	Aalsmeer Auction
<b>Proposition 1</b> More bargaining power leads to more influence.	YES African growers adopt strategy to shift from 'dependent with influence' to 'interdependence'.	YES	YES
<b>Proposition 2</b> Adoption of IT leads to more influence.	YES Tracking and tracing to prevent loss of products in transit and to make the auctions more accountable for such losses.	NO The use of IT is limited to a communication function and supply of reports. Does not extend reach to buyers.	YES Will provide African growers with access to the Florinet network and VBA Trade Plaza.
<b>Proposition 3</b> More influence, the greater is the geographical reach.	NO The market maker is positioned between the grower and the buyer as intermediary.	NO	YES Access to Primeur, show cases (MVA) and trade fairs.
<b>Proposition 4</b> More reach, the higher the potential to select the right buyer.	NO The market maker controls all access to buyers.	NO	YES Investment in IT will provide access to KOA and VBA Trade Plaza buyers.
<b>Proposition 5</b> Selecting the right buyer leads to profitable trade agreement.	YES Selection of the right buyer is achieved through the provision of 'richness' in information that would lead to mutually successful and profitable transactions.	YES	YES



**Figure 5 The Refined Conceptual Framework**

improving the quality of information, a 'rich' informational service is provided to the online buyer.

*H2: The removal of quality uncertainty provides for a 'rich' informational service which leads to more bargaining power for the African grower over the Dutch auction maker.*

The removal of quality uncertainty in the products and the provision of a 'rich' informational service is achieved through the adoption and use of IT. This creates the opportunity for the African grower to become a "user-producer" of technology, enabling a status of a better bargaining position. A user-producer is able to produce new varieties of quality products enabled by use of innovative technologies that endow them with greater power over market demands and therefore a better bargaining position.

*H3: The removal of quality uncertainty provides for a 'rich' informational service, which leads to a greater geographical reach to buyers.*

Buyers typically want to see the quality of products, which they purchase on auctions. Hence by removing the uncertainty around quality of flowers and providing more detailed information on the product, growers will be able to reach a wider expanse of buyers, who are connected via the Internet. The removal of product quality uncertainty builds trust in the relationships enabling access to a wider end-market.

*H4: More bargaining power for the African growers leads to the ability to exercise a greater influence over the Dutch market maker.*

The analysis of the case studies using, the dependency continuum of Ruigrok and Van Tulder (1995),

clearly shows the direction of shift from dependence to interdependence for the African growers. This shift in bargaining position is proportionally correlated to a shift in the power of influence. Hence a better bargaining position creates the scope for exercising greater influence over the market maker.

*H5: More influence on the market maker leads to a greater geographical reach to buyers.*

The market maker is positioned as the intermediary between the African growers and the buyers. Thus in order to reach more buyers it would be necessary for the African growers to exercise more influence over the market maker, toward creating opportunities for greater promotional exposure by influencing the choice of products used in, for example, showcases and trade fairs as organized by the market makers.

*H6: The greater is the geographical reach, then the greater is the potential to reach the right buyers.*

African growers and in particular South African growers export a specific variety of cut-flowers which flourish only in certain regions of the world, such as fynbos, which endows such growers with a 'natural' competitive advantage. However the advantage is only realized in finding the appropriate buyer of the specific variety of flower. Hence the greater the geographical reach to buyers the more likely is the potential to reach the right buyers.

*H7: A greater geographical reach to buyers creates the potential for profitable transactions to be concluded.*

Roses are the primary export of African growers. Thus the quality of the roses becomes a deciding

factor in their purchase and the wider the customer market the greater the likelihood it is for each rose to be sold at a profit.

*H8: The potential to reach the right buyer enables profitable transactions to be concluded.*

The competitive advantage provided in being the source of rare flowers for sale might only be realized if the right buyer is found, for not all buyers seek the rare products. The bouquet comprising various flower varieties is usually the primary object of purchase, or the rare flowers are purchased in very small quantities to be used as accompaniment to a bouquet of roses. Thus reaching the correct buyers enables a sale and profitable transaction to be concluded. Profit margins must remain large enough, however, to allow a grower to invest in new machinery and to fund research and development for a new generation of products along directions projected by the market maker (Ruigrok and Van Tulder, 1995).

### Opportunities and Challenges for the African Growers

The question for African growers is: what competitive strategies might be adopted? According to the United Nations Conference on Trade and Development (UNCTAD) study of E-Commerce for developing countries (UNCTAD, 2003): "The production and export of agricultural commodities from developing countries deserve attention because of the central role that these commodities play in the economies of those countries" (Chapter 6: Marketing Developing-Country Agricultural Exports via the Internet, p153). The report advocates the adoption of IT, as a "window of opportunity for improving the marketing of agricultural products in developing countries". The report concludes that the Internet and the consequent adoption of new information technologies achieved through improved efficiencies holds many significant benefits for farmers in the agriculture industry of the developing countries. It further identifies that the adoption of IT leads to more information access and attributes some of the underlying problems to farmers' lack of access to market information, resulting in their inability to bargain effectively. The results of this article empirically illustrate the analysis of the UNCTAD report. The results of this study show the importance of the following factors that African growers have to take into account when improving their business position.

#### *Quality Uncertainty*

There are currently 180 buyers on the TFA system, of whom only 4 purchase their flowers by physical inspection, that is, these 4 buyers prefer not to use IT. A possible reason for this is advocated by Turban (2004), who suggests that customers have cognitive difficulty accepting products that they have never seen, especially from an unknown vendor. Turban

(2004) refers to this cognitive difficulty as quality uncertainty, and attributes the skepticism of buyers to purchase products, especially when they cannot feel or see the product, to issues of trust. Thus by adopting IT, growers will uncouple the quality uncertainty from the purchase process and enhance trust in the buyer relationship.

#### *Emergence of Grower Associations*

The Dutch floriculture sector is characterised by an increasing differentiation in demand and quality control. A possible response from growers is the formation of a Growers' Association that allows flower exporters to group together and adopt a pooling strategy, where pooling entails the combination of various growers' (members') produce into a single export consignment. This presupposes a distinction between heterogeneous and homogeneous growers' associations. The advantage of these associations is that they are strong in terms of the counteracting power of the growers collectively. However this power by association must be traded off against self-selection and the pursuit of individual strategies as heterogeneous associations may frustrate high quality growers due to the policy of uniform treatment of members, whereas the converse holds true for homogeneous growers' associations (Hendrikse and Bijman, 2001).

#### *Quality and Consistency of Production*

Quality and consistency in production present problems for the African growers, especially for those outside of Kenya. Some competitive strategies also advocated in the study by Kaiser Associates (2000) propose the following strategies to eliminate the problems experienced:

- ❖ Innovate with niche product strategy. African growers must be the leaders in indigenous African foliage and floricultural products. For example, the fynbos of the Cape represents a competitive advantage for South African growers, as this type of flower is grown only in the Cape region.
- ❖ Introduce international standards. This would require bringing in experts to teach quality improvements. For example, instead of blindly following the experimental techniques of FloraHolland, African growers could find it less costly competitive to use Multiflora as a test for standards, and high quality auction. Growers should all adopt a standard quality certification aimed at improving phyto-sanitary conditions.
- ❖ Preferential freight agreements with local airlines. African growers as a common group should lobby their Government for support, in striking deals with the national airlines. Indeed the national airlines of the AU countries could facilitate quicker transport of flowers thus retaining a high quality of product for longer periods of time.

- ❖ Pooling volumes (to achieve economies of scale). Within the AU flower industry, growers should pool their products and may also use the pooling process to create a unique African bouquet as the end product. Smaller growers should pool products with other agricultural products, to lower costs of transportation. Most African growers outside of Kenya do not produce the volumes to charter a plane as Kenya does.
- ❖ Investment in research and training. Establish permanent funding mechanism and joint initiatives with international institutions. The key is to establish a permanent link to the outside world for technical expertise. Joint Ventures represent the way forward. Universities should offer degree courses aimed at agricultural training for flowers and cultivation of uniquely African products. Adopt international exchange programmes.

## Conclusions

### Research Problem

The main research question is stated as:

*How does the adoption of IT enable the African grower to influence the behaviour of the market maker and create bargaining power in the context of the Dutch flower business network?*

The adoption of IT leads to the removal of quality uncertainty, where quality uncertainty refers to the absence of knowledge pertaining to the quality of the flower. The adoption of IT further provides the potential for growers to improve on the richness of the informational services regarding their products—more detail on the cultivation and harvesting of the product is provided in addition to a quality assessment. This leads to a shift in the bargaining position of African growers as analysed using the dependency continuum of [Ruigrok and Van Tulder \(1995\)](#), from a position of dependence to interdependence.

An interdependent position allows the African grower the ability to strike a coalition with the market maker, from a position of equal influence, towards opening up more opportunities to reaching a wider end or customer market. The adoption of IT may also precipitate a shift toward a bargaining position of ‘independent with influence’. For example IT would facilitate ease of operations for the grower in the area of research and development ventures. Thus it may establish the necessity for the market maker to cooperate with the grower. For the grower, achieving the position of ‘independent with influence’, marks

the only instance in which the market maker may be influenced into adopting a course of action solely determined by the grower.

The pattern-matching logic gained in comparing three independent empirically based patterns together with a predicted one, and for which the patterns coincide, achieves internal validity, whereby certain conditions are shown to independently lead to other conditions. Case studies, (as used within the methodological framework of this article), ‘like experiments are generalizable to theoretical propositions and not to populations and universes’, [Yin \(1994\)](#).

The theoretical approach of this article begins with the trade context processes developed by [Kambil and Van Heck \(2002\)](#) as a key insight into successful electronic markets. In particular the influence factor of the trade context process was singled out for analysis. The dependency model of [Ruigrok and Van Tulder \(1995\)](#) was then used to determine the bargaining position, as the measure of the influence African growers exert over the market maker in the Dutch flower business network. The dynamic role of IT and the use of bargaining power as leverage for the African growers to exert influence in the Dutch flower business network was then evaluated in terms of the trade-off between *reach* versus *richness*, as originally developed by [Evans and Wurster \(2000\)](#).

### Suggestions for Further Research

There are several suggestions for further research on the impact of bargaining power and IT on African–European business relationships.

First, in this research, hypotheses have been suggested. These hypotheses need to be tested. This could be realized by performing a large-scale research of African growers and European flower buyers. As a result it could be possible to make statements, based on statistics, about whether the proposed hypotheses are valid or not.

Secondly, further research is envisaged in the area of the impact of IT to remove the dependency relationship on the market maker and to use IT to provide a richer informational service aimed at increasing the geographical and economic reach of the grower. This design-oriented research can come up with new designs with richer informational services that will improve the position of African business in general and the African growers in particular.

According to [Ruigrok and Van Tulder \(1995\)](#), most ‘observations on international economic interdependence contain interesting elements but have been formulated at such general levels of abstraction that their use and interpretation is far from self-evident ... [and that] none of the interdependency approaches have ever been elaborated into a coher-

ent set of hypotheses". This argument therefore concludes that the dependency relationship is a phenomenon requiring further research and study, and that it does not provide a ready-made set of conclusions regarding the nature and dynamics of the relationship between African growers and Dutch flower auctions.

Mainstream research into electronic markets focuses predominantly on direct changes in IT and consequent reduction in transition and search costs (Koppius, 2002). Hence the scientific contribution made in this article is achieved in terms of the social context of the exchange process and its impact on electronic market success. Consequently, it provides a basis for developing collaborative e-business strategies for African companies embarking on newer forms of electronic commerce.

## References

- Afuah, A. and Tucci, C.L. (2001) *Internet Business Models and Strategies*. McGraw-Hill, Irwin, New York.
- Cunden, M. (2004) The dynamic role of IT and the use of bargaining power as leverage for African Growers to exercise influence in the Dutch Flower Business network, University of South Africa (Thesis).
- Dosi, G., Freeman, C., Nelson, R., Silverberg, G. and Soete, L. (1988) *Technical Change and Economic Theory*. Pinter Publishers, London.
- Evans, P. and Wurster, T.S. (2000) *Blown to Bits: How the New Economics of Information Transforms Strategy*. Harvard Business School Press, Boston, Massachusetts.
- Hendrikse, G.W.J., Bijman, W.J.J. (2001) On the emergence of growers' associations: self-selection versus market power, ERIM Report Series Research in Management.
- Kaiser Associates, D. (2000) The South African floriculture cluster study, Report June 2000.
- Kambil, A. and Van Heck, E. (2002) *Making Markets: How firms can design and profit from online auctions and exchanges*. Harvard Business School Press, Boston, Massachusetts.
- Kambil, A. and Van Heck, E. (1998) Reengineering the Dutch flower auctions: a framework for analyzing exchange organizations. *Information Systems Research* 9(1), 1-19.
- Klein, S. (1998) The emergence of auctions on the Web. *E-Purchasing*, 124-127.
- Koppius, O. (2002) Information architecture and electronic market performance, ERIM PhD Series Research in Management, 13.
- Koppius, O., Van Heck, E. (2002) The role of product quality information, market state information and transaction costs in electronic auctions. ERIM Report Series Research in Management, Erasmus University Rotterdam, pp. 1-25.
- Porter, M. (1985) *Competitive Advantage: Creating and Sustaining Superior Performance*. Free Press, New York.
- Raiffa, H. (1982) *The Art & Science of Negotiation: How to Resolve Conflict and Get the Best Out of Bargaining*. Harvard University Press, Cambridge, Massachusetts.
- Ruigrok, W. and Van Tulder, R. (1995) *The Logic of International Restructuring*. Routledge, London.
- Turban, E., King, D., Lee, J. and Viehland, D. (2004) *Electronic Commerce: A Managerial Perspective*. Pearson Prentice-Hall, New Jersey.
- United Nations Conference on Trade and Development (UNCTAD) (2003) *E-Commerce and Development Report*, 2003.
- Yin, R.K. (1994) *Case Study Research: Design and Methods*. (Second Ed.). Sage Publications, Inc.



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