EVOLUTIONARY PSYCHOLOGY AND THE FAMILY FIRM: STRUCTURE, CULTURE AND PERFORMANCE

Nigel Nicholson
London Business School
Regent's Park
London NW1 4SA, UK
Tel: +44-207-262-5050
Fax: +44-207-724-7875
nnicholson@london.edu

Åsa Björnberg
London Business School
Regent's Park
London NW1 4SA, UK
Tel: +44-207-262-5050
Fax: +44-207-724-7875
abjornberg@london.edu

Abstract:

The paper presents the outlines of a new theoretical approach to family firms, drawing upon the ideas of evolutionary psychology. Specifically, it argues that kinship-based firms have unique advantages for the creation of high-performing culture. The approach helps to explain the discrepancy between empirical findings that demonstrate their superior performance and the special liability to agency hazards that some economists have been attributed to them. A model is presented that seeks to integrate evolutionary and family psychology through an analysis of family structure, climate and outcomes. It hypothesises that these family factors predict business outcomes mediated by leadership, governance and family participation. The remainder of the paper reports on some results from a survey of 155 UK family firms, looking at various factors represented in the model. These do not test the model, but shed some light on the issues it raises. First we illustrate how family structure can be measured by what we term the GSI – the Genetic Shareholder Index. We also suggest a new framework for the measurement of family climate. We then turn to describe some of the survey findings, which firstly show this to be a high performance sample. Their capabilities are exhibited in the responses to the survey's open-ended questions about firm cultural distinctive strengths and weaknesses. These were subject to content analysis, along with other data, to show how pervasive culture is as a cause, a mediator and an outcome factor, underpinning high performance. More specifically the data imply that, as hypothesised, it resides in the capacity to build networks of relationships. This is what seems chiefly to underlie the strength of family business cultures, but which at times of difficulty can also be their main source of vulnerability.

INTRODUCTION – THE FAMILY BUSINESS PERFORMANCE PUZZLE

The field of family business seems increasingly to be emerging into the consciousness of general management and entrepreneurship. These are areas in which often family issues have been treated as an afterthought, an irrelevance or an oddity. The consequence – and perhaps partly the cause – is that much interesting work has remained in a ghetto of like-minded scholars who appear at the same conferences and publish only in the field's specialist journals. This is regrettable on two counts. One, the field is rich in challenges and insights. The prevalence of family firms makes them central rather than peripheral to the economies of just about every country in the world (Colli, 2003; Astrachan, Zahra & Sharma, 2003), so that any research that can shed light on their performance has a potentially major payoff. Second, the riches of the area also lie in the realms of theory-building potential. Here one may regret that insights have not flowed sufficiently back into the field from discipline-based work to help raise the standard of discourse. Arguably current standards could be raised both in terms of the level of theorizing and empirical research.

One positive answer to this deficiency is coming from economists debating whether the family factor – what has been called "familiness" (Habbershon & Williams, 1999) – confers a performance premium or a cost on firms. The premium emanates from the idea that families are "different", bringing with them a range of intangible benefits – such as culture, commitment and continuity. These form the platform for the achievement of longevity and performance (Donckels & Frohlich, 1991). On the cost side are a range of potential moral hazards and agency problems that are seen as special liabilities of the family firm. It is argued that the principle agency problem of separation of ownership from control (Fama & Jensen, 1983) is solved in those family firms where they coincide, but that this brings with it a variety of unwanted hazards. These amount to departures from detached and rational decision-making about the ownership, incentives, role allocation, and strategic decision-making, plus dangers of other irregularities (Schulze, Lubatkin, Dino, & Buchholtz, 2001; Schulze, Lubatkin, & Dino 2003).

Empirical evidence contrary to this pessimistic view comes from work showing that quoted family firms outperform non-family comparators when systematically compared, and that they even claim an additional advantage where the CEO is family rather than non-family (Anderson & Reeb, 2003). This is echoed in a recent non-academic analysis by Thomson Financial of company growth (Miller, 2004) that asserts the superior performance of family firms. Neither of these studies takes account of any differential survival of family and non-family firms however, so it remains a possibility that family firms outperform but fail more frequently.

When one scans the literature for evidence of the causes of family business failure, one finds less direct evidence of the hazards economists have highlighted than a range of intra-family difficulties. The focal point of these is often disputes over ownership, inabilities to come to collective decisions because of incongruent goals and perspectives, and tricky succession decisions (Gersick et al., 1997; Lansberg, 1999; Neubauer & Lank, 1998). Yet, when one looks at successful family firms one is scrutinising a survivor population from an unknown base. It is said that family firms struggle to get beyond three generations – "clogs to clogs in three generations" – but it has not been established whether their death rate is any different to other nascent businesses. The survival curve is steep in all firms over the early years, and it has not been established that familiness conveys an additional liability to that of newness (Henderson, 1999).

Thus these data raise three questions to be resolved. Are family firms more bimodal in performance and fate than other types of firms? Does an increased death-risk sit alongside a unique performance potential? If so, are these outcomes caused by shared or contrasting causal factors? How much can they be accounted for by distinctively family-linked variables vs. other more generic liabilities? What kind of theorizing can resolve these contrasts and contradictions and in what relationship to agency theory?

The need for enhanced theory is often claimed, and the foregoing discussion and the literature on which it is based, do concur that there is a major gap in understanding what are the underlying causes of family firm performance. Our research does not answer the question, though our future programme is dedicated to this objective. Our aim here is to provide an outline of a theoretical perspective that aims to integrate ideas from evolutionary psychology, family systems theory, and agency perspectives in pursuit of a better understanding of family business performance. We shall then present data from our on-going research relating to some of the themes in the framework.

A NEW THEORETICAL APPROACH TO THE FAMILY BUSINESS FIELD

Evolutionary psychology is the name given to developments in Darwinian theory over the past thirty or so years. The disciplinary label is misleading for it unites various disciplines including natural and social sciences in a common quest for understanding the nature of human nature – the idea that we have a mind as well as a body designed by evolution for fitness under specific set of environmental conditions, namely the existence of hunter gatherer clans.

Evolutionary theory sees the family as one of the central givens of the human condition, and the different forms it may take are variations around a common core (Davis & Daly, 1997). This has characteristics of patriarchy, female exogamy, a nuclear plus extended structure, and a set of in-built capabilities for conflict and for extension to incorporate distant or non-kin (Barrett, Dunbar & Lycett, 2002). One can argue that the family firm is perhaps uniquely close to the models that predominated in our ancestral past, for which our evolved psychology is particularly fitted (Nicholson, 2000). In family business, work and family are coterminous rather than separated, as they were for human history before the historically recent dawn of agriculture some ten millennia ago. It also confers the positive benefits of nepotism (Bellow, 2003) – an ethos of service, commitment and belonging among leaders, and the capacity to build communal relationships with non-kin around a kinship core. It is no accident that one finds family firms attract and retain the loyal service of other, unrelated families.

The capacity for conflict within families emanates from two sources principally. One is parent-offspring conflict – the tendency for parents and children to have different goals in relation to each other (Trivers, 1974). The other is sibling rivalry – the competition of children for scarce resources (Sulloway, 1996). Family business conflict draws upon both these sources. It also comes from divisions between family branches, which replicate and strain these divided interests at the remove of increased genetic distance. Counterbalancing this is “kin selection”, the tendency to exhibit bias in favour towards ones relatives over non-relatives (Neyer & Lang, 2003), and “inclusive fitness” the phenomenon of family members foregoing reproductive opportunities in order to enhance the fitness of others with whom they share genes (Hamilton, 1964).

Finally, contemporary evolutionary theory is currently much absorbed with the human capacity for altruism towards non-kin, including various adoptive relationships (Gintis et al., 2002). The net result is a construction of the family factor as a series of biases and conflicts that may disadvantage weakly related or unrelated associates, but which also allow for the building of quite amorphous communal structures.

This line of reasoning takes us in three directions:

1. It points to the importance of understanding family structure as a series of potentialities for conflict, cooperation and building associational networks.
2. It suggests that these will be directly linked with qualities of family culture, which will provide the constraints and facilitators for family business effectiveness.
3. Effectiveness will reside in ability to resolve conflicts and integrate kin and non-kin, and the creation of systems that are able to avoid agency problems and moral hazards.

This perspective also allows for family firms to outperform non-family firms by virtue of their proximity to models of cooperative endeavour for which we are quintessentially designed:

- Low separation of work from non-work
- A high-trust core of kinship relationships at the centre of a communal clan-type organisational structure
- High degrees of reciprocal altruism among kin and non-kin in a commitment to cooperative achievement and shared fitness benefits.

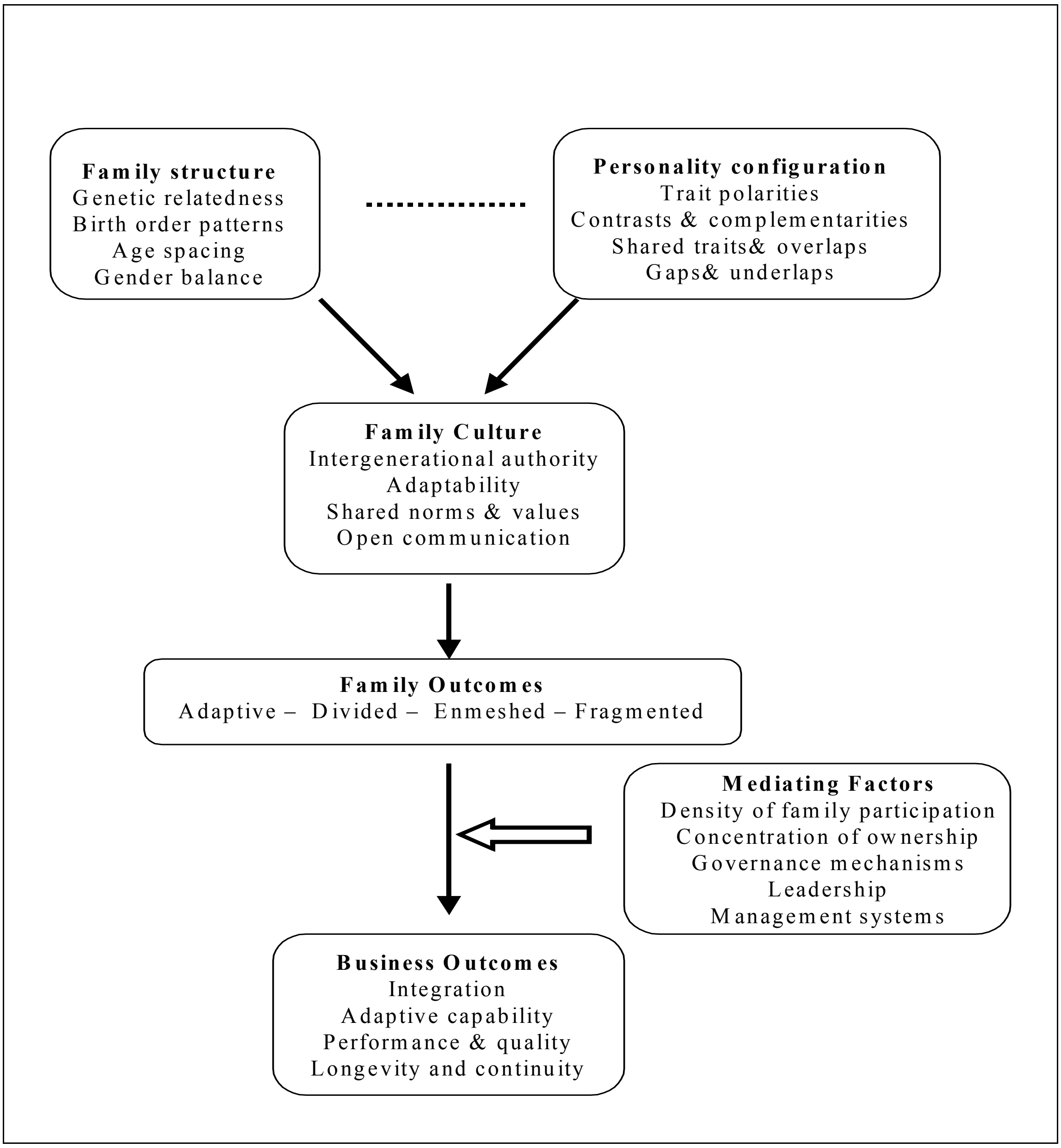
One implication of these ideas is that these are engines for high-performing business cultures, but that they are also potential sources of weakness at tough times, when rational, dispassionate and hard decisions have to be taken. This position thus embraces the concerns about agency problems that have been raised. In short, family can be an advantage and a liability, contingent upon the challenges they face and the problems they have to solve. These theoretical ideas are developed more fully elsewhere (Nicholson, 2004). Here they are presented as a background explication of ongoing research.

A MODEL OF THE RELATIONSHIP BETWEEN FAMILY SYSTEMS AND BUSINESS OUTCOMES

Figure 1 shows the working model that our programme of research is founded upon. It concentrates on the key family variables of interest in predicting business outcomes. The model does not seek to give a complete account of firm performance, since clearly this will also depend on a range of strategic decisions, financial conditions, operational factors, and market forces that are only indirectly related at best to what uniquely differentiates family firms. The model does not show the family system within a cultural context, though clearly it is – many of the elements in the model are highly liable to contextual variation, especially perhaps family structure and culture. Indeed one implication of the model is to give direction to cross-cultural research to examine how these elements might vary systematically across regions or sectors.

Briefly, the model depicts a range of *family outcomes* that may emerge from family structure and process. These outcomes are widely discussed in the family psychology literature, where they are seen as related to systemic aspects of family functioning, such as parenting styles and adaptability (e.g. Epstein, Baldwin & Bishop, 1983; Olsen & Defrain, 1994; Skinner, Steinhauer & Santa Barbara, 1983

Figure 1: A Model of the Family System as a Predictor of Business Outcomes



This literature is mainly concerned with identifying adaptation and disturbance in families where there are young children. Our delineation of family culture is based on ways in which one could characterise the adult family milieu, hence our inclusion of ideas to do with normative cohesion and open communication, as well as the dimensions that figure most prominently in the family psychology literature. The inputs to family culture are twofold. First we conceive of family culture as strongly influenced by *family structure*. The variables under this heading relate to what evolutionary theory indicates are likely to be sources of competition and cohesion, namely the size, age spacing, and gender mix of siblings. Birth order is a controversial element, but likely to influence the behaviour of individual members. The second set of inputs, *personality* *configuration*, recognises the well-known fact that family members differ in personality across the widest possible spectrum – a fact that is especially contributory to the difficulties families encounter in succession decisions. The reason, as behaviour geneticists have observed, is that much personality is non-additive genetic in origin (McDonald, 1994), i.e. that it is largely genetically determined but does not run in families (Lykken et al., 1992). Consequently family culture will also be determined by the dispositions and propensities of family members, and how these are configured (Moynihan & Peterson, 2002). Together these two sets of factors determine the climate of relationships that govern family conduct – or family outcomes as we have labelled them.

Finally, the model shows that a number of mediating factors influence the relationship between the family system and business outcomes. This list we have given is not exhaustive, but has logical and empirical validity under this analytical frame. One key factor that is logically derived is the influence of density of family involvement. In businesses where families exert only a remote influence the quality of their relationships will disturb firm performance less than families where density is high. Concentration of ownership can likewise be predicted to influence family process – a high degree of dilution will mute the family's impact on the business, unless they organize into factions, as sometimes happens. Finally, the principal mechanisms for decision-making within the firm – leadership, governance and management systems – will have the capacity to attenuate or amplify the relationship between the family and the business. One of the most important ways they do this is by impacts on the integration of family and non-family personnel, the construction of appropriate and balanced incentives, and the selection, placement and development of individuals to executive roles, including those of leadership itself (i.e. succession) (Ward, 2004).

THE LEADERSHIP IN FAMILY BUSINESS RESEARCH INITIATIVE (LIFBRI)

Our programme of work at London Business School [1] is a multi-stage project, which commenced with a survey of 155 UK family firms. Sample descriptive statistics are provided in Appendix 1. It is from this database that we report for the remainder of this paper. The results we analyse are neither designed to nor capable of testing the model shown, but we examine embedded elements within it. Future work will be examining other elements through case study and other methodologies.

1. Family dynamics

Much of our future work will be directed to this theme. To date we have commenced analysis of family structure and the development of measurement strategies for family culture.

Family structure requires in-depth data on family composition. With our survey data we have been able to complete the first stage of this analysis – indexing the genetic relatedness of family members involved in the business, by means of Genetic Shareholder Index[2] (GSI), see Appendix 3 for the computational formula. This tells us

[1] This work is assisted by the Institute for Family Business who support the IFB Research Fellowship at London Business School, with support from BDO Centre for Family Business and the Economic and Social Research Council (RES-000-22-0302).
[2] We gratefully acknowledge the assistance of Jakob Björnberg in the formulation of this measure.

how tight or loose the linkages within the family group are – in aggregate and per capita. A second stage analysis is to measure the *dilution* of family participation in the leadership of the business – measures of density. Work is continuing with these measures to refine their applicability. Work to date suggests that our sample may suffer from some restriction of range on the GSI, since our sample is dominated by a large number of nuclear families, and relatively few extended clans. Second, the density measure needs development to index more precisely in terms of role centrality. The current approach of simple ratio of family to non-family in the top management team does not capture influence sufficiently. Third, in our survey we lack measurement of the family culture variables that these are predicted to intermediate between family structure and performance.

Family Culture. Accordingly, we are currently developing a series of scales to tap this variable. Our usage for measurement, in accordance with the literature (Schneider, 1990) is Family Climate, on the reasoning that culture resides in shared meanings and assumptions, symbolic representations, and patterns of action and interaction, which can only be surfaced by ethnographic means. Their more conscious and experiential counterparts are attitudes, beliefs and values, which can be measured by questionnaire methods. We have completed an extensive review of the family therapy and family psychology literature to derive concepts and approaches that would be applicable to "normal" adult families in a business context. A comprehensive literature review was carried out with the purpose of locating sources of self-report family measurements that might be appropriate for a family business context. The psychology literature of family measurement and assessment provides a divergent yet overlapping array of family measurements (Grotevant & Carlson, 1989; Steinhauer, 1987). Our review immediately highlighted problems of how suitable or applicable they might be within the family business situation. Hence we have drawn upon a selection of these measurements to develop scales tapping the following properties:

- Vertical integration – the exercise of intergenerational authority, encompassing parenting styles that direct and/or nurture from senior to junior
- Lateral integration – the affective and cognitive cohesion
- Process – patterns of intra-family communication from open to avoidant
- Adaptability – flexibility and problem-solving orientation.

We are currently trialling these new measures for future application.

2. Firm Culture and Performance

This is strongly represented in our survey. The procedure for this part of the research was as follows:

<u>Survey Procedure</u>

An open invitation was made late in 2002 to firms on the databases of the two sponsor organisations of the research programme (The IFB and the BCFB). We have no reliable indication of how many eligible firms this reached, but 250 indicated (by return of a tear-off slip from the invitation, or by email) that they would be interested completing the survey. To this group was mailed (or web-mailed) a questionnaire of 12 pages in length, including some quite complex descriptive matrices to complete and open ended questions. In short, this was quite a demanding survey, and the positive response of 155 businesses (62%) can be considered quite satisfactory. In most cases, the questionnaire was filled out by the Chairman, the Chief Executive/Managing Director, or a non-executive director who was also a member of the family, in short by the leaders of the business, lending confidence to the accuracy and relevance of data supplied. Analysis and report back to participants was in the autumn of 2003. In terms of representativeness, however, we can assume that firms who both expressed an interest and were willing to provide data on quite sensitive issues would be those with a positive outlook. There exist no benchmarks for assessing the extent of such bias, but the descriptive analysis reaveals a sample that is nonetheless highly diverse in key features, looking very much like a cross-section of the sector. There is a mix of manufacturing and service, new and traditional, large and small, old and young. As in the wider population, there is a predominance of smaller firms – around half have less than 80 employees. Most are less than 50 years old and not yet gone beyond 3rd generation, though a significant minority are much older.

In content the survey was varied. Most of the questions elicited descriptive data about the structure and performance of the firm, ownership, governance, and family participation. Attitudinal items asked about conflict management, past and current challenges, firm culture and succession issues. Open-ended questions amplified these, especially in the domain of culture. It is these data that we discuss in here. In the context of these survey results, 'family business' is operationally defined as a firm in which one or more families has both ownership and active involvement.

Results

1. Performance

First, looking at *performance*, we asked firms to report on number of employees and total value of sales at three points in time: now, five years ago and ten years ago. This enabled us to measure firm peformance in terms of growth in sales and firm size (where firms had been existing long enough). These variables were chosen after consultation with family business advisors as the ones most widely applicable and valid as criteria. We checked this by questioning firms about what their preferred measure of performance was. Most used simple revenue and sales figures. Few – generally the largest and most sophisticated – used return on equity or asset type measures. Our method allowed us to calculate relative change over time as perhaps the most comparable and valid measure of performance.

These data showed that sales growth had been remarkable – varying little with size and somewhat more by recency – with stronger growth in the 5 years from 1992 to 1997 than in the more recent recessionary period 1997-2002. In the former period the average sales growth across different size categories of firms was 60-110%, and in the latter 40-75%. The figures for number of employees was 25-50% and 34-60% respectively. These averages mask a greater variation by sector, but overall they are a remarkable tribute to the performance ability of family firms, and are notable for recording productivity growth. Can these results be attributed to sampling bias? To a degree, perhaps they can, but one would be hard put to find equivalent high performing volunteers from the non-family sector. It would be consistent with the emerging literature to say that these are representative of the high performing end of the family business spectrum and a further demonstration of the sector's capability. With that observation in mind let us examine the indications in the data that might help us to understand the causes.

2. Challenges and Conflicts

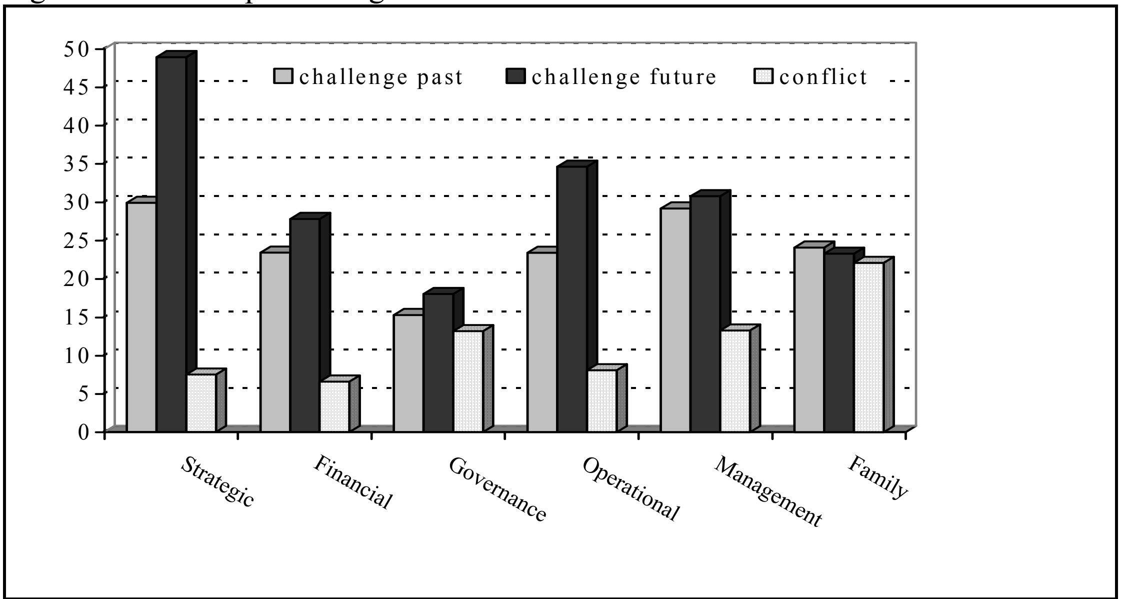
The survey contained a short series of Likert-type 5-point scales asking respondents a) what types of challenges they found most difficult and demanding in the last 3 years, and

b) what they expected to be most difficult and demanding over the next 3 years, in each of the following areas:

1. *Strategic*: the direction and focus of the business, its products or services
2. *Financial*: capital requirements, investment, taxation etc
3. *Governance*: regulation, formal decision-making, board structures
4. *Operational*: product development, service delivery, marketing etc
5. *Management*: employee relations, firm "culture", staff appointments, rewards etc.
6. *Family*: roles, responsibilities, relationships and conflicts.

A separate question asked about what had been the main sources of disagreement among leading members of the family business, aggregating the categories "significant" and "major" sources of disagreement from the 5-point scale. Figure 2 shows the results, aggregating the "extremely" and the "very difficult and demanding" responses. Several features are striking. First, the rank order of emphasis changes from past to future, as does the scale of concerns. Some (e.g. Operations) increase much more from past to future than do others (e.g. Family). Second, in general people anticipate more difficulty in the future than they report for the past, with one exception ("Family"). Third, the greatest focus of attention is on key business functions – Strategy, Operations, and Management. Governance and Family issues are less emphasised, with Finance an intermediate concern.

Figure 2 Leadership Challenges & Sources of Conflict



What do these results tell us? We would have to come back in 3 years to verify if people's anticipation of challenges is accurate. If we take the results at face value it would seem that high performing family businesses are increasingly wrestling with the fundamentals – strategy, operations and management - to keep on track, as one would expect in a climate of extreme business pressure. Governance and family issues are relegated to positions of lesser importance. However, we probably should not accept these findings at face value. Facing an uncertain future, people are imagining the most obvious threats to the business – failures to adapt to markets because of strategic and operational deficiencies. But if the future turns out to be like the past – which in many respects it may well do – the one could conclude they are greatly underestimating the likelihood of future family difficulties. This is supported by results from the "conflict" question, where family and governance, the two least anticipated challenges are the highest rated sources of disagreement among family members. This would seem to suggest that governance mechanisms are likely to be of great importance in assisting family difficulties. Support for this idea comes from regression analysis, which shows that the firms achieving the strongest recent sales growth are anticipating future governance challenges more than others.

3. Family Firm Culture – Strengths and weaknesses

One section of the questionnaire featured an open-ended question: "What is most distinctive about the culture of your company?" The participants were asked to write positive and negative phrases that capture the key distinctive strengths and weaknesses of their firm's culture. Eighty percent of respondents provided comments. The 20% non-response can be partly attributed mainly due to technical difficulties encountered in the online data collection, where there was a space restriction on the length of comments, but the main reason is probably pressure of time. Open-ended questions are the most demanding to complete and it is perhaps more remarkable that so many participants did supply comments, a tribute the engagement and interest that the survey elicited.

A typology of distinctive cultural strengths and weaknesses was developed both inductively, using the Q-sort method to capture emergent categories; and deductively, by aligning and labelling categories to be congruent with relevant family business theory. The comments were transferred onto a spreadsheet, subjected to thematic analysis and coded individually. Initial analyses yielded 40 and 30 thematic sub-headings respectively for the domains of cultural strengths and weaknesses. The thematic sub-headings were scrutinised by two individuals, re-grouped and subsequently collapsed into 9 categories for each domain, ensuring that these categories adequately captured the full range of sub-headings. Thereafter, the coded comments and their allocation were reviewed once more.

These categories are summarised in Appendix 2. Single words were coded in addition to entire phrases, and wherever overlaps in categories were identified, the comment was coded twice. Clear guidelines were drafted to apply to the recoding process, which was then repeated by the researchers, plus a complete cross validation recode by an independent third coder, yielding a satisfactory level of agreement (Cohen's Kappa = .70). Analysis of discrepant codes showed them to be clearly attributable to ambiguities and deficiencies in category labels rather than the conceptual content of categories.

The comments fall into nine broad categories: relationships, family, values, strategy, leadership, governance, operational capacity, flexibility/durability and finance. A total of 657 comments were recorded from 124 of the participants, and the frequency distribution and relative percentages within categories are shown in Table 1.

Table 1. Frequency distribution of cultural strengths and weaknesses in family firms

Category	Strengths N	Weaknesses N	Strengths relative %	Weaknesses relative %
Relationships	154	56	35.6	24.9
Values	68	26	15.7	11.5
Family	55	25	12.7	11.1
Operational Capability	52	26	12.0	11.5
Performance: Flexibility-Durability Vs. Rigidity-Impermanence	41	29	9.5	12.9
Strategy	24	15	5.6	6.7
Leadership	14	13	3.2	5.8
Governance	12	18	2.8	8.0
Finance	12	17	2.8	7.6
Total	432	225	100	100

The first observation one can make about the data is that strengths greatly outweigh weaknesses. In fact there were 12 participants who only offered positive comments, and there was only 1 participant whose comments were exclusively negative. There may be an element of social desirability of self-enhancement in this, but the language of the comments, couple with their frankness and high apparent degree of insight, strongly suggests they do provide insights in their profiles as high performing businesses. Indeed, the ability to offer reflexive appraisal can itself be considered a cultural strength. A second feature is the mirroring of results across strengths and weaknesses, enabling us to fit comments without difficulty into mirror image category sets. This suggests that these categories are fundamental to family firms, and that there is a duality to them. This duality extends to many respondents rating the same qualities as both strengths and weaknesses. A common example was the tendency to be positive about the inclusive and warm climate of relationships but to admit that often they were too "soft" or that management was apt to avoid tough decisions about people. This can be seen as supporting our analysis of the family factor as both a unique strength and a source of agency problems simultaneously.

In other respects we have to be careful of taking the results at face value. For example, the low frequency with which "leadership" is identified as a problem is not unrelated to the fact that most of the respondents were the leaders of the firm! However, they were equally disinclined to identify leadership as a strength. Perhaps the latter result is a kind of modesty. Another way of looking at this is to note that this category identifies the character of the leader, rather than the decisions he or she takes, which is represented in all of the other comments. If one takes this view then one can conclude that there was a remarkable degree of frank self-criticism in many areas where leadership decisions were implicitly involved.

The most striking feature, however, is the focus on relationships. Unpacking this one sees that it is the quality of the network of ties with stakeholders that defines the distinctive strength of the family firm.

The contents of the comments can be summarised as follows:

Relationships – Openness in communication was a recurring theme in this category.
The following is typical: *"Teamwork, partnership and involvement of the workforce in*

a family company which has an ethos of continuous professional development for employees and absolute customer care."

Other comments made in this domain and category include words such as "*supportive", "paternalistic", "good relations", "personal"* and *"caring".* Examples of the negative duality were the following: *"Can be taken advantage of. Too much familiarity can lead to contempt"* and *"Creates a wedge sometimes between other staff (non family) who are less likely to discuss or mention grievances"*

The latter is especially telling, supporting the idea that it is the capacity to spread the family ethos throughout a business that lends it strength, and the failure to do so that is often the major drawback. Other negatives in this category were such descriptions of themselves as: *"too forgiving", "too honest*" and *"too involved".*

Values – Comments in the positive domain of this category included: *"A good sense of loyalty and fair play"* and *"Positive 'can do' attitude". "Loyalty", "integrity", "fairness", "ethical"* and *"commitment"* were also typical. Weaknesses in terms of values revolved mainly around issues of lack of profit orientation, lack of aggression – or too much of it: *"white male tendency to be macho at times".* As a strength values were described as an anchor while the company is changing, and as a negative as the dead weight of tradition.

Family – This category includes comments made that explicitly focus on strengths or weaknesses in terms the family itself, such as *"Close knit family unit all work for common good*" or *"Trust within the family, we are a happy family who enjoy coming to work".* Respondents mentioned in positive terms the importance of family control, leadership, and exchange between generations. Some alluded to cohesion, diversity and clarity of roles. One said simply: *"we are a family."* In the weakness domain came accounts of family relationships intruding distractingly or destructively into business areas, such as *"family bickering threatening to affect the functioning of the business".* Other expressions included the idea of family causing *"complication"* and of the prevalence of *"suspicion".* Other comments related to nepotism, succession problems, family politics, lack of family competence, communication failures and unclarity of roles and responsibilities.

Performance 1: Operational capability – Positive comments in this category commended *"accountability", "experience*" and being *"professionally managed*", "*Delivers superior skills and service"* and being *"close to the customer".* When operational capacity was described as a cultural weakness, it was typically referred to as a lack of formality in procedure, structure and insufficient outside knowledge or competence. In short, as one family leader described it: "*being bogged down with the day to day operational problems.*"

Performance 2: Flexibility-durability vs. Rigidity-impermanence – The category in this domain featured words and phrases such as "*long-term", "flexibility", "quick decision-making*", "*seen as long term, reliable firm to deal with"* and *"long established company with strong local profile and reputation".* Typical comments made in the 'weakness' domain of this were *"slow", "conservative", "risk averse",* "*backward looking*" or "*not embracing new technology and marketing effectively"* - all expressions denoting restricted ability to change.

Strategy – Strategy as a category has a relatively small share of comments including such as *"not afraid of risks and diversification into related fields", "innovative", "entrepreneurial", "progressive"* and *"unique".* In the weakness domain were expressions such as: *"sometimes a lack of focus, wearing too many hats"*, *"not entrepreneurial"*, and *"lacking in drive for expansion."*

Leadership – As we have noted this was rarely used. Among the strengths were the virtues of ability to make quick decisions and value of concentrated unitary authority: "*Democracy of one", "one leader".* Other found virtue in decentralisation: *"Ability to delegate", "no dominating founder".* Some commended their patriarchal strength, but more often this was one of the weakness themes: *"Headman control- decisions are not always based on true facts since they may upset the boss"* and *"dictatorial".* Others included *"inability to delegate"* and *"no one to keep me really on my toes".*

Governance – This also was sparely used, though tellingly one of the two where weaknesses outweighed strengths. It is as if good governance is apt to be taken for granted but its absence is problematic. Typical positive themes include board and ownership structures, emphasising family control and shareholder involvement, e.g. "*ownership and control is one and the same".* On the negative side, the themes orbit around an exaggerated need for control, lack of shareholder involvement *"difficult for a non-involved shareholder/owner to contribute to entrepreneurial efforts. Effective governance can stifle entrepreneurial behaviours".* Others made mention of isolation in relation to non-family members at a governance level.

Finance – Like the governance category, this one, though little used, received more comments in the 'weaknesses' than in the 'strengths' domain. The positives were generally to do with independence and security, such as: *"Solid business, do not stretch ourselves, company totally financed by family - no external bank loans etc. (therefore more secure)".* Weaknesses were mainly the restrictions on choice created by insufficient resources: *"lack of finance for major developments"*; *"too much borrowed capital in the business. Must reduce debt to attract potential purchasers of the company."*

DISCUSSION

These data raise the question of how they map on to an analysis of family dynamics as a source of unique capability or vulnerability in the family firm, and in relation to the model presented in Figure 1. The relationships are partial, indirect and need to be interpreted with great caution. Sample size is insufficient for the kinds of multivariate tests that would help to answer definitively questions of causality, and the survivor bias in the sample would underline the need for caution. We are also hampered by the unavailability of a non-family comparison sample, though this would only help address a limited number of issues raised in the model, and would be methodologically problematic in operationalisation.

These qualifications apart, there is nonetheless a coherent message about the key role family relationship play in the business. We are not the first to make this observation, but perhaps the duality is rather more pointed here than has always been demonstrated. These are high performing firms, so we are viewing one end of an adaptive spectrum where strength draws from the firm's ability to spread a web of family feeling throughout the business culture via various means. Those factors identified in the model as "mediating" do emerge in this study. Family virtues are able to penetrate the firms through the concentration of family participation and ownership. Governance mechanisms seem somewhat taken for granted by our sample, though many recognise their absence as a critical source of weakness. Leadership and management are also implicated, but the centrality of relationships as a cultural strength comes back to relationships. These are at the same time a causal, mediating and outcome factor. They are causal, insofar as they reflect the underlying health of the family system. They are mediating as constituting the process by which problems are recognised and solved. They are business outcomes by being central to the integration that marks out effective firm.

On the other side of this coin, our results show that the negatives we identified under "family outcomes" are anticipated and described by our respondents. Enmeshment is especially a problem, where this connotes the inward looking family that is incapable of integrating non-family perspectives. As we argued at the outset an evolutionary perspective would see this as a pre-eminent problem in the family firm, as it is in society. Divisions were also evident, some emanating from intergenerational schism. The "fragmented" pattern was not reported, and indeed one might surmise that they would be unlikely to be capable of entering our sample with this pattern, since it often presages the dissolution of the firm, except where it is associated with a highly diffused ownership in a large firm. Other negatives point to deficiencies in the factors identified as mediating and outcome variables, such as failings of leadership, lack of management talent, excessive caution or conservatism in outlook, and strategic drift. When one asks respondents about "culture" answers are apt to be very inclusive, and perhaps this is the key point – that the transmission of family culture into business culture is an effect that simultaneously amplifies and diffuses. In a sense, everything becomes easier as the positive values of good quality relationships flow through management systems, decision-making forums, into the business benefits of continuity, integration, longevity and performance.

There is much more to understand in analysing the sources of this elixir, how it works and how it may be controlled. Our future work is aimed specifically at the family system in relation to leadership and culture through a mix of survey based and case analytical strategies. Theoretical work will also be a priority, since we see the neo-Darwinian perspective on kinship as offering a firmer platform for understanding the role of family dynamics in business performance than has hitherto been available.

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APPENDIX 1

Descriptive Statistics of Survey Sample

Variable	**Min**	**Max**	**Mean**	**S.D.**
No of Employees	3	44,000	760	3,834
Sales Revenue (current year) (£000,000)	0.23	110,000	151.3	9,724
Generation	1	11	2.91	1.738
Age (years)	6	331	72	60.13
Growth in N Employees 0-5yrs (%)	-59	+400	+37.7	67.57
Growth in N Employees 5-10yrs (%)	-92	+2150	+84.4	225.81
Growth in Sales 0-5yrs (%)	-69	+700	+45.5	96.26
Growth in Sales 5-10yrs (%)	-79	+300	+56.4	66.10
GSI a) Sum per firm	.00	13.00	1.299	1.67
GSI b) Mean (per person, per firm)	.00	0.91	0.327	0.261

APPENDIX 2

Categories of cultural strengths in family firms

Type of Perceived Cultural Strength	Operational Definition
FAMILY	Specific strengths in terms of the family and its reputation, identity, roles & diversity, relationships, resources (including family size), involvement, and leadership.
RELATIONSHIPS	Strengths in relationships between family firm and its stakeholders[3] maintained via communication, a caring and paternalistic approach, empowerment, teamwork, problem solving and involvement.
VALUES	Positive values such as commitment, loyalty, ambition, pride, passion, belief, ethics, being apolitical and egalitarian.
STRATEGY	Strategic strengths in being progressive, entrepreneurial and unique. Quality and commitment to the local community are included in this category, when described as being typically integrated in the firm strategy.
LEADERSHIP	Strengths in leadership style; authority; ability to delegate.
GOVERNANCE	Strengths in governance, including meritocracy and a controlling/family ownership.
PERFORMANCE 1: OPERATIONAL CAPACITY	Strengths in resources and operational capacity, including intelligence, experience, professionalism, accountability, professional management, delivery of service and quality.
PERFORMANCE 2: FLEXIBILITY/DURABILITY	Strengths in terms of flexibility/adaptability, quickness to react, long-term view, and a reputation for permanence and reliability.
FINANCE	Strengths in terms of independent and secure finances.

Categories of cultural weaknesses in family firms

FAMILY	Specific weaknesses in terms of family resources, lack of non-family integration with family, family conflicts and relationships.
RELATIONSHIPS	Weaknesses in relationships between family firm and its stakeholders[4] in terms of over-involvement, isolation, lack of communication, seen as too trusting and too informal/soft.
VALUES	Weaknesses in terms of values; lack of ambition, values espouse too high levels of trust, values and culture in themselves mentioned as being a weakness. This category also includes instances where 'none' were mentioned as weaknesses, indicative of hubris or a notion of infallibility being integrated in the company culture.
STRATEGY	General strategic weaknesses, specific weaknesses in terms of marketing strategy.
LEADERSHIP	Weaknesses deriving from dominating or over-involved leadership, inability to delegate.
GOVERNANCE	Weaknesses of governance, in terms of nepotism, lack of non-family integration and shareholder involvement.
PERFORMANCE 1: OPERATIONAL CAPABILITY	Weaknesses in resources and operational capability, including lack of experience, structural difficulties, lack of management skills and staffing.
PERFORMANCE 2: FLEXIBILITY/DURABILITY	Weaknesses in being slow-paced, risk-averse, conservative and inadaptable.
FINANCE	Weaknesses in terms of a general lack of finances, or a specific lack of finances needed for growth.

[3] *non-family members/employees in the firm, outside contacts, clients, business partners, suppliers and the local community.*

APPENDIX 3

The Genetic Shareholder Index[5]

Let X be the set of family members who are involved in the business by way of governance or executive responsibility, and suppose

$$X = \{x_1, x_2, ..., x_n\}.$$

Define $g : X \times X \to [0,1]$ by letting $g(x, y)$ be the coefficient of genetic coincidence between x and y. Thus $g(x, y) = 1$ if $x = y$ or x and y are monozygotic twins, $g(x, y) = 0.5$ if x and y are siblings, and so on. To measure the degree of genetic coincidence $G(X)$ in X, called genetic shareholding index (GSI), we sum $g(x, y)$ over all $x \neq y$, and divide by the number of pairs of elements in X. In the double sum $\sum_{i=1}^{n} \sum_{j \neq i} g(x_i, x_j)$, each relationship is counted exactly twice. Hence the sum before dividing by the number of pairs of elements of X is

$$\frac{1}{2}\sum_{i=1}^{n}\sum_{j \neq i} g(x_i, x_j) = \frac{1}{2}\sum_{i=1}^{n}\sum_{j \neq i} g(x_i, x_j). \qquad (1)$$

But $g(x_i, x_j) = 1$, so $\sum_{j \neq i} g(x_i, x_j) = \sum_{j=1}^{n} g(x_i, x_j) - 1$, and so the sum before dividing by the number of pairs of elements of X is

$$\frac{1}{2}\sum_{i=1}^{n}\sum_{j=i} g(x_i, x_j) - \frac{n}{2} \qquad (2)$$

But the number of pairs of elements in X is $\binom{n}{2} = \frac{n(n-1)}{2}$. Therefore, dividing by $\binom{n}{2} = \frac{n(n-1)}{2}$, we have

$$G(X) = \frac{1}{n-1}\left(\left(\frac{1}{n}\sum_{i=1}^{n}\sum_{j=1}^{n} g(x_i, x_j)\right) - 1\right)$$

To calculate $G(X)$ in practice, one way is to just find all the coefficients $g(x, y)$ for x and y not the same person, add them, and divide the result by the total number of people n.

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[5] We are grateful to Jakob Björnberg for the formulation of this model.