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Market driven innovation and entrepreneurial behaviour: The strategic value of a market orientation in primary agriculture

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ABSTRACT

This paper examines the strategic value of a market orientation using concepts from the resource based view of the firm. We show that a market orientation can be a strategic resource as it is heterogeneous, imperfectly mobile, and is imperfectly substitutable. Using examples from both small-scale and large-scale production agriculture, we show how a market orientation can contribute to the awareness and implementation of new processes to improve performance. The paper concludes with a brief discussion of market orientation and firm strategy, along with a discussion of managerial implications and calls for future research.

KEYWORDS: Agriculture; Entrepreneurship; Farmers; Innovation; Market Orientation; Resource Based View

1. Introduction

The agricultural landscape has changed a lot in the past several decades. Across much of the developed world, farm numbers are declining, leaving fewer and larger farms. Evolutionary economics suggests that the farms that remain may be better equipped to meet the challenges of the new environment (Nelson and Winter 1982). Consumers of agricultural products are also changing. Today's customers are demanding food products that possess different attributes (organic, local, natural, etc.) than customers did a generation ago (Pearson, Henryks and Jones 2011; Sims 2009). The combination of these factors means today's farmer faces different challenges and opportunities than those faced by previous generations of agriculturists. Ultimately, for managers of both large and small farms, this may mean that the resources used to build the firm may not be the same resources needed to grow the firm in the future.

Given the changing landscape, one constant is the need for firm-level innovation to meet these challenges. Managers of large and small firms in production agriculture can utilize innovation activities (new products, new processes, new markets, new sources of supply, new organizational structures) to improve performance (Kirzner 1999; Nelson and Winter 1982). However, given the supplier dominated nature of much of primary agriculture, many of the technological innovations are available throughout the industry and therefore cannot deliver long-run superior performance on their own. The duration of the rents from other innovations is dependent upon how appropriable the technology behind the innovation is.

Given increased competition in both local and global markets, success may accrue to those managers that are able to become more innovative and entrepreneurial in their search for profit opportunities. Previous research has shown that innovation occurs due to lack of satisfaction with current performance levels (Bolton 1993) and furthermore, that managers of innovative firms are more satisfied with their performance (Gronum, Verreynne and Kastelle 2012). Similarly, managers of agricultural firms may choose to innovate for personal or financial reasons in order for actual performance to meet or exceed a previously set benchmark or aspiration level (Georgellis, Joyce and Woods 2000; Hessels, Gelderen and Thurik 2008; McGrath *et al*. 1996).

How can managers become more innovative and entrepreneurial? One method that shows some promise is to become more market oriented (Baker and Sinkula 2009). Slater and Narver (1995, p. 67) define a market orientation as 'the culture that (1) places the highest priority on the profitable creation and maintenance of superior customer value while considering the interests

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of other key stakeholders; and (2) provides norms for behaviour regarding the organizational development of and responsiveness to market information.' Therefore, the aim of this paper is to examine if a market orientation is a strategic resource for agricultural managers. Strategic resources are those that allow for the development and maintenance of competitive advantages. For a resource to be strategic, it must be valuable, rare, difficult to imitate, and provide limits to competition (Barney 1991; Peteraf 1993). As farms can compete in a variety of products using several strategies, this paper will examine how a market orientation can be beneficial for small-scale and large-scale operators, and those producers operating in between.

The following section will introduce the concept of a market orientation and discuss its application to production agriculture. Section 3 outlines the characteristics of strategic resources with respect to a market orientation. Section 4 discusses the performance implications of a market orientation and Section 5 shows how a market orientation can be a useful resource for both small-scale and large-scale farms. Section 6 offers some conclusions and suggestions for future research.

2. Market orientation, innovation, and entrepreneurship in agriculture

Alvarez and Busenitz suggest that '…entrepreneurship is about cognition, discovery, pursuing market opportunities, and coordinating knowledge that lead to heterogeneous outputs' (2001, p. 757). Worded differently, this becomes the definition of a market orientation by Jaworski and Kohli (1993). Jaworski and Kohli (1993) state that a market orientation consists of three sets of equally important activities: 1) the generation of market intelligence, 2) the dissemination of this intelligence throughout the firm, and 3) the responsiveness to this new information. Market intelligence comes from observations and interactions with customers and competitors in the agricultural sector, along with observations of trends in other industries that might be applicable to agriculture. For example, some managers have adopted new methods of marketing their production in order to take advantage of changes in consumer tastes and preferences. For example, the value of production being marketed through direct-to-consumer channels in the United States has increased in recent years (Low and Vogel 2011) and may be seen as a way forward for farms in areas undergoing policy transitions (Morgan *et al.* 2010). One possible limiting factor is the use of direct marketing strategies has been shown to be used more often for managers producing high-value crops (Detre *et al.* 2011). This may mean that for firms producing other crops, it may be more difficult to implement these strategies, and the satisfaction with the implementation might be lower.

Managers of firms in commodity markets may choose to adopt innovations that generate efficiency improvements as there is little control over prices received. For example, adopting new technologies may contribute to greater efficiencies, improved yields, and improved revenue for commercial-scale farmers (Nossal and Sheng 2010). For managers of smaller farms, where financial constraints may limit the adoption of new(er) technologies, organizational innovations such as belonging to learning networks and coordinated value chains may improve performance (Bonney *et al.* 2007; Conley and Udry 2001; King *et al.* 2010; Maertens and Barrett 2012; Oreszczyn, Lane and Carr 2010). Managers of smaller farms may find more success with marketing innovations as well as they have more time to identify and react to opportunities than larger farms. Furthermore, managers of smaller farms may have different experiences deriving from off-farm opportunities which can lead the identification and implementation of different organizational and marketing innovations than managers of larger farms (Mishra and Goodwin 1997).

Managers of smaller firms may also choose to adopt innovations in markets served as this may be a better use of their slack resources. In an agricultural context, researchers have examined entrepreneurial actions of farmers in terms of the marketing of new products and services to new and existing customers. A growing literature on farm entrepreneurship has shown that farm diversification is one means that managers use to improve performance (McElwee and Bosworth 2010; Phelan and Sharpley 2012). The degree of diversification can range from small (new crops or livestock) to somewhat great (farm tourism, farm accommodations). Researchers are also examining the effectiveness of business planning initiatives for farms that choose to develop new business models (McElwee and Annibal 2010).

As firms within the same industry may be using different strategies in the pursuit of profit, their needs with respect to innovations and entrepreneurial action may be different. This does not mean, however, that only certain firms may see the value of becoming more market oriented. As commodity markets are relatively stable in terms of consumer preferences, awareness of competitor actions may be more important than awareness of customer trends. Conversely, small-scale firms serving niche markets may find customer awareness to be of considerable importance as the needs of the market are more heterogeneous. In either case, becoming more market oriented may allow firms pursuing very different strategies a greater chance to become aware of opportunities to improve performance through firm-level innovations.

3. The strategic value of a market orientation

It has been suggested that a firm's culture can be considered a resource, in much the same manner as physical or financial assets are considered resources (Barney 1986). In terms of managerial decision-making, it is worthwhile to know if and how different resources contribute to competitive advantages, and if these advantages are sustainable or temporary. As firms can be viewed as a bundle of resources (Penrose 1995) which allow them to pursue different opportunities, the resourced based view of the firm (RBV) may help in determining the strategic value of a market orientation. The RBV literature has closely examined the concept of sustainable competitive advantage and laid out several conditions that a resource has to meet before it can be truly sustainable. Barney (1991) posited that resources

need to be valuable, rare, imperfectly imitable and imperfectly substitutable in order to generate sustainable competitive advantages. Peteraf (1993) provides a slightly different definition she claims a resource has to be *heterogeneous*, have *ex post limits to competition*, *imperfect resource mobility*, and *ex ante limits to competition* in order to deliver sustainable advantages to the resource holder. Examining these definitions more closely, we can conclude that they are focusing on the same points as for a resource to have value, not everyone can possess it, which implies heterogeneity and also rareness. Resources that are imperfectly imitable and imperfectly substitutable are those that provide ex post limits to competition.

Previous market orientation studies suggest that the process of building a market orientation lies first in the gathering and dissemination of information by decision makers within the firm, and secondly, and perhaps most importantly, in the reaction to this information in a way that provides value to consumers (Day 1994; Kohli and Jaworski 1990). These studies built upon the work by Porter (1985; 1991) that stated that in order to have continued above-normal performance firms need to create a sustainable competitive advantage. The competitive advantage may stem from differentiation strategies or the ability to produce a commodity-like product more efficiently than competitors may. In either case, the firm had to provide superior value for its customers and had to have some manner in which to protect the advantage from imitation or duplication by rivals.

Resource heterogeneity

Barney (1991) defines a firm's resources to include all assets, capabilities, attributes, information, knowledge, etc. controlled by the firm. These resources can be either physical capital resources, human capital resources, or organizational capital resources. In terms of production agriculture, all of the physical assets available to producers are homogeneous in theory, if not in practice. While the resource endowment can be different across firms, what makes these resources homogeneous is the fact that nearly all actors in the market can easily acquire these resources. While resources developed beyond the farm gate are widely available, human capital resources such as knowledge, intelligence, and experience of the individual manager are heterogeneous as each firm will have a different endowment of these resources. Furthermore, the availability of networks, books, workshops, or extension personnel that may lead to an increased knowledge base will still not cause the level of human capital resource across managers to equalize. Even in instances where access to information is equal, subjective interpretation and application of the specific information will yield a heterogeneous response to this information. Along these same lines, the organizational capital (reporting structure, planning processes, coordination systems, etc.) will also be heterogeneous.

As noted in Narver *et al.* (1998), two principal strategies are needed to develop a market orientation. First, managers need to instil a culture of continuous value creation. Once the culture is in place, they then must develop the resources, capabilities, skills, and knowledge to implement the goal of continuous value creation. This can be thought of in terms of stocks and flows, with the market orientation culture being the stock, and the capabilities, skills, and knowledge acting as the flow (Dierickx and Cool 1989). In agriculture, this flow, along with the underlying asset stock, will likely be heterogeneous in nature. The reason for this is agricultural producers have largely operated as though there is no difference between their product and that of their competitors. Acting as anonymous price takers, producers of crops and livestock have focused on lowering their costs of production in order to develop a competitive advantage. By being one of the early adopters of a new technology that lowers per unit production costs, firms may earn rents as costs have decreased while market prices have yet to reflect this change. In fact, it may be better not to be the first to adopt if there is uncertainty surrounding the technology (Hoppe 2000). Early adopters may find that this advantage may lead to growth of intangible asset stocks such as trust and reputation which may or may not provide a sustainable competitive advantage. However, if the investment was a physical resource, this advantage is likely to be short-lived as others can easily imitate the first-mover and their actions will eventually erode the cost advantage. As posited by Levins and Cochrane (1996), as newer technological or marketing innovations come on-line, the process is repeated (Figure 1).

While the early adopters will have an advantage as their margins have improved, Peteraf (1993) suggests that it is not necessary for only one firm have control over strategic resources in order for there to be positive rent streams. What is important is that these resources are not widespread throughout an industry. In agriculture, some innovative producers have chosen to join production alliances in order to differentiate themselves from the commodity market (Mulrony and Chaddad 2005). These alliances generally differentiate themselves based on the provision of specific attributes in the cattle they market, one being age/source verification. There is value to this information due to its rareness, but once a certain number of producers begin to offer this attribute the pricing mechanism will shift to one of premium pricing for attribute provision to a discount for its

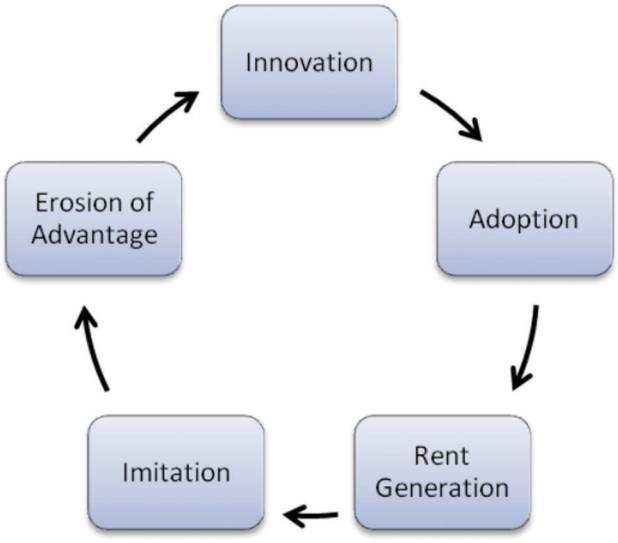

Figure 1: The Innovation Treadmill

absence. As more and more firms follow in their footsteps, the value of the differentiated attribute becomes diluted and competitive parity is the result (Barney 1991). This is not to say that these resources are no longer valuable and therefore they do not provide a sustainable competitive advantage. What has happened is the resource has become less rare and in this case it is the rarity of the resource which creates the value in the marketplace. An agricultural example would be the tractor. Even though tractors are no longer rare, this does not mean that they are no longer valuable.

Ex post limits to competition

Regardless of the nature of the resource, further requirements are needed in order to sustain the advantage into the future. The ability to defend the resource against imitation and substitutability has been recently discussed as a means of providing limits to this competition (Barney 1991; Dierickx and Cool 1989; Peteraf 1993). Once competitors can see that a resource is able to generate positive cash flows, rivals quickly try to acquire the same or comparable resource in order to achieve similar results. An example may be a new, high-yielding variety of wheat that by many producers begin planting in hopes of achieving results similar to that of early adopters. If the firm is not the owner of this new technology, it is impossible for them to prevent rivals from adopting the technology and eroding their advantage. Therefore, in order to maintain their position regarding the rent-generating resource, they must be able to prevent its capture by rivals. Intangible resources such as a market orientation possess characteristics that make them difficult to imitate, such as causal ambiguity, social complexity, and time compression diseconomies.

The ability to imitate the particular resource that generates the rent depends on the characteristics of the resource. Physical resources such as technological advances can be competed away given that similar technologies are available to competitors. This is the case for agricultural technologies developed beyond the farm gate. As the profit function of the developer depends on dissemination of the technology throughout the marketplace, any first-mover advantages will be temporary. The same holds for the developers of the technologies. Even if patent rights protect the resource, competitors could reverse engineer the innovation and develop a product that performs similarly, but somehow falls outside the protection of the patent. A market orientation, while not patentable, provides difficulties in its imitation. Developing a market orientation is not an instantaneous process. One needs to develop a culture that is conducive to the development of a market orientation and then must nurture the resources which are valuable in maintaining the market orientation, namely the market-sensing capabilities that come through relationships, information, and knowledge. Dierickx and Cool (1989) refer to this as time compression diseconomies as building the asset stock of market orientation takes time and experience.

While others may note that a market oriented firm has been receiving higher prices or achieving a greater market share, the ability to observe the development of a market orientation is limited. While one could reverse engineer a recipe through chemical analysis, the development of a market orientation through the same process would be difficult. As an intangible resource, a competitor can not necessarily *observe* the development of a market orientation in the same way one could see a firm develop a tangible resource by examining changes in property, financial statements, or annual reports. Specifically, managers of different firms could have varied interpretations of the value of the underlying assets that build a market orientation (the ingredients in the recipe) such as personnel, knowledge, market information, and communication networks. Even if rivals could see inside market oriented firms, the causal ambiguity involved in building a market orientation 'prevents would-be-imitators from knowing what exactly to imitate or how to go about it' (Peteraf 1993, pp. 182–183).

Provided managers are aware that the source of a competitor's advantage was the development and implementation of a market orientation, there does not seem to be a substitute other than a similar market orientation. In this instance, managers may increase their degree of market orientation in order to try to erode some of the rents created by the initial firm. Imperfect imitability and causal ambiguity would likely attenuate the effectiveness of this process. Though, if imitation indeed was successful, heterogeneity in the application of a market orientation and local economic factors might prevent a total erosion of its value for individual firms. As Slater and Narver (1994) suggest, a market orientation is a valuable resource in any business environment, presumably even one where all firms are market oriented.

Imperfect mobility

Mobility refers to the tradability of a resource under control of a firm. As is understood easily, physical resources are mobile as one firm can sell its plant and equipment to another. What may be imperfectly mobile is the human and organizational capital of a firm. The imperfection lies in the value of the resource within the current firm over and above the value in another firm (Peteraf 1993).

In the case of market orientation, it is difficult to trade the knowledge, brand, reputation and relationships developed for one firm to another. This difficulty is present even with mergers and acquisitions where the acquiring firm incorporates all of the valuable resources of the other firm. In this case, the culture in which the valuable resource was developed is important. While a culture that supported the generation and development of market sensing capabilities may have been present at one firm, this same culture may not be in place at the acquiring firm. As information is stored in the minds of people, not organizational structures, over time personnel may leave, diminishing the stock of the resource. Without increased flow of new market intelligence the firm will become less market oriented.

Even if the flow of market information comes from a public resource, the ability for managers to apply the information in a manner to gain a competitive advantage could be limited. For example, knowledge and innovation brokers who disseminate best practices are becoming more common in agricultural production

in both developed and developing economies (Klerkx and Leeuwis 2008; Ortiz 2006). While the presence of such brokers would, in essence, equalize the flow of information across firms, the capabilities of firms which enable managers to transform the flow of information into a resource stock is heterogeneous. Returning to the bathtub metaphor of Dierickx and Cool (1989) heterogeneity in capabilities and culture would be akin to each firm having holes in their bathtub at varying levels. Therefore, even if the managers sell the resource stock to another firm, their ability to maintain that resource, and add to it, may be limited.

Further attenuating the value of the information is that the specific information generated by the individual was relevant to the firm that generated it *at that time and in that market*. Changes in consumers and markets could have occurred which have rendered historical information obsolete. The idiosyncratic nature of market information limits the usefulness of this resource outside of the generating firm (Williamson 1979).

Ex ante limits to competition

The final condition a resource must meet to provide a sustainable competitive advantage is the need for ex ante limits to competition. In this instance, firms cannot reduce the rent available to earn by bidding up the cost of the resource before its deployment. It may help to see this through a counter-example, highly productive farmland. Competing firms are able to determine land quality with some certainty and use their expected returns from farming this land to inform their bidding strategy. Therefore, when high quality land becomes available, managers aware of the land's value bid on the land, increasing the rental rate causing the excess returns to evaporate. Conversely, as a market orientation is both socially complex and causally ambiguous, the ability for firms to bid away advantages stemming from a market orientation is limited.

Social complexity refers to the fact that it might be difficult to determine the valuable source of information used in the intelligence generation process inherent in a market orientation. Market information could come from a variety of sources including university reports, extension bulletins, trade associations, government agencies, visits with channel partners, magazines, or even discussions at the local coffee shop. It would be extremely difficult to increase the cost of these assets as most are public goods and the others would be extremely expensive to adjust. Furthermore, the cost of communication with channel partners is marginal at best, and managers may not even classify this as a cost. As managers can use information from channel partners to improve the farm business in a variety of ways, this would be more appropriately categorized as an investment, not an expense.

4. The performance implications of a market orientation

While the works of Kohli and Jaworski (1990), Narver, and Slater (1990) suggest that market oriented firms enjoy greater performance results, managers cannot simply 'flip a switch' to become more market oriented. A firm can only become market oriented if there is an underlying culture where management and employees are committed to the creation of superior customer value (Narver *et al*. 1998). A market orientation is a culture that is evident through actions that management and employees undertake in the search for value creating opportunities. Those with a desire to become more market oriented must be willing to adopt new routines that enable them to become more proficient at the generation and assimilation of market information as well as becoming more responsive to this information.

While there is some disagreement as to the costs of becoming more market oriented (Harris and Piercy 1997), there are benefits to the successful implementation of a market orientated culture. Studies have shown that developing a market orientation can lead to higher performance measures for the firm across contexts and industries (Tregear 2003; Jimenez-Jimenez and Cegarra-Navarro 2007; Tajeddini *et al*. 2006) and this is based on the ability to quickly sense changes in the market (Day 1994). The ability to generate superior performance implies that managers have the ability to identify consumer needs and develop processes, products and experiences to meet these needs. The ability to acquire, assimilate, and respond to market information faster than rivals may be one of the few sources of sustainable competitive advantage for firms that operate in commodity industries such as production agriculture (Kohli and Jaworski 1990; Slater and Narver 1995). Furthermore, highly market oriented firms may be able to leverage their capability in information generation and responsiveness (Kohli and Jaworski 1990) in the search for and implementation of profit opportunities. It is the ability to develop relationships and build trust with channel partners and customers that allows the firm to create their own source of sustainable competitive advantage for the future.

The ability to become more market oriented is of utmost importance if managers wish to improve performance in an increasingly competitive industry. As suggested by Deshpande, Farley and Webster (1993), the market orientation of a firm is not a binary choice, but a continuum measured by degrees. It may help to think of a market orientation in the same way as one does for other factors of production in that a market orientation directs managers to develop products with certain attributes that meet consumer needs. In this sense, the market orientation of the firm is an asset stock and the information and experience used to maintain the asset is a flow which can be adjusted immediately (Dierickx and Cool 1989).

Regardless of size or strategy pursued, a market orientation may enable managers to be more flexible in their response to changes to market conditions or the competitive landscape. Day (1994) posits that market-driven organizations are better equipped to succeed because they are able to develop relationships with channel partners and customers while maintaining the ability to sense market changes ahead of competitors. These capabilities vary across firms depending on the resource endowment of the asset as well as the strategic decisions regarding the flows used to build the stock of these capabilities. By achieving a high degree of market orientation, managers may be better able to navigate turbulent environments (Achrol 1991) and redeploy or

repackage resources to meet changing consumer needs. A market orientation has also been shown to affect the ability for managers to handle a crisis involving high demand uncertainty (Grewal and Tansuhaj 2001). Following the recent cases of food-borne pathogens in beef, spinach and peanut butter, the ability to maintain flexibility through these crises would be a valuable resource to all members of agri-food chains.

5. Application to agriculture

A market orientation is defined as the ability to generate and process information about consumers and competitors while transforming this knowledge into capabilities which are then used to meet consumer needs (Narver and Slater 1990). The process of idiosyncratic information flows building an asset stock leads to heterogeneous levels of market orientation across firms. Heterogeneity results from managers having heterogeneous valuations of customer and competitor information. Further, these resources provide some limits to competition as they are imperfectly imitable due to causal ambiguity, social complexity and imperfect substitutability. Finally, the stock of a market orientation within a firm is imperfectly mobile as it is not easily tradable between firms. This is attributable to the idiosyncratic nature of customer and market information gathered by management within a firm as well as the different interpretations of this information by other managers.

Implications for managers

Extending the work of Johnson *et al*. (2009), Verhees and Meulenberg (2004), and Micheels and Gow (2011), and building on the work of Pelham (1997; 1999) it would be beneficial to further examine the relationship between market orientation and performance in production agriculture. Furthermore, it would help to understand better the process of becoming more market oriented in a sector dominated by relatively homogeneous products. A growing research stream has identified two forms of market orientation, proactive and responsive (Atuahene-Gima, Slater and Olson 2005; Narver, Slater and MacLachlan 2004; Voola and O'Cass 2010). Through further research, authors could examine exactly what it is that makes market oriented firms different from less market oriented counterparts, and if certain contexts are more conducive to different forms of market orientation. For example, many large-scale agricultural producers are well informed when it comes to new technologies that increase productive efficiency as they compete in a globalized market with established grades and standards for their production. Conversely, small-scale producers may pay more attention to the customer as in localized markets, standards may be more fluid due to changing tastes and preferences and therefore they may be able to leverage their flexibility to differentiate their processes in order to satisfy this demand. It may be, therefore, that a responsive market orientation is better suited to large-scale operations whereas a more proactive approach would be beneficial for smaller operations. In either case, the underlying market orientation may be a resource that managers can use to understand factors both inside and outside the farm gate that affect the performance of their firm.

As agricultural production becomes increasingly competitive and consumers become more discerning, the value of a market orientation may only increase. In his study, Pelham (1999) found the relationship between market orientation and performance to be strongest in differentiated markets. Judging from the increase in the use of brands to try to differentiate production, one could conclude that the agricultural marketplace is becoming increasingly segmented. Even the global beef trade is becoming more segmented as beef is marketed based on feeding and management practices as well as the use (or lack thereof) of growth hormones (Quilty 2013). At a much smaller scale, as farmers markets and community supported agriculture (CSA) operations grow in popularity, market segmentation seems to be increasing across a variety of agricultural products.

Depending on how managers of agricultural firms provide value to the market, the degree of market orientation could have significant impacts. Treacy and Wiersema (1993, p. 91) state that 'becoming an industry leader requires a company to choose a value discipline that takes into account its capabilities and culture as well as competitors' strengths.' Managers may choose to provide value based on the degree of innovation (product leadership), B2B or B2C relationships (customer intimacy), or production efficiency (operational excellence). The market-sensing capabilities of the firm are extremely important if they choose to operate in the customer intimacy or product leadership disciplines.

In this manner, small-scale operations may develop a customer intimacy strategy where they attempt to differentiate their production by eliminating intermediaries and marketing products directly to the consumer. This may result in better margins for farmers (Guthrie *et al*. 2006) while also leading to reduced information asymmetries for customers (which can be used as a basis for further product or process innovation). As competing on price may be better suited for firms with greater economies of scale, smaller firms may find it beneficial to compete within a customer intimacy discipline after analysing where their comparative advantage lies. In this setting, a strong market orientation could be a significant source of competitive advantage. It would allow small firms, who do not have the scale to be the low-cost producer or the research budget to be product innovators, to compete by meeting the needs of specific customers through increased flexibility, responsiveness and adaptability. Furthermore, as smaller firms may be more likely to diversify their operations, a market orientation may improve the success of these ventures relative to those of less market oriented firms.

Large-scale operations may have a wider variety of options. In output markets, they can leverage their scale to make better use of new production technologies that improve yields and lower costs of production. As cost is sometimes a barrier to the adoption of new technologies, scale effects may allow larger farms to spread these costs over a larger land base, thereby lowering the per-unit costs. This may not be economical or even possible for small-scale operations. In the input markets, large-scale farms may find that a market orientation may enable them to develop a customer intimacy strategy for dealing with numerous landlords. As rising farmland

values make it difficult to own all the land that one operates, managing the landlord-tenant relationship is an important aspect of many large farms. A customer intimacy strategy may enable operators to develop better relationships with their landlords and thereby increase the probability that the relationship will continue. This may be a risk-reducing strategy for both owners and operators as resource allocations by the farmer may be affected by the expected probability that they will farm a parcel of land during the next year.

6. Conclusions and future research

In this paper we have suggested that a market orientation provides a source of sustainable competitive advantage for firms in production agriculture. Using the framework developed by Barney (1991) and Peteraf (1993), we illustrated that a market orientation can provide sustainable competitive advantages to agricultural firms. We then showed how managers of both large and small firms can apply a market orientation to their operations. Combining the market orientation and value discipline literatures, we further demonstrated how managers could use a market orientation to develop and implement specific strategies that may improve performance on their farms.

While this paper showed that a market orientation may provide sustainable competitive advantages, further research that focuses on the measurement and consequences of a market orientation of agricultural producers and value chains would benefit both academics and practitioners, especially in terms of how market orientation influences firm performance. Directions for future research should include the examination of proactive and responsive market orientations and the contexts in which each is superior. As an anonymous reviewer has suggested, it would be also worthwhile to quantify the costs and benefits of becoming market oriented. Then managers can make better informed decisions on the value of investing resources on becoming more market oriented.

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