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Family Business Review published online 18 November 2013

DOI: 10.1177/0894486513508980

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Family Business Review
XX(X) 1–17
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DOI: 10.1177/0894486513508980
fbr.sagepub.com


Keith H. Brigham¹, G. T. Lumpkin², G. Tyge Payne¹, and Miles A. Zachary¹

Abstract

Assumptions about the long-term orientation (LTO) of family firms are common in family business research. Drawing on prior conceptualizations, this article further develops and validates the LTO construct using content analysis techniques on two separate samples of data. Validation comes through empirical analysis of content validity, external validity, dimensionality, and concurrent validity. We find that family firms are higher than nonfamily firms on all three dimensions of LTO. We also discuss how future research can use this now-validated construct to address key questions in family business research, as well as inform the broader business literature.

Keywords

family business, long-term orientation, validation study

Introduction

It is often argued that family firms possess a long-range temporal perspective that may both influence and be reinforced by family firm members, processes, and outcomes (e.g., Le Breton-Miller & Miller, 2006). Researchers have investigated these expanded temporal frames using terms such as *extended time horizon* (Zellweger, 2007), *long-term focus* (Narver & Slater, 1990), *long-term horizon* (James, 1999), *managing for the long run* (Miller & Le Breton-Miller, 2005), and *long-term orientation* (LTO; Chrisman & Patel, 2012; Gomez-Mejia, Haynes, Nunez-Nickel, Jacobson, & Moyano-Fuentes, 2007; Zahra, Hayton, & Salvato, 2004). Though the terms may vary, the notion of family firms possessing a long-term temporal approach relative to nonfamily firms is a prevalent assumption (e.g., Anderson & Reeb, 2003; Lumpkin, Brigham, & Moss, 2010).

It should be no surprise that there is a strong belief in the extended temporal orientations of family firms in the literature because several characteristic features of family firms tend to promote a long-term perspective within the structure of family businesses. A defining feature of many family firms is the presence of multiple family generations within the firm reflecting an expanded arc of time among its owners, principals, and employees.

The CEOs of family firms generally have longer tenures than their counterparts at nonfamily firms (Lansberg, 1999), and the owners of family firms often are more willing to provide “patient capital” for investments (Sirmon & Hitt, 2003). Such factors serve to expand the temporal frame exhibited by family firms.

The goals, outcomes, and identities of family firms may also be associated with a long-term perspective (Le Breton-Miller & Miller, 2006). For example, the economic activities of family firms are often aimed at creating and preserving wealth for future generations (Zellweger, 2007). The pursuit of noneconomic goals is another distinguishing feature of many family businesses (Chrisman, Kellermanns, Chan, & Liano, 2010; Chua, Chrisman, & Sharma, 1999). Noneconomic goals such as succession within the family (Handler, 1994), the creation and preservation of socioemotional wealth (Gomez-Mejia et al., 2007), developing and protecting

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the family reputation (Miller & Le Breton-Miller, 2005), and transgenerational value creation (Zellweger, Nason, & Nordqvist, 2012) have all been discussed in association with an extended temporal frame. Furthermore, broader identity concepts such as family firm culture (Zahra et al., 2004) and adopting a stewardship philosophy (Eddleston & Kellermanns, 2007) are likely associated with an LTO.

Although the idea that family firms have long-range perspectives is intuitive and there is evidence to support the assumption of long-term temporal orientations in family firms, many empirical questions remain. Do family firms have a greater LTO than nonfamily firms? How heterogeneous are family firms with respect to LTO? To what extent does an LTO influence decision making in family firms and what are its manifestations? What is the association between LTO and performance in family firms? Such questions may be difficult to answer because, although there has been much discussion about the importance of time orientation in family firms, this area of research remains underdeveloped (Lumpkin et al., 2010). Among the key obstacles to future research in this area is the lack of construct development and reliable measures (Lumpkin & Brigham, 2011).

Given the importance of temporality in family business, researchers have recently proposed a multidimensional construct of LTO (Lumpkin & Brigham, 2011; Lumpkin et al., 2010). In an effort to further develop this construct and encourage more scholarly attention to temporal orientations in family business research, we examine the conceptual tenets of LTO and develop and validate a measure using computer-aided text analysis (CATA). A validated approach for measuring LTO will benefit researchers investigating the many research questions that arise when considering the long-term temporal orientation of family firms. Therefore, following the measurement development and validation section, we discuss implications and set forth recommendations for future research that address the numerous research opportunities provided by a validated measure. Together, this article provides the components needed for moving the family business literature forward in the study of temporal orientation.

Long-Term Orientation

There are a number of frameworks for understanding temporality and how time is experienced. One of the

most popular temporal frameworks involves distinguishing between long-term and short-term orientations (Lavery, 1996). Researchers have discussed how individuals and organizations make decisions by anchoring on referent points that simultaneously include the past, present, and/or future (e.g., Bearden, Money, & Nevins, 2006; Karniol & Ross, 1996; Mosakowski & Earley, 2000; Shi & Prescott, 2011). These frameworks incorporate a more holistic view of time and suggest that an LTO consists of focusing on not only the future but also the concomitant influence of the past, present, and future. But although temporal perspectives may have important and unique effects on organizational processes (Perez-Nordtvedt, Payne, Short, & Kedia, 2008; Zahra & Wright, 2011), few studies in the family business literature have investigated differences in how time is experienced or how those differences might affect decisions and outcomes.

LTO has been operationalized across different levels of analysis. For instance, Hofstede (2001) distinguished between short-term orientation and LTO at the national level. Bearden et al. (2006) developed an LTO measure for application at the individual level, and Ganesan (1994) examined the role of LTO in dyadic relationships between buyers and sellers. At the organizational level, there are a limited number of studies, and these vary widely in their approach. For instance, Zahra et al. (2004) identified LTO as a dimension of family firm culture and proposed that short-term orientation was reflected in the use of financial controls whereas LTO was indicated by the use of strategic controls. Also, Wang and Bansal (2012), using four items relating to Venkatraman's (1989) conceptualization of futurity, examined the role of LTO in moderating the corporate social responsibility–performance relationship in new ventures.

In a recent review of the use of temporal perspectives in the mergers and acquisitions literature, Shi, Sun, and Prescott (2012) analyzed 144 published articles and found that the overwhelming majority of articles used proxies rather than conceptualizing time and its operationalization directly. They further reported that when identifying temporal reference points, a majority of the articles (116) looked at the past and present but that only 5 incorporated past, present, and future. Their findings highlight what may be a deficiency in the broader management and family business literatures: Although time is complex and might best be conceptualized holistically,

it is generally conceptualized indirectly and narrowly and most often operationalized through proxies.

In the extant family business literature, there are a number of variables and outcomes that may partially represent or serve as rough proxies of LTO. In their review of dependent variables used in family business research, Yu, Lumpkin, Sorenson, and Brigham (2012) plotted a number of outcomes along a short-term focus versus a long-term focus axis. Their taxonomy indicated that there were a number of family business outcome variables consistent with a long-term focus. For example, performance measures such as the longevity and survival of family firms have an implicit long-run component (Colli, 2012) and may serve as indicators or proxies of an LTO. Also, in family firms, the time horizons for investment decisions (James, 1999; Le Breton-Miller & Miller, 2006) and investment in R&D (Chrisman & Patel, 2012) have been used as indicators of LTO. Finally, the popular Family Influence on Power, Experience, and Culture (F-PEC) scale uses some items that relate to LTO in assessing family and generational involvement (Astrachan, Klein, & Smyrnios, 2002). Here again, although attempts have been made to assess aspects of LTO, these are usually done indirectly and through proxy measures.

Based on perceived deficiencies in construct development regarding LTO in the family business and management literature, Lumpkin and colleagues (Lumpkin & Brigham, 2011; Lumpkin et al., 2010) developed a holistic LTO construct that is conceptualized to operate at the level of the organization. Specifically, the researchers define LTO as the “tendency to prioritize the long-range implications and impact of decisions and actions that come to fruition after an extended time period” (Lumpkin et al., 2010, p. 241) and conceptualized it as a multidimensional construct composed of continuity, futurity, and perseverance (Lumpkin & Brigham, 2011). *Continuity* describes the bridging of the past, present, and future, lending value to preservation, constancy, and longevity. Firms exhibiting continuity place importance on endurance and long-lasting tradition (Lumpkin & Brigham, 2011). For family firms, Lumpkin and Brigham propose that continuity is consistent with efforts to build a long-lasting mission and reputation (Miller & Le Breton-Miller, 2005), the desire to maintain family ownership and control through succession (Lansberg, 1999), and recognizing the lasting effect of founders and prior generations on current and future operations (Davis & Harveston, 1999).

Futurity describes a firm’s belief that the planning and assessment of long-run future goals are valuable. Such firms have a desired future in mind and work to achieve such a state (Venkatraman, 1989). Organizations high on futurity will view future events as more salient (Das & Teng, 1997). With specific respect to family firms, Lumpkin and Brigham (2011) note that futurity, as a shared mind-set among the dominant coalition, will be stronger in family firms than nonfamily firms (Ensley & Pearson, 2005). A higher emphasis on the future is positively associated with succession planning (Davis & Harveston, 1998; Sharma, Chrisman, & Chua, 2003) and transgenerational family control intentions (Chrisman et al., 2010). Finally, *perseverance* suggests that long-term-oriented firms work hard to create future value. Firms exhibiting perseverance are conscious of the value associated with cumulative effort, often demonstrating patience for future rewards. Thrift, persistence, and hard work are indicators of perseverance (Bearden et al., 2006; Hofstede, 2001) and the belief that it often takes time for things to pay off (Lumpkin & Brigham, 2011). In the context of family firms, Lumpkin and Brigham (2011) posit that perseverance is associated with discipline and self-control (Le Breton-Miller & Miller, 2011), high levels of commitment (Brockhaus, 2004), and desire to succeed (Kuratko, Hornsby, & Naffziger, 1997). Furthermore, the presence of patient capital (Sirmon & Hitt, 2003) and longer investment horizons (Zellweger, 2007), which may be more prevalent in family firms, are consistent with perseverance.

Theoretically, LTO can best be viewed as a dominant logic that is held by and is a manifestation of a family firm’s dominant coalition. In defining the family business, Chua et al. (1999) describe the dominant coalition as “the powerful actors in an organization who control the overall organizational agenda” (p. 24). They also suggest that the dominant coalition does not refer to specific owners, managers, or family members but to the collection of senior decision makers and top managers who have a principal role in shaping and pursuing the family firm’s vision. Hence, a long-term dominant logic reflects the collective mind-set of a family firm’s dominant coalition with regard to its temporal perspectives. Since it is the dominant coalition that controls the organization’s agenda, LTO is best conceptualized as an organizational-level phenomenon.

In general, a dominant logic refers to how firms

conceptualize the business and make critical resource allocation decisions—be it in technologies, product development, distribution, advertising, or in human resource management. . . It is stored as a shared cognitive map (or set of schemas) among the dominant coalition. (Prahalad & Bettis, 1986, pp. 490-491)

These shared schemas operate as heuristics that focus the attention of the dominant coalition on specific types of information, problems, and decisions. Over time, family firms develop formal systems and processes that are aligned with the dominant logic. Eventually, a family firm's dominant logics will shape the decision rules, controls, metrics, structure, and values of the firm, which essentially becomes a reinforcing organizational system built around the dominant logics (Bettis & Wong, 2003).

LTO is a dominant logic that results from a dominant coalitions' beliefs, attitudes, and philosophies regarding the importance and usefulness of considering the arc of time—past, present, and future—when making decisions about the best courses of action for a family business, even though the fruits of those actions may emerge only after an extended period. Lumpkin and Brigham (2011) propose that the LTO construct is particularly useful in understanding how a family firm's dominant coalition focuses on and addresses organizational decisions involving intertemporal choice—where decisions play out over time and the future payoffs and rewards are uncertain.

In the next section, we present our LTO validation study, which is founded on these general perspectives.

LTO Construct Validation

Latent organizational constructs like LTO are inherently difficult to measure. As a result, construct validity concerns often plague organizational researchers (Boyd, Gove, & Hitt, 2005). To help overcome such measurement challenges, we develop a measure of LTO using CATA, a popular form of content analysis that can help overcome construct measurement problems (Duriau, Reger, & Pfarrer, 2007; Morris, 1994; Short, Broberg, Coglisier, & Brigham, 2010). Content analysis refers to a class of methods that allow researchers to make reliable inferences by interpreting and coding rhetorical content (Duriau et al., 2007). Computer-aided versions of content analysis rely on software to make quantitative assessments of such rhetorical content based on deductive and/or inductive rhetorical analysis. We follow construct

validation procedures using CATA outlined by Short et al. (2010), who suggest that such a process can effectively validate a latent construct. Accordingly, we develop content-analytic measures (i.e., word lists) representative of the underlying dimensions of LTO and validate these measures using two different samples of firm shareholder letters (Short, Payne, Brigham, Lumpkin, & Broberg, 2009). Measure development and validation are systematically established and include assessing the measure in terms of content validity, external validity, dimensionality, and concurrent validity.

Content Validity

Content validity examines the extent to which a measure is representative of a given construct (Kerlinger & Lee, 2000). Often, content validity is assessed by expert evaluators in exchange or through a process of examining the fit between a particular conceptual or theoretical definition of the construct and its empirical measure (Short et al., 2010). A measure has content validity when the measurement procedure adequately samples a construct's theoretical domain (Nunnally & Bernstein, 1994). Short et al. (2010) argue that content analysis, specifically CATA, is a desirable method for developing valid measures. As such, we employed CATA to measure LTO in firms. Content analysis is a valuable qualitative tool that classifies and categorizes communications using predefined criteria developed by the researcher (Weber, 1990). CATA is particularly helpful as it combines rich, qualitative data sources such as organizational narratives with the versatility of quantitative analyses (Short & Palmer, 2008). Content analysis has been a popular methodological tool for other orientations in management and marketing such as entrepreneurial orientation (e.g., Short et al., 2009; Short et al., 2010), market orientation (e.g., Zachary, McKenny, Short, Davis, & Wu, 2011; Zachary, McKenny, Short, & Payne, 2011), and organizational virtue orientation (Payne, Brigham, Broberg, Moss, & Short, 2011; Payne, Moore, Bell, & Zachary, 2013).

Following Short et al.'s (2010) recommended procedures, we began by outlining an operational definition of each dimension of LTO based on Lumpkin and Brigham's (2011) definitions. Such a definition formed the theoretical framework for our measure. Words representative of LTO's dimensions were generated and similar words were found using Rodale's (1978) *The Synonym Finder*. The resulting deductive word lists

were examined by three of the authors to assess the validity of each word and whether it truly captured the meaning of the LTO dimension. Interrater reliability was calculated using Holsti's (1969) method, which assesses the extent to which the raters agreed on the appropriateness of words and is calculated as follows: $PAO = 3A / (nA + nB + nC)$, where PAO is the proportion of agreement observed, A is the number of agreements between all three raters, and nA , nB , and nC are the individual number of coded words for each rater. To date, there are no specific criteria for acceptable levels of interrater reliability; however, other studies have indicated that coefficients ranging from .70 to .80 indicate acceptable levels of interrater reliability (e.g., Ellis, 1994; Krippendorff, 2004; Riffe, Lacy, & Fico, 2005). For our study, we observed interrater reliabilities of .95 for continuity, .95 for futurity, and .89 for perseverance. These interrater reliability numbers indicate high reliability among raters on the dimensions of LTO.

Following the creation of the deductive list, we examined the shareholder letters in our sample for any words that would fit the dimensions of LTO that were not included in the original deductive word list. This inductive process is an important step in content analysis as words that have technical context or are idiosyncratic to a firm or industry may not be included in the original deductive word list (Short et al., 2010). One author compiled a list of words from the shareholder letters. Three other authors repeated the rating and interrater reliability procedures discussed in the deductive word list development section. Approved words were added to the overall word lists.

In CATA, the word lists themselves are the instruments used to measure constructs. Final word lists are uploaded into content analysis software where documents are analyzed for words and phrases indicative of the selected constructs. The final LTO word lists are provided in Table 1. Although a range of options are available to researchers, we analyzed the shareholder letters using DICTION 5.0 (Hart, 2000). DICTION is a popular CATA software package that has distinct advantages in measuring management constructs (Short & Palmer, 2008) and has been previously used in family business research (e.g., McKenny, Short, Zachary, & Payne, 2012; Short et al., 2009). Our final word lists were added to DICTION, and the content analysis procedure was run on each of the shareholder letters. Analysis yielded output values for each firm on each

dimension of LTO. Once the overall values for LTO, continuity, futurity, and perseverance were determined, the values were divided by the number of words in the document. Standardization controls for limitations on length of the document and creates a more conservative estimation that is more valid than unstandardized variables. The overall values for each dimension across all firms are .003 for continuity, .004 for futurity, and .001 for perseverance. Table 2 includes examples from selected shareholder letters that demonstrate this process. For example, WD-40, Co.—a manufacturer of consumer and industrial lubricants and solvents—explained to shareholders: “We see these setbacks as temporary and *continue* [italics added] to focus on geographic expansion.” This quote demonstrates language consistent with the LTO dimension of continuity contained within the continuity word list and would thus be counted by DICTION in its analysis. Similarly, LHC Group, a post-acute care health care provider, stated in their letter to shareholders: “We will never focus on short-term return at the expense of *long-term* viability” and “In everything we do, we are guided by an *unwavering* commitment to ethics.” Rhetoric associated with “long-term viability” suggests an orientation toward futurity, while their “unwavering commitment to ethics” speaks to LHC Group’s perseverant attitude toward ethical behavior.

External Validity

External validity concerns the generalizability of a study’s results across different individuals, contexts, and attributes (Bryman & Bell, 2011). High external validity is desirable because inferences from a particular study can be applied to situations beyond the immediate context, thus increasing the scope of a theory’s prediction and control. In using CATA to develop and validate a measure, the external validity of a study’s findings rests on both the sampling frame chosen and the narrative texts analyzed (Short et al., 2010).

To improve the external validity of our LTO measure, we sample firms from two different market indices: the S&P 600 Growth index and the S&P 500 index. The S&P 600 Growth index comprises small-cap U.S. publicly traded companies that are engaged in higher firm growth. Alternatively, the S&P 500 index comprises mostly large-cap U.S. publicly traded companies that represent a wider variety of major industries. Similar to

Table 1. Word List for Long-Term Orientation Dimensions.

Long-term orientation dimension	Content analysis words with expert validation
Continuity	boundless ceaseless cohesive committed commitment connected connection constancy constant contiguity continual continuance continuation continue+to+exist continuity continuous continuousness continuum durability durable duration endless entire eternal eternalization everlasting extend extended flow immortal immortalize incessant infinite interminable interrelated interrelatedness interrelationship last lasting legacy link linkage linked long-last long-lasting long-standing maintain maintained maintenance nonstop ongoing endure perennial permanent perpetual perpetuation perpetuity persist persisted persistence persistent preservation preserve preserved prolong prolongation prolonged protract protracted protraction sempiternal sustain sustaining sustenance unbroken unbrokenness uninterruptedness uninterrupted unremitting upkeep
Futurity	anticipate anticipated anticipating anticipation aspiration aspire augur augury blueprint conjecture construct contemplate contrive course+of+action design develop devise divine envision estimate estimation evaluating expect expectation expected expecting forebode foreboding forecast forecasting foreshadow foretell foretelling forewarn formulate fortunetelling future futurity hope impending intend intent intention likelihood likely long-range long-term look+ahead make+plans map map+out mastermind outline pattern plan plan+ahead plan+of+action planned planning plot prearrange predesign predetermine predict prediction prefigure prefigurement premeditate presume presuming presumption prognosticate prognostication project prophesize prophesy proposal prospect prospective schedule scheme shape shape+a+course sketch soothsay speculate speculation strategize vaticinate
Perseverance	abiding abidingness constant determination determined devote devoted devotion diligent earnest endurance endure enduring firmness+of+mind grit gritty incessant indefatigableness indomitable industrious insistent insistency insisting keep+going mulish mulishness patience patient perseverance persist persistence persisted pertinacity purposiveness resolute resolve scrappy stamina staunch steadfast steadfastness stick+it+out strive striving stubborn stubbornness sturdy sustain tenacious toughness+of+mind unceasing uncompromising undeviating unfaltering unflagging unflinching unshakable unstoppable unstopping unswerving untiring unwavering unyielding

Table 2. Examples of Long-Term Orientation Dimensions in “About Us” Pages.

Dimension	Coding definition	Example
Continuity	“Continuity is based on the belief that that which is long-lasting and endures has value. As such it consists of preservation, constancy, and durability. Continuity takes into account the arc of time, that is, the forces from the past that influence the future; it is concerned with how long-standing aspirations and legacy issues affect future decisions and actions.” (Lumpkin & Brigham, 2011, p. 1153)	“Century Payments offers innovative payment processing partnership programs at every level while maintaining accountability that proves to every merchant, agent and partner that they can expect respect.” (Century Payments)
Futurity	“Futurity is based on the belief that forecasting, planning, and evaluating the long-range consequences of current actions has utility. Futurity suggests that a firm’s dominant coalition is mindful of a desired future and takes steps to reach that desired state (Venkatraman, 1989)” (Lumpkin & Brigham, 2011, p. 1152)	“Our experience and long-term relationships allow us to offer the most competitive structural and building solutions for your projects.” (Build Group)
Perseverance	“Perseverance refers to the conscientiousness that is required to persist over time. It is based on the belief that efforts made today will payoff in the future. Perseverance is needed for mere survival but its cumulative effect is value creating; it takes time for some things to gain value.” (Lumpkin & Brigham, 2011, p. 1154)	“We constantly strive to improve our approach and our tools.” (Wound Care Advantage)

Table 3. Means, Standard Deviations, and Correlations Among Measures.

Variable	M	SD	1	2	3	4	5
1. Firm size	26,719	72,739					
2. Firm age	44.817	36.448	.09*				
3. Family firm	0.182	0.386	.12**	.06			
4. Continuity	0.003	0.003	.23**	.16**	.21**		
5. Futurity	0.004	0.004	.20**	.11*	.25**	.56**	
6. Perseverance	0.001	0.001	.17**	.14**	.10*	.38**	.32**

firms listed on the S&P 600 Growth index, the S&P 500 companies are some of the more successful firms among their industry peers.

The S&P 500 and 600 indices are valuable sampling frames in which to validate constructs content analytically. First, both indices include a diverse array of publicly traded firms with a variety of firm ownership structures, sizes, ages, and industry affiliation. Such a wide variety of firms within and across each index increases the external validity and generalizability of our findings. Second, publicly traded firms are ideal for measuring organizational constructs content analytically since they share their values, beliefs, and strategic orientations with shareholders in organizational communications (Short et al., 2009). Accordingly, we validate our content-analytic measure of LTO using organizational rhetoric contained in firm shareholder letters. Shareholder letters are popular narratives with which to measure organizational constructs (Short & Palmer, 2008) such as entrepreneurial orientation (e.g., Short et al., 2009), market orientation (e.g., Zachary, McKenny, Short, & Payne, 2011), and organizational virtue orientation (e.g., Payne et al., 2011). Although shareholder letters are somewhat susceptible to biases and impression management, extant research suggests that such biases apply evenly across all organizations (Short & Palmer, 2008). D'Aveni and MacMillan (1990) suggest that "letters to shareholders are particularly good indicators of the major topics that organizational managers attend to" (p. 640) and offer useful reconstructions of the "perceptions and beliefs of their authors" (p. 639). Even when authorship is not directly specified, there is widespread agreement among scholars that executives and other decision makers are heavily involved in its content (Barr, Stimpert, & Huff, 1992). Last, previous validation studies have relied on samples drawn from similar indices to objectively and comprehensively evaluate the external validity of a construct (e.g., Short et al., 2009).

Dimensionality

Construct dimensionality refers to the relatedness between individual dimensions and their association to a single construct. Many constructs are multidimensional because they encompass various facets that can only be captured by assessing an array of dimensions. Although the dimensions tend to be correlated to the extent that they describe a similar construct, each dimension is representative of different aspects of the larger construct (Nunnally & Bernstein, 1994). Constructs represent a synthesis of the facets into which each dimension taps. For example, the three dimensions of the most commonly used measure of entrepreneurial orientation reflect three distinct aspects of what it means to be entrepreneurial—innovativeness, proactiveness, and risk taking (Covin & Lumpkin, 2011). Short et al. (2010) recommend assessing the dimensionality of a construct by creating and testing multiple word lists, each list developed for a single dimension. Once tabulated, word lists were compared using a simple inspection of the correlation matrix. Table 3 displays the correlations for the salient variables in this study. The varied correlations between the three dimensions of LTO suggest that the dimensions of LTO are not perfectly correlated and may move differentially; this suggests that LTO is a multidimensional construct.

To further assess the multidimensionality of the construct, we examined the LTO dimensions using factor analysis. Factor analysis is a useful tool for concretely assessing the dimensionality of constructs measured by content analysis (Short et al., 2010; Short & Palmer, 2008). Factor analysis output has the three dimensions loading on a single factor with the overall model demonstrating statistical significance. Furthermore, the high uniquenesses within each variable suggests that each dimension of LTO, although comprising a single factor, explains a significant amount of distinctive variance.

Table 4. Factor Analysis (All Firms).

Factor	Eigenvalue	Difference	Proportion	Cumulative
Factor 1	1.144	—	1.364	1.364
	N	679		
	Likelihood ratio test	376.42 (3)***		

Variable	Factor 1	Uniqueness
Continuity	.695	.517
Futurity	.655	.571
Perseverance	.482	.768

*** $p < .001$.**Table 5.** Two-Sample *t* Tests of Differences in LTO Between Family and Nonfamily Businesses.

Group	Continuity	Futurity	Perseverance	LTO aggregate
Family businesses	.003	.005	.0006	.009
Nonfamily businesses	.002	.002	.0004	.005
<i>df</i>	455	455	455	455
<i>t</i>	4.565**	5.439**	2.236**	5.499**

Note. LTO = long term orientation; *df* = degrees of freedom.* $p < .05$. ** $p < .01$.

Combined, the varied correlations between dimension coefficients, single-factor loadings, and high variable uniquenesses support the multidimensionality of the LTO construct. Additionally, the fact that all measured dimensions of LTO load on a single factor suggests convergent validity and is theoretically consistent with previous conceptualizations of LTO (e.g., Lumpkin & Brigham, 2011). Factor loadings and variable uniquenesses are reported in Table 4.

Concurrent Validity

Concurrent validity refers to the degree that the measurement of a construct exists parallel with other constructs or variables that are theoretically argued to occur at the same time. The extent to which the new measure is correlated with the existing related measure determines the concurrent validity of the new measure (Kerlinger & Lee, 2000). The more evidence scholars can produce of theoretically simultaneous occurrences, the more concurrently valid the measure becomes. Therefore, we compare our measure of LTO to two different variables that have been theorized to transpire concurrently: family business status and industry affiliation.

LTO research has often been couched in the context of family business. As previously argued, family businesses are more often associated with LTO than nonfamily businesses (Lumpkin & Brigham, 2011). We test this association by comparing the levels of LTO in family and nonfamily businesses in our sample. Businesses were coded as a family business when there was a principal shareholder (representing a 10% or more ownership stake) represented by two or more related family members, where at least one of whom was either an executive member of the top management team and/or a board member. Although the definition and measurement of family business status have been a topic of debate in the family business literature (Chua et al., 1999), our operationalization represents a conservative measure of family business status that is more likely to identify companies that truly capture the essence of family business. *T* tests for differences in the levels of LTO rhetoric between family and nonfamily businesses demonstrate that family businesses are significantly more focused on LTO than nonfamily businesses. Table 5 provides the results of these analyses. These results are consistent with theory and further support the validity of our measure.

Table 6. Multinomial Logit Regression Estimates for LTO and Dimensions (All Firms).

Base outcome: SIC H: Finance, Insurance, and Real Estate	Continuity	Futurity	Perseverance	LTO
SIC B: Mining	168.58*	179.33**	500.87*	114.03**
	(-1.96)**	(-2.17)**	(-1.72)**	(-2.34)**
SIC D: Manufacturing	78.32*	88.16**	264.75†	50.73**
	(0.81)**	(0.72)**	(0.90)**	(0.69)**
SIC E: Transportation, Communications, and Utilities	175.02**	177.96**	148.13	106.40**
	(-1.10)**	(-1.27)**	(-0.61)**	(-1.37)**
SIC F: Wholesale Trade	-42.21	122.61	192.58	40.73
	(-2.08)	(-2.61)**	(-2.25)**	(-2.43)**
SIC G: Retail Trade	156.73**	88.55*	308.19†	69.71**
	(-1.14)**	(-0.96)**	(-0.80)**	(-1.14)**
SIC I: Services	-6.00	-20.28	-286.48	-10.85
	(-0.29)	(-0.25)	(-0.22)	(-0.25)
N	679	679	679	679
Log-likelihood	-1045.55	-1039.34	-1048.99	-1038.83
Logistic regression χ^2	23.20**	35.62**	16.31*	36.63**

Note. LTO = long-term orientation; SIC = Standard Industrial Classification Code. Given that multinomial logistic regression is generalized to include more than one categorical outcome, output is interpreted relative to a base outcome. By default, the base outcome is the most frequent categorical outcome; however, given our desire to differentiate industries in which we would expect firms to demonstrate LTO, we have specified the base outcome to be the Finance, Insurance, and Real Estate industry, may be less likely to strategically focus on long-term performance. Thus, significant coefficients are substantially different (positive or negative) from the LTO measured in FIRE industry firms, on average.

† $p < .10$. * $p < .05$. ** $p < .01$.

We further investigate the concurrent validity of the LTO measure using a multinomial logit regression to examine the probability of LTO rhetoric being used in one industry over another. LTO has been argued to be more evident in firms that rely on higher levels of research and development (Chrisman & Patel, 2012). In general, industries that rely on technological growth and innovation tend to invest more in R&D while industries with relatively stable technological development rely less on R&D. More specifically, industries heavy in computer and electronic production, chemicals, computer-related services, aerospace and defense manufacturing, R&D services, and automotive manufacturing are among the largest R&D industries while the financial, insurance, and real estate industries are much less focused on R&D (National Science Board, 2006).

Multinomial logit analysis is appropriate for such an investigation since the choice between alternatives (industry affiliation) is not biased by any other alternative (McFadden, 1974) and the nature of the dependent variable (industry) is multi-categorical. Table 6 includes the logit coefficients and standard errors for the different industries. Given our desire to compare LTO levels in

higher versus lower R&D industries, we use the Finance, Insurance, and Real Estate industries (SIC codes 60-65, 67) as the base outcome. We then compare the logit coefficients produced by the model to that of the base outcome. The results in Table 6 suggest that in the mining, manufacturing, and transportation, communication, and utilities industries firms are significantly more likely to display an LTO by using LTO rhetoric. Interestingly, LTO appears to be important in retail trade, as well. This may not be surprising considering the increasingly technologically-demanding consumer and the responding shift of firms toward such demands. In all, these results are consistent with conceptual arguments suggesting that firms more focused on R&D are more long-term-oriented and, thus, suggests adequate concurrent validity.

Overall, our measure demonstrates considerable strength, ease of use, and versatility. Following the recommended measurement validation procedures (McKenny, Short & Payne, 2013; Short et al., 2010), we examined a variety of validity issues including content validity, external validity, dimensionality, and concurrent validity. Based on the above results, we found that each dimension of LTO orientation—continuity, futurity, and

perseverance—as well as the overarching LTO measure itself are valid according to the generally recognized principles of construct validation. Given these findings, we turn next to how LTO and these measures might be used in future research.

Discussion

The validation of constructs and measures is critical to the development of scholarly disciplines and allows for greater empirical testing of theory. Specific to the family business discipline, Pearson and Lumpkin (2011) stressed that more rigor in assessing the validity of measures was an important step in advancing family business research. This sentiment was echoed by Litz, Pearson, and Litchfield (2012), who concluded, based on the response of 80 family business scholars, that defining and refining models and measures represented both key opportunities and key challenges for the field. Furthermore, Sharma (2011) noted that the recent articles in *Family Business Review* that had developed and validated measures represented an important positive trend. We believe our research contributes to this important aim of family business researchers as it relates to temporal orientation.

Although the results from our validation study are promising, there is still much work to be done. This study may be viewed as exploratory in that it represents an initial empirical attempt at measuring the LTO construct as we have conceptualized it. Our definition of the construct and the three dimensions that constitute it—futurity, perseverance, and continuity—are derived theoretically and based on an extensive review of the literature. Nevertheless, subsequent theorizing and empirical examinations—through, for example, analysis of family business cases or interviews with dominant coalition members—might yield new insights about the nature of the LTO construct. Therefore, we invite future researchers to undertake such investigations and also caution them to be mindful of the limitations of this study.

Although we are in the early stages of researching LTO, we are proceeding on the basis of key theoretical assumptions. As noted, for example, LTO functions as a dominant logic that reflects the temporal perspective of a family firm's dominant coalition. Dominant logics provide rules of thumb that help simplify complex decisions through a process of cognitive congruence (Bettis & Wong, 2003). This congruence offers advantages in

the speed and efficiency of decision making such that LTO acts as a high-order heuristic. “Dominant coalitions that adopt the kind of holistic view toward time suggested by an LTO develop a mind-set that enables them to integrate long-term perspectives into decisions and actions” (Lumpkin & Brigham, 2011, p. 1155). These decision-framing processes then serve to reinforce the dominant logic, which reciprocally further strengthens these systems in a positive feedback loop.

Conceptualizing LTO as a dominant logic suggests that it is a dispositional construct. Dispositions, in management research, “are viewed as tendencies to respond to situations, or classes of situations in a particular, predetermined manner” (House, Shane, & Herold, 1996, p. 205). In the case of a long-term dominant logic, a dispositional perspective would suggest that LTO represents a predominant outlook or prevailing tendency regarding “how a family firm's dominant coalition. . . uses temporal referent points—past, present and future—as decision criteria or anchors in their decision-making processes” (Lumpkin & Brigham, 2011, p. 1151). Dispositional constructs are often contrasted with behavioral constructs in part because of the belief that theoretical constructs cannot be behavioral and dispositional simultaneously (Covin & Lumpkin, 2011). Our assumption is that a dominant coalition's views toward temporality can evoke temporally informed behaviors and are usually causally adjacent to time-sensitive actions, but they are primarily dispositional.

How a family firm expresses its LTO, and the relationship between LTO and other important organizational attributes and outcomes, depends in part on another key assumption about the nature of LTO. We turn to that next.

Formative Versus Reflective

In addition to theory's primary role in explaining how constructs are interrelated, auxiliary theories—theories that connect latent constructs to observable phenomena (Blalock, 1968)—allow empirical research to test theory (Edwards, 2011). A fundamental auxiliary consideration is the direction of the relationship between the constructs of interest and the measures of those constructs. A common concern is whether the measures are reflective of the construct of interest or formed by the underlying construct. Reflective measures are considered to be the outcome of a construct wherein each measurement item is a reflection of the construct in its entirety. Accordingly,

reflective measures within a single construct tend to have high internal consistency and exhibit “useful redundancy”—a condition wherein the measures have similar meanings such that they can be substituted interchangeably (DeVellis, 1991). Naturally, unidimensional constructs often rely on reflective measures since the measures of that construct are assumed to describe the same dimension.

Formative measures, by contrast, each describe a different part of an overarching construct. Such measures generally have lower internal consistency since they describe largely unique aspects of a single construct, and are thus more often appropriate for measuring multidimensional constructs (Edwards, 2011). Establishing whether a construct is reflective or formative is an important step in the development of a new construct and communicates information that will help future researchers measure the construct more appropriately.

Careful consideration of the LTO construct leads us to conclude that dimensions of LTO are formative. Conceptually, the three dimensions share similarities to the extent that they describe a single construct (LTO), but they also each explain a different facet of the LTO construct. In other words, LTO reflects an overall measure of the extent to which a firm considers time as fundamental to business operations, whereas each underlying dimension describes a different aspect of that overarching logic.

Methodologically, our content-analytic measure of the LTO dimensions demonstrates support for formative considerations. First, the measurement development procedures produced measures that are mutually exclusive; words are unique to each dimension and are not repeated on any other dimension. Problems ubiquitous to survey item ambiguity are not a concern as each word list can detect only a single dimension. Second, CATA procedures help circumvent human coding, so measurement values tend to be free of human error as long as initial wordlist coding procedures were rigorously followed (Short et al., 2010). A lack of coding error translates to measurement values that are more likely to describe the actual value of the underlying dimension. Otherwise, issues of item ambiguity obscure the interpretation of the variable and undermine the measurement of the overarching construct (MacKenzie, Podsakoff, & Jarvis, 2005). Third, despite loading on a single factor, the dimensions of LTO demonstrate only moderate Pearson correlations and relatively high uniqueness factor scores.

This comes as no surprise considering that each dimension describes the same construct but in noninterchangeable ways. Overall, these facts tend to support the use of content-analytic measures of formative constructs over those that are more subjective or perceptual, which may lead to construct ambiguity or mismeasurement (e.g., surveys, etc.). Furthermore, considering extant criteria for determining whether a construct is reflective or formative (e.g., Jarvis, MacKenzie & Podsakoff, 2003), the LTO construct and its underlying dimensions closely matches a formative model.

The formative nature of the LTO construct works well with content-analytic measures, however, it may complicate other possible measures of LTO's dimensions. Recently, scholars have begun to question the validity of formative measures, namely, those based on survey items (e.g., Bagozzi, 2007; Edwards, 2011; Howell, Breivik, & Wilcox, 2007a, 2007b; Wilcox, Howell, & Breivik, 2008), which may consequently restrict the development of alternative theoretically appropriate measures of LTO such as survey items. However, future scholars should not be completely dissuaded from investigating such methods. Edwards (2011) recently developed a method by which survey items measures of formative constructs may be evaluated from a modified reflective approach. Such advances may be useful for family business scholars seeking to study LTO using alternative methods.

These issues, as well as some other related points of interest, are then used as the foundation for setting forth recommendations for future research.

Recommendations for Future Research

To advance understanding of LTO and build on the development of the LTO construct, future research is needed to shed light on its antecedents, processes, and consequences. In an effort to help propel such research forward, we turn next to a discussion of several key topical areas where we see substantial opportunity for family business scholars.

First, future research could investigate LTO in contexts where the relationship between temporal perspectives and key variables influence the direction or strength of critical organizational outcomes. Recently, Zahra and Wright (2011) identified temporality as one of the four key dimensions of context (along with spatial, social,

Table 7. Future Research Questions Suggested by Integrating LTO with Theories Used in Family Business.

	Extensions of existing questions	Introduction of new questions
Agency theory	Do differing time horizons, of owners and managers lead to alignment problems? How is LTO associated with professionalization in family firms?	How are different incentives and controls associated with LTO in family firms? Are principal–principal agency problems more prevalent in family firms with a higher LTO?
Resource-based view	Is a long-term perspective a potential source of competitive advantage for family firms?	Do family firms with a higher LTO make different resource and capability investment decisions? Does LTO inhibit or promote the development of competencies in family firms?
Stewardship theory	How does a focus on the next generation and noneconomic goals in family firms relate to financial performance? How is LTO related to survival and longevity in family firms?	Does LTO lead to altruism, or vice versa? Is LTO positively associated with sustainability and corporate social responsibility in family firms? How are the individual dimensions of LTO associated with specific stewardship behaviors in family firms?
Social capital theory	How do different time horizons influence relationships, networks, and social capital?	How does LTO affect the development of relationships and networks of family firms? Do family firms with higher LTO have greater reputation, trust, and reciprocity?

Note. LTO = long-term orientation.

and institutional) that are particularly salient for future research in entrepreneurship and specifically called on researchers to focus on how changes in time orientations may affect other processes. Building on this insight, we believe LTO could deepen understanding of the mechanisms underlying many of the theories that are important to comprehending family business phenomena. Table 7 identifies four such theoretical frameworks—agency theory, resource-based view, stewardship theory, and social capital theory—and suggests LTO-related research questions that can enhance our awareness of how and why temporal considerations should be integrated into future family business research.

In a related vein of research, future research using a configurations perspective (cf. Short, Payne, & Ketchen, 2008) seems especially relevant to LTO. The formative nature of the LTO construct lends itself well to extensions of the multidimensional perspective including a configurations approach. Specifically, it may be useful to create groupings or clusters of firms that have similar approaches to LTO, and then compare them to other groups with different approaches. It is likely that distinct clusters or styles of LTO exist (e.g., high on futurity, high on perseverance, and low on continuity) and allow for more nuanced understandings of how organizations perceive long-term issues and what effects LTO has on organizational processes and outcomes. More specifically,

scholars should consider if an organization with an LTO that is high on all three dimensions is always superior to other styles; there are likely to be trade-offs between the various LTO dimensions such that equifinality among some, or perhaps all, LTO styles exists. Equifinality is defined as achieving an equivalent outcome through alternative paths or configurations (Payne, 2006). So, although configurational approaches are not widespread in the family business literature, they have been used to examine performance differences among family firms (Chrisman, Chua, & Kellermanns, 2009; Miller & Le Breton-Miller, 2006) and would seem to have a natural fit with many LTO-related research questions.

Future research could also consider the relationship between LTO and an organization's approach to exploration and exploitation (E/E). Generally, exploration refers to activities of the organization that concentrate on discovery and experimentation, whereas exploitation refers to activities aimed at refinement, production, and efficiency (March, 1991). Although exploration is typically more costly in the short term, it is essential for long-term performance (Bierly & Daly, 2007). Exploitation, on the other hand, generally produces short-term gains (Benner & Tushman, 2002). Therefore, whether focusing more or less on exploration or exploitation, there is an implicit temporal component to such strategic considerations.

Although there is little E/E-related research in the family business literature, Miller and Le Breton-Miller (2006) do discuss how family firms may gain competitive advantages in E/E because of the desire to make long-term investments in developing cultures and core capabilities, as well as cultivate strong relationships with external stakeholders. They further suggest that such investments can then be used to improve abilities in either exploration or exploitation, although it seems that the different requirements of E/E would likely align more or less with some LTO dimensions than others. Indeed, scholars have noted that family firms do not all approach E/E activities the same way nor do they become equally proficient at managing these activities (Salvato & Melin, 2008; Sharma & Salvato, 2011). Empirical research is needed to tease out these relationships to better understand how various styles or levels of LTO may influence E/E strategies.

Finally, future research might also examine what is involved in developing and maintaining an LTO, and how an LTO influences the identity of a family firm. That identity may be linked to the strength of the LTO dominant logic. Multiple dominant logics can and do exist in family firms, and thus LTO may not be the only logic driving strategic decision making. Future research aimed at investigating the multiple factors that shape and reinforce a long-term dominant logic—including industry, strategy, structure, systems, and culture, among others (Bettis & Wong, 2003)—may also enhance understanding of family firm identity. That identity, in turn, not only will be affected by LTO but may also be responsible for developing and maintaining an LTO.

This, then, raises additional research questions: Is an LTO more prevalent in some industries? How do different strategies and performance measures lead to the development of LTO in the firm? Which organizational and governance structures promote or inhibit LTO? Do levels of LTO vary with the percentage of family ownership? How are aspects of culture or other orientations (e.g., entrepreneurial orientation, market orientation) related to LTO? These and related research questions suggest that there is a broad array of topics that future LTO researchers can pursue.

Conclusion

Time is a fundamental part of business and an important concern for any organization, yet little attention has been paid to temporal issues in management research

(Bluedorn & Denhardt, 1988). George and Jones (2000) posit that the inclusion of temporality is critical for effective theory building in the field of organizational behavior. However, they lament that although temporality is an essential feature of organizational behavior it is often ignored or treated inadequately or as implicit. Similar criticisms have been made regarding the inadequate treatment of temporality in the strategic management (e.g., Shi et al., 2012) and entrepreneurship (Bluedorn & Martin, 2008) literatures. In the family business literature, as demonstrated by this special issue, there is a growing recognition of the importance of incorporating temporality in our research.

Reay and Whetten (2011) called for greater theoretical development and contribution in family business studies and that addressing the what, how and why questions are essential components. A good theory should, among other things, identify what constructs should be included and how and why they are related. Contributions to theory can be made by either disproving a theory or, as is more common, by modifying or enhancing a theory's explanatory power (Reay & Whetten, 2011). Considerations of temporality (e.g., the embeddedness of the past, present, and future) can be incorporated in the theorizing process to better answer the what, how, and why questions and lead to better theorizing and stronger theories (George & Jones, 2000). The development and validation of the LTO construct could assist family business researchers in including a greater temporal perspective in their research. The LTO construct may act as a bridging construct between other constructs (George & Jones, 2000), which could strengthen the theory building and theory in the field of family business.

In their recent review of measurement issues in family business studies, Pearson, Holt, and Carr (2013) conclude that better development and measurement of relevant constructs is crucial for the future development of the field. We concur with their assessment. Furthermore, for family business to make continued progress as a field, Zahra and Sharma (2004) state, "We must learn to communicate and connect with scholars in sister disciplines and find ways to give back to the disciplines from which we borrow" (p. 337). With the aforementioned need for more ways to incorporate temporality in research in organizational behavior, strategic management, and entrepreneurship, we believe that family business research, with its inherent appreciation for the importance of temporality, could be poised to improve its own field not only by leading the way in building

temporality into theory and research design but also by providing something of value to our sister disciplines. The further development and refinement of the LTO construct within the family business discipline may well represent a prime opportunity to “give back” by contributing to other fields.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

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