**KNOWLEDGE SHARING IN SMALL FAMILY FIRMS: A LEADERSHIP PERSPECTIVE**

## Abstract:

*Knowledge sharing is considered critical in the development of a knowledge resource to contribute to the strategic development of the firm. However, how this key organisational activity takes place in small family firms is unknown, as much of the surrounding literature focused on large, nonfamily-oriented firms. This mixed-methods paper investigates the nature of knowledge sharing in small family firms, and explores the role of the influence of family in knowledge resource development. Quantitative findings (n=110) acknowledge heterogeneity of approach in small family firms and discover two distinct ways in which knowledge sharing activities take place; while qualitative data (n=26) uncovers what this means for individual knowledge sharing motivation within the firm. Contributions are here made to both family business and knowledge sharing literature, with implications for the way in which small family firms view the development of their knowledge resource.*

**Keywords:** family firms, knowledge sharing, path-goal theory, mixed-methods, factor analysis

## Introduction

Knowledge sharing has received a lot of attention in organizational literature due to links with performance (Geiger & Schreyögg, 2012; Huang *et al.*, 2013). However, its application to small family firms remains underrepresented, as most studies focus on larger non-family organizations (Wong & Aspinwall, 2004). Review of the few works that do consider knowledge sharing within large family firms highlights at least two divergent trends: one which looks positively on the altruistic nature of familial influence (Zahra *et al*., 2007; Karra *et al*., 2006); and another which implies more problematic behavioural issues impeding knowledge sharing in family firms (Poza *et al*., 2004; Le Breton-Miller & Miller, 2006). This divergence of thought highlights not only the difference perspectives which can be taken on socio-cultural knowledge practices, but also echoes other works which have found great variation in the way family firms approach the management of their resources (Le Breton-Miller *et al*., 2015).

It can be argued that in small family firms knowledge initiatives represent a particularly key resource (Dotsika & Patrick, 2013). However, when focusing on smaller organisations, the capacity for knowledge sharing is often found to be characterised by managerial awareness and the intentions of the individual or small group of individuals, at the head of the organisation (Durst & Edvardsson, 2012). This is said to create an adhocracy in the way many small firms manage their knowledge resources, over which the presence of family can have great cultural influence (Duh *et al*., 2010). The main research questions driving this work are thus two-fold: firstly, to investigate the impact of various intended leadership styles on knowledge sharing behaviours in small family firms; and second, to gain a better understanding on the role family influence plays in the fostering of said knowledge sharing behaviours.

This exploratory paper follows calls for a more holistic view of the family firm by looking to the interaction of leadership approach and family influence, and exploring how this impacts on the knowledge sharing behaviour of both family and non-family members (Sharma *et al*. 2014). Path-goal leadership theory (House & Mitchell, 1974; House, 1996) is here adopted as a framework to establish the various leadership approaches evident in small family firms, while the interaction of these approaches with the influence of family is investigated in terms of its impact on knowledge sharing activity.

Mixed methods are used in a staged-approach designed to engage with the multidimensional aspects of small family firms. Sequentially, quantitative survey data (*n=110*) from small family firms establish the relationships between leadership approach, knowledge sharing activity, and the influence of family; while qualitative interview data (*n=26*) from all organisational levels and family statuses explore the various perceptions and inform an understanding of the individualised impact on knowledge sharing. The findings of this paper not only further academic discussion on the development of a critical knowledge resource, but also greater define the complexities of behaviour within these contextually-sensitive and emotionally-laden firms.

This paper now considers the literature surrounding knowledge sharing in small family firms with view to developing a set of research propositions from which the aims of the work can be addressed.

## Background

# Knowledge sharing in small family firms

It is argued that knowledge initiatives form the single key resource for small firms (DeSouza & Awazu, 2006). However, while larger organisations now have a long established tradition in implementing the knowledge control and measurement systems put forward by Nonaka and Takeuchi (1995) and Davenport *et al*. (1998), among others, Nunes *et al*. (2006) find focus on this critical resource to be less popular in smaller firms. Is it suggested that this may be an issue of organisational size, as smaller firms are more informally structured and operate with more socially-based relationships than their larger counterparts (Dotsika & Patrick, 2013). Restrictions on resources across the board also mean that small firms tend to deal with knowledge and knowledge sharing on an *ad hoc* basis, if at all; particularly in relation to more tacit forms of knowledge, such as know-how and experiential wisdom (Durst & Edvardsson, 2012).

However, under the resource-based view, small firms have much to gain by extending their capabilities through the recombining and development of their current knowledge base (Carnes & Ireland, 2013). In particular, small family firms are found to have rich knowledge sources held within the individuals of the organisation, which when combined can enrich the knowledge base and ultimate competitive advantage of the firm (Sirmon & Hitt, 2003). In order to activate this knowledge, the sharing of resources through interaction is critical in reinforcing or transforming existing organisational knowledge (Sanchez-Famoso & Maseda, 2014); however, for this to take place, individuals must share their knowledge with each other (Patel & Fiet, 2011; Carrasco-Hernández & Jiménez- Jiménez, 2013). In this sense, family firms have the benefit of an enhanced relational flow between organisational members (Sanchez-Famoso & Maseda, 2014); which is particularly relevant for the type of tacit-to-tacit knowledge transfer characteristic of many family influenced organisations (Henry *et al*., 2013).

In this respect, Lin (2013) found family firms to demonstrate low preference for incentivised knowledge sharing systems; preferring instead to rely on sharing networks where the intention to share is based on a reciprocal and multi-directional flow to the benefit of the entire organisation. This follows Pieper and Klein’s (2007) systems approach to family firms, which sees each individual in the organisation able to influence the business system; also satisfying Siebels and Knyphausen-Aufseß’s (2012) concern that no singular theoretical approach to family firm capabilities does justice to the many relational complexities of the firm, by providing an open approach to the study of the individual within the business unit. In accordance with this view, knowledge sharing is considered by this paper to be the process of transferring the wisdom, skills, and technologies of individuals to generate a greater knowledge resource (Tsai, 2002). Knowledge sharing in this sense should not seek to build a static resource stock, but should enable knowledge mobilisation in reciprocal and meaningful exchanges.

Anecdotally, family firms could be considered to have a unique advantage over their non-family counterparts in the application of fluid socio-cultural knowledge practices (Zahra *et al.*, 2007; Seaman *et al*., 2010). The existence of altruism, particularly in the early stages of enterprise development (Chua *et al.*, 2009), implies that both knowledge and objectives should be effectively aligned between owners and other members of the firm (Zahra & Filatotchev, 2004). Therefore an element of internal trust, over agency, eases the intra-firm transfer of knowledge, particularly between family members (Karra et al., 2006; Trevinyo-Rodriguez & Tapies, 2006).

The key role of trust is considered critical in the dyadic transfer of knowledge (Gubbins & MacCurtain, 2008; Edmondson, 2002). Here, family influence is found to have the ability to transcend the transactional ties found in nonfamily organisational structures (Zahra & Filatotchev, 2004; Klein et al., 2005; Cliff & Jennings, 2005; Sonfield & Lussier, 2009). Furthering this, Pearson et al. (2008) also consider the abundant history of interaction and interdependence existing in family ties, thus theoretically enabling the creation of enhanced social capital. Arregle et al. (2007, p.77) suggest that the strength of familial social capital directly impacts organisational social capital through membership stability, interaction & interdependence, creating “one of the most enduring and powerful forms of social capital”. Once developed, Danes et al. (2009) see a strong social capital which can be relied upon to uphold the norms and reciprocal nature of structures in family firms, thus directly enhancing the notion of knowledge sharing.

However, in contrast to this notion, a concurrent train of thought in the family firm literature suggests a problematic centralization of knowledge heightened by the presence of family influence (Le Breton-Miller & Miller, 2006). Keenly, Poza et al.’s (2004) depiction of ‘separate realities’ between top-level management and ‘everyone else in the firm’ reflects the issue of an under-informed centre, which in turn echoes views on the problem of pluralism in organizational culture (Clegg et al., 2006). Dupuy (2004) places blame for a shielded centralisation on lack of knowledge communication affecting a withdrawal from ‘reality’ and subsequently bringing about strategic conservatism, mirroring many of the more critical ideas resonant in family business research (Habbershon, 2006; Basly, 2007).

Chirico and Salvato (2008) also suggest that a dominant family presence causes many conflicts to emerge which hamper vital knowledge integration, with fractured interpersonal relationships being the most prominent cause for concern (Kellermanns & Eddleston, 2004). The unique intersection of the family and business systems makes family firms sensitive to relational discord, rivalries, and conflict avoidance as opposed to resolution (Sorenson, 1999). Consequently, decisions on knowledge-based resources can be skewed, which at its worst can risk a lessening of knowledge as value judgements become based on the potential for conflict rather than appropriateness (Picard, 2004). One example of this is the implication that family systems may be significantly strong so as to *“negate or minimize the influence of ‘non-familieness’”* (Sonfield & Lussier, 2009, p.205), with the needs of familial harmony taking priority, thus placing artificial merit on family-held knowledge over non-family. Moreover, noted problems of controlling autonomy and nepotism has led to the emergence of theories on a family-induced ‘group think’ (Ensley & Pearson, 2005). In order to circumvent these issues, Zahra *et al.* (2007) suggest that many family firms seek to formalise their knowledge sharing processes; which in turn may cause the sharing of tacit knowledge to be less lucid than it could be.

# Heterogeneity in family firms

As seen, a family influence can have multiple effects on the capacity for knowledge sharing activities in the firm. For this reason, Sorenson (2000) places great importance on the role of leadership approach in managing the behavioural intricacies of family firms. Instinctively, paternalistic leadership styles come to the fore as being predominant in collective cultures such as family firms (Mussolino & Calabró, 2013). This may go some way to explaining the closed and centralised culture found in family firms, which can lead to protective inertia with regards to the knowledge resource (Chirico & Nordqvist, 2010). However, other studies have referred to the role of relational authenticity in family firm leadership (Milton, 2008). Caspersz and Thomas (2013) suggest that authenticity fosters, in turn, a positivity that encourages knowledge contribution and appreciation from across the organisation. Further still, participative approaches are also quoted as a way in which knowledge sharing is encouraged and the knowledge resource diversified in family firms (Chirico & Bau’, 2014). Participation is found to offer a coordinating mechanism to mitigate the risks of conflict by maintaining co-alignment amongst individuals, whilst constructively building a diverse yet complementary knowledge base (Chirico *et al*., 2011). Such coordination of knowledge is viewed by Sorenson *et al*. (2009) as being a key enabler for the integration of the ‘family point of view’ in business systems.

One of the main criticisms poised at much of the research conducted on family firm governance thus far, is the inappropriate treatment of family firms as a homogenous group (Chrisman *et al.*, 2005). The aforementioned array of leadership approaches posited as panaceas to the treatment of the knowledge resource is both testament to this research problem and proof of the variety of styles evident across family firms. Both the difficulties stated with a dominant family presence and the benefits attributed to particular leadership styles vary greatly depending on the composition of the family firm and the situational distinctions of their environment. For instance, Jaskiewicz *et al*. (2013) find nepotism in family firms to be beneficial in terms of knowledge sharing when it is reciprocal in nature but harmful when it is based on entitlement; with organisations demonstrating each of these characteristics in varied degrees. Salvato *et al*. (2010) also find great variance in family firms’ want for continuity over enthusiasm to change, while Eddleston *et al*. (2008) find that the success of a participative approach in dealing with conflict is itself sensitive to the generational make-up of the firm, subsequently affecting its ability to foster knowledge sharing (Spriggs *et al*., 2012).

The question of whether the familial aspects of a firm hamper or facilitate the sharing of knowledge is important, as this can affect the way in which all organizational decisions and strategic capabilities are viewed. Any study in to the state of knowledge sharing in family firms must take into account the extent of heterogeneity in organisational approach before it can comment confidently on the drivers of, or barriers to, knowledge sharing activity. Such complications provide some reason as to why, despite the importance of knowledge in today’s organizational environment, very little is known on how it is gained, maintained and distributed in small family firms (Zahra *et al.*, 2007).

# Path-goal theory

Path-goal theory is here used as a framework from which the heterogeneity of leadership approach in small family firms can be gauged, as it covers most of the potential leadership approaches which can be adopted. The theory examines how the contextually sensitive aspects of a leader’s behaviour influence a follower’s individual motivation to perform and their particularized satisfaction (Northouse, 2010; Yukl, 2011; Billing *et al*., 2013; Carmeli *et al*., 2013). Originally, path-goal theory distinguished between two behavioural categories of leadership style: supportive and instrumental (Evans, 1970; House, 1971). However, upon theoretical revisiting and numerous empirical applications, the theory has gradually expanded and complexified (House & Mitchell, 1974; House, 1996; Clegg *et al.*, 2011). For this reason, many empirical studies now apply a simplified or even bespoke structure of path-goal leadership. For instance, in Harris and Ogbonna (2001), where a three-branched conceptualisation of the theory is employed, involving: *participative*; *instrumental*; and *supportive* behaviours only. Northouse (2010) finds that the difficulties associated with the use of path-goal theory in research are seen in the interpretation of results. However, Dixon and Hart (2010) posit that, when used as a framework for understanding the array of leadership approaches evidenced in organisations, as done here, path-goal styles and measurements provide a useful understanding of leadership behaviour. Vecchio *et al.* (2008) also suggest that when the use path-goal styles is established, it is then possible to investigate which of these styles are most compatible with other environmental factors, such as the influence of family and knowledge sharing activity in this paper.

The ultimate goal of a leader engaging in path-goal leadership styles is to appropriately structure the leader-follower relationship in such a way that it enhances follower self-efficacy and ability to contribute as an organisational resource such as knowledge (Sosik & Jung, 2010). Although there are other contingency leadership approaches based on similar notions (Achua & Lussier, 2010), House’s (1971) path-goal theory is considered particularly relevant to the small family firm setting as it acknowledges the various motivations and role expectations which influence choices in leadership approach (Memili et al., 2013).

## Research propositions

The following research propositions inform the aims of this work in exploring the various intended leadership approaches in small family firms and assessing subsequent impact on knowledge sharing activity. Firstly, approaches to leadership have been found to be critical in the development of a firm’s knowledge resource (Sorenson, 2000). However, the broader family firm literature finds a wide-ranging variety of leadership approaches to exist across these diverse organisations (Mussolino & Calabró, 2013; Milton, 2008; Chirico & Bau’, 2014). As a further complexity, the enhanced role of individual owner-managers in small family firms means the application of any approaches to management is incongruent (Westhead & Howorth, 2007). Indeed, diversity in leadership approach is likely to be heightened in small family firms, where the importance of a prominent individual is felt.

*Proposition1: The nature of leadership approaches used in small family firms will vary and thus have varied effects on knowledge sharing activity*

Contextually sensitive path-goal styles are characterised by their devotion to and complementation of follower needs and ability (Monzani *et al*., 2014). It is understood that the participative form of these styles in particular provides a collaborative platform from which knowledge sharing activity can take place, via the creation of a flowing organizational infrastructure (Gagné, 2009; von Krogh *et al.*, 2012). From a family firm perspective, such participation may be enhanced by increased trust between members and open reciprocal structures in the firm (Arregle *et al.,* 2007; Pearson *et al.* 2008). Thus the influence of family here can be seen as providing a platform for participation.

*Proposition2: Small family firms demonstrating more participative approaches to leadership will exhibit more open knowledge sharing activity than those who do not.*

Although the presence of familial relationships may instinctively result in greater knowledge flow between individuals, from this presence there has been evidence of undesirable consequences in heightened centrality and judgement distortion, generating a dominant family presence inhibiting the lucid passing of knowledge from one individual to another ( Picard, 2004; Ensley & Pearson, 2005; Chirico & Salvato, 2008). As a reaction to these potentially problematic relational issues, a formalised and protectionist form of knowledge sharing is often considered a solution by family firms (Zahra *et al*., 2007; Sonfield & Lussier, 2009). Indeed, those small family firms with a dominant familial influence may seek to control knowledge sharing through the application of less open and more instructional form of leadership.

*Proposition3: Small family firms characterised by more instructional forms of leadership will show a dominant influence of family resulting in limited knowledge sharing activity.*

In instances of a dominant family influence evidence of knowledge centralisation is found to induce a pluralistic culture with regards to knowledge sharing activity (Poza *et al.*,2004). Specifically, the dichotomised characteristic of family status is found to inform how individual knowledge contributions are treated (Sonfield & Lussier, 2009). Not only is the treatment of knowledge contribution found to differ based on family status, but the individual perceptions of management behaviour are found to contrast greatly between family and non-family organisational members (Barnett & Kellermanns, 2006). This has important implications for way leadership is individually experienced in the firm and how knowledge sharing is viewed.

*Proposition4: Family and non-family members will differ in their experiences with knowledge sharing in small family firms.*

## Method

This paper uses a convergent mixed methods design to investigate the preceding propositions, offering complementary data on the same research topics. Quantitative survey data collected from the owner-managers of (*n = 110*) small family firms are used to measure heterogeneity of intended leadership approach, influence of family in the firm’s processes, and evidence of knowledge sharing activity. From these measurements, relationships between the various approaches to knowledge sharing are analysed in terms of their effectiveness. Subsequently, qualitative interview data (*n =* 26) explore perceptions within the firm from both family and non-family members. The staged-mixture of these methods affords this work the two-fold benefit of the facilitation of stratified qualitative sampling from quantitative results, and the ability of qualitative findings to provide contextual understanding to the broad relationships uncovered through quantitative analysis, following the conceptualisation of enhanced credibility of findings offered by Harrison (2013).

## Quantitative Measures

The survey instrument used comprises three independent, fully validated scales. The first seeks to measure the influence of family on the organization’s cultural behaviours using the 12-item culture subscale of the F-PEC scale of family influence, developed by Astrachan *et al*. (2002) and Klein *et al*. (2005). This scale is chosen over others due to the continuous nature in which family influence is treated, thus avoiding the outdated dichotomizing of ‘family’ and ‘nonfamily’ firms (Chrisman *et al.*, 2010). Moreover, this scale has withstood vigorous testing of its properties in terms of validity and reliability (Holt *et al*., 2010).

The second measurement uses Harris and Ogbonna’s (2001) 13-item instrument to anticipate the three distinct behavioural styles from path-goal leadership theory; namely: participative; supportive; and instructional forms of leadership behaviour. This particular scale is considered above others in the plethora of leadership literature due to its meticulous loyalty to the original theories of House and Mitchell (1974) and its tested relationship with organizational knowledge. Also, the measurement items of the scale have been widely used and accepted in organizational literature (Taormina, 2008; Kasemsap, 2013). Although the use of this instrument has produced successful and valid measurement scales, for instance, in Harris and Obgonna (2001) where three distinct leadership styles are uncovered, its greatest power is its ability to uncover the range of leadership styles present in a contextually sensitive situation. In order to do this, the items of the scale must be subjected to an exploratory form of dimension reduction.

The process of knowledge sharing is defined as the sharing of individually held wisdom and skills to contribute to the firm’s overall knowledge resource (Cabrera & Cabrera, 2005; Wang & Noe, 2010). In measuring the extent of this process it is therefore less beneficial to measure the stock of knowledge held in the firm, but more appropriate to determine the level and nature of knowledge sharing activity. In order to establish this, an eight-item scale is used from Wang *et al.*’s(2009) to measure the degree of knowledge mobilisation in the firm. This scale is rooted in established knowledge management literature, covering such issues as: openness to knowledge sharing; ease of knowledge source identification; and avenues available in which knowledge sharing can take place. The scale has been used in a number of studies and maintained consistent reliability (Jadallah *et al*, 2012; Huang & Wang, 2011).

## Qualitative Measures

While the quantitative measures of this paper address the intentions and interactions of leadership approach, influence of family and knowledge sharing activity from an owner-manager’s perspective; the use of semi-structured interviews uncovers the key themes relating to perceptions of leadership approach and how knowledge sharing is viewed from both family and non-family members. This second-stage of the research investigates how different perspectives within the firm are affected by the various approaches to leadership and what impact this might have on knowledge sharing, also considering to what extent being in a familial relationship alters these perceptions. To do this a qualitative sample is purposefully stratified in terms of intended leadership approach in the firm (ascertained from the first, quantitative, stage of the research and discussed later in this paper), followed by family or non-family status (following the stratification structure of Palikas *et al*., 2013 and Robinson, 2013). Through the analysis of this qualitative data, a greater understanding is formed on the nature of knowledge sharing in the social construction of the small family firm (Easterby-Smith *et al.*, 2008),with the interviews (*n = 26*) are on average 40 minutes in length.The qualitative themes uncovered, combined with the first (quantitative) stage of this study to help inform each of the research propositions put forward, representing a multilevel triangulation design as described by Creswell and Plano Clark (2007).

## Participants

Participants are included from small family firms of the knowledge-intensive sectors in Scotland. These sectors include: legal/financial services; education provision; property services; events management; and design. By delimiting the sample in such a way, the study follows Alvesson (2004), by focusing on only those firms where a knowledge resource plays the critical role in competitive differentiation. Snowball sampling is adopted to identify suitable small firms (5 and 49 employees) for inclusion (Easterby-Smith *et al.*, 2008). The presence of family is determined through a process of self-depiction, whereby the firm is either actively described as a family firm, or has engaged with family firm-specific business groups; from this, the inclusion criteria of at least one familial relationship within the firm is applied. Multiple ‘sampling centres’ are used to increase the geographical spread across Scotland, using known business groups and databases. An initial sampling frame of 204 firms is found in relevant industries and of relevant size for inclusion. 24 of these firms either did not meet inclusion criteria or were unwilling to participate. From those remaining, a total of 110 small family firms produced usable survey responses, a return rate of 53.9%; while 16 of these firms granted access to conduct qualitative interviews. No great concern is found in the evidence of non-response bias (Simatupang & Sridharan, 2005) and it can be confidently claimed that the sample achieved is representative of the wider population.

## Results and Analyses

# Quantitative

Initially, Harris and Ogbonna’s (2001) leadership approach measurement is subjected to PCA in order to either confirm the existence of the three theorized dimensions (participative style; supportive style; and instrumental style), or create more meaningful indices (Sekaran & Bougie, 2009). As Bryman and Cramer (1997) advise, the extraction of characteristics which go together from the 13 items is done using a combination of the *Kaiser criterion* (Kaiser, 1958) and Cattell’s (1966) *scree test*.

Table 1: *Principle components analysis (PCA) of leadership approach measures*

|  |  |  |
| --- | --- | --- |
| Factor Loading 1, 2 |  |  |
| Item  | **Participative Approach** | **Supportive Approach** |
| Before making decisions I consider what employees have to say | *0.863* |  |
| I listen to employees advice on which work to advance | *0.823* |  |
| I ask employees for their suggestions | *0.818* |  |
| Employees decide what and how things shall be done | *0.696* |  |
| I treat all organizational members as equals | *0.650* | *0.376* |
| When faced with a problem I consult with all organizational members | *0.596* |  |
| I take action before consulting with employees (reverse coding) | *0.460* |  |
| I help people make working on their tasks more pleasant |  | *0.778* |
| I schedule the work to be done |  | *0.744* |
| I maintain definite standards of performance |  | *0.729* |
| I explain the way tasks should be carried out |  | *0.697* |
| I do little things to make things pleasant |  | *0.655* |
| I look out for the personal welfare of organizational members | *0.456* | *0.525* |
| Eigenvalues | 4.339 | 2.550 |
| Percentage variance explained | 33.37 | 19.62 |
| Cumulative percentage variance explained | 33.37 | 52.99 |

1 Principle components analysis with varimax rotation converged in 5 iterations, loadings less than 0.3 suppressed.

2 Cronbach’s Alpha scores for factors can be found in Table 2.

From the PCA, two clear factors emerge to describe the leadership approaches evident in small family firms. The first loads heavily onto a component producing an eigenvalue of 4.339 and explains 33.37% of total variance. All criteria for extraction are met with this factor, also showing all items to be conceptually consistent. This is interpreted as showing a *Participative Approach* to leadership. The second loads onto a component producing an eigenvalue of 2.550 and explains 19.62% of total variance, the items of this factor are once again conceptually consistent. Of the three leadership approaches considered under path-goal theory, a mixture of both supportive and what Harris and Ogbonna (2001) term as instrumental behaviours are evident in the second factor, for the sake of labelling this is termed as *Supportive Approach*. Although path-goal theory anticipates three leadership styles, finding two distinct approaches produces sufficient evidence to support claims of diversity within the sample. Therefore, from these results, one aspect of the first research proposition can be addressed, that leadership approaches do indeed vary in the sample obtained, with a distinction between supportive and participative styles demonstrated.

# Validity and reliability

The two leadership approaches found through PCA are added to measurements on the influence of family and knowledge sharing activity to make up four distinct scales in total. The Kaiser-Meyer-Olkin (KMO) test for sampling adequacy found a value of 0.646 for these items, thus well above the 0.50 which is considered acceptable in explaining any subsequent correlations (Norusis, 2001), and is characterised by Kaiser (1974) as being of a meritorious level. Bartlett’s test for sphericity also proved significant on the strength of relationships. Thus, both tests provide a strong indication of the adequacy of the 110 sample size for the analysis conducted (Tabachnick & Fidell, 1997).

Cronbach’s α coefficient (Cronbach, 1951) is used to test the reliability of each construct; results are detailed in Table 2. As shown, the four scales ranged in coefficients, from 0.768 to 0.863; therefore, each of the scales is clearly considered internally reliable, with most showing strong evidence of reliability (Sekaran & Bougie, 2009). Moreover, a high range and positive direction of inter-item correlations within each construct demonstrates convergent validity (Campbell & Fiske, 1959).

Table 2: *Inter-scale Pearson’s correlation coefficients against alpha*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Scale | Participative Approach (PA) | Supportive Approach (SA) | Knowledge Sharing Activity (KSA) | Family Influence (FI) |
| PA | **0.830 α** |  |  |  |
| SA | 0.251\* | **0.786 α** |  |  |
| KSA | 0.589\* | 0.423\* | **0.768 α** |  |
| FI | 0.191 | 0.444\* | 0.424\* | **0.863 α** |

\* Correlations significant at *p* < 0.01 level

Although discriminant validity is to some extent implied by the use of PCA to extract the reflective leadership scales (Diamantopoulos & Winklhofer, 2001), further testing strengthens validity discussions on all four scales. To do this, a procedure is used from Gaski and Nevin (1985), where discriminant validity of reflective scales is indicated by the correlation between two unrelated measurement scales being less than the Cronbach’s α of each (Rajamma *et al*., 2009). Table 2 clearly shows that no inter-scale correlation coefficient is close to being as high as the corresponding Cronbach’s α score, thus demonstrating discriminant validity.

To gauge the nature of the data, the standardized figure for each scale is used (Carifo & Perla, 2008). Tests for normality show moderate evidence of Skewness and Kurtosis. This is to be expected with data based initially on Likert observations and following West *et al.*’s (1995) recommendations provide no cause for concern, the respective results of *H* < 1.1 and *H* < 1.6 being deemed acceptable (Wang & Ahmed, 2004). Further tests on the normality of the 110 sample data demonstrate confidence that the data satisfy criteria for proceeding with parametric procedures (Sirkin, 2006; Leung *et al*., 2000).

# Path-analyses (investigating relationships)

The following path-analysis is based on the outline for effective causal analysis provided by Peyrot (1996). Hierarchal regression analyses (Table 3) culminate in the production of a clear path-analysis beginning with the most conceptually exogenous variables and working towards the most endogenous, allowing direct and indirect associations to emerge (Austin *et al*., 2004).

**Table 3: *Hierarchal multiple regression***

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Layer 11, 2Predictors of FI | *B* | Std. Error | Beta | T | Sig. |
| PA | 0.066 | 0.069 | 0.086 | 0.961 | 0.339 |
| SA | 0.410 | 0.410 | 0.422 | 4.736 | 0.000 |
| Layer 23, 4Predictors of KSA | ***B*** | **Std. Error** | **Beta** | **t** | **Sig.** |
| PA | 0.390 | 0.058 | 0.494 | 6.771 | 0.000 |
| SA | 0.189 | 0.080 | 0.190 | 2.378 | 0.019 |
| FI | 0.251 | 0.081 | 0.245 | 3.108 | 0.002 |

1 Dependant variable: *Family Influence*

2 Predictors: *Participative Approach*, *Supportive Approach*

3 Dependant variable: *Knowledge Sharing Activity*

4 Predictors: *Participative Approach*, *Supportive Approach, Family Influence*

Path-goal leadership approaches are posited as independent variables and constitute the most exogenous variable for the purposes of analysis. The first layer of the conceptual model considers the introduction of *Family Influence*. Therefore, this is entered into a regression model as the dependent variable, with both leadership scales included as independents. The adjusted *R* square for this layer is 0.189, which means that 18.9% of variance in *Family Influence* is explained by the two leadership styles. The second layer involves those variables influencing *Knowledge Sharing Activity.* This scale is therefore entered into a regression model as the dependant variable, with *Participative Approach*, *Supportive Approach* and *Family Influence* entered as independent variables. The adjusted *R* square for this layer of the model is 0.461, which means that 46.1% of variance in *Knowledge Sharing Activity* is explained by these three variables.

From this analysis, the two leadership scales appear as fairly strong predictors of *Knowledge Sharing Activity*: *Supportive Approach* (*B* = 0.189, *p* < 0.05); and *Participative Approach* (*B* = 0.390, *p* < 0.001). These findings are diagrammatically demonstrated in Figure 1, including Beta weights and correlation coefficients (brackets). *Participative Approaches* to leadership are confirmed as the greatest predictor of *Knowledge Sharing Activity*, which goes some way to addressing proposition two. However, *Family Influence* also shows a significant positive relationship with *Knowledge Sharing Activity* (*B* = 0.251, *p* < 0.01), this pulls into question the implication in proposition three, that a dominant family influence will limit knowledge sharing activity. However, this process also uncovers the partial mediation of a *Supportive Approach* by *Family Influence* (*B* = 0.103, p < 0.01), an effect not found when considering *Participative Approach*, which has implications for the role of family influence supportive leadership approaches.



\* *p* < 0.001

\*\* *p* < 0.01

\*\*\* *p* < 0.05

Figure 1: *Full model of path-analysis*

Controls for both *Firm Size* (within the sample inclusion criteria) and *Firm Age* proved to be non-significant, as theoretically expected in such a tightly controlled sample frame.

# Qualitative

The main area of qualitative investigation in this paper considers how leadership approach is viewed from the various perspectives within the firm, and also, how the created image of leadership impacts on day-to-day knowledge sharing activity. In order to achieve this, the qualitative data is approached from semi-constructionist standpoint. Firstly, the qualitative sample is stratified into two groups: those from firms where supportive leadership behaviours are demonstrated (*N* = 14) and those from firms where participative leadership behaviours are demonstrated (*N* = 12) (based on the framework of leadership behaviours established though quantitative analysis). Second, the data within these groups is further split according to the familial status of the data source (family: in supportive firms *N* = 10; participative firms *N* = 9, or non-family: in supportive firms *N* = 4; participative firms *N* = 3). From this starting point, the paper’s joint foci of investigation, images of leadership approach and how knowledge sharing activity takes place, can be investigated. Open thematic coding is used to allow the emergence of the most pertinent themes related to these phenomena. Figure 2 provides a visual representation of the data structure from those firms demonstrating supportive leadership behaviours while Figure 3 provides the same data structure for those showing participative behaviours. These figures are adapted from the data structures used by Strike (2013) and also show the themes found from within the data groups, and the aggregated dimensions on the state of knowledge sharing resulting from these themes. In structuring the data in such a way, this study attempts to answer Hair and Sarstedt’s (2014) call for more analytical and transparent qualitative approaches. Each of these dimensions is now reviewed from within this paper’s leadership framework, separating those based on a supportive and a participative leadership approach, with further explanatory evidence presented from the data.



Figure 2: *Data structure for firms showing supportive approaches*

# Knowledge sharing under a supportive approach

A centralised parentalism is found to emanate from a strong sense of responsibility felt by family members on the provision of just staff welfare and empathetic working conditions. In particular, family members are keen to highlight their reaction to work and process problems brought forward by employees and their willingness to invest in the business to improve conditions. This is exemplified in excerpt 1 and is also mirrors findings from non-family employees.

Excerpt 1:

*I mean, at the end of the day, if the girls have a problem, then I say, ‘what do you need to resolve it’, ‘how would you like to do it’, ‘what do you need’, you know, ‘do you need another member of staff’, that sort of thing.* (13/FM)

# This concern for working conditions is also found to manifest itself in an environment where personal development is appropriately structured so as to assure parity and working conditions are made flexible enough to account for pressures in the employee’s private life. However, this empathetic responsibility is accompanied by explicit instruction given to non-family staff, with a specific focus on the maintenance of standards. A common theme in the data suggests a concentrated effort in maintaining the standards set by the family, with consequences for those not reaching the expected criteria. As demonstrated by the following, “if someone is not performing, it’s soon highlighted right away, and whatever action needs to be taken to change that is done” (9/FM). Excerpt 2 provides an example of how this process takes place.

Excerpt 2:

*We go through the manual… it’s very intensive. Perhaps the standards that we’ve managed to maintain have been pretty good… but I wouldn’t like to continue doing this and delegating responsibility like that. We have a recent experience and I’m not convinced that the people were actually working as hard as they perhaps should have been, as hard as we would have, certainly… [so] everyone learns their roles, you know, they have their roles.* (10/FM)

The instruction to given to non-family members is not mirrored when considering family related staff. Excerpt 3 shows a common situation, where those employees who are family-related are not provided the same level of instruction as others.

Excerpt 3:

*[Other] teachers have it written in their contract, the hours they’re expected to work and what that’s covering, but her (daughter) things are not actually written down as a contract.* (7/FM)

Findings from the non-family element confirm the focus on the maintenance of standards yet, and perhaps as to be expected, fail to raise the issue of family members not being subject to such controls. The staff welfare and support findings are also found from non-family respondents, this takes the form of professional development and also provision of the tools required to perform their roles.

In terms of knowledge sharing activity, a common theme arising from both family and nonfamily under the supportive approach to leadership is the acknowledged limits to nonfamily inclusion. When considering knowledge contributions from nonfamily, one family-based manager offers, *“we’ll stop them at the end and say, ‘right well, we’ll just make the decisions and we’ll just enforce them’, they won’t specifically be involved in decision making”* (13/FM). This is a situation felt by nonfamily members who see it as a direct consequence of the family influence on the business, where the response to new ideas is normally, *“no, we’ve always done it this way”* (1/NE). The following excerpts offer some explanation on the origins of these limitations from both a family and nonfamily perspective, respectively.

Excerpt 4:

*It might be difficult for another person to come in because you have this track record, there’s a history of working together… would their [nonfamily] views be as valued as much as someone within the inner circle, this tight inner circle of the family unit? If they weren’t shareholders, directors or something, I don’t know.* (10/FM)

Excerpt 5:

*I think it’s probably another consequence of it being a sort of family thing, we don’t do meetings particularly right [sic], because they just do it round the breakfast table… that’s not necessarily a good thing.* (5/NE)

However, despite these limitations, most family and nonfamily participants from firms showing supportive-style leadership approaches suggest an open form of communication. This is evidenced from employees who can, *“chap the door at any time”* (7/NE) to share concerns, and managers who wish to create a *“forum where people can speak freely”* (3/FE) and overcome any employee hesitance.

Interpretation of the themes emerging from supportive-based firms creates an image of a centralised family influence with a paternalistic concern for staff welfare. There is an informal encouragement of nonfamily knowledge contribution; however, this encouragement comes with set boundaries on the information nonfamily have access to, and the types of decisions their contribution will be considered on. The centralised nature of family influence is found to manifest itself in maintenance of definite standards expected of those out with the family, which goes some way to addressing proposition three in that these more supportive and instructional forms of leadership approach contain a more dominant family presence, limiting the extent of knowledge sharing. From the nonfamily perspective, there is also a remoteness of the family unit decision-making, which reinforces the limitations set for knowledge contribution.



Figure 3: *Data structure for firms showing participative approaches*

# Knowledge sharing under a participative approach

Firms demonstrating a participative approach to leadership are found to be characterised by an egalitarian informality, typified by indistinct roles and responsibilities. This blurring of positional functions is born from a philosophy of individual development being inexorably linked to the development of the business. This is evidence on the following excerpt from a family-based manager.

Excerpt 6:

*Anybody coming to work for us will grow with the business, hopefully, but will also be able to satisfy their particular aspirations of what they want to do in the future. Even at a particular level, you might be involved in strategic issues. You can be creative with structure.* (11/FM)

The reasoning for such an approach in the participative-based firms is to gather experiences and base the direction of the business on a team model, rather than being prescriptive in nature. The following excerpt typifies what is fund when individual knowledge contributions are made.

Excerpt 7:

*If they’ve [nonfamily] got a better idea of how something should be done, then fair enough… you have to give employees a certain amount more freedom than perhaps they would have in other [non participative] environments.* (4/FM)

This manifests itself in a focus on facilitating individual ambition within the firm; where staff welfare is considered to the extent that it allows employees to develop with the firm and *“stay the next 30 years”* (11/FM). The nonfamily participants also acknowledge such an approach. This is felt in terms of autonomy of work, stating for instance that, *“it’s [task] ownership… as opposed to the, ‘I’ve got money shares’ or whatever”* (4/NE). The responsibility which comes with such freedom is also noted; however this is only discussed in the positive realm as opposed to being a burden of expectation.

In terms of knowledge sharing activity, firms evidencing a participative-based approach to leadership are found to be, perhaps expectedly, open to new knowledge. Familiarity is highlighted as a characteristic which facilitates the openness to knowledge, along with the potential to criticise. This is seen in the following excerpt.

Excerpt 8:

*They’ll [nonfamily] say, ‘I don’t think that’s a good idea’, and I suppose that’s another advantage of the familiarity. They can speak like that, whereas if you were a bit more aloof and they were a stranger, they might be a bit nervous about speaking their mind.* (1/FM)

The inclusion of all members of the firm in decision-making and strategic discussion is stated as a deliberate plan from family members, where challenges to the business direction, however uncomfortable, and embraces. With one family managers suggesting that he would *“be equally as angry if [he] wasn’t challenged”* (1/FE) than he would were his ideas to be confronted. When considering challenges to their own authority on strategic direction, the reaction from family members in participative-based firms is typified in the following excerpt.

Excerpt 9:

*It’s not my ball; every idea doesn’t need to come from me. You know, I’m not proprietary at all about it. If somebody comes, obviously it’s sometimes better to get a fresh pair of eyes on it, so no, that’s not an issue.* (2/FM)

The process for such inclusion of knowledge from across the organisation is found to be both informal and immediate. Immediate in the sense that, as one family-based manager notes, *“it doesn’t matter how long somebody’s been with us, if they’ve got ideas then we’ll take those ideas”* (4/FM); and informal, as another family-based manager explains, *“we’re all in the same room, we all have a chat about it, we would never sit down and have a formal meeting”* (2/FE). Such a situation appears to happen frequently in firms demonstrating participative approaches, for instance, as one manager puts is, *“on a daily, weekly basis, they have an idea, we’d put it into practice… if it’s a good idea and it works, we’re up for it”* (12/FM).

The informality expounded my family-based managers is also felt by nonfamily members, who find themselves in a relaxed environment where strategic discussion can happen instantaneously and often bluntly. The following excerpt typifies the sentiment which is found.

Excerpt 10:

*The banter’s flowing, there’s not [sic] really any boundaries as to where you want to go with your conversation, even on and off topic, business-wise.* (5/NE)

Firms evidencing participative-based approaches are found to utilise the informality of their environment in order to garner ideas-generating discussion from across the organisation. Knowledge contribution from nonfamily appears to not only be listened to, but also acted upon, in a form of assimilation into the business as a strategic unit. This is in turn found to manifest itself in an autonomy and responsibility for all in the organisation to become involved in the development of the business.

## Discussion

# Heterogeneity of approach

The analysis of leadership behaviour reveals at least two distinct ways in which small family firms approach management, and therefore the management of their knowledge resource. This finding broadly supports views on heterogeneity in small family firms (Chrisman *et al.*, 2005). Although fewer approaches are found than theoretically anticipated by the path-goal framework, the existence of these two dissimilar styles has strong implications for both knowledge sharing and engagement with the influence of family. Results such as this support the view from Vecchio *et al*. (2008) on the sensitivity of path-goal leadership styles to the surrounding organizational environment and that leadership within small family firms takes on a different nature than what is found elsewhere.

Firstly, the merging of supportive and instructional leadership behaviours suggests that small family firm leaders displaying such styles view support and guided instruction as part of the one function. That this approach to leadership behaviour is positively related to the influence of family, found to act as a partial mediator in subsequent impact on knowledge sharing, shows that, instead of family influence and formalised leadership approaches conflicting (as suggested by Songini, 2006), these concepts can co-exist and even complement one another. However, from the qualitative data analysed, this impact translates to a very specific form of knowledge sharing which is characterised by a central familial element, retaining control and maintaining a strict standard to which all nonfamily members of the organisation are measured against. The knowledge sharing found to take place under such systems focuses on the resolution of specific concerns from nonfamily and the instruction of task. From here it is easy to see how the familial element of the firm can become a distant and protective body, potentially contributing much of the strategic inertia noted by Chirico and Nordqvist (2010). When family commits itself to the role of standard bearer and instructor, as seen under these supportive approaches, it creates an artificial barrier to outside contribution and engagement. This is found to be particularly true when critical decisions are made away from the workplace, thus making small family firms reliant on only those within the family element. On top of this, the responsibility taken for staff welfare and employment conditions places pressure on a small number of individuals within the firm to provide successful business development solutions, thus running the risk of problematic nepotism and the devaluing of nonfamily contribution (Ensley & Pearson, 2005; Sonfield & Lussier, 2009).

The second leadership style to be found in small family firms takes on a participative flavour, which Salvato *et al*. (2010) suggests are the firms more open to change than continuity. Firms displaying participative styles are unlike their supportive counterparts in that there is no direct relationship between these styles and family influence. From qualitative findings, the influence of family here is seen to function as a facilitator of informality and an open environment, through which participation is encouraged. Familiarity of family members is extended to nonfamily, at which point the influence of family ceases. The instantaneous nature of contribution and the lack of role distinction encourage autonomy for each organisational member. This brings with it an organisation-wide responsibility for business development, where the role of the founding family is to provide a platform for development and the realisation individual ambition. In this way, the uptake of participative styles lessens the responsibility of the family, but also reduces the amount of control they have over the firm. It may be claimed that such approaches seek to minimise the impact of family, as discussed in Stewart and Hitt (2012), but from the qualitative findings of this study this would be to disservice the critical function that family here provides in providing intimacy and camaraderie.

Uncovering two divergent ways in which small family firms approach leadership and utilise family influence supports the view of Westhead and Howorth (2007), that family firms differ on the most basic terms of their self-selected intentions, and has clear implications for how these organisations are treated. From this study it cannot be claimed that these are the only two forms existing in small family firms, but the role of leadership approach is highlighted in determining how family is understood in organisational context. Although the influence of family is key to each of the styles found, one approach appears to focus on family control as a *rasion d’etre*, which brings with it all the problems associated with centralisation; while the other views family as the foundation of an organisational culture based on openness and contribution, which then in itself may be a precursor to a dilution of family influence in the long-term.

# Knowledge sharing

Participative approaches are confirmed as the strongest indicator of knowledge sharing activity, as theoretically expected (Wenger, 2004). However, family-based supportive styles are also found to have a direct relationship with knowledge sharing activity, irrespective of the potential for problematic centralisation associated with this approach. In explaining this curiosity, qualitative data finds that the nature of knowledge sharing activity and the levels of contribution differ considerably. For instance, while firms demonstrating participative styles are open to contributions from all elements of the firms, family and nonfamily, firms utilising supportive styles create certain boundaries. This can be seen no clearer than in the limitations found to nonfamily inclusion in decision-making and in matters of ‘private’ interest to the family. Such barriers automatically reduce the validity of the nonfamily knowledge in the frim; therefore, regardless of the amount of knowledge activity performed, knowledge contributions remain focused on those emanating from the family element, an idea which supports the more negative connotations of familial priority by Picard (2004).

This situation amongst firms demonstrating supportive styles also goes some way to explaining the resistance to knowledge contribution, which family members perceive of employees. As greater limitations of autonomy are felt, and access to critical information is denied, nonfamily members are likely to become less inclined to volunteer ideas and contributions. As a consequence, remoteness is created which serves only to reinforce a distance between those in the *inner circle* of the family and other organisational members, echoing Poza *et al*.’s (2004) warning on the development of ‘separate realities’. Although this mode of approach allows the firm to maintain a family control, it is at risk of neglecting the knowledge resource by embedding a two-tier system of knowledge. It may be then claimed that knowledge sharing activity and mechanisms, within supportively-led small family firms, look to ensure the maintenance of conditions and enforce a strategic conservatism, which many family business observes note (Naldi *et al*., 2007; Zahra, 2005; Miller & Le Bretton-Miller, 2003).

Those firms displaying participative styles, however, encounter a different problem to that of knowledge limitation. The acceptance of contribution from all in the firm combined with the lack of formalised processes, mean that much of the owner-manager’s time is taken up with the translation of idea into practice. However, the nature of the open format discussion, characteristic of such firms, allows many of the viable ideas to be identified in an immediate fashion. In this sense, knowledge sharing activity can be seen to seek a socially-constructed development of the business agenda. Responsibility for this is found to be felt by all in the firm, which leads to a further consideration of this approach, in the heightened responsibility felt by nonfamily members to contribute to strategic discussion. Although many see the inclusion of their views as a positive aspect of this environment, path-goals theory suggests that this situation will not suit all individuals (Sosik & Jung, 2010). In this way, the leadership of small family firms must carefully consider whether participative styles are appropriate, considering the cognitions of their nonfamily members, so as to avoid social friction in misaligned expectations (Mitchell *et al*., 2003).

From the findings of this study, it can be suggested that firms undertaking a participative approach to knowledge sharing activity have made either a conscious or subconscious decision that the family element should not exclusively control the strategic direction of the firm. The enhanced relational flow driven forward by the influence of family can be seen to be a starting point, on which the open and informal knowledge culture of the organisation is based. This shows that family firms are not, in fact, consigned to a binary choice of professionalization against ‘familiness’, as advocated by Stewart and Hitt (2012), but instead can use the nature of family influence to enhance their professional knowledge sharing processes. However, in doing so, such firms face a loss of control over the direction of business development.

## Conclusions

This study addresses the issue of heterogeneity in small family firms in terms of approach to knowledge sharing. Leadership style has been identified as a critical factor in determining how small family firms engage with knowledge sharing activity. The variation in approach evident in firms has been empirically explored, with implications for the nature of knowledge sharing examined. Results have been discussed in view of the theoretical propositions put forward, with the intention of advancing the current body of knowledge on how small family firms take advantage of their critical knowledge resource.

The main findings regarding variety in approach to leadership show evidence of two divergent styles in small family firms (*P1*). Firstly, a supportive and instructional style is found to integrate with the influence of family and create a centralised family unit which seeks to maintain standards and control over the direction of the firm. One implication of this is the limits set on contribution to the knowledge resource (*P2*), in particular, the experience of nonfamily find them to be restricted in terms of their own knowledge validity and consequently their contribution to the firm (*P*4). Second, a participative approach is found, based on open and organisation-wide contribution to knowledge (*P3*). Nonfamily take on a role of some responsibility here, where there is an expectation that they will impact on the firm’s business development through the openness and informally instilled by the presence of family (*P4*).

Theoretical contributions are here made to the family firm literature, in furthering understanding of the variety leadership approaches in small family firms and some of the implications that these choices in leadership approach can have for family and nonfamily members. Alos, by linking leadership approach to knowledge sharing; this study is able to contextualise theory on knowledge activities in the firm to a broader theoretical background, however further investigation is needed here as the relative weakness of the quantitative results obtained suggest that there may be further influences on knowledge sharing activity than leadership approach alone. The practical implications for of this work relate to the development of a knowledge resource in small family firms and changing nature of knowledge sharing activity depending on leadership intention and the role of family influence.

## Limitation and further research

This is a very specific study, which it would be inappropriate to generalise from outside of the population investigated. That said, the study aimed to be rigorous in gaining a deep understanding from all levels and statuses within the small family firm. There is possible bias in the self-determination of family influenced firms. However, attempts have been made to circumvent this by applying strict inclusion criteria to ensure a sufficient level of family input to the firm. Also, the scales used are purposefully chosen to allow family influence to be gauged on a continuum as opposed to binary selection.

Although the study found two distinct approaches to leadership within small family firms, the relationships connecting these and the influence of family to knowledge sharing activity are found to be moderate. While this may indicate weaknesses in the data, the robustness of the methodological approach undertaken would instead suggest that there may be other theoretical explanations to variation in knowledge sharing activity, over and above leadership approach. In particular, qualitative findings imply that some nonfamily employees are hesitant to contribute to the knowledge resource, while others feel an added responsibility attached to such a role. From this is can be implied that knowledge sharing may be dependent on the motivations of the individual employees. Future studies could focus on the types of individuals attracted to nonfamily employee roles and also the recruitment criteria of firms when selecting such individuals. Another avenue of interest is the role of generational make-up in knowledge sharing. The current study has been cross-sectional in nature, future work could investigate whether knowledge sharing behaviour in small family firms change over time, and in particular over the generations of the family. Also, further work may wish to explore the notion of power within a participative structure. For instance, although participative firms seek contribution from all in the organisation, it is likely that family status carries certain legitimacy over nonfamily, this issue may skew the egalitarian nature of participation and is worthy of further investigation.

## References

Achua, C.F., Lussier, R.N. (2010). *Effective leadership*. 4th ed. Canada: Cengage Learning.

Alvesson, M. (2004). *Knowledge work and knowledge-intensive firms*. Oxford: Oxford University Press.

Astrachan, J.H., Klein, S.B., & Smyrnios, K.X. (2002). The F-PEC scale of family influence: A proposal for solving the family business definition problem. *Family Business Review*. 15(1): 45-58.

Austin, J.T., Scherbaum, C.A., & Mahlman, R.A. (2004). History of research methods in industrial and organizational psychology: measurement, design, analysis. In S.G.Rogelberg (Ed). *Handbook of research methods in industrial and organizational psychology* (pp. 3-33). Oxford: Blackwell Publishing Ltd.

Basly, S. (2007). The internationalisation of the family SME. *Baltic Journal of Management*. 2(2): 154-180.

Billing, T.K., Bhagat, R.S., & Babakus, E. (2013). Task structure and work outcomes: Exploring the moderating role of emphasis on scheduling. *Management Research Review*. 36(2): 136-152.

Bryman, A. & Cramer, D. (1997). *Quantitative data analysis*. Cornwall: Routledge.

Cabrera, E.F., & Cabrera, A. (2005). Fostering knowledge sharing through people management practices. *International Journal of Human Resource Management*. 16(5): 720−735.

Campbell, D.T., & Fiske, D.W. (1959). Convergent and discriminant validation by the multitrait-multimethod matrix. *Psychological Bulletin*. 56(2): 81-105.

Carmeli, A., Gelbard, R., & Reiter-Palmon, R. (2013). Leadership, creative problem-solving capacity, and creative performance: the importance of knowledge sharing. *Human Resource Management*. 52(1): 95-122.

Carnes, C.M., & Ireland, R.D. (2013). Familiness and innovation: Resource bundling as the missing link. *Entrepreneurship Theory and Practice*. 37(6): 1399-1419.

Carrasco-Hernández, A., & Jiménez-Jiménez, D. (2013). Can family firms innovate? Sharing internal knowledge from a social capital perspective. *Electronic Journal of Knowledge Management*. 11(1): 30-37.

Caspersz, D., & Thomas, J. (2013) Developing Positivity in Family Business Leaders. *Family Business Review*. doi:10.1177/0894486513505641

Cattell, R.B. (1966) The meaning and strategic use of factor analysis. In R.B.Cattell (Ed.) *Handbook of Multivariate Experimental Psychology*. Chicago: Rand McNally.

Chirico, F., & Bau, M. (2014) Is the Family an “Asset” or “Liability” for Firm Performance? The Moderating Role of Environmental Dynamism. *Journal of Small Business Management*. 52(2): 210-225.

Chirico, F., & Nordqvist, M. (2010) Dynamic capabilities and trans-generational value creation in family firms: The role of organizational culture. *International Small Business Journal*. 28(5): 487-504.

Chirico, F., & Salvato, C. (2008) Knowledge integration and dynamic organizational adaptation in family firms. *Family Business Review*. 21(2): 169-181.

Chirico, F., Sirmon, D. G., Sciascia, S., & Mazzola, P. (2011). Resource orchestration in family firms: investigating how entrepreneurial orientation, generational involvement, and participative strategy affect performance. *Strategic Entrepreneurship Journal*. 5(4): 307-326.

Chrisman, J.J., Chua, J., & Sharma, P. (2005) Trends and Directions in the Development of a Strategic Management Theory of the Family Firm. *Entrepreneurship Theory and Practice*. 29(5):555–576,

Chrisman, J.J. Kellermanns, F.W. Chan, K.C. & Liano, K. (2010). Intellectual foundations of current research in family business: An identification and review of 25 influential articles. *Family Business Review*. 23(1): 9-26.

Chua, J., Chrisman, J.J. & Bergiel, E. (2009). An agency theoretic analysis of the professionalized family firm. *Entrepreneurship Theory and Practice*. 33(2): 355-372.

Clegg, S, Courpasson, D., & Phillips, N. (2006). *Power and Organizations*. London: SAGE Publications Ltd.

Clegg, S, Kornberger, M., & Pitsis, T. (2011). *Managing & organizations: An introduction to theory & practice*. 3rd ed. London: SAGE Publications Ltd.

Creswell, J.W. & Plano Clark, V.L. (2007). *Designing and conducting mixed methods research*. London. SAGE Publications Ltd.

Cronbach, L.J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*. 16: 297-334.

Davenport, T.H., de Long, D.W., & Beers, M.C. (1998). Successful knowledge management projects. *Sloan Management Review*. 39(2): 43–57.

Diamantopoulos, A., & Winklhofer, H.M. (2001). Index construction with formative indicators: An alternative to scale development. *Journal of Marketing Research*. 38(2): 260-277.

Dixon, M.L., & Hart, L.K. (2010). The impact of path-goal leadership styles on work group effectiveness and turnover intention. *Journal of Managerial Issues*. 22(1): 52-69.

Dotsika, F., & Patrick, K. (2013) Collaborative KM for SMEs: a framework evaluation study. *Information Technology & People*. 26(4): 368-382.

Dupuy, F. (2004). *Sharing knowledge: The why and how of organizational change*. Hampshire: Palgrave MacMillan.

Durst, S., & Edvardsson, I.R. (2012) Knowledge management in SMEs: a literature review. *Journal of Knowledge Management*. 16(6): 879-903.

Easterby-Smith, M., Graca, M., Antonacopoulou, E., & Ferdinand, J. (2008). Absorptive capacity: A process perspective. *Management Learning*. 39(5): 483-501.

Ensley, M., & Pearson, A. (2005). An exploratory comparison of the behavioral dynamics of top management teams in family and nonfamily new ventures: cohesion, conflict, potency, and consensus. *Entrepreneurship Theory and Practice*. 29(3): 267-284.

Evans, G. (1970). The effects of supervisory behavior on the path-goal relationship. *Organizational Behavior and Human Performance*. 5: 277-298.

Gagné, M. (2009). A model of knowledge sharing motivation. *Human Resource Management*. 48(4): 571-589.

Gaski, J.F., & Nevin, J.R. (1985). The differential effects of exercised and unexercised power sources in a marketing channel. *Journal of Marketing Research*. 22: 130-142.

Geiger, D. & Schreyögg, G. (2012). Narratives in knowledge sharing: challenging validity. *Journal of Knowledge Management*. 16(1): 97-113.

Habbershon, T. (2006). Commentary: A framework for managing the familiness and agency advantages in family firms. *Entrepreneurship Theory and Practice*. 30(6): 879-886.

Harris, L.C., & Ogbonna, E. (2001). Leadership style and market orientation: An empirical study. *European Journal of Marketing*. 35(5/6): 744-764.

Henry, M., Erwee, R., & Kong, E. (2013) Insights from Canadian case studies on succession and knowledge transfer in family firms. *Proceedings of the 3rd International Conference on Engaged Management Scholarship*. Social Science Research Network,

Holt, D.T., Rutherford, M.W., & Kuratko, D.F. (2010). Advancing the field of family business research: Further testing the measurement properties of the F-PEC. *Family Business Review*. 23(1): 76-88.

House, R. J. (1996) Path-goal theory of leadership: Lessons, legacy, and a reformulated theory. *The Leadership Quarterly*. 7(3): 323-352.

House, R.J. & Mitchell, T.R. (1974). Path-goal theory of leadership. *Journal of Contemporary Business*. 3: 81-97.

House, R.J. (1971). A path goal theory of leader effectiveness. *Administrative Science Quarterly*. 16(3): 321-339.

Huang, M. Chiu, Y. & Lu, T. (2013). Knowledge governance mechanisms and repatriate's knowledge sharing: the mediating roles of motivation and opportunity. *Journal of Knowledge Management*. 17(5): 677-694.

Huang, S.K., & Wang, Y.L. (2011). Entrepreneurial orientation, learning orientation, and innovation in small and medium enterprises. *Procedia-Social and Behavioral Sciences*. 24: 563-570.

Jadallah, N.A.H., AL-Jaradat, O.M., & Nagrash, M.A. (2012). The impact of collaborative knowledge and organizational memory on the quality of the managerial decisions in the libraries of Jordanian public universities. *European Journal of Business and Management*. 4(15): 177-191.

Jaskiewicz, P., Uhlenbruck, K., Balkin, D. B., & Reay, T. (2013). Is nepotism good or bad? Types of nepotism and implications for knowledge management. *Family Business Review*. 0894486512470841.

Kaiser, H.F. (1958). The varimax criterion for analytical rotation in factor analysis. *Psychometrika*. 23: 187-200.

Kaiser, H.F. (1974). An index of factorial simplicity. *Psychometrica*. 39(1): 31-36.

Karra, N., Tracey, P., & Phillips, N. (2006). Altruism and agency in the family firm: Exploring the role of family, kinship, and ethnicity. *Entrepreneurship Theory and Practice*. 30(6): 861-877.

Kasemsap, K. (2013). Strategic human resource practice: A functional framework and causal model of leadership behavior, job satisfaction, organizational commitment, and job performance. *Journal of Social and Development Sciences*. 4(5): 198-204.

Kellermanns, F.W., & Eddleston, K.A. (2004) Feuding families: When conflict does a family firm good. *Entrepreneurship Theory and Practice*. 28(3): 209-228.

Klein, S., Astrachan, J., & Smyrnios, K. (2005). The F-PEC Scale of Family Influence: Construction, Validation, and Further Implication for Theory. *Entrepreneurship Theory and Practice*. 29(3): 321-340.

Le Breton-Miller, I. & Miller, D. (2006). Why do some family businesses out-compete? Governance, long-term orientations, and sustainable capability. *Entrepreneurship Theory and Practice*. 30(6): 731-746.

Leung, N., Waller, G., & Thomas, G. (2000). Outcome of group cognitive-behavior therapy for bulimia nervosa: the role of core beliefs. *Behavior Research and Therapy*. 38(2): 145-156.

Lin, W-B. (2013) Research on knowledge sharing and interpersonal relationships: empirical study of family firms and non-family firms. *Quality & Quantity*. 47(1): 151-166.

Memili, E., Zellweger, T. M., & Fang, H. C. (2013). The Determinants of Family Owner‐Managers' Affective Organizational Commitment. *Family Relations*. 62(3): 443-456.

Miller, D., Steier, L., & Le Breton-Miller, I. (2003). Lost in time: intergenerational succession, change, and failure in family business. *Journal of Business Venturing*. 18(4): 513-531.

Milton, L.P. (2008) Unleashing the relationship power of family firms: Identity confirmation as a catalyst for performance. *Entrepreneurship Theory and Practice*. 32(6): 1063-1081.

Mitchell, R. K., Morse, E. A., & Sharma, P. (2003). The transacting cognitions of nonfamily employees in the family businesses setting. *Journal of Business Venturing*. 18(4): 533-551.

Monzani, L., Ripoll, P., & Peiró, J. M. (2014). The moderator role of followers’ personality traits in the relations between leadership styles, two types of task performance and work result satisfaction. *European Journal of Work and Organizational Psychology*, (in-print).

Mussolino, D., & Calabrò, A. (2014) Paternalistic leadership in family firms: Types and implications for intergenerational succession. *Journal of Family Business Strategy*. 5(2):197-210.

Naldi, L., Nordqvist, M., Sjöberg, K., & Wiklund, J. (2007). Entrepreneurial orientation, risk taking, and performance in family firms. *Family Business Review*. 20(1):33-47.

Nonaka, I., & Takeuchi, H. (1995). *The knowledge-creating company: How Japanese companies create the dynamics of innovation*. Oxford: Oxford university press.

Norusis, M.J. (2001) *SPSS 10.0 Guide to Data Analysis*. New Jersey: Prentice Hall.

Patel, P. C., & Fiet, J. O. (2011). Knowledge combination and the potential advantages of family firms in searching for opportunities. *Entrepreneurship Theory and Practice*. 35(6): 1179-1197.

Peyrot, M. (1996). Causal analysis: Theory and application. *Journal of Paediatric Psychology*. 21(1): 3-24.

Picard, R. G. (2004). A typology of risk in family media enterprises. *Journal of Media Business Studies*. 1(1), 72-84.

Pieper, T. M., & Klein, S. B. (2007). The bulleye: A systems approach to modeling family firms. *Family Business Review*. 20(4): 301-319.

Poza, E.J., Hanlon, S., & Kishida, R. (2004). Does the family business interaction factor represent a resource or a cost? *Family Business Review*. 17(2): 99-118.

Rajamma, R.K., Paswan, A.K., & Hossain, M.M. (2009). Why do shoppers abandon shopping cart? Perceived waiting time, risk, and transaction inconvenience. *Journal of Product & Brand Management*. 18(3): 188-197.

Salvato, C., Chirico, F., & Sharma, P. (2010). A farewell to the business: Championing exit and continuity in entrepreneurial family firms. *Entrepreneurship and Regional Development*. 22(3-4): 321-348.

Sanchez-Famoso, V., & Maseda, A. (2014). The Role of Social Capital in Family Firms to Explain the Innovation Capabilities in Recession Time: An Empirical Study. In *Entrepreneurship, Innovation and Economic Crisis* (pp. 77-84). Springer International Publishing.

Seaman, C., Graham, S., & Falconer, P. (2010). Exploring Scottish Family Businesses: Economy, Geography and Community. *International Journal of Entrepreneurship & Small Business*. 9(2): 193-200.

Sekaran, U., & Bougie, R. (2009). *Research methods for business: A skill building approach*. 5th ed. West Sussex: John Wiley & Sons Ltd.

Siebels, J. F., & zu Knyphausen‐Aufseß, D. (2012). A review of theory in family business research: The implications for corporate governance. *International Journal of Management Reviews*. 14(3): 280-304.

Simatupang, T.M., & Sridharan, R. (2005). The collaboration index: a measure for supply chain collaboration. *International Journal of Physical Distribution & Logistics Management*. 35(1): 44-62.

Sirkin, M.R. (2006) *Statistics for the social sciences*. 3rd ed. California: Sage Publications Ltd.

Sirmon, D. G., & Hitt, M. A. (2003). Managing resources: Linking unique resources, management, and wealth creation in family firms. *Entrepreneurship Theory and Practice*. 27(4): 339-358.

Sonfield, M., & Lussier, R. (2009). Family-member and non-family-member managers in family businesses. *Journal of Small Business and Enterprise Development*. 15(2): 196-209.

Songini, L. (2006). The professionalization of family firms: theory and practice. In: P.Poutziouris, K.Smyrnios, & S.Klein, (Eds). *Handbook of Research on Family Business* (pp. 269-297). Cheltenham: Edward Elgar Publishing Ltd.

Sorenson, R. L. (1999). Conflict management strategies used by successful family businesses. *Family Business Review*. 12(4): 325-339.

Sorenson, R. L. (2000). The contribution of leadership style and practices to family and business success. *Family Business Review*. 13(3): 183-200.

Sorenson, R. L., Goodpaster, K. E., Hedberg, P. R., & Yu, A. (2009). The family point of view, family social capital, and firm performance an exploratory test. *Family Business Review*. 22(3): 239-253.

Sosik, J.J., & Jung, D.I. (2010). *Full range leadership development*. East Sussex: Taylor & Francis Group.

Spriggs, M., Yu, A., Deeds, D., & Sorenson, R. L. (2012). Too many cooks in the kitchen: innovative capacity, collaborative network orientation, and performance in small family businesses. *Family Business Review*. doi. 0894486512468600.

Stewart, A., & Hitt, M. A. (2012). Why can’t a family business be more like a nonfamily business? Modes of professionalization in family firms. *Family Business Review*. 25(1):58-86.

Strike, V.M. (2013) The most trusted advisor and the subtle advice process in family firms. *Family Business Review*. 26(3): 293-313.

Tabachnick, B.G., & Fidell, L.S. (1997). *Using Multivariate Statistics*. 3rd ed. Oxford: Pearson.

Taormina, R.J. (2008). Interrelating leadership behaviors, organizational scoialization, and organizational culture. *Leadership & Organization Development Journal*. 29(1): 85-102.

Trevinyo-Rodriguez, R., & Tapies, J. (2006). Effective knowledge transfer in family firms. In: P.Poutziouris, K.Smyrnios, & S.Klein. (Eds), *Handbook of Research on Family Business* (pp. 343-357). Cheltenham: Edward Elgar Publishing Ltd.

Vecchio, R.P., Justin, J.E., & Pearce, C.L. (2008). The utility of transactional and transformational leadership for predicting performance and satisfaction within a path-goal theory framework. *Journal of Occupatoinal and Organizational Psychology*. 81(1): 71-82.

Von Krogh, G., Nonaka, I., & Rechsteiner, L. (2012). Leadership in organizational knowledge creation: a review and framework. *Journal of Management Studies*. 49(1):240-277.

Wang, C.L., & Ahmed, P.K. (2004). Development and validation of the organizational innovativeness construct. *European Journal of Innovation Management*. 7(4): 303-313.

Wang, C.L., Hult, T.M., Ketchen, D.J., & Ahmed, P.K. (2009). Knowledge management orientation, market orientation, and firm performance: An integration and empirical examination. *Journal of Strategic Marketing*. 17(2): 99-122.

Wang, S., & Noe, R.A. (2010). Knowledge sharing: A review and directions for future research. *Human Resource Management Review*. 20(2): 115-131.

Wenger, E. (2004). Knowledge management as a doughnut: Shaping your knowledge strategy through communities of practice. *Ivey Business Journal*. 68(3): 1-8.

West, S.G., Finch, J.F. & Curran, P.J. (1995). Structural equation models with nonnormal variables. Problems and remedies. In R.H. Hoyle (Ed.). *Structural equation modeling: Concepts, issues and applications* (pp. 56-75). Newbury Park,CA: Sage.

Westhead, P., & Howorth, C. (2007). 'Types' of private family firms: an exploratory conceptual and empirical analysis. *Entrepreneurship and Regional Development*. 19(5): 405-431.

Wong, K.Y., & Aspinwall, E. (2004). Characterizing knowledge management in the small business environment. *Journal of Knowledge Management*. 8(3): 44-61.

Yukl, G. (2011). Contingency theories of effective leadership. In: A.Bryman, D.Collinson, K.Grint, B.Jackson, & M.Uhl-Bien (Eds). *The SAGE Handbook of Leadership* (pp. 286-298). London: SAGE Publications Limited.

Zahra, S. A. (2005). Entrepreneurial risk taking in family firms. *Family Business Review*. 18(1): 23-40.

Zahra, S., & Filatotchev, I. (2004). Governance of the Entrepreneurial Threshold Firm: A Knowledge-based Perspective. *Journal of Management Studies*. 41(5): 885-897.

Zahra, S., Neubaum, D., & Larraneta, B. (2007). Knowledge sharing and technological capabilities: The moderating role of family involvement. *Journal of Business Research*. 60(10): 1070-1079.

Hair, J. F., Sarstedt, M. (2014) Innovative and established research methods in family business: description, illustration and application guidelines, *Journal of Family Business Strategy*, 5(1): 1-3.

Harrison, R. L. III (2013) Using mixed methods designs in the journal of business research, 1990-2010, *Journal of Business Research*, 66(11): 2153-2162.