Transgenerational entrepreneurial family firms: An examination of the business model construct

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Abstract

This paper investigates the intergenerational development of the business model construct within transgenerational entrepreneurial families (TEFs) over a four-year period, using a longitudinal multiple case study methodology comprising 48 interviews, 390 archival sources and 25 observational instances of four TEF firms. As a result of our longitudinal stance, our findings and theoretical model provide new insights into the relationship between business model dimensions (resource, finance, infrastructure, stakeholders and value) for TEF firms within and across different generations. For instance, our insights into the opportunities and risks of knowledge transmission during micro/macro resource pooling contribute to the demographic approach of the theorizing process of the family business field, through developing our understanding of how family participation dimensions affect resources for TEF firms. Accordingly, we advance entrepreneurship theory and practice by assessing the fundamentals of business model construction within the TEF context, thus expediting stronger theoretical perspectives of transgenerational entrepreneurship.

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1. Introduction

Transgenerational entrepreneurship refers to the progressions through which a family utilizes and develops entrepreneurial outlooks and family-influenced proficiencies to construct new avenues of entrepreneurial, financial and social value across generations (Habbershon & Pistrui, 2002). Contemporary research has focused on the entrepreneurial attributes of family firms in terms of how they transcend different family generations (Aldrich & Cliff, 2003; Chua, Chrisman, & Sharma, 1999; Olson et al., 2003). The emphasis of much of these topical studies has been the governance structure of family firms in terms of ownership, balance of power and succession (Bagby, 2004; Dyer, 2003; Naldi, Nordqvist, Sjöberg, & Wiklund, 2007; Stewart & Hitt, 2012) or the social aspect of the transgenerational entrepreneurial family (TEF) (Astrachan, 2010; Habbershon, Williams, & MacMillan, 2003). TEF firms are considered unique entities in that they have evolved from small entrepreneurial family firm start-ups to longstanding corporations, in which the original entrepreneurial essence of the venture has transcended numerous family generations and continues to influence management decisions within the family unit (Habbershon, Nordqvist, & Zellweger, 2010). Therefore, the engagement of family firms in transgenerational entrepreneurship necessarily incorporates the possession of an entrepreneurial mind-set across several generations (Jaskiewicz, Combs, & Rau, 2015).

Theories in relation to both entrepreneurship and family firms are well established and tested in the management literature (Astrachan, 2010; Chua et al., 1999; Sharma, 2004; Stafford, Duncan, Dane, & Winter, 1999). However, theoretical foundations for the more recent academic field of transgenerational entrepreneurship are noticeably underdeveloped and lacking cohesion (Habbershon et al., 2010; Zahra & Sharma, 2004). These theoretical shortcomings have directly resulted in two distinct research gaps that the current paper seeks to address. First, there remains a notable lack of theory development surrounding how and why entrepreneurial behaviours manifest and develop across generations within family firms (Nordqvist, Wennberg, & Hellerstedt, 2013; Randerson, Bettinelli, Fayolle, & Anderson, 2015). Despite a recent study by Jaskiewicz et al. (2015, p. 45) that takes initial steps towards developing such a theory in the form of 'entrepreneurial legacy', this research field remains in its infancy, with the authors conceding that "future inquiry is warranted to understand how […] conditions shape transgenerational entrepreneurship". Second, and more importantly, the underlying issue behind this research gap is that very little is known about how the TEF firm is actually constructed. The research that has been conducted to date on the TEF firm as a distinct organizational type is not only limited in scope, but also does not expound the constituent makeup of the TEF firm in terms of its business model construction (see Sharma, Auletta, DeWitt, Parada, & Yusof, 2015). This inaction precludes our ability to fully understand and theorize its entrepreneurial inclinations, and thus how its inherent entrepreneurial behaviours function across generations. Despite the theoretical and managerial importance of enhancing our cognition of how TEF firms function at the family/firm interface, no research to date has established a fundamental understanding of the entrepreneurial construction of the TEF firm through exploring and evaluating its business model structure across generations. As TEF firms have inimitable opportunities to imprint entrepreneurial behaviours onto subsequent generations (Jaskiewicz et al., 2015), it is imperative that CEOs or successors within these firms observe and comprehend the operational and entrepreneurial processes that have driven (and are driving) their business model development, as a means of evaluating and managing the entrepreneurial realization of the firm for prospective family generations. Despite this, the TEF literature offers virtually no empirical studies that examine business modelling within these firms (George & Bock, 2011). Furthermore, the broader family firm literature only provides descriptive and generalized discussion on the business models of family firms, with a persisting emphasis on a cross-sectional perspective (as opposed to longitudinal and transgenerational) and the hierarchical structure (Sharma, Chrisman, & Chua, 1997; Zahra, 2005; T. Zellweger, Sieger, & Halter, 2011). As it is well established that business model analysis can reveal valuable insights into the performance of entrepreneurial firms across time (Morris, Schindehutte, & Allen, 2005; Zott & Amit, 2007), the prospect of evaluating how the TEF firm business model is structured at different generational phases has the potential for practical as well as theoretical significance for the family business field.

Accordingly, this paper aims to investigate the development of the business model construct of TEF firms across family generations. Using a longitudinal multiple case methodology to evaluate four TEFs, we seek to cultivate a more nuanced understanding of their business model construct in terms of how it is developed within and across generations. In achieving this, we make the following contributions. First, our research findings and theoretical model contribute to the family firm literature by clarifying and extricating the configuration of internal and external management processes of TEF firms across generations, thus providing new insights into the role of the TEF business model in organizational and entrepreneurial outcomes. Our findings and model contest literature arguments regarding family control domination over exterior stakeholder influences and their alleged positive implications of multi-directional interactions on performance outcomes (Morck & Yeung, 2003). This is achieved by demonstrating how the tri-directional interactions between internal and external TEF firm stakeholders do not invariably result in systemic conditions for positive entrepreneurial outcomes (Habbershon et al., 2003). Second, our theoretical model derived from our findings facilitates enhanced cognition of the relationship between business model dimensions for TEF firms through its illustration of the functions and interrelations of the dimensions at each generational phase of the TEF firm. We demonstrate that variation and more drastic strategic management may lead to pressure and/or actual drains on the resource dimension of second-generation TEF business model constructs, although these may be counterbalanced by the prioritization of value opportunities and challenges (Doganova & Eyquem-Renault, 2009; Stark, 1996). Third, our research findings and theoretical model advance the field of entrepreneurship theory and practice by assessing the entrepreneurial influence of the business model structure of TEF firms from their provenance stage to their current embodiment. In so doing, they provide unique insights into the intergenerational dimension of business model construction, which is currently lacking within business model research. Our findings on the amalgamation of sustainability objectives into the resource dimension advance Stafford et al.'s (1999) theoretical model of family firm sustainability by determining that, with multi-generation TEF firms, the architypes of family and firm resources are compounded through ideologies of family risk mitigation and sustainability assessment.

The remainder of the paper is structured as follows. First, we consider business model construction and application within transgenerational entrepreneurship contexts. Our multiple case study methodology is then detailed and the analysis approach is presented. Next, findings and discussion are provided, along with our empirical and theoretical models. Finally, conclusions are drawn in relation to the theoretical and research implications of the findings.

2. Literature review

2.1 The TEF firm and their business models

In the family business field, the TEF firm is considered to be differentiated from traditional family firms, which are often viewed as rather conventional and averse to risk (Miller & Le Breton-Miller, 2005). This distinction is predicated on their perceived entrepreneurial legacy and long-term orientation (Jaskiewicz et al., 2015; Lumpkin & Brigham, 2011). It has also led to more academic attention on the role of family influence and the family ownership group in transgenerational entrepreneurship (Chrisman, Chua, De Massis, Frattini, & Wright, 2015; Zellweger, Kellermanns, Chrisman, & Chua, 2012). Indeed, TEF firms are inclined to act with the motivation and opportunity to generate new businesses, innovate or create profit through the family ownership group (Zahra, 2012). Therefore, the entrepreneurial process is perpetual and continually aimed at determining, assessing, and exploiting new business opportunities (Shane & Venkataraman, 2000). Transgenerational entrepreneurship, which encapsulates the core principles of the TEF firm, is defined as the "processes through which a family uses and develops entrepreneurial mind-sets and family influenced capabilities to create new streams of entrepreneurial, financial, and social value across generations" (Habbershon et al., 2010, p. 1). Such mind-sets represent the attitudes and beliefs that infuse entrepreneurship within the TEF firm (Rogoff & Heck, 2003).

Doganova and Eyquem-Renault (2009, p. 1568) claim that a business model permits entrepreneurs to explore new markets and new innovations, and that it performs narrative and calculative functions that are focused on third party stakeholders such as investors or consumers. They thus define the business model as "a scale model of a new venture, which aims at demonstrating its feasibility and worth to the partners whose enrolment is needed". Given the aim of this paper, we adhere to this definition of a business model.

As the business model is clearly significant for understanding the long-term strategic management of the firm and can be defined in multifarious philosophical and organizational contexts, the prospect of conceptualizing it for TEF firms is not only a matter of academic interest but managerial necessity (Sharma et al., 2015). For instance, Carlock and Ward (2001) designate the modern family firm configuration as incorporating what they describe as an expanded business model of collective ownership and power. This aspect of presenting a '21st century business model' for family firms may be counter-intuitive to the more generally accepted perception of the business model as a representation of the developmental structure of the firm from past, present and future projections (Al-Debei & Avison, 2010; Doganova & Eyquem-Renault, 2009; Gamble, Brennan, & McAdam, 2017), as opposed to a mere snapshot in time.

A recent empirical study on business models by Demil et al. (2015) sought to counteract this professed limitation by espousing a longitudinal perspective. Indeed, some family firm researchers have conducted their empirical work with the combined considerations of entrepreneurial motivations and the evolution of the business model of the family firm (Karra, Tracey, & Phillips, 2006). Moreover, Le Breton-Miller and Miller (2009, p. 1186) propose that prevailing family traditions epitomize a significant contributory factor in how a family firm can "preserve and strengthen a functional business model and maintain its integrity across long intervals".

There are isolated cases of scholars taking tentative steps towards formulating theoretical models for family firms, although these models focus predominantly on the sustainability aspect of the firm from either a static or change orientation (Danes, Rueter, Kwon, & Doherty, 2002; Stafford et al., 1999). However, no studies to date have hitherto endeavoured to specifically conceptualize, through empirical investigation, the business model construct of TEF firms (Sharma et al., 2015). Without establishing how the business model of these unique entities is oriented and interrelated with the ongoing family unit, it is impossible to consolidate our understanding of this emerging research area and its progression within the broader fields of entrepreneurship and family business research.

2.2 Theorizing the business model construct for TEF firms

According to Doganova and Eyquem-Renault (2009), within entrepreneurial contexts, the business model functions as a flexible mix of narrative and calculative devices that, in circulating across heterogeneous actors, actuate a performative role of network building. They ultimately argue that the fundamental question is not what is a business model but rather what does a business model do? In order to answer this question, we sought to establish, at least theoretically, how the functional dimensions of a business model construct from an entrepreneurial perspective apply to TEF firms. Due to the infancy of the TEF field, there are no studies yet on the business model construct of TEF firms that we can directly draw from. Therefore, a total of 14 business model frameworks from an entrepreneurial perspective were identified in the extant literature and analyzed. In order to be classified as a suitable framework for the analysis, each had to be proposed from an entrepreneurial perspective and state a minimum of two distinct constituent elements. Using Gioia et al.'s (2013) analysis technique of identifying individual concepts/themes and aggregate dimensions, which is appropriate for research areas that are in their infancy, each framework was then deconstructed into their constituent elements and then reconstructed into aggregate business model dimensions (Kühn, Bayer, Junginger, & Karagiannis, 2003). Saturation was reached when the analysis resulted in the identification of 18 distinct entrepreneurial business model elements that were each supported by at least two frameworks. Therefore, further analysis of additional frameworks was not warranted. The results are charted in Table 1 below, which depicts how the grouping of these 18 elements into common aggregate dimensions through the Gioia et al. technique has established five distinct (yet interrelated) business model construct dimensions for entrepreneurial firms. They are: 1) Stakeholder; 2) Value; 3) Resource; 4) Infrastructure; and 5) Finance. Each dimension will now be discussed, in order to infer theoretical insights applicable to TEF firms.

[Insert Table 1 here]

2.2.1 Stakeholder dimension

In the entrepreneurship literature, Doganova and Eyquem-Renault (2009) assert that the business model, which they argue functions as both a narrative and calculative device, permits entrepreneurs to bring their innovation and its supporting network into existence. Due to this perceived expansive and flexible function of the business model, they argue that it transcends across heterogeneous actors, thus facilitating network construction around this new venture. Hedman and Kalling (2003) re-conceptualize this sub-construct as a ‘Longitudinal Dimension’, which they suggest integrates more negative aspects of the stakeholders such as their cognitive and social limitations. In the family business literature, Carlock and Ward (2001) caution that conflict can infiltrate regular interaction patterns within family firms when issues such as sibling rivalry and generational competition are exacerbated by close working proximity. According to Habbershon et al. (2003), existing theory is indicative of how tri-directional interactions between the business entity, the family unit and individual members generate systemic conditions that are unique and impactful on performance outcomes. It has been asserted that this complexity of the stakeholder structure of family firms should be matched by a similarly complex governance structure, and that this can be facilitated by commissioning formal controls that diminish opportunism (Mustakallio, Autio, & Zahra, 2002). However, this proposition may prove problematic in practice because, as noted by Morck and Yeung (2003), opportunism is perpetuated by family control hegemonies in which unilateral family votes supersede those of external stakeholders on issues such as succession.

2.2.2 Value dimension

Within entrepreneurial contexts (including the TEF context), George and Bock (2011) conceptualize the value structure dimension of the business model as not only the processes of value creation and value capture through an opportunity enactment lens, but their structuration through a system of definition, support and control. For Amit and Zott (2001, p. 494), the value dimension represents an even more central role, in which the business model construct itself is portrayed as a “unifying unit of analysis that captures the value creation arising from multiple sources”. In the family firm literature, the conceptualization of a value structure is a matter of multifariousness and contention because the internal value systems of the firms and the family can be in direct opposition (and often conflict) due to the unique values associated with these distinct yet interrelated social institutions (Craig, Dibrell, & Davis, 2008; Lansberg, 1983). The significance of establishing the changing values of TEF firms is underscored by Chirico et al. (2011), who suggest that a more enhanced understanding in this regard may assist in the selection of family firm franchisors that exhibit a shared perspective and can therefore fully support the business activity. Vallejo (2011) has developed a theoretical framework that explicates the reasons for the flow of value from family to firm culture, stating that it may be attributable to the institutional resources of the TEF firm. Stafford et al. (1999) did take tentative steps towards exploring this relationship by referring to the model of family resource management by Deacon and Firebaugh (1988) and describing how this systems framework accentuates environmental mechanisms that influence family resource behaviour. However, the full extent of the intricacies of the relationships between and across business model structures for TEF firms has not been ascertained and clarified in the extent literature to date.

2.2.3 Resource dimension

The discourse analysis by George and Bock (2011, p. 100) provides an integrative framework for understanding business models in the transgenerational entrepreneurship context. Within this, they describe the resource dimension as the "organizational configuration of resources, capabilities, and activities independent of any subjectivity or objectivity derived value for those resources". In adherence with the resource-based view (RBV) of competitive advantage, it is argued in the family business literature that family firm processes or phenomena that allegedly afford this advantage can be identified as resources and assessed by using performance criteria for creating sustainable competitive advantage (Habbershon & Williams, 1999; Sieger, Zellweger, Nason, & Clinton, 2011). It has also been suggested that the demographic approach to the theorizing process of the family business field, which assumes the heterogeneity of family firms, seeks to identify the extent to which distinct family involvement dimensions alter resources (Basco, 2013; Dekker, Lybaert, Steijvers, Depaire, & Mercken, 2013). Stafford et al. (1999) draw on their theoretical model of family firm sustainability to perceive family resources as not a stage in a more encompassing process but rather a simultaneous representation of both family structure and processes. Accordingly, there may be a profound requirement for the assimilation of family and firm interests in the strategic planning processes of the family firm due to its welfare representing both financial resources as well as family values (Carlock & Ward, 2001).

2.2.4 Infrastructure dimension

Amit and Zott (2001), whose proposition of a business model construct is centralized around value creation drivers, propose that this value creation can be conceived through business opportunity exploitation, as a result of the business model depicting the design of structure and governance. This point underscores the potentially correlational role of the infrastructure dimension with other key dimensions such as value (and in particular value creation). Interestingly, Demil and Lecocq (2010, p. 231) take this dimensional interrelation a step further in their proposition of an 'organizational structure' as one of three core components of an entrepreneurial business model construct. Their description of this dimension incorporates aspects of both stakeholder and resource dimensions by suggesting that it encompasses "the relations it establishes with other organizations to combine and exploit its resources". The family firm literature appears to indicate that the matter of family firm infrastructure can denote more of a complex issue due to how family firm heterogeneity can lead to substantial differences in the comprehensiveness of their governance structures (Björnberg & Nicholson, 2012). This should be considered in parallel with the family firm's ownership structure, which according to Breton-Miller et al. (2004, p. 317) is strategically important for determining "who might be acceptable as a suitable successor, both in terms of talents and in terms of kinship and personality." There also remains some ambiguity surrounding the generational aspect of the ownership structure in terms of how it evolves longitudinally. For instance, Denison et al. (2004, p. 64) suggest a negligible change due to founder influence, which they argue "often lingers past his or her lifetime and into succeeding generations without regard to ownership structure".

2.2.5 Finance dimension

Chesbrough and Rosenbloom (2002, p. 533) propose key functions of an entrepreneurial business model that directly and indirectly adhere to a financial dimension. Explicitly, they state that one function is to "estimate the cost structure and profit potential of producing the offering, given the value proposition and value chain structure chosen". In the family business literature, it has been suggested that family firms should align financial expectations – especially those related to compensation, dividends and stock ownership – with the realities of business (Carlock & Ward, 2001). According to Sharma et al. (2001, p. 25), financial benefit is "one of the main stakes of all stakeholders in a family firm." Their rationale for this statement is attributable to successors in family firms, who will be involved in a significant number of financial transactions. However, more research into the financial dimension of family firms is needed – particularly in relation to what extent the family firm is financed by the family itself, and how much of business profits in return are fed back into the family (Stafford et al., 1999).

3. Methodology

The methodology for this study is qualitative and interpretive in nature, involving a longitudinal case study-based data collection method in relation to four TEF firm cases. In-depth primary case interviews (n=33), follow-up interviews (n=15) and observations (n=25) (e.g., plant/office tour, family dinner, corporate presentation, family council meeting) are conducted during four data collection periods in 2012, 2013, 2014 and 2015, supplemented by archival data (n=390) from 1916-2016. Our sampling is purposive, in which the four TEF firms are selected so as to represent an eclectic range of industries and generations, in order to reflect the heterogeneity of family firms (Jaskiewicz & Dyer, 2017). The four firms vary in terms of industry sector (beverage products, farming services, timber products and water treatment respectively), size (72 – 530 employees) and number of family generations (2nd – 7th generation), but all share the same geographic location in Western Europe (Ireland), thus limiting external variation. Although there is no optimum number of cases per multiple case study design, Eisenhardt (1989) endorses four to ten cases as fewer than four would sustain difficulties in formulating complex theories, whilst greater than ten would suffer from superfluity or convolution of data. Consequently, four cases are deemed appropriate for the current study in order to observe replication logic and, in particular, to pursue distinctive patterns of theoretical replications (Yin, 2015). Our unit of analysis is the TEF, as defined by the following criteria: (a) A firm that is sufficiently large as to represent the family's principal income and, consequently, ensures that the management personnel within the family is monetarily driven by entrepreneurial engagement (Jaskiewicz et al., 2015); (b) The family should seek to impart the firm to the succeeding generation, an aspect that is essential for transgenerational control intentions; and (c) The firm's entrepreneurial characteristics and processes transpired during and after the founder's lifetime (Hamilton, 2011).

The appropriateness of case studies in ascertaining relevance and understanding of unexplored phenomena is acknowledged by other scholars (Harris, 2000; Lettl, Herstatt, & Gemuenden, 2006; Mkansi & Acheampong, 2012), and in particular by family firm scholars (Cramton, 1993; De Massis, Chua, & Chrisman, 2008; Getz & Petersen, 2005; Hall, Melin, & Nordqvist, 2001). For example, it has been suggested that longitudinal, in-depth case studies represent a legitimate and interpretative approach to fieldwork and analysis for exploratory research into family firms (Hall et al., 2001). Moreover, the application of case study methods in TEF research is advocated by De Massis and Kotlar (2014, pp. 15-16), who describe them as a "powerful methodology that can be used in a rigorous, creative and wide-ranging variety of ways to advance family business research."

3.1 Data collection

3.1.1 Archival records

Our decision to incorporate archival data for this study is supported by De Massis and Kotlar (2014, p. 21), who state that "historical records can be very useful for family business researchers who are interested in long-term trends (e.g., generational transitions over lengthy periods of time)". In becoming familiarized with our four selected case firms, we collected hundreds of items of evidence that were either publicly available or provided by the families. A total of 390 archival sources dating back a hundred years to 1916 were collected from media articles, corporate reports, video/television/radio recordings, corporate presentations, government documents, and official filings. Furthermore, we cross compared the records with interviews and observations to confirm findings, reach consensus, and achieve triangulation, thereby establishing the credibility of our findings (Yin, 2013). See Table 2 for a detailed review of the various archival sources for each firm and from each decade.

3.1.2 Interviews

Our semi-structured primary interviews, averaging 49 minutes in duration, were conducted with 33 participants across the four firms over four data collection periods (2012, 2013, 2014 and 2015). Fifteen follow-up interviews were also conducted over these data collection periods; thus, the total number of interviews conducted was 48. The 33 primary interviews were conducted using our interview protocol (see Appendix A), with sample interview questions including: “How strategic or intentional are the business models established in order to grow and act entrepreneurially?” and “What are the most important entrepreneurial outcomes to the ownership and management of the business (i.e. new business models)?” The interviews were transcribed verbatim, resulting in 545 pages of transcript from approximately 27 hours of tape. In addition, we added further probing questions that focused on the business model construct. The 15 follow-up interviews were conducted during telephone conversations, meetings and conference discussions, which served to clarify and validate the primary interview data. See Table 2 for a detailed breakdown of the interviews that were conducted with the four firms over the four data collection periods.

3.1.3 Observations

In order to attain within-method triangulation (Bekhet & Zauszniewski, 2012), we conducted observations as our third data collection method. In total, 25 observational instances, ranging from family council meetings to plant tours, were observed over the four data collection periods in 2012, 2013, 2014 and 2015. As advised by Yin (2013), the data collection procedure for observations required the researchers to record the time and location, the participants that were present and a summary of the behaviours observed. See Table 2 for a detailed breakdown of the observations instances.

[Insert Table 2 here]

3.2 Data analysis

The analysis of the interview data was carried out by two members of the research team who were both highly familiarized with the case study firms and data sets, with a third senior team member acting as a referee, thus mitigating for any potential coding disagreements whilst establishing inter-rater reliability of the qualitative data analysis (Armstrong, Gosling, Weinman, & Marteau, 1997). This resulted in an interrater agreement of 0.74, which is above the proposed threshold of 0.70 (Kreiner, Hollensbe, & Sheep, 2009). The research team began by compiling all textual data including interview transcriptions, field notes, observations and archival evidence on each of the four firms. As a result of this process, a comprehensive database was formed which allowed for the subsequent analysis framework to be implemented.

On account of the above methodological decisions, an inductive, data-driven, four-phase constant comparison analysis technique was conceived and implemented for the current study. This was operationalized by importing the transcriptions of the interview data as internal sources within NVivo 10, which was chosen as it is widely considered the standard computer-aided qualitative data analysis software for analyzing qualitative data (Bazeley & Jackson, 2013; Gibbs, 2002) – especially when a constant comparison analysis is used (Leech & Onwuegbuzie, 2011). When all of the archival data sources had been collected, they were also imported into NVivo as internal sources, as the use of NVivo to analyze literature sources is also advocated in the literature (Di Gregorio, 2000). Each internal source was then iteratively analyzed through NVivo, in order to facilitate the multi-level coding procedure. When all of the sources had been coded, a range of first order and second order nodes had been created. The four phases of our analysis framework are outlined below in Table 3.

[Insert Table 3 here]

Phase one: Category analysis. This phase involved the reduction of raw interview data (DeCuir-Gunby, Marshall, & McCulloch, 2011); the creation of thematic categories (Edhlund, 2011) in order to provide aspects to describe, explain and/or compare (Ryan & Bernard, 2003); the construction of a table to show links between data and results (Elo & Kyngäs, 2008); and the writing up of category findings. This analysis phase resulted in the identification of five categories, as shown in the data coding structure in Figure 1 below.

Phase two: Thematic analysis. This phase consisted of examining the category data from Phase One; theorizing any obvious themes (Edhlund, 2011); assembling a table to demonstrate links between the data and results (Elo & Kyngäs, 2008); revising the model of the table as new categories materialize inductively (Zhang & Wildemuth, 2009); writing up the category / theme findings; comparing themes across data sources (DeCuir-Gunby et al., 2011); and rechecking coding consistency (Zhang & Wildemuth, 2009). This analysis phase resulted in the identification of sixteen themes within the five categories, as shown in the data coding structure in Figure 1.

Phase three: Sub-thematic analysis. This phase involved iterative reading through the category data from phase one and thematic data from phase two, in order to confirm the quality of the codes (DeCuir-Gunby et al., 2011); the classification and coding of sub-themes; combining or organizing sub-themes into reduced numbers of categories (Hsieh & Shannon, 2005) and hierarchical constructions (O'Neill, 2013); the formulation of a table to illustrate any links between the data and results (Elo & Kyngäs, 2008); the writing up of category / thematic / sub-thematic findings; the comparison of theme / sub-themes across data sources (DeCuir-Gunby et al., 2011); and the rechecking of coding consistency (Zhang & Wildemuth, 2009). This analysis phase resulted in the identification of fifty-nine sub-themes within the sixteen themes, as shown in the data coding structure in Figure 1.

Phase four: Reliability analysis. This phase consisted of summarizing the associations between the data and results (Polit & Beck, 2004); evaluating the reliability via cross-referencing the data against the physiognomies of participants (Elo & Kyngäs, 2008) or the triangulation of data sources (Hsieh & Shannon, 2005); writing up the findings; achieving a balance between authorial text and authentic citations (Elo & Kyngäs, 2008); relating the findings back to the literature; and drawing logical conclusions from the findings.

[Insert Figure 1 here]

4. Findings

The findings, as derived from the interviews and observations conducted over the four data collection periods (2012-2015) and archival data from a 100-year period, will now be presented for each of the four case study TEF firms. Given that the aim of this paper is to explore the intergenerational development of TEF business models – the findings are structured according to the four TEF firms and are chronologically presented in terms of generations (henceforth – G1, G2, etc.). Codes are provided for the interviewees, consisting of each candidate's TEF code (A-D) and position code as detailed in Table 2. (For example, B-GM2 for the second General Manager of Firm B).

4.1 Firm A

Our findings show that the interrelations between the five business model construct dimensions of Firm A in G1 worked together without any clearly defined orientation; however, it began to be value-oriented by its G2 phase, with a particular emphasis on brand value. This was confirmed by recent archival data from advertising campaigns that identified the firm as the official sponsor for the national Athletics Association of their country. The interface between organizational and family value was also alluded to when A-SMD discussed in her interview the connections between brand and firm value: "I know what is the right thing to do because it goes back to the values of the family." This aspect of familiarity as an interconnecting variable between organizational/brand value and family value was independently raised by A-C: "the other cultural values that I might expect in the family, […] knowing people around the place, taking a more long-term view, all of those I think are intact", and was verified by 2012 observations during office tours, in which family portraits confirmed the firm's long-term contributions to the local community.

The business model construct of Firm A was still value-oriented throughout its G3 and G4 phases and, although it was driven by all five construct dimensions, it was subject to some increasingly influential infrastructural changes that resulted in a dual orientation with value by G4. According to an interview with A-MD, much of this infrastructural shift was instigated by A-C from G3, which led to the firm "widening [Firm A]'s distribution range.

Starting by selling to other shops, [Firm A] quickly expanded to the suburbs. Simultaneously, [A-C] started to source [beverage] from East Africa”. This was corroborated by observations during a 2014 office tour, in which the research team were shown maps of their distribution across the decades. Furthermore, A-FD, a G4 non-family Finance Director, advised on how their current simplistic approach to management, including the preclusion of family group discussions on business decisions and ownership, had not affected the values of the organization: “we don’t mend the structure and culture of the [beverage] business”, thus demonstrating a correlation with the value dimension theme of value constancy. This enduring emphasis placed on value of the family was evident in family council meeting observations during the final 2015 collection period, as well as from 1984 archival data revealing that A-C proscribed the transitioning of the firm outside of the family circle whilst he was the G2 MD. The agreement of core components of brand value, a more recent development in G3 and G4, was highlighted by A-SMD as an essential aspect of their value structure, on account of the multifariousness of the brand: “we are going to try and decide which are the key [components] that are important for the brand going forward, […] everything else can flow from it”. This reaffirms 2013 observations at a corporate presentation, as well as G4 archival firm data from 2009, in which it was stated that the firm had been experimenting with different brand approaches to appeal to a younger demographic.

As a summary of the Firm A results, Figure 2 below visualizes the five interrelated dimensions of the business model construct of Firm A as it transitions across generations. The arrows represent the direction of influence between the construct dimensions and thick box borders indicate how the dimensional interrelations are oriented at each generational phase.

[Insert Figure 2 here]

4.2 Firm B

The G1 business model construct of Firm B was not only driven by its five business model dimensions collectively but was also oriented towards the financial dimension, due to the implications of the firm’s loss of capital and subsequent re-evaluation of its finances. An interview with B-MD revealed an innovativeness in their approach to the financial dimension of their business model by engaging in activities that were not only cost intensive but also financially precarious: “In terms of innovation […] it’s a big expense and hopefully it will pay off but you know, there is big risk right there.” According to an interview with B-OD, their financial dimension had to be re-evaluated during their G1 phase when they invested approximately €600,000 into an unsuccessful legal challenge against an allegedly patent-infringing competitor, which then went on to dominate the market. He stated: “We lost a lot of ground, we lost a lot of money, and then it took a long time to rebuild that cash and those reserves.” There have also been suggestions by some interviewees that, on account of B-C’s more traditional approach to financial investment, the distinction between personal and professional spending is not always apparent. According to an interview with B-FA1: “B-C sometimes has quite an old attitude where he sees that [Firm B]’s money is his money as opposed to the company money.” Firm B’s position on product diversification appears to be a long-standing and cross-generational one as 1991 archival data presents the company’s then-MD discussing diversifying into new market sectors as part of their G1 strategy. B-C also adhered to the financial focus of resource management within their business model construct, although he advanced the more short-term profit orientation of the ‘follow the money’ approach by stating that “value for money is where it’s at. You know what I mean - return on investment, not putting the house on the line.” This approach appears to represent a paradigmatic shift from their previous approach in G1, as suggested in historical archival data that documented the company’s simultaneous remodelling of their entire product range for the 1991 season.

In the G2 business model construct for Firm B, strong interactions and drivers from all five construct dimensions were evident. It was also apparent from early collection period observations and interviews that, by G2, the construct had shifted to a strong resource orientation, in which aspects of its network resources, market position and scale economies influenced other business model dimensions of finance, stakeholders and value. Recent 2015 archival data describes the company as one of the country’s foremost providers in its field due to its network resources. B-C stated that Firm B currently (G2) derives economies of scale as a corollary of the firm’s strategic decision to build upon its recognized stable market position, as opposed to any radical business model innovation strategy. This echoes 2013 archival data that discusses their G2 launch of three new products – all within their core market. However, observations during plant tours in 2013 and 2015 attest to a significant reduction in the firm's inventory, thus implying a less-is-more approach to attain greater efficiency. B-C acknowledged both the value benefits and self-imposed resource pressures of this approach: "[i]t's about squeezing your resources, sweating your resources." He also emphasised that he was not averse to diversification and that he was prepared to consider more drastic strategic approaches to their business model development. In fact, geographical diversification was evident in observations at a 2014 corporate presentation, in which it was stated that one of their biggest markets was South Korea. In the interview with B-FA1 it was suggested that a prerequisite for value creation may be the development of a group structure that bypasses family tensions by offering productivity through autonomy. Speaking of B-C, he commented on his current (G2) group structure aspirations in which "his children can be gainfully employed doing something that's really productive, that adds value to the overall group." This important aspect was also raised at a 2015 family dinner, in which observations revealed in-depth discussion of succession plans and the resolution of inter-family issues over the past 3-4 years. B-FA2 raised the issue of value dependency on the MD by suggesting that "if [B-C] isn't there to drive the business, to maximize value, they'll have to sell it soon." However, he also highlighted the significance in their G2 business model of collective value drivers by stating that their employees "look at it as a family company and […] they contributed to it on that basis."

Figure 3 below diagrammatically represents the five interrelated dimensions of the business model construct of Firm B as it transitions across generations. The arrows represent the direction of influence between the construct dimensions and thick box borders indicate how the dimensional interrelations are oriented at each generational phase.

[Insert Figure 3 here]

4.3 Firm C

The first two generations of Firm C saw their business model construct transcend from a stakeholder orientation to a stakeholder-influenced infrastructure orientation, whilst also embracing the other constituent dimension influences. From their earliest days in G1 (1913-1942), a strong and complex relationship was cultivated with their external stakeholders. This is evidenced in historical archival data (the firm's account books dating from 1913-1942), which demonstrates that in their G1 phase they kept detailed records of an eclectic mix of customers. Their G2 phase was categorized by regular resource-based activities, combined with strong influences from the other construct dimensions under an infrastructural orientation. For instance, according to a 2013 book that provides a hundred years of archival data, a major infrastructural change was enacted during the firm's G2 business model phase when a new Mill Manager introduced new and more streamlined management structures, modernized the mill and grew the company over a 34-year period (into their G3 phase).

By their G3 phase, the business model of Firm C had shifted again to a construct that exhibited stronger influences from all five dimension interrelations, yet now with a dual infrastructure-resource orientation. The resource dimension was now influenced by finance and knowledge from the family infrastructure and was in turn affecting the stakeholder dimension. This was apparent in observations at a 2014 family council meeting, which revealed that non-family management were now being used to mentor next-generation successors. A key recent development in their G3 business model is how the senior management is manifested as two Managing Directors. C-MD1 commented on the idiosyncratic attributes of this situation but observed that "for the students and for other families […] it seems to work very well". In terms of mutual consultation for decision making, C-MD1 advised that this depends on the size and impact of the decision, as well as its relevance to their individual areas of expertise: "if it's a sales decision or finance I am very careful in what he has to say." C-MD1 espoused an alternative approach to the resource dimension of their G3 business model by discussing the benefits of insourcing resources from within the overall family structure. This reflects 2012 observations at a function hosted by the company, in which each family member was congratulated on their contributions to the firm. In the interview with C-MD1 it became apparent that he regarded financial drivers and proactivity as the two most important aspects of resource management within their business model construct. He iterated twice that “you must follow your money” and also cautioned that if “you don’t get in and actively get involved in managing resources, it doesn’t work.” It was also evident from early observations and 2013 archival data that knowledge resources have become central to their business model construct in G3. In 1998, the growing impact of computers and IT on the wood processing industry required continuous upskilling of staff to operate the technologically advanced machines. This was compounded by the arrival of a new family member employee, who upskilled through training courses prior to entering the business. The infrastructural dimension of their business model construct became a critical element for other reasons during G3 in terms of restructuring after a 2004 fire razed the plant to the ground. According to an interview with C-MD1: "We approached the workers the next morning and we asked 30 people to relocate to Fermoy so we could run that plant on a double shift." Finally, during their G3 phase, C-MD1 explained how they also had to ensure restructuring on account of external market forces: “We had to fight to survive week on week, trying to restructure the business, which we did thankfully, to get ourselves focused on exports.”

Figure 4 below diagrammatically visualizes the five interrelated dimensions of the business model construct of Firm C as it transitions across generations. The arrows represent the direction of influence between the construct dimensions and thick box borders indicate how the dimensional interrelations are oriented at each generational phase.

[Insert Figure 4 here]

4.4 Firm D

Our interview and archival data suggest that, in Firm D’s G1 stage, the business model construct - as driven by its five interrelated dimensions - was clearly oriented towards the resource dimension, in which time resources in particular played a key role in their business model development. D-CD recalled in his interview: “My father [would] come home, have his dinner and cover the kitchen table with purchase invoices […], stuff that he didn't get to do during the day." Quantity and quality aspects of the resource dimension of the business model were addressed by D-OM1, who expressed that they hold the hegemony in the local market, surpassing even the world leader, on account of the fact that “in terms of resources, we certainly have more”. This point was reaffirmed during observations at a 2013 corporate presentation, in which it was discussed how their business evolved in G1 to become the local market leader.

Our observations and interviews from across the collection periods indicated that, by the time firm D had reached their G2 phase, their business model construct was still resource oriented, through insufficiencies regarding their time resources and allocations on account of the other four interrelated construct dimensions - notably financial and infrastructural influences. This was evident during observations at a 2015 family council meeting, when it was expressed that the firm required more resources as they struggled to scale their operations. There was also now a dual orientation with the stakeholder dimension, which emerged as significant due to diversified involvement and its implications on value retention. D-OM1 conceded the current (G2) presence of a “high level of autonomous management by the people who are coming up, almost all non-family”. However, he acknowledged this as a disadvantage for the firm in terms of cohesion, on account of their minimalistic interaction and involvement with other areas. The stakeholder dimension of their current G2 business model is more intimate and transparent than more multi-generational family firms. According to data from an interview with D-MD1: "There is very little that goes on at this stage that the shareholders don't know about." There was also evidence of reliance on knowledge resource accumulation through internal stakeholders as part of a more inward-focused approach to business model development. D-MD1 commented: "State contracts were a major win for us, […] we know the industry, regulation etc., so well now." D-MD2 discussed their diversification into the UK market in their G2 business model phase and conceded that “that business in England was haemorrhaging money and that was a problem because it was draining […] four days a week of my time and other people’s”. Incidentally, 2014 archival data also details how the company now exports to over 30 countries, a point confirmed in 2013 observations during an office tour, in which a corporate map of their diversification, growth and scale was observed. D-MD2 raised the issue of insufficiency of resource allocation but suggested that, in their case, it was intentional as they outsourced an aspect of their operations in which they had achieved an insufficient level of expertise. He explained that “[w]e weren’t giving it all the resources it needed because we got the larger construction, we got the operative, we got the pump sales”, thus demonstrating how infrastructure and finance dimensions are impacting on the resources in the current G2 business model construct.

Figure 5 below diagrammatically represents the five interrelated dimensions of the business model construct of Firm D as it transitions across generations. The arrows represent the direction of influence between the construct dimensions and thick box borders indicate how the dimensional interrelations are oriented at each generational phase.

[Insert Figure 5 here]

5. Discussion

5.1 Stakeholder dimension of TEF firm business model construct

From our initial business model framework analysis in Table 1, it transpires from multiple literature sources that the stakeholder dimension is important for entrepreneurial business model constructs in terms of target market (Chesbrough & Rosenbloom, 2002; Magretta, 2002; Teece, 2010) and client benefits (Magretta, 2002; Teece, 2010). Our empirical findings demonstrate that this dimension is strategically significant to TEF firms as three of the four studied case study firms feature generational phases of their business model construct that are either oriented towards the stakeholder dimension or towards another dimension that is correlated with stakeholders (or in some cases both within the same firm).

One interesting finding from our case study interview data is that, when the G2 TEF business model has a strong resource orientation, this often correlates with significant implications for the stakeholder dimension – either in a dual orientation or through secondary effects. For instance, when employees from different levels within the TEF lack clear understanding of how to establish communication networks, this is often compounded with interaction elements that can be improved. The entrepreneurship literature suggests that if the resource aspects of a business model construct are not sufficiently coordinated with technological creativity then internal and external value may not be created (Teece, 2010). Our finding thus augments the literature by providing insights into how communication networks and interaction within stakeholder structures may be contingent on the development of knowledge resources within the resource dimension of G2 TEF firm business models.

It is evident from the analysis of the longitudinal case study data that G2 TEF firm employees' longevity within the company may afford them a certain level of expertise that the firm management may respect and wish to continue maximizing through an informal management style. This insight provides understanding into the potential of the stakeholder dimension to explicate how business model performance, as proposed by George and Bock's (2011) theoretical model in relation to entrepreneurial SMEs, manifests in TEF firms. Interestingly, it appears that this combinative approach of informality of management style and integration of synergistic communication may be effectively reversed when external personnel are introduced into the senior management sphere of the G2 TEF firm. This insight essentially challenges the statement by Morck and Yeung (2003) regarding unilateral family control hegemonies outweighing external stakeholder influence. However, we find that this may represent a disadvantage for the TEF firm due to the lack of cohesive unit on account of the associated minimalistic interaction and involvement with other areas of the TEF firm. This insight demonstrates that, despite the theoretical argument by Habbershon et al. (2003) in relation to family firms in general, we now know that tri-directional interactions between internal and external stakeholders of TEF firms do not generate systemic conditions that have an invariable positive affect on performance outcomes.

5.2 Value dimension of TEF firm business model construct

The value dimension is determined to be central to the business model construct of entrepreneurial firms as deduced in our framework analysis in Table 1, with multiple literature frameworks citing the particular elements of value proposition (Amit & Zott, 2001; Chesbrough & Rosenbloom, 2002; Demil & Lecocq, 2010; Hedman & Kalling, 2003; Magretta, 2002; Mason & Spring, 2011), value structure (Chesbrough & Rosenbloom, 2002; George & Bock, 2011; Petrovic, Kittl, & Teksten, 2001) and value creation (Amit & Zott, 2001; Doganova & Eyquem-Renault, 2009; Shafer, Smith, & Linder, 2005). Our empirical case study analysis has revealed that, for TEF firms that maintain a more prominent value dimension domination, even a dual orientation with infrastructure in later generations does not appear to affect its resilience. This notion finds support from the non-family entrepreneurship literature, in which it is determined that the streamlining of inventory management and the simplification of transactions can still result in derived value for both the organization and the customers (Amit & Zott, 2001). From a TEF perspective, our findings also suggest that if they implement a more simplistic approach to management, including the preclusion of family group discussions on business decisions and ownership, this is shown not to affect the values of the organization. These findings build upon Vallejo's (2011) theoretical framework by offering new insights into what we know about the reasons for value flow from family to firm culture within TEF firm business models.

One key finding that is consistent across all four case study firms is that value does not play a significant role at all in the G1 business model construct of the TEF. Instead, value becomes embedded into the business constructs from G2 onwards. For instance, the aspect of familiarity as an interconnecting variable between organizational/brand value and family value in G2 was independently raised by multiple interviewees. These findings advocate and build upon the discussion of Craig et al. (2008) by enhancing our knowledge of the distinctions and associations of business-value systems and family-value systems within the value dimension of TEF firm business models. Furthermore, the agreement of core components of brand value was highlighted in interviews and observations as an essential aspect of the TEF firm value dimension in G3 and G4, on account of the multifariousness of the brand. It therefore appears that agreement across familial hierarchies within the stakeholder dimension may directly affect brand value componential cohesion within the value structure of TEF firm business models in their later generations. The significance of these findings is attested by Sinfield et al. (2012), who accentuate the importance of business model component identification as a facilitator for exploring innovation potential.

Another interesting finding from our case study is that, for most TEF firms, there is a trend that in G2 – G4 the value dimension is habitually influenced by the dimension to which the business construct is oriented towards within that generation. For instance, where later generation TEF firms enact self-imposed pressures to maximize their resources, it is with a strategic view to facilitating value generation. This insight finds support from Amit and Zott's (2001, p. 494) perception of an entrepreneurial business model construct as a "unifying unit of analysis that captures the value creation arising from multiple sources". However, our findings advance this concept from a TEF perspective by suggesting that value should perhaps not be perceived as a business model construct orientation for TEF firms in itself, but more a desired end result of specific construct orientation at each generational phase.

5.3 Resource dimension of TEF firm business model construct

The findings from our business model framework analysis in Table 1 indicate that, according to multiple literature sources, the resource dimension is strategically significant to entrepreneurial business model constructs in relation to products (Hedman & Kalling, 2003; Teece, 2010), technology (Mason & Spring, 2011; Teece, 2010) and resource structuration (George & Bock, 2011; Petrovic et al., 2001). Our empirical findings demonstrate the significance of the resource dimension of the TEF business model construct as three of the four case study firms adopt a resource oriented business model in at least one of their generational phases.

We observe from multiple interviews and archival data that, although some TEF firms strategize their longevity to maintain a monopoly over resources and consequently turnover in G1, their efforts to sustain this market position in G2 whilst managing the allocation of resources to other construct dimensions represent an incremental strain on their resource structure. The value benefits and self-imposed resource pressures of this approach should be acknowledged, although these G2 TEF firms should not become averse to diversification and should instead be prepared to consider more drastic strategic approaches. Although Carlock and Ward (2001) discuss in general terms the vulnerability of small firms from resource limitations and market changes, we now understand that with TEF firms this can result in tangible drains on the resource dimension of their G2 and G3 business model construct. It also transpires that TEF firms can effectively counteract their own resource drains through the prioritization of both value opportunities and challenges, thus providing new insights into the relationship between resource and value dimensions of TEF firm business models, and how associated resource pressures can be managed in G2 TEF firms through sustainability goals. This enriches the more generalized body of literature on entrepreneurial business modelling, in which the worth of resources is said to be established based on justificatory measurement instruments that are structured in terms of what can be of value (Doganova & Eyquem-Renault, 2009; Stark, 1996). Our findings in relation to the integration of sustainability goals into the resource dimension of the TEF firm business model construct also build upon the theoretical model of family firm sustainability by Stafford et al. (1999) by demonstrating that, with TEF firms, the constructs of family and firm resources are not mutually exclusive but coalesced through ideals of family risk mitigation and sustainability assessment.

Another key insight from our findings is that, as the resource dimension becomes increasingly interconnected with other dimensions in later generational phases of the TEF, the construct of the business model tends to manifest a dual-orientation between the resource dimension and either the infrastructure dimension or the stakeholder dimension. For instance, both interviews and observations suggested that an alternative approach to the resource dimension of the TEF business model can be adopted in G3 by discussing the benefits of insourcing resources from within the overall family structure. This resonates with literature discourse on the congruency of a 'resource structure' and core capabilities as commonalities within the entrepreneurial business model construct (George & Bock, 2011). However, despite the family-oriented internal resource pool or knowledge and expertise, TEF firms often remain entrepreneurial across generations through the innovative ideas and processes driven by the senior members of the firm. Our results provide new insights into the relationship between resource and stakeholder dimensions of the TEF firm business model construct because, although George and Bock (2011) suggest that these structures interrelate to invariably formulate and capture opportunity-centric value for entrepreneurial SMEs in general, our findings highlight both opportunities and risks associated with knowledge transfer during internal/external resource pooling for TEF firms in G2 and beyond. They also contribute to the demographic approach towards the theorizing process of the broader family business field, by expounding what we understand about how family involvement dimensions alter resources for TEF firms (Basco, 2013; Dekker et al., 2013).

It emerged from the four-year interview data that TEF firms may not need to maximise their G2 resource allocation because they possess alternative competitive attributes that their main competitor may not possess. Whereas other entrepreneurship scholars argue that the firm should circumvent internal resource allocation in order to manage external disruptions (Christensen, 2013), we find that it is in fact internal disruptions from the TEF's own competitive advantage that preclude the need for the maximization of resource allocation. Therefore, we now appreciate that this approach of outsourcing weaker operational areas whilst diverting resources to other management areas may represent a strategic opportunity for TEF firm business model development. This competitive advantage aspect builds upon the conceptualization of a resource that encompasses competitive family firm phenomena, as advocated by Habbershon and Williams (1999).

5.4 Infrastructure dimension of TEF business model construct

The infrastructure dimension is cited in the majority of the entrepreneurial business model frameworks analyzed in Table 1, with multiple literature sources highlighting the particular significance of infrastructure elements associated with capabilities (Demil & Lecocq, 2010; Hedman & Kalling, 2003). Although our archival and interview data suggests that a greater infrastructure can be developed in earlier generational phases through global market positioning, our findings demonstrate that the infrastructure dimension of TEF firm business models, like the resource dimension, becomes progressively significant with each generational transition. This is especially salient for TEF firms in which it is not until G4 that their business model construct is oriented around the infrastructure dimension. The key finding from both interviews and observations is that infrastructure not only becomes more central to the later generation TEF but also more flexible and expansive, as they incorporate potentially wider distribution ranges in order to maintain their competitive market position and develop the family brand. This finding advances, from a TEF perspective, the generalized statement from Amit and Zott (2001) that flexibility and adaptability of the infrastructural dimension is a fundamental constituent of the business model construct within entrepreneurial firms. However, it must also be noted that an infrastructure orientation is not invariably apparent at any generational phase, despite the fact that both our interview and observation data show that a group structure aspect may be strategically important during G2 in terms of value creation. Hence, the centrality of the infrastructure dimension to TEF business model constructs in general may be more context-specific and its flexibility dependent on the firm's offering and market position. However, the longevity and growth of TEF firms, combined with a move towards greater infrastructural orientation as they integrate new management/board structures and establish themselves in the global market by their G2 phase, is indicative of the long-term benefits associated with this business model construct approach for TEF firms. These findings may represent new and significant insights into the infrastructural dimension of TEF business model constructs across the generations, due to the notable lack of discussion on this matter in the associated family business literature.

5.5 Finance dimension of TEF business model construct

From our initial analysis of entrepreneurial business model frameworks in Table 1, multiple literature sources underscored the centrality of the finance dimension – notably in relation to expenditure (Chesbrough & Rosenbloom, 2002; Demil & Lecocq, 2010; Magretta, 2002) and revenue streams (Demil & Lecocq, 2010; Petrovic et al., 2001; Teece, 2010). Our empirical findings reveal that three of the four case study firms did not discuss it in terms of a driving force behind their business model construct at any generational phase. Instead, the findings suggest that it remains as an underlying dimension that implicitly operates alongside the other dimensions in the TEF business model construct. These findings appear to challenge assertions in the family business literature that the family firm business model construct is dominated by financial benefits associated with key stakeholders (Sharma et al., 2001), instead supporting alternative suggestions that financial expectations should be considered in line with business realities (Carlock & Ward, 2001).

Despite the overall findings, archival data and interviews support the view that TEF firms can still maintain a G1 business model construct that is financially-oriented by adhering to a financial focus of resource management through short-term profit orientation. This finding informs us of how risk assessment and progressive thinking, regarded as mutually exclusive and elements of critical consideration by Zahra (2005) in relation to family firms in general, should be specifically encompassed in the management of resources for TEF firms. These value facets of long-term strategic planning and risk assessment provide insights into the internal structure relationships of TEF firm business models, and also correlate with sustainability goals.

Another noteworthy insight that is corroborated by multiple case study firm data was that, in later generations, as the TEF business model becomes more strongly resource-oriented, this is habitually driven by their finance dimension through strategic investments. From a general entrepreneurship perspective, the literature suggests that there is a requirement for firms to maintain adequate financial resources in order to establish a dominant market position (Teece, 2010). From a TEF context, this is particularly salient in G3, in which the reliance on financial drivers for directionality is not merely a tactic for short-term profit accrual but rather a strategy for more engaged resource management. However, there is also an evident risk of complacency in these subsequent family firm generations, as the financially-inspired direction may result in insufficient resource allocation to areas that have benefitted from previously successful sales figures. Due to the lack of insights from the current body of literature into this relationship between the resource and financial dimensions of the TEF business model construct and its differentiated manifestation within each generational phase, our findings cover new research ground on this key family business topic.

5.6 Theoretical model

Building on the above discussion in relation to the five dimensions of the TEF business model construct, we now present our theoretical model, Figure 6, in which we theorize the functions and interrelations of the dimensions at each generational phase of the TEF firm. As outlined in the key code, the shaded sections refer to where we provide expansive insights that support and advance current theories, disruptive insights that challenge existing theories and new insights that cover unprecedented theoretical ground (Locke & Golden-Biddle, 1997). The boxes outlined in bold indicate where our insights are derived from multiple interview/archival/observation sources, thus further demonstrating the theoretical contributions of our findings. Accordingly, our theoretical model demonstrates that one of our key theoretical insights, which is corroborated by multiple data sources and challenges extant research, is that the introduction of new external management in the second generation not only affects the stakeholder dimension of the TEF firm business model in terms of superseding the informality of their communications and management style, but can also result in tri-directional communications with internal and stakeholders that adversely affect business model performance. Our model also advances theoretical development by providing new insights into how a business model dimension of a TEF firm not only interacts with other construct dimensions at that generational phase, but also influences different dimensions across subsequent generations. Thus, we theorize that the brand complexity that drives the vital agreements between brand value elements in the third generational phase is not only influenced by the linkages associated with familiarity in the second generation, but also agreements across family hierarchies in the stakeholder dimension in the TEF firm's first generation. Furthermore, our theoretical model showcases how our multiple-sourced findings build on previous research in order to develop new theoretical insights. In advancement of previous understandings surrounding the management of financial resources in the first generation through short-term profits, we propose that this facilitates the establishment of longevity strategies to retain resources beyond the first generation, thus enabling risk assessment and more strategic planning actions. Moreover, whilst we find support for prior research regarding the dependence on financial drivers for directionality in the third generational phase, our theoretical model extends this by revealing that, when combined with previously established risk gauging measures, the resource dimension of the TEF business model construct can be motivated to develop strategies driven by more engaged resource management in later generations.

[Insert Figure 6 here]

6. Conclusion

The aim of this paper was to explore the intergenerational development of the business model construct of TEF firms across generations. In doing so, this paper sought to address two distinct research gaps. First, the notable lack of theory development surrounding how and why entrepreneurial behaviours manifest and develop across generations within family firms (Nordqvist et al., 2013). Second, very little is known about how the TEF firm is actually constructed. Through the presentation of our longitudinal multiple case study results, the analytical discussion of the findings and the provision of our theoretical model, we make three key contributions to existing research on family firms in general, and TEF firms in particular.

First, our research contributes to the family firm literature by clarifying and extricating the configuration of internal and external management processes of TEF firms across the generations (as opposed to one snapshot in time). Through the development of our empirical and theoretical models, it covers new research ground on the role of the TEF business model in organizational and entrepreneurial outcomes. As evidenced in our theoretical model in Figure 6, our findings challenge persisting theoretical arguments in the literature relating to autarchic family control domination over exterior stakeholder influence and the positive impacts of multi-directional interactions on performance outcomes (Morck & Yeung, 2003). In doing so, we demonstrate how the combined approach of an informal management style and mutually beneficial communications may be invalidated by external personnel involvement in subsequent generations, thus endangering the cohesion and unity of the TEF firm. George and Bock (2011, p. 105) call for research that assesses organizational / entrepreneurial outcomes of TEF firms by "comparing business model characteristics identified by the entrepreneur vs. characteristics presented by the organization, either through observation or text from business plans and press releases". We address this research call by employing a triangulation technique, in which we comparatively analyse longitudinal interview data from both the current CEO and other organizational family or non-family members in relation to the characteristics of each firms' business model construct, then triangulate the findings against archival data collated on the organizations' management history. Using this technique, our findings reveal how the tri-directional communications between internal and external TEF firm stakeholders, as described above, do not invariably create systemic conditions for positive entrepreneurial outcomes (Habbershon et al., 2003).

Second, we contribute towards a more enhanced cognition of the relationship between business model dimensions for TEF firms through our discussion of internal dimensions of their business model construct. In doing so, we contextualize the role of the business model for the TEF firm by framing it against these internal and external management streams. Our resultant discussion, as conceptualized in our theoretical model (Figure 6), offers a number of new insights into the transgenerational role of the business model for TEF firms at various generational configurations. In relation to the resource structure, we find that diversification and more radical strategic management may result in pressure and/or actual drains on the resource dimension of the business model construct during G2, although these may be neutralized through the prioritization of value opportunities and challenges (Doganova & Eyquem-Renault, 2009; Stark, 1996). In relation to the stakeholder dimension, our findings observe that relaxed approaches to longitudinal and latitudinal communication, which often pervade the stakeholder dimension of G2 TEF firm business models, may prove problematic from the perspective of communication lucidity. Our findings offer new insights into the relationship between resource and stakeholder dimensions of the TEF firm business model construct in G2 and subsequent generations, by highlighting the opportunities and risks associated with knowledge transfer throughout internal/external resource amalgamation. We also understand through the analysis of our results that the elucidation of family values and hierarchy may epitomize a substantial component relationship between stakeholder and value dimensions in TEF firm business models in their G3 and subsequent generations (Sinfield et al., 2012). Our results relating to value facets of long-term strategic planning and risk assessment provide insights into the internal structure relationships of G2 TEF firm business model constructs through the correlation with sustainability goals (Carlock & Ward, 2001). Finally, we conclude that communication networks and interaction within the stakeholder dimension may be provisional to the development of knowledge resources within the resource dimension of TEF firm business models (Teece, 2010).

Third, we contribute to the development of entrepreneurship theory and practice by assessing the entrepreneurial influence of the business model structure of TEF firms from their provenance stage to their current embodiment. In so doing, our theoretical model (Figure 6) provides unique insights into the intergenerational dimension of business model construction, which is currently lacking within business model research. In relation to the resource dimension, our insights into the opportunities and risks of knowledge transmission during micro/macro resource pooling in G2 contribute to the demographic approach to the theorizing process of the family business field, through developing our understanding of how family participation dimensions affect resources for TEF firms (Basco, 2013; Dekker, Lybaert, Steijvers, Depaire, & Mercken, 2013). Our findings on the incorporation of sustainability goals into the resource dimension build upon Stafford et al.'s (1999) theoretical model of family firm sustainability by establishing that, with G2 TEF firms, the paradigms of family and firm resources are compounded through principles of family risk extenuation and sustainability estimation. In relation to the stakeholder dimension, our results on how communication networks and interfaces in G2 may be reliant on the growth of knowledge resources essentially advance the structural component of social capital, in terms of the acclimatization of network connections and conformation within the family unit (Teece, 2010). In relation to value structures, our findings build upon Vallejo's (2011) theoretical framework by providing new perceptions into the rationale for value flow from family to firm culture within later-generational TEF firm business models. Finally, our results advance the discussion of Craig et al. (2008) by offering new insights into the dissimilarities and correlations of business-value systems and family-value systems within the value dimension of the TEF firm business model construct.

6.1 Limitations and future research

Although our research achieved analytical generalization (Yin, 2003), we are cautious in suggesting that the findings facilitate inferences in other cultural contexts. As our study was exploratory in nature, we chose an inductive analysis approach to investigate and explore this research area. Future studies could adopt a quantitative, deductive approach to take our findings and apply them to alternative organizational contexts and management perspectives. Finally, our theoretical model conceptualizes the five internal business model constructs across the generations, in addition to the relationships between them, for TEF firms. Acting as a future research agenda framework, this model can therefore be operationalized by TEF researchers to aid further qualitative studies and/or developed into testable hypotheses. For instance, future studies could quantitatively investigate in greater detail how each of the inherent dimensions affects – and is affected by – various business and family influences within TEF firms, including the outsourcing of various aspects of the firm, as well as the insourcing of knowledge and operations from different stakeholder groups.

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Table 1. The entrepreneurial business model construct

Aggregate Dimension	Element	Doganova & Eyquem-Renault (2009)	Amit & Zott (2001)	Ches-brough & Rosen-bloom (2002)	Demil & Lecocq (2010)	George & Bock (2011)	Hedman & Kalling (2003)	Magretta (2002)	Mason & Spring (2011)	Miller (1996)	Morris et al. (2005)	Petrovic et al. (2001)	Shafer *et al.* (2005)	Teece (2010)	Zott and Amit (2007)
Stake-holders	Target market			●				●			●			●	
	Client benefit							●			●			●	
Value	Proposition		●	●	●		●	●	●						
	Network						●						●		
	Configuration		●							●		●			
	Structure			●		●						●			
	Creation	●	●							●	●		●		
	Capture												●	●	
Resources	Products						●							●	
	Technology								●	●				●	
	Resource structure					●						●			●
	Market opportunity	●									●				
Infras-tructure	Activity systems						●			●					●
	Capabilities				●		●				●				
	Organisation structure				●										●
Finance	Expenditure			●	●			●		●					
	Profit margins				●			●							
	Revenue streams				●						●	●		●	

Table 2. Breakdown of case study data from archives, interviews and observations

Case	Firm A	Firm B	Firm C	Firm D
Archive sources:	107	45	136	102
Pre-1920	GD (2), MA (5)		MA (4), GD (2)	
1921-1930	GD (3), MA (4)		MA (3), GD (2)	
1931-1940	GD (2), MA (4)		MA (1),	
1941-1950	MA (3)		CR (1), GD (4)	
1951-1960	MA (2)		CR (1), MA (3)	
1961-1970	GD (3), MA (2), CR (3)		CR (1), VTR (1), GD (2), MA (1), OF (1)	MA (2), GD (3)
1971-1980	VTR (1), MA (2), CR (6)		CR (1), VTR (1), MA (6), OF (1)	OF (1), GD (3), MA (2)
1981-1990	GD (1), VTR (5), MA (2)	MA (3)	CR (1), MA (18), GD (1), OF (1)	OF (1), MA (2), CR (2), VTR (2)
1991-2000	VTR (6), MA (4), CR (6)	MA (6)	CR (1), VTR (2), MA (15), OF (1)	OF (1), MA (6), CR (4), CP (1), VTR (1), GD (1)
2001-2010	GD (1), VTR (10), MA (5)	MA (4), VTR (2), PR (15)	CR (1), MA (14), CP (2), GD (2), OF (1)	OF (1), MA (9), CR (10), CP (2)
2011-2016	VTR (11), MA (6), CR (8)	MA (5), PR (10)	CR (1), VTR (3), MA (30), CP (3), GD (2), OF (1)	OF (1), MA (14), CR (20), CP (6), VTR (5), GD (2)
Interviews:	6 primary, 2 follow-up	12 primary	7 primary, 4 follow-up	8 primary, 9 follow-up
2012	BD (1), C (1), FD (1), MD (1), OD (1), SMD (1)			
2013	MD (1), OD (1)		BD (1), FD (1), MD (2), OM (2), SMD (1)	BD (2), MD (2), OD (1), OM (2), O (1)
2014			MD (2), OM (1), O (1)	MD (3), BM (3), FA (1), OD (1)
2015		C (1), FA (2), GM (2), OM (1), SMD (1), O (5)		MD (1)
Observation:	4	6	9	6
2012		PT (1)	CP (1)	CP (1)
2013	PT (1), OT (1), CP (1)	PT (1), FD (2)	CP (2), FD (1), PT (1), OT (1)	PT (1), CP (1)
2014	CP (1)	FD (1), CP (1)	CP (1), FD (1), OT (1)	FCM (1), OT (1)
2015			FCM (1)	CP (1)

Archival data key: MA = media articles, CR = Corporate reports, VTR = video, television, radio, CP = corporate presentations, GD = government document, OF = official filings (companies register), PR = press release

Interview data key: BM = Board member, C = Chairman, FA = Family Advisor, FD = Finance Director, GM = General Manager, MD = Managing Director, OD = Other Director, OM = Other Manager, SMD = Sales/Marketing Director, O = Other

Observation data key: PT=plant tour, OT=office tour, FD=family dinner, CP=corporate presentation, FCM=family council meeting

Table 3. Four-phase analysis framework

Phase 1: Category Analysis	1.1 Reduction of raw interview data (DeCuir-Gunby et al., 2011).
	1.2 Creation of thematic categories (Edhlund, 2011) in order to provide aspects to describe, explain and/or compare (Ryan & Bernard, 2003).
	1.3 Identify links between data and results (Elo & Kyngäs, 2008).
	1.4 Writing up of category findings.
Phase 2: Thematic Analysis	2.1 Examining the category data from Phase 1.
	2.2 Theorizing any obvious themes (Edhlund, 2011).
	2.3 Identify links between the data and results (Elo & Kyngäs, 2008).
	2.4 Revising the links as new categories materialize inductively (Zhang & Wildemuth, 2009).
	2.5 Writing up the category / theme findings.
	2.6 Comparing themes across data sources (DeCuir-Gunby et al., 2011).
	2.7 Rechecking coding consistency (Zhang & Wildemuth, 2009).
Phase 3: Sub-Thematic Analysis	3.1 Iterative reading through the category data from Phase 1 and thematic data from Phase 2, in order to confirm the quality of the codes (DeCuir-Gunby et al., 2011).
	3.2 Classification and coding of sub-themes.
	3.3 Combining or organizing sub-themes into reduced numbers of categories (Hsieh & Shannon, 2005) and hierarchical constructions (O'Neill, 2013).
	3.4 Identify any links between the data and results (Elo & Kyngäs, 2008).
	3.5 Writing up of category / thematic / sub-thematic findings.
	3.6 Comparison of theme / sub-themes across data sources (DeCuir-Gunby et al., 2011).
	3.7 Rechecking of coding consistency (Zhang & Wildemuth, 2009).
Phase 4: Reliability Analysis	4.1 Summarizing the associations between data and results (Polit & Beck, 2004).
	4.2 Evaluating the reliability via cross-referencing the data against the physiognomies of participants (Elo & Kyngäs, 2008).
	4.3 Writing up the findings.
	4.4 Achieving a balance between authorial text and authentic citations (Elo & Kyngäs, 2008).
	4.5 Relating the findings back to the literature.
	4.6 Drawing logical conclusions from the findings.

Figure 1. Data Coding Structure

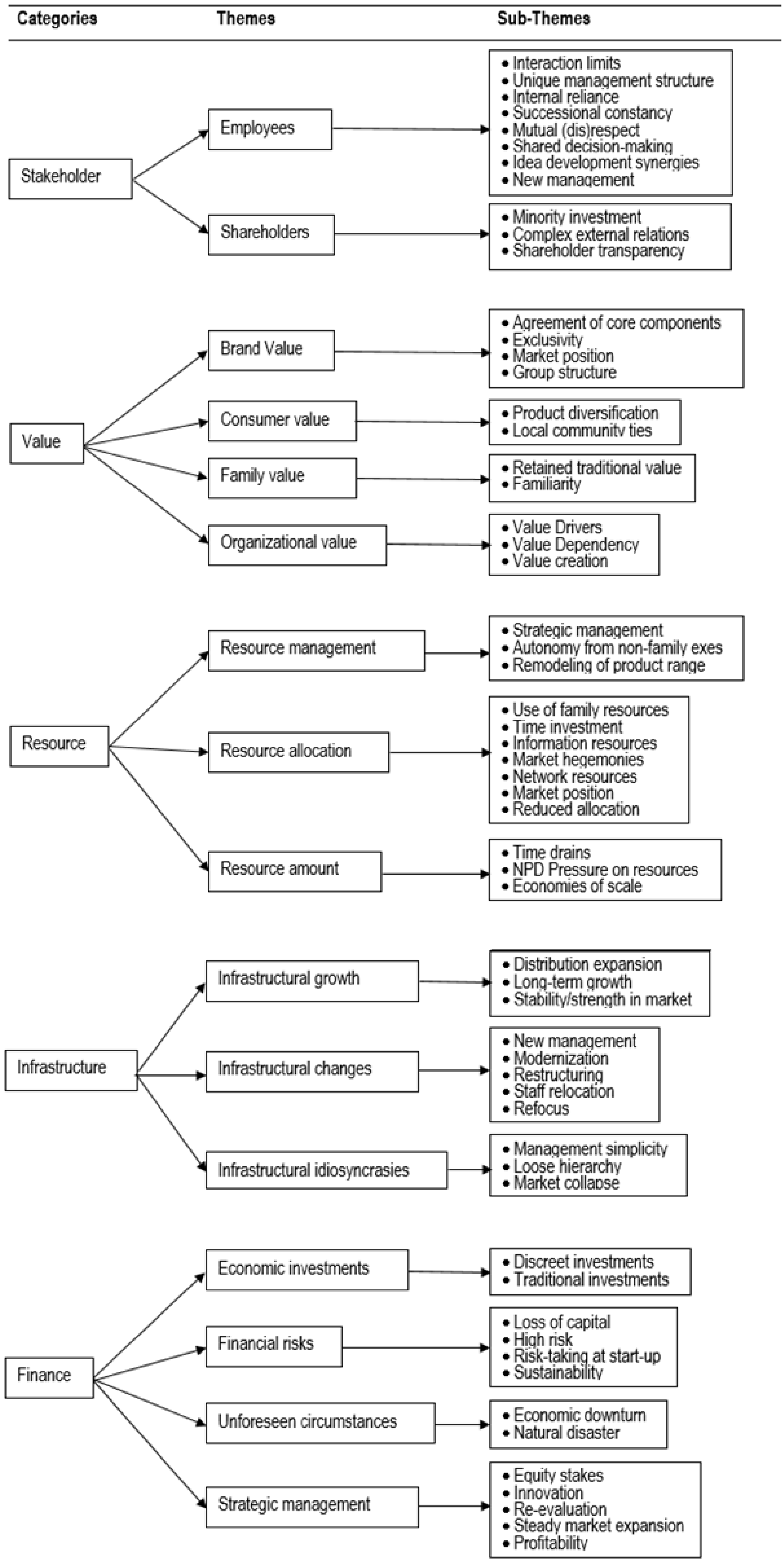


Figure 2. Firm A - Business model constructs

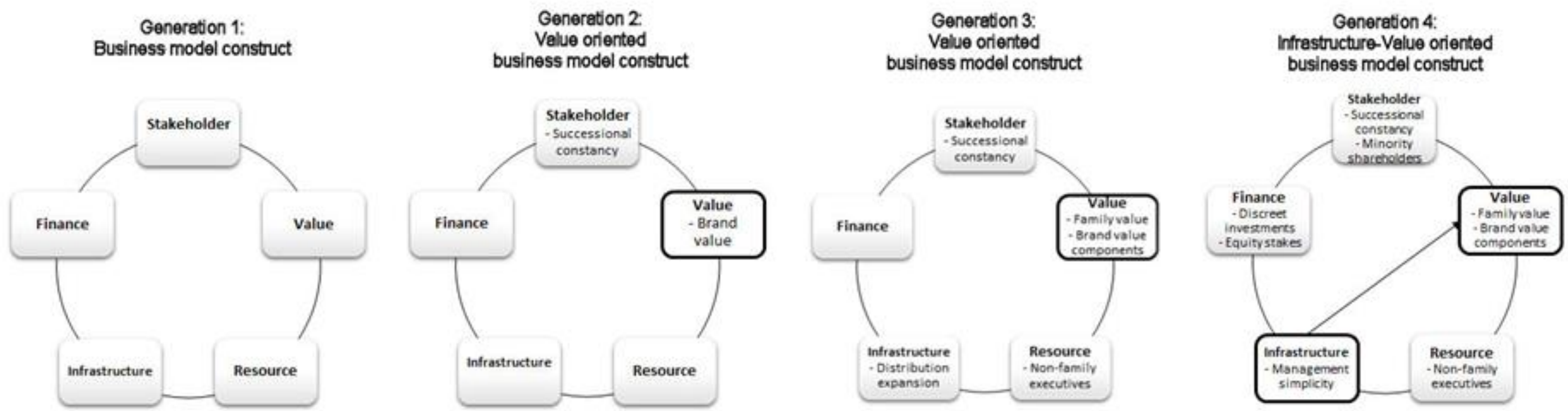


Figure 3. Firm B - Business model constructs

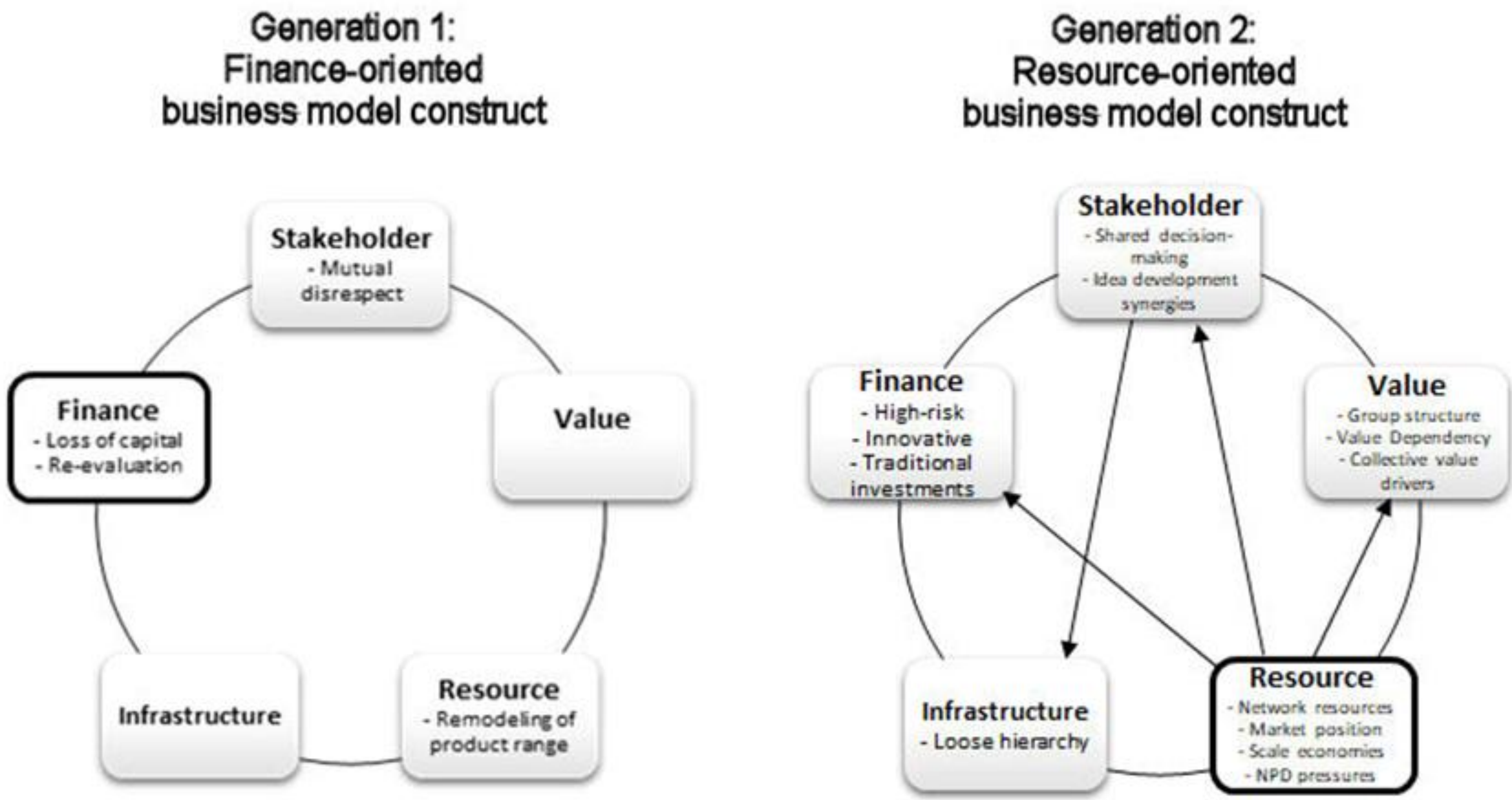


Figure 4. Firm C - Business model constructs

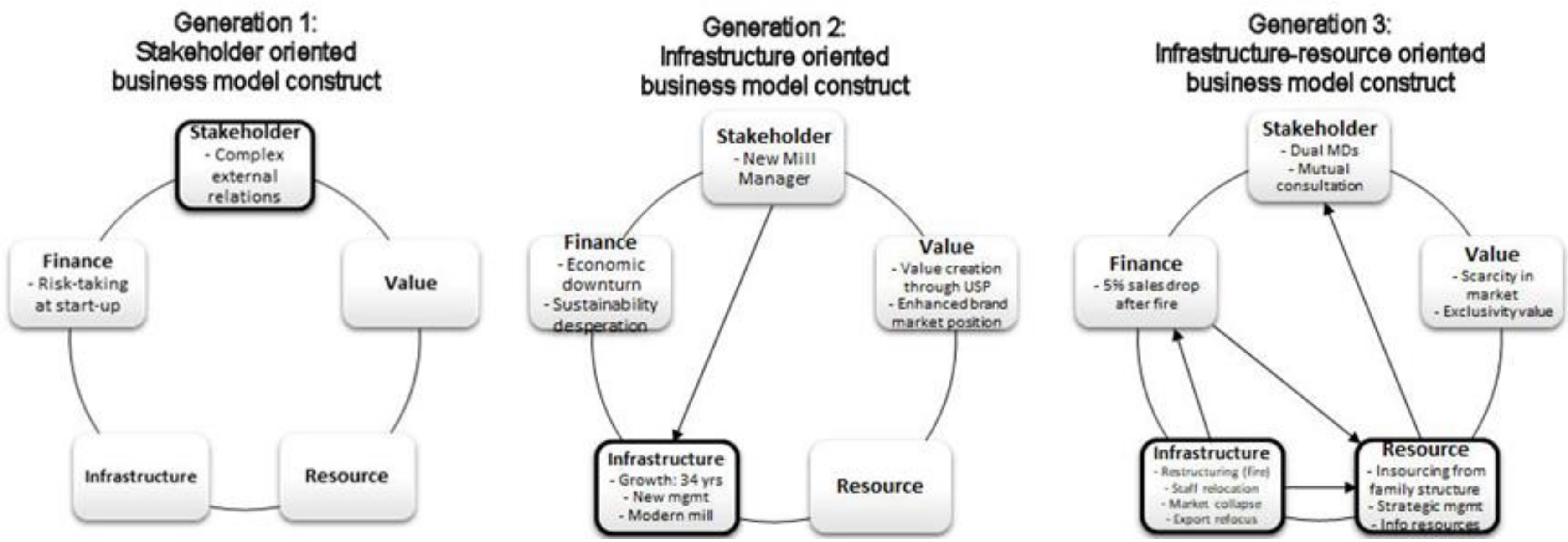


Figure 5. Firm D - Business model constructs

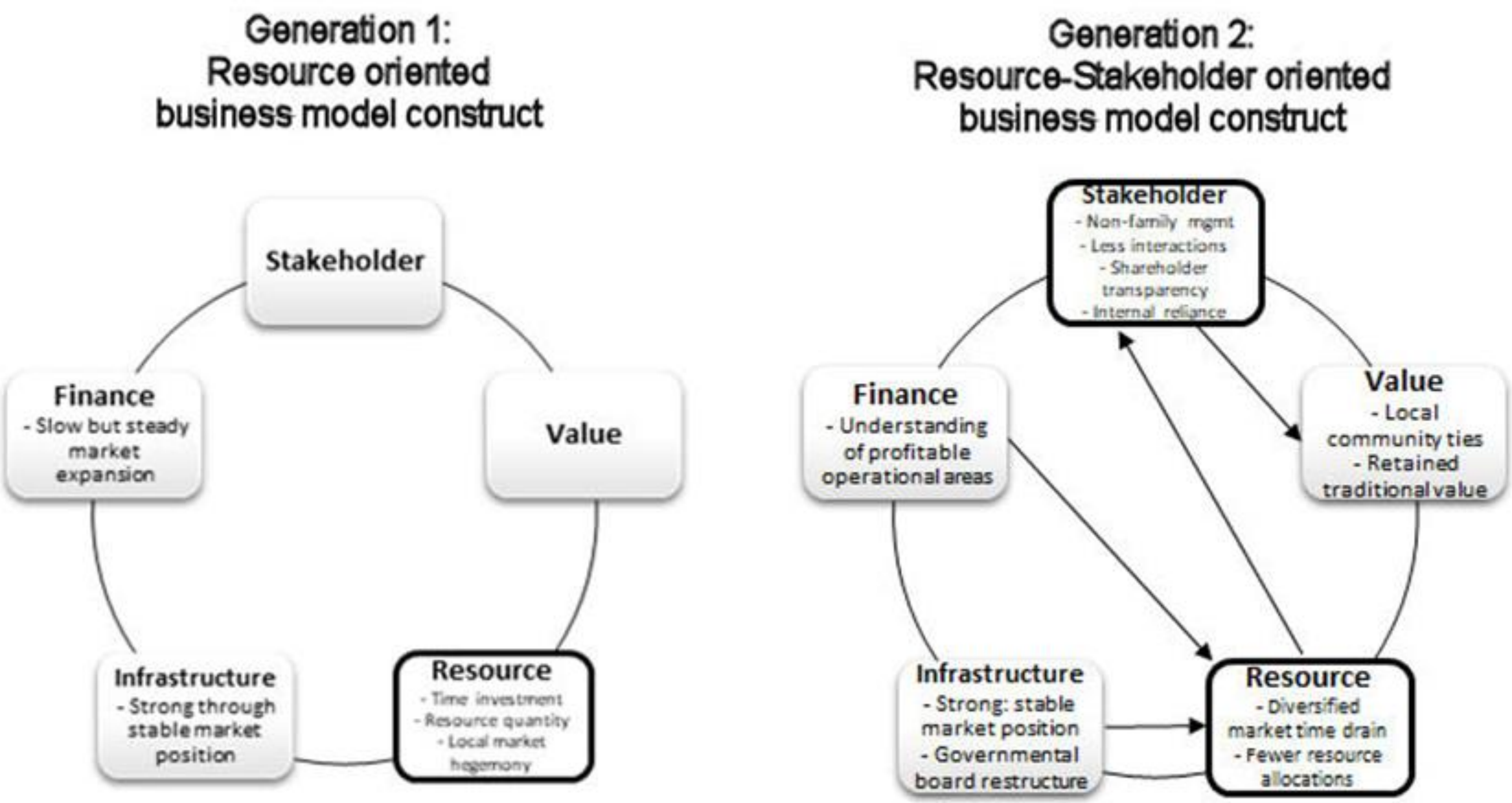
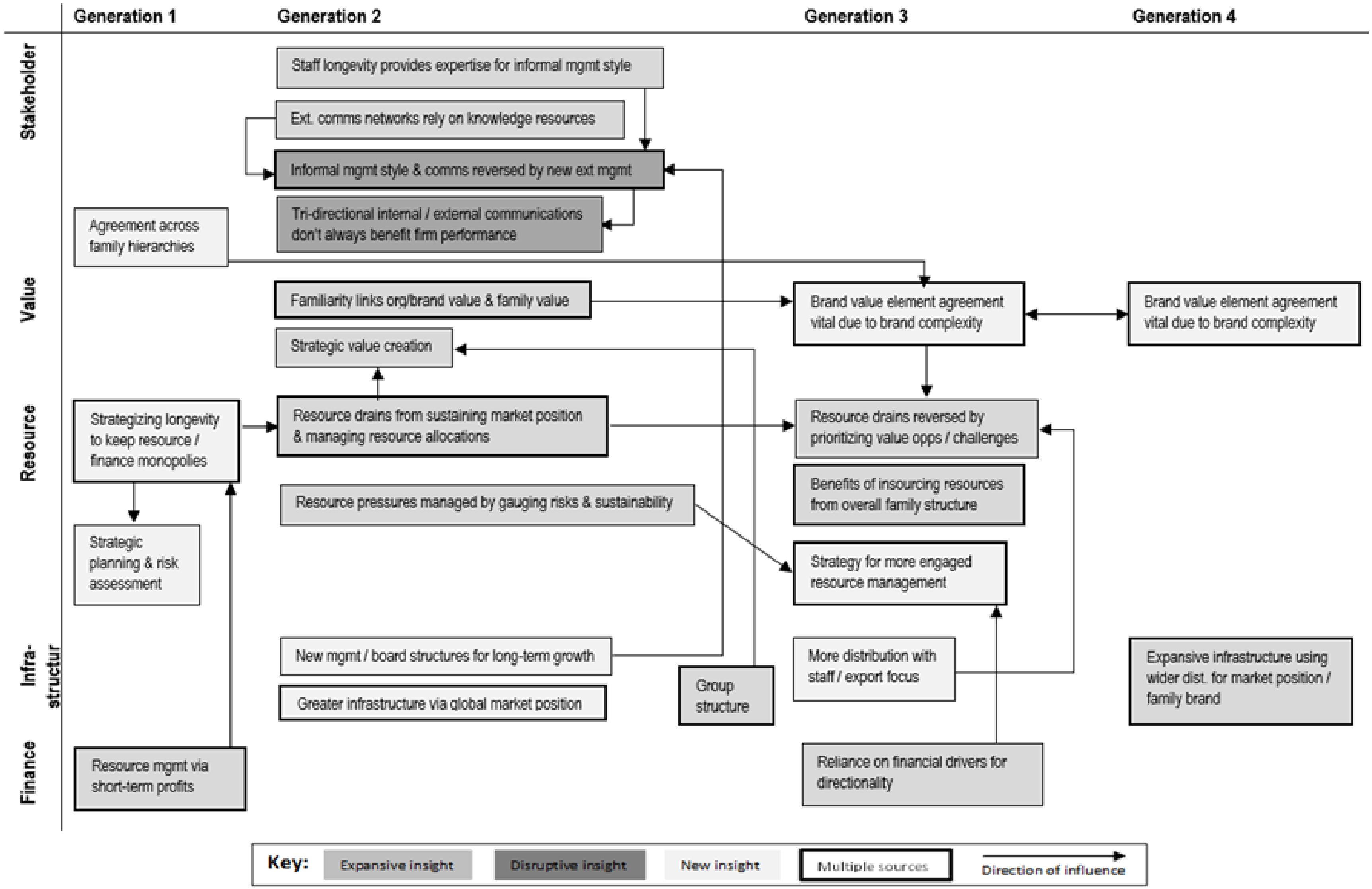


Figure 6. Business model construct of TEF firms across generations



Appendix A. Interview protocol

1. **How strategic or intentional are the business models *established in order to grow and act entrepreneurially* (versus more evolutionary as the family has changed over each generation)?**
    a. What is the process of determining governance structures and business models?
    b. Do they enhance entrepreneurship?
    c. Are they designed for today…or do they take into account growing tomorrow?

2. **What are the most *important entrepreneurial outcomes* to the ownership and management of the business or group (i.e. traditional entrepreneurial activities: new products, new businesses, innovations, new business models, change activities)?**
    a. Describe the number of entrepreneurial initiatives over the last three years (i.e. specific innovations, new products, new markets, renewal initiatives, new businesses)?
    b. How has the workforce (number of employees) evolved over the last three years (increase / decrease)?
    c. How would you describe your market share/position in the market over the last three years in relation to your competitors (increase / decrease)?

3. **Would you describe the *owner-family* as entrepreneurial? Why or why not?**
    a. The main attributes that you think makes the family entrepreneurial?
    b. The main attributes that you think are lacking for it to be entrepreneurial?
    c. Is continuity in and of itself transgenerational/entrepreneurial (i.e. existing for a long period of time)?

4. **How is it possible to *maintain an entrepreneurial spirit* as the business or business group passes through generations within the owner-family?**
    a. The most important steps/initiatives taken to keep the entrepreneurial spirit across generations, or that should be taken.
    b. Biggest threats to keep the entrepreneurial spirit across generations.
    c. Description of the entrepreneurial commitments and capabilities of the next generation.
    d. Formal and informal methods in use to develop next generation's entrepreneurial capacity.
    e. How you would judge the entrepreneurial commitments and capabilities of the next generation at the current time.

5. **Describe how external *networks and personal connections with stakeholders* play a role in the development of your business model and or for generating entrepreneurial opportunities.**
    a. Are there certain people/businesses that give you opportunities/funding to grow and develop entrepreneurial opportunities?
    b. How do you find opportunity – is it through your family/community network?
    c. Who holds these relationships, i.e. individuals, branches, senior, successors?
    d. How connected are these networks to the family vs non-family leaders?

6. **Describe your *family's core values* that are foundational for your business model and how they relate to growth and entrepreneurship.**
    a. When and how were these values identified?
    b. Where(whom) do they come from and what was the transmission process?
    c. How implicit/unstated vs explicit/stated they are?

   d. Have you created or destroyed market value? Is market value relevant for you?

7. **How do you manage your resources and do you *know fairly well the result* (e.g. introduce new product, new service, new processes, renewal actions, or opening new markets and launch new ventures)?**
   a. If this (the answer) facilitates or hinders further growth and or the accomplishment of vision and goals?
   b. How and why the family influence and/or involvement impacts this posture?
   c. Are there resources and capabilities that you have or lack that makes this posture/approach your chosen strategy?
   d. How the family ownership is a resource for entrepreneurship?

8. **Describe *the governance of the business model*– how you have organized the family's ownership in relation to infrastructure.**
   a. Governance structures that are in use now and before (e.g. shareholder meetings, boards, family councils, executive committees, policies and guidelines etc.)?
   b. How governance structures have changed over time and the reasons for change?
   c. The infrastructure that supports or constrains business growth and or entrepreneurial development?

9. **What are the most *important financial goals/outcomes* to the ownership and management of the business model (i.e. traditional financial measures)?**
   a. What is the gross profit of your firm (in % of total sales) and how has this evolved over the last three years?
   b. How have the sales evolved over the years?
   c. Has your company reached above or below industry average cash flows?