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Commentary: Exploiting and Exploring New Opportunities Over Life Cycle Stages of Family Firms

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Family firms vary with regards to success achieved in terms of opportunity creation and exploitation over time. Elaborating on this variation, this commentary argues that firms that simultaneously engage in multiple levels of innovation—incremental, progressive, and radical—are likely to enjoy sustainable performance advantages across generations. Toward this end, a strategic split of innovation responsibilities between family and nonfamily professionals is likely to be useful, contingent on the firm's life cycle and size. In terms of entrepreneurial expertise, a combination of causal and effectual thinking is necessary to ensure exploitation of already discovered or created opportunities and exploration of new ones.

Integrating Drucker's (1985) concept of the "systematic practice of innovation" by successful entrepreneurs with insights from informational economics and family business literatures, Patel and Fiet (2011) argue that in comparison to nonfamily firms, family firms are better positioned to discover new opportunities, both in static and dynamic environments. These advantages, they suggest, stem from a combination of long-term orientation of family firms, low turnover, long leader tenures, and prevailing sociocognitive familial bonds (cf. Chrisman, Chua, & Steier, 2005; Chrisman, Kellermanns, Chan, & Liano, 2010). Because of these inherent features, in comparison to nonfamily managers, family members involved in their family firms can rely on trusted social networks and information channels built over generations, more effectively combine their tacit and procedural knowledge, organize and exploit accumulated knowledge more efficiently, and engage in patient investments that may reap benefits in time horizons extending beyond individual career spans while benefiting their enterprise.

While Patel and Fiet (2011) recognize that opportunities can be created or simply stumbled upon, their focus is on "constrained systematic search" for discovery of opportunities, that is, efficiencies involved in building on information and resources within a firm's reach. Thus, the focus is largely on opportunity creation in domains relatively close

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to the current operations of the firm, such that the preexisting knowledge assets and networks can be utilized. It is in such discovery and the efficient exploitation of opportunities that emerge as a consequence, that family firms are argued to be in an advantageous position over nonfamily firms.

Family business scholars have long been interested in understanding the distinction between family and nonfamily enterprises on different dimensions (e.g., Chrisman, Chua, & Sharma, 2005; Sharma, 2004). Toward this end, Patel and Fiet's (2011) article is a welcome addition as it explicates the reasons why family firms potentially enjoy significant advantages over nonfamily firms in searching for opportunities in domains close to their current operations. However, it does not help understand why some family firms are able to search and exploit new opportunities in domains both close and distant from their current operations. For example, how do dynastic firms such as the Italian Falck group negotiate their way from being a leading steel company from its inception in 1906 to 1980s and then emerge in the 1990s as a key player in the renewable energy industry (Salvato, Chirico, & Sharma, 2010)? Or, how did Corning Inc. move from manufacturing of Pyrex and Corelle into Display Technologies and Telecommunications in its 150 year long history (Miller & Le Breton-Miller, 2005)? What factors enable some family firms to display a remarkable agility in innovating in a sustainable way across generations (e.g., Target or Wal-Mart) despite environmental changes, while others shine brightly during the tenure of industrious founders only to succumb to changes in leadership and/or environment, fading away as a dim memory in the economic history (e.g., Eatons or Woolco)? Why do the rich stocks of knowledge assets and advantages of intersubjective agreement for continuity or prosperity of a firm not translate uniformly in all family firms? Why are some family firms more successful than others in exploiting and exploring opportunities across life-cycle stages of markets and products?

In this commentary, we extend Patel and Fiet's (2011) arguments by addressing the differences within the broad category of organizational form labeled as "family firms." Previous research indicates that not all family firms are equally adept at discovering, exploiting, and creating new opportunities especially as the environment changes (e.g., Bergfeld & Weber, 2011; Hatum, 2007; Hoy & Sharma, 2010; Miller & Le Breton-Miller, 2005). Based on insights in the literature on innovation in family firms and tenets of effectuation theory (Bergfeld & Weber; Christensen, 1997; Sarasvathy, 1998), we differentiate between the exploitation of already discovered or created opportunities and exploration of new opportunities. Further, exploration in domains similar to previous markets and products of a firm (the focus of Patel and Fiet's article) is differentiated from domains that are novel or significantly different from the current activities of a firm. We discuss the varied levels of innovation—incremental, progressive, or radical—and the combination of these innovation levels necessary for continuous flow of exploitable opportunities over life-cycle stages of a firm, market, and product/service (cf. Bergfeld & Weber). These ideas lead us to a description of four innovation pathways pursued by *trans*-generational entrepreneurial family firms, contingent on their market and product/service life-cycle stage. Failure of such pursuit can lead to expiration of family firms (Hatum; Hoy & Sharma).

Exploitation Versus Exploration

Evidence is beginning to emerge that long-lived family firms continue to explore new opportunities while simultaneously exploiting the ones they already discovered or created

(Bergfeld & Weber, 2011). Scholars studying entrepreneurial expertise, that is, a set of skills that can be acquired with time and practice, point toward two different forms of reasoning used by entrepreneurs when exploring and exploiting opportunities—causal vs. effectual reasoning (e.g., Sarasvathy & Read, 2005). Causal reasoning begins with predetermined goals and a given set of means. The aim is to find the most efficient alternative to accomplish the goals with the given means. In contrast, effectual reasoning does not begin with specific goals. Instead, it begins with a given set of means and allows the goals to emerge contingently over time based on the imagination and aspiration of entrepreneurs and those with whom they interact. Sarasvathy and Read explain these two rationalities as follows:

> While causal thinkers are like great generals seeking to conquer fertile lands (Genghis Khan conquering two-thirds of the known world), effectual thinkers are like explorers setting out on voyages of unchartered waters (Columbus discovering the new world) . . . the same person can use both causal and effectual reasoning at different times, depending on what the circumstances call for. (p. 77)

The causal rationality is likely to be useful in the opportunity exploitation stage as the aim is to achieve maximum returns in a given set of markets and products. It can also be helpful in creating new opportunities in domains related to current operations of the firm. As argued by Patel and Fiet (2011), family firms enjoy unique experience and knowledge asset advantages in such areas. On the other hand, as explained by Sarasvathy (1998), effectual rationality is useful in creating opportunities in novel domains. That is, when there is no precedent of the products and/or markets an entrepreneur is trying to create (e.g., the creation of U-Haul by Leonard Schoen when the idea of renting a trailer in one city and returning it in another did not exist). Needless to say, the means required or ends to be achieved are unclear in such cases.

The focus of entrepreneurial expertise literature has largely been on an individual level of analysis. However, recent efforts have been made to empirically test these ideas at the family firm level. Scholars have found that young—two to five years old—family firms are more likely to use an effectual rather than causal approach to identify opportunities and to develop processes in their new firms (Hayton, Chandler, & DeTienne, 2011). On the other hand, in-depth studies of dynastic German and Argentinean innovators reveal that these family firms simultaneously pursue causal and effectual reasoning to ensure continuous innovation over time (cf. Bergfeld & Weber, 2011; Hatum & Pettigrew, 2004).

Three types of innovations have been identified in this research—*incremental* (using existing established technologies and markets), *progressive* (using adjacent technologies and/or markets), and *radical* innovations (using entirely new technologies and/or markets). Incremental innovations are already discovered opportunities waiting to be fully exploited, while progressive innovations ensure full exploitation of opportunities in related domains. The products or services have already been discovered or created, but market saturation has not yet been achieved. It is in such opportunities based on incremental or progressive innovations that all existing family firms enjoy experience advantages. As mentioned by Patel and Fiet (2011), due to a combination of cumulative levels of specific knowledge assets, deeper levels of understanding among family members, and high levels of control over resources, family firms are best positioned to judge the true value of such opportunities and to exploit them efficiently. Causation logic works as advantages are reaped from finding an optimum usage of existing resources at hand to exploit the full potential of existing markets and products.

However, sole dependence on exploitation through incremental and progressive innovations is unlikely to lead to competitive performance advantages in the long term as better services and products appear in the market. Past successes can become liabilities as experience, age, and unquestioned attachment to the founders' business threaten to become a disadvantage (Miller, 1990; Salvato et al., 2010). Therefore, to ensure that family business advantages extend over time, stages of exploration through radical innovations become necessary, usually followed by periods in which the family firm capitalizes on previous creative efforts.

Tacit Knowledge Advantages Over Life Cycle Stages

Although each family firm is unique, scholars have found remarkably similar patterns of behavior by applying life cycle or stage of development models to the study of families and family firms. Recently, efforts have been focused on developing a deeper understanding of how innovative and entrepreneurial efforts evolve over time (e.g., Hoy & Sharma, 2010; Nordqvist & Zellweger, 2010). Dynastic innovators have been found to engage simultaneously in incremental, progressive, and radical innovations (Bergfeld, 2008). Toward this end, a seamless interaction between the controlling family and nonfamily professionals has been revealed in large, long-lived Argentinean, German, and Italian dynastic family firms (Bergfeld & Weber, 2011; Hatum & Pettigrew, 2004; Salvato et al., 2010). While the challenge of incremental and progressive innovations is left largely to operational nonfamily managers, with only broad guidance to a preferred future laid out by the owning family, the radical innovations are retained as the controlling family's domain. Thus, the owning families that become dynastic innovators over the later phases of their life cycle adopt a new role of influence focused on long-term radical innovations. They use the effectual approach that necessitates breadth of experiences and networks to expand the resource base of their family firms, an approach that is clearly neither suitable nor available to younger and smaller family firms, given their relatively limited endowment of resources and network relationships. Read, Dew, Sarasvathy, Song, and Wiltbank (2009) suggest that the effectual process characterizing large, dynastic innovators involves setting into motion two contrasting cycles:

> The first is an expanding cycle that increases the resources available to the venture, and the second accretes constraints on the venture that converge into specific goals over time. . . . The end product in effectuation is fundamentally unpredictable at the beginning of the process. (p. 3)

As the controlling family has significant influence on the firm's vision, strategy, and major resource allocation decisions, they are well positioned to undertake risky innovations with long-term harvest potentials (Chua, Chrisman, & Sharma, 1999; Miller & Le Breton-Miller, 2005). However, not all family firms take advantage of this positioning over life-cycle stages of products and markets.

In the early stages of a family firms' life (cell 1, Table 1), when products or markets are in their introductory or growth stages, using causal logic focusing on exploiting the potential of current markets and products through incremental innovations is likely to lead to performance advantages. As these markets become saturated, the tacit or procedural knowledge advantages are likely to be mitigated. When either products or markets transition into late maturity or decline stages (cells 2 and 3, Table 1), a combination of incremental and progressive innovations enables the maximization of the exploitative advantages. It is in this stage that a firm must transition its dependence on new markets and products (cell 4). However, development of totally new products and markets necessitates investments of significant time and resources. Controlling families of long-lived

Table 1

Exploiting and Exploring New Opportunities Over Life Cycle Stages

Market life-cycle stage	Product/service life-cycle stage: Introduction or growth	Product/service life-cycle stage: Late maturity or decline
Introduction or growth	Cell 1 Same market/s, same product/s Focus of Patel and Fiet (2011) *Exploitation Advantages* Incremental innovation sufficient for performance advantages • Causation logic works • Existing firms enjoy a competitive advantage • Fixed investment already made in assets and learning	Cell 3 Same markets—New products needed *Combination of Exploitation & Exploration Advantages* • Incremental & progressive innovation needed for performance advantages • Causation logic works though transition toward effectuation is helpful • Existing FFs that combine exploitation with exploration will perform better than others
Late maturity or decline	Cell 2 Same product/s—New markets needed *Combination of Exploitation & Exploration Advantages* • Incremental & progressive innovation needed for performance advantages • Causation logic works though transition toward effectuation is helpful • Existing FFs that combine exploitation with exploration will perform better than others	Cell 4 New products/markets needed *Exploration Advantages* • Radical innovation needed for performance advantages • Effectuation logic necessary • Family champions of change and continuity must have referent power, future orientation, courage to use an astute mix of family and nonfamily knowledge resources • Existing FFs that focus on exploration will perform better than others

firms ensure adequate investments are made in exploration of longer-term harvest projects on a continuous basis (Bergfeld, 2008; Hatum, 2007; Miller & Le Breton-Miller, 2005). The strategy of simultaneous investments in multiple levels of innovation leads to a sustainable cycle of innovation competence and long-term performance advantages. In several instances, family champions of change and continuity have been found effective in moving a firm from its focus on exploitation, causal reasoning, and incremental and progressive thinking, toward radical innovations enabled by effectual reasoning. Family members who have referent power, future orientation, and courage to use an astute mix of family and nonfamily knowledge resources have been found to be effective (Hatum & Pettigrew, 2004; Salvato et al., 2010).

Conclusion

In short, in this commentary we have argued that family firms differ in their abilities and achieved success in exploitation of opportunities both in domains closely related and distant from a firm's current operations. While, for all reasons suggested by Patel and Fiet (2011), family firms have advantages over nonfamily firms in creating and exploiting opportunities closely related to current operations, we argue that by engaging in the simultaneous pursuit of different levels of innovation, family enterprises can ensure long-term survival and performance advantages. Incremental and progressive innovations that make the most of the accumulated stocks of tacit knowledge in a firm ensure the exploitative advantages of discovered opportunities. On the other hand, radical innovations exploring new markets and products ensure avenues for value creation when existing markets and product lines saturate. Toward this end, simultaneous pursuit of exploration for new opportunities and exploitation of existing ones, as well as development of causal and effectual entrepreneurial expertise is likely to be beneficial. Future research can be directed to further refine and test thoughts presented in this commentary. In particular, empirical research should reveal that successful dynastic family enterprises engage in a continuous cycle of innovation to ensure revenue streams in the short, medium, and long term. Efforts should also be directed at understanding the conditions within which family firms should "stay the course"—through incremental or progressive innovation—or embark on radical transformation, across different life-cycle stages, governance setups, and environmental contingencies. In the words of Patel and Fiet: "In family firms, the scenarios rarely end. Instead, the scenery changes but continues nevertheless."

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