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FAMILY OWNED BUSINESSES: AN EXAMINATION OF STRUCTURE, FAMILY DYNAMICS AND VALUES

By

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ABSTRACT

FAMILY OWNED BUSINESSES: AN EXAMINATION OF STRUCTURE, FAMILY DYNAMICS, AND VALUES

By

Brian John Distelberg

This study surveyed 11 Family Owned Businesses (FOB) for the purpose of exploring and expanding the structural assumptions of the FOB field. This study sampled the family members, owners and nonfamily employees from within each of the 11 businesses. The researcher at least 70% of the individuals in each business.

This study used a mixed method approach beginning with a qualitative exploration which utilized case studies and social network analyses of 11 FOBs. This qualitative phase along with an extensive literature review provided a set of hypotheses which were tested quantitatively in the second phase of this study. The quantitative phase fit two separate Hierarchical Linear Models (HLM) which provided added support to the findings in the qualitative phase.

Significant findings from this study support and expand many of the structural assumptions within the FOB literature. Through social network analysis and quantitative exploration it was found that FOBs vary in their preference for the family or business systems with FOBs that tended to favor the family system having lower levels of satisfaction through the entire FOB system. Also the family, owners and nonfamily employees had varying perceptions of their FOB's tendency to favor the family or

business system. Employees tended to believe that their FOB favored the family system while family members tended to believe that the FOB favored the business system. FOBs were able to unify this perception across the owners, family members and nonfamily employees when they allowed information to flow through a permeable boundary between the family and business systems. FOBs that did not allow information to flow from the family to the business had dissenting opinions between family members and employees and significantly lower levels of satisfaction through the FOB system. Conclusions from this study point to the need to use in depth sampling procedures and include family dynamics, value orientations, and family to business boundary measurements when study FOBs.

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CHAPTER I: OVERVIEW

Introduction

Family owned businesses (FOBs) are a cornerstone to the world's economy. Some estimates suggest that as many as 89% of all businesses in North America are family owned. These same sources attribute 64% of the U.S. GDP to FOBs (Astrachan & Shanker, 2003). Additionally, depending on how one defines "family owned", FOBs employ somewhere between 27% and 62% of all U.S. employees (Astrakhan & Shanker, 2003; U.S. Census, 2007). Due to the prevalence of FOBs, many social, family, and organizational researchers and theorists began studying them in the 1980s. The conclusion from these early studies showed that FOBs have numerous strengths which help them outperform nonfamily businesses, but these businesses also struggle to maintain the complex balance between the business and the family (Aronoff, Ward & Astrachan, 2002; Ward, 1987).

A review of the literature on FOBs since the early 1980s shows that: 1) FOBs are made up of three interdependent systems (the family, business and ownership systems) (Gersick, Davis, Hampton & Lansberg, 1997; Sharma, 2004; Stafford, Danes, Duncan & Winters, 1999; Taguiri & Davis, 1982); 2) Successful FOBs begin with successful owning families, and specifically, owning families that are flexible and unified (Davis & Stern, 1981; Galvin, Astrachan & Green, 2007; Zody, Sprenkle, MacDermid, & Schrank, 2006); 3) FOBs vary in *why* they exist, with some existing to support short term family goals, and others supporting long term business growth (Dean, 1992; Distelberg &

Sorensen, 2009; Sharma, Chrisman & Chua, 1997; Sharma & Nordqvist, 2008; Wong, McReynolds, & Wong, 1992).

When these three issues are combined, as they always are in FOBs, they create a very complex system, with as much variance across individual FOBs as there is between non-family owned businesses and FOBs. This is especially true when the outcome variables of interest include survival over time (Jorissen, Laveren, Martens, Reheul, 2005), ownership structures employed (Anderson, Mansi & Reeb, 2003; Daily & Dollinger, 1992; Sonfield & Lussier, 2005), business performance (Chrisman, Chua & Litz, 2003), retention of nonfamily employees (Galvin et al., 2007) and perceptions of health or satisfaction (Amarapurka & Danes, 2005; Olson, Zuiker, Danes, Stafford, Heck & Danes, 2003). Even though there has been much theorizing about the differences across FOBs as well as between FOBs and non-FOB businesses, research has been unable to thoroughly explain the exact nature of these differences and their influence on the key outcomes of performance, satisfaction, and longevity. This is mostly due to two very important limitations within the current research literature, the current theoretical frame and the research methodologies employed to test these theories.

Theoretical Frame Limitations

Over the last three decades many theories have evolved to explain how healthy FOBs balance the complexity of business and family. Although early studies and early developments in FOB theory helped bring public and academic attention to an underserved population, many of the theoretical attempts have been limited by their underlying assumption of "health", and they all too often use patriarchal, Western

assumptions of family systems as their model of health (e.g. Dyer, 1986; 2006; Fleming 2000). These types of models overlook the great variability possible within family systems (Bronfenbrenner, 1979; Bubolz & Sontag, 1993; Carter & McGoldrick, 1998, Minuchin, 1974) and therefore across FOBs (Sharma, et al., 1997). Also there is a common assumption in the field that "health" is determined by FOB generational transfers of ownership and business growth (Fleming, 2000; Glavin et al., 2007; Gersick et al., 1997), but not all FOBs value this transfer of ownership, and for that matter not all FOBs have the same value tied to business growth (Dean, 1992; Distelberg & Sorensen, 2009; Sharma, Chrisman & Chua, 1997; Sharma & Nordqvist, 2008; Wong, McReynolds, & Wong, 1992). Very few theories explore the growth of the family, the role of diversity (e.g. ethnic background, step families, or social economic status) or variations in FOBs values, desired goals, and success over time. For the field to move forward with an inclusive theory of health these areas must be evaluated.

Methodological Limitations

The second limitation in the literature is the lack of statistical methodology suitable for evaluating a complex system like a FOB. While the FOB field was founded on General Systems Theory (GST) (Sharma, et al., 1997), much of the research on FOBs has used research methodologies that work against the assumptions of GST. For example, most of the research in FOB literature uses either univariate ANOVA (Analysis of variance) or OLS (Ordinary Least Squares) methodologies. The problem with these methodologies is that they assume individual independence (Wasserman & Faust, 2004)

meaning that data are treated as if individual participants are not influenced or connected to other participants within the same sample population.

Some researchers have ignored this independence assumption in their research and sampled multiple representatives from the same FOB (e.g. Fetch & Zimmerman, 1999). According to the assumptions of systems theories these sampled individuals are not independent, but interdependent (Bertalanffy, 1969); therefore, these studies are statistically flawed. Other researchers get around the independence assumption by sampling only one representative from each FOB (Chrisman, Chua & Litz, 2003; Zody et al., 2006; Zuiker, 1998). While the later meets univariate assumptions, it is open to sampling errors as the leaders of a FOB may not have a holistic view of their FOB. In this case, sampling an owner of a FOB would not give reliable findings for FOB variables as a whole, but rather only for owners of FOBs. For example, an owner may see his/her FOB as privileging the growth and development of the business while that same owner's non-family employees see the business as privileging the growth and development of the family.

In order to reliably measure variables within FOBs, a researcher would have to first sample multiple representatives from within each FOB (and ideally the majority of individuals within each FOB), and then that researcher would have to use statistical methodologies that do not assume individual independence. These methodologies would include approaches such as Hierarchical Linear Modeling, (HLM; Raudenbush, & Bryk, 2002), Structural Equation Modeling, (SEM; Raykov, & Marcoulides, 2006), Dyadic Data Analysis (Kenny, Kashy & Cook, 2006) or Social Network Analysis, (SNA; Wasserman & Faust, 1994).

Statement of the Problem

As addressed in the introduction, FOBs are prevalent. Nearly 80-90% of businesses in the U.S. are family owned, and these businesses together are the largest source of employment and the largest contributor to the Gross Domestic Product in the United States (Astrachan, 2003). While this population, and its influence on communities and families has been mostly overlooked in business and family science fields, it is gaining attention with an increasing flow of service providers and scientific research, as indicated by the creation of an academic journal (*The Family Business Review*), and academic organizations for networking and certification of service providers (*Family Firm Institute*, and *Family Enterprise Research Council*). Currently the FOB focus is based on numerous theories most of which were developed in the early 1980's and which show promise, but they have had very little empirical support. This lack of empirical support is primarily due to the young developmental stage of field. As a result, FOBs are guided by information that has not been thoroughly tested.

These early theories acknowledged the importance of using systems based theories to understand the complex world of FOBs. The first attempt, the Three Circle Model, illustrated the importance of the interdependence between the family, business, and ownership systems (Taguiri & Davis; 1982). Since that first theoretical step, many theorists have built on to this model (Blance-Mazagato, de Quevedo-Puente & Castrillo, 2007; Davis & Sterns, 1996; Dyer, 2006; Gersick et al., 1997). While these theories have provided helpful insights into the complex world of FOBs, they have only limited

empirical support, and most have not thoroughly explored the relationship between the owning family system and the larger FOB system.

The lack of empirical support for theories within this field is particularly concerning because the field continues to grow and relay more and more on these foundational theories, such as the Three Circle Model. Furthermore, many promising adaptations of the Three Circle Model have been proposed, and continue to gain support. For example, it has been shown that owning families vary in three ways: 1) they have differing goals and values (Distelberg & Sorensen, 2009; Dyer, 2006; Galvin et al., 2007), 2) the strength of the boundaries between the family and business systems vary (Dyer, 2006; Levinson, 1971; Zody, Sprenkle, MacDermid, & Schrank, 2006), and 3) they differ in levels of adaptability and cohesion (Davis & Sterns, 1981). In other fields such as Family Science, Psychology, and Organizational Behavior, it is understood that these issues (Value, Adaptability, Cohesion and Boundaries) co-vary (Ackoff, 1977; Bahrami, 1992; Eppink, 1978; Krijnen; 1979; Olson 2000; Overholt, 1997; Whitchurch & Constantine, 1993), but we have yet to understand the validity of these integrations as they have either limited or no empirical support.

It is not difficult to see why understanding success and health in FOBs has been a difficult task. By using a methodology that can explore each of these issues in relationship to the other, this study was able to provide a much clearer picture of the role of family dynamics, internal values, boundary creation, and satisfaction within FOBs.

In the first phase of this study, the Three Circle Model was tested through social network methods, and specifically communication patterns were measured and tested against the model's assumptions. In other words, it was expected that if there was any

validity to this model, the communication patterns within the sampled FOBs would follow the subgroup assumptions of the model. More specifically, family communication would be confined (to some degree) within the family system, and similarly employee and ownership communication would be confined within the employee and ownership subgroups.

The next step in the study explored the validity of integrating concepts that the literature had previously purposed as important adaptabtions to the Three Circle Model. While these integrations have been previously discussed in the literature, they currently have little to no empirical support. For example, integrating adaptability and cohesion, (both owning family dynamics), have been discussed theoretically by Davis and Sterns (1981; 1996) and three studies have found limited empirically support for family dynamics in FOB functioning (Lansberg & Astrachan, 1994; Lee, 2006; Zody, MacDermid & Sprenkle, 2006). These sources suggest that these family dynamics influence the health or success of FOBs. Also, integrating Value Orientations (or whether an FOB values the business, family or both systems equally) was theoretically purposed by Distelberg and Sorensen (2009) but not yet tested. Finally the FOB field has consistently linked to general systems theory (Sharma, 2004), but few studies have explored systemic concepts such as communication patterns, system boundaries, and closed or open systems. Each of these three areas can be directly linked to an underlying foundation in systems theory and therefore have overlaps and similarities. In this study, the exploration of the integrations to the Three Circle Model provided information about the effectiveness of these three purposed integrations. The conclusion of the entire phase one (Three Circle Model exploration and integration exploration) yielded a new

integrated Three Circle Model. This model will add a great deal to the field due to the depth of exploration, and the resulting depth of information gained on each integration. The greatest benefit from this phase was that the field has not looked at these three areas in relationship to each other. This study was able to measure the strength of each individual integrated concept in relationship to the others.

Since this phase could be considered somewhat "qualitative" or descriptive in nature (in that the social network and case study methods used in this study may be seen as closely aligned with qualitative methods due to the level of depth in the social network measurements used within each sampled FOB) the second phase provided a quantitative evaluation of this new integrated model. In other words, if the findings in the first phase are supported with the quantitative methodology in phase 2, the new integrated model will be viewed as a contribution to the field, providing insight into the role of family dynamics, family and organizational structure, and internal values.

Purpose Statement

The primary purpose of this study was to build upon existing systems based theories of FOBs. This study accomplished this by examining three broad areas directly related to the influence of owing families on FOB systems: 1) the role of family dynamics, 2) the boundaries between the family and business systems and 3) differing levels of satisfaction among the family, owners, and nonfamily employee systems. General Systems Theory, Organizational Theory, Family Theory and Family Business Theory all suggest that these issues are interrelated, and therefore studying the interactions between these issues will help create a useable theory that can be employed

to explain other complex issues within FOBs (e.g. succession difficulties, retention of non-family employees, and variation in values and goals).

This study first tested the field's primary model, the *Three Circle Model.* This model has many benefits, but has not been thoroughly tested (Sharma & Nordqvist, 2008). It is thought that the subsystem boundaries in the model may not be accurate and may not provide enough explanation for the variance across FOBs. Structurally it is true that individuals are either family, employees, owners or some combination of the three, but it is unclear whether this structural categorization provides any insight into the functioning of the FOB. The validity of this model can be tested by measuring the actual interactions between individuals within each business and then attempting to explain these interactions by using the Three Circle Model. This study did show significant limitations in the Three Circle Model's ability to explain interactions, and therefore the study explored the benefit of expanding the Three Circle Model. Measurements for family dynamics, the strength of the business-family boundary and the level of satisfaction across and within each business were added. The findings from this phase of the study are qualitative in nature, and generated testable hypotheses, which were evaluated with quantitative methods in the second phase.

The second phase used Hierarchical Linear Modeling (HLM) to test the hypotheses of phase 1. HLM allowed the researcher to test interactions within and across each business. Furthermore HLM allowed the assumption of independence to be relaxed which made it possible to test variations between individuals within the same FOB (not independent due to a shared membership in the same FOB).

Specific Aims

Specific Aim 1: To evaluate the validity of the Three Circle Model's assumptions and its ability to explain interactional patterns within FOB systems. This aim tested the hypothesis that the Three Circle Model does not fully account for all possible variations in FOB communication structures. Actual FOB structures were measured through Social Network Analysis (SNA) methodology and compared to the assumed FOB subsystem structures in the Three Circle Model.

Specific Aim 2: Increase the Three Circle Model's validity through the inclusion of family dynamics, value orientations, and boundary creation. This aim tested the hypothesis that FOB structure is affected by family system dynamics (e.g. value, cohesion and adaptation). Each FOB was evaluated structurally, and variations across FOBs were compared, qualitatively, to measures of value orientation, satisfaction, adaptability, and cohesion within the FOB system. Support for this hypothesis provided valuable insight into the effects of variations in family dynamics.

Specific Aim 3: Test the new expanded model for its ability to explain the level of satisfaction within and across FOBs. This aim tested the hypotheses generated from the qualitative exploration in Specific Aim 2 by fitting a multi-level model with the findings in Specific Aim 2.

Specific Aim 4: Test the new expanded model for its ability to explain variations within and across FOB value orientations. This aim tested the expanded Three Circle Model's ability to explain variations in individual's perception about his/her FOB.

Theory Development

The strength of the field of FOB is the systemically rooted theories that have been developed over the last 3 decades. Theory within this field began with General Systems Theory (Sharma, 2004), and the most referenced theory to date, the Three Circle Model came directly out of this foundation. While this is the starting point for the field, these theories have not been tested. No study to date has evaluated system concepts such as subsystem norms and roles, or subsystem boundaries (or open and close systems) in a way that is consistent with General System Theory. Even research that is systemically rooted tends to be limited by methodologies that do not follow systems assumptions. For example, there has been research looking at a lifespan development integration (Rutherford, Muse & Oswald, 2006), and research looking at adaptability and cohesion (Lansberg & Astrachan, 1994), but these studies are limited by single rater viewpoints, and univariate analyses and consequently these studies report tentative and limited findings.

General System Theory

From the inception of the field of FOB, General Systems Theory (GST) concepts and assumptions have been central. To this day theories regarding FOBs contain explanations of communication patterns, system boundaries, flexibility and

interdependence, which are all rooted in the assumptions of GST (Aronoff, Ward, & Astrachan, 2002; Sharma, 2004).

From a GST perspective, communication and all interactions follow cybernetic principles such as negative and positive feedback within closed and open systems (Bertalanffy, 1969). GST builds on to the assumptions of cybernetics and adds that individuals are interdependent with their surrounding systems (Davis & Sterns, 1981; Gersick et al., 1997; Taguir & Davis, 1982). In other words, behaviors and values are not solely the product of internal processes but are a response to systemic influences.

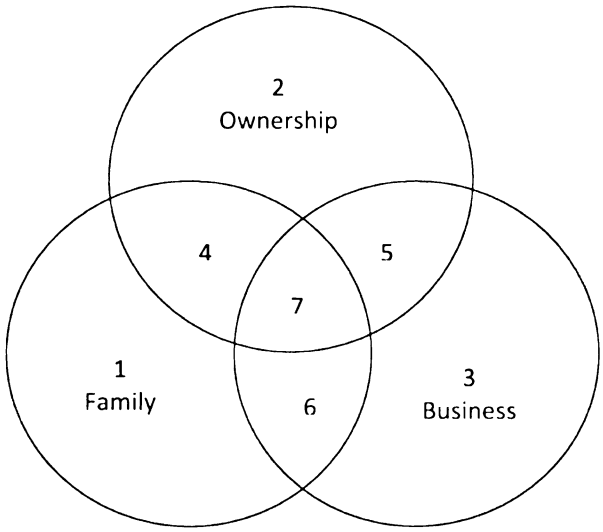
For FOBs, this idea relates to the predicament of individuals who are pulled between two competing systems, the family and the business. From a GST foundation many theories have been created to explain the unique *Suprasystem* (Whitchurch & Constantine, 1993) or the larger FOB system that houses the interdependent family and business systems. The most referenced attempt is the Three Circle Model (Taguiri & Davis, 1982). This model was an early model that discussed the characteristics or roles and rules, of individuals based on where they are located in relationship to the overlaps between the family, business, and ownership systems. Later on, Gersick et al., (1997) determined that the interdependence of the systems in the Three Circle Model produced interdependent developmental trajectories, with family development affected by business development, and business development affected by the business development. Also, Davis and Sterns (1981) discussed the need for adaptation and cohesion within each system to facilitate the interdependence of the three systems. Each one of these theories has evaluated the relationships between systems, and based on their evaluations, these theorists have suggested that each individual system is not independent, but is affected by

and affects other systems through a shared connection to a larger suprasystem (in this case the FOB suprasystem). In other words, a FOB family system is different from a non-FOB family system and non-FOB business system.

Three Circle Model

Theories between the 1960s and 1980s tended to view the FOB system as two separate systems (family and business), each with separate goals, tasks and developmental trajectories (Levinson, 1971). In the 1980s, the field began to recognize FOBs as suprasystems (Whitchurch & Constantine, 1993) or nested systems that together form the larger FOB system. Tagiuri and Davis (1982) presented one of the first models to depict FOBs as a nested suprasystem. These theorists argued that FOBs are made up of three nested systems (family, business and ownership) which create the larger FOB system. These theorists believed that the nesting (and subsequent overlapping of systems) creates seven distinct systems within the larger FOB system. This model has been termed the *Three Circle Model* (Gersick et al., 1997) (See figure 1.1).

Figure 1.1: Three Circle Model



Taguiri, R., & Davis, J.A., (1982). Bivalent attributes of the family firm. Working paper, Harvard Business School, Cambridge Mass. Reprinted 1996, Family Business Review, 9(2): 199-208.

This Three Circle Model (Taguiri & Davis, 1982) was the first substantive attempt to recognize not only the overlap between the family and business system, but also the importance of the *Ownership* system. This new model gave the field a new respect for the complexity of family businesses, and even more importantly, it brought a desire to understand the different experiences and characteristics of each interdepent system. For example Anderson and Reeb (2003) attempted to explore the importance of family versus nonfamily managers or in other words, different levels of overlap between the family and the ownership systems. They found that family owners who also were the

FOB managers outperformed nonfamily owners/managers (Anderson, Mansi & Reeb, 2003; Anderson & Reeb, 2003). Therefore an overlap between the family and ownership systems was found to be beneficial.

While this model was a large theoretical step forward for the field at the time, it has some limitations. The largest of which is the lack of discussion in four areas; 1) development over time, 2) possible variations in the definition of "health" across FOBs, 3) variations in the strength of the boundary between systems, and 4) the role and influence of the owning family system dynamics (Sharma & Nordqvist, 2008).

Developmental Model for Family Businesses (DMFB)

Gersick and colleagues (1997) saw the developmental limitations in the Three Circle Model and expanded it to account for the development of FOBs over time. Specifically Gersick et al (1997) theorized that each of the three systems in the Three Circle Model had its own developmental trajectory (e.g. family development, business development, and ownership development). Only one study in the history of FOB literature has attempted to validate this model. Rutherford, Muse and Oswald (2006), sampled over 900 FOBs in the U.S. and found that the DMFB can be used to typologize FOBs, but other variables such as ownership orientation for growth (business growth versus family growth), and the level of tension (or cohesion) within the family system are better indicators of differences between FOBs. Therefore it is possible to use the three dimensional model purposed by Gersick et al. (1997), but this model does not give enough information to separate out enough of the substantive differences between FOBs.

Adaptation and Cohesion

Prior to the creation of the Three Circle Model, a few theorists had been exploring the role of adaptability and cohesion within FOBs (Davis & Sterns, 1981; 1996). Davis and Stern (1981; 1996) first outlined the importance of these concepts and argued that the owning family and the FOB must be adaptable and exhibit a certain level of closeness to survive. They defined adaptability through two concepts: legitimate structures and emotional containment, with "emotional containment" being the ability to handle business and family emotions within the appropriate system, and "legitimate structures" being a division of roles and rules by an individual's position in a given system. These concepts contained pieces similar to the family systems definition of cohesion and adaptability as well as pieces similar to Bowen's concept of differentiation (Kerr & Bowen, 1988), which has been defined as the ability of individuals to be balanced emotionally, to tolerate individual differences. Nichols and Schwartz (2004) described a differentiated family system as a system that can deal with problems within subgroups, without directly engaging the entire FOB system. While the concepts of adaptability and cohesion within Davis and Sterns (1981; 1996) are helpful and add a contribution to the field, family systems definitions of cohesion and adaptability provide a better dichotomy of cohesion and adaptability, and these definitions have been empirically tested.

For example, Olson, Sprenkle, and Russell (1979a; 1979b) defined cohesion as the emotional connection between family members, while adaptability is the family's ability to change in the face of external or internal stimuli. In both cases, a family can exhibit too little or too much cohesion and adaptability. For cohesion, a family system can be disconnected or cut off (low cohesion) or overly connected or enmeshed (high

cohesion). For adaptability, a family system can be rigid and not respond to needed changes (low adaptability), and a family can be too adaptable, producing chaos due to no foundation to the system (high adaptability).

In most empirical studies of cohesion and adaptability in FOBs, researchers have used the Circumplex model (e.g. FACES II or III) (Olson et al., 1985). For example Lansberg and Astrachan (1994) used the Circumplex Model to test Olson's et al. (1979a; 1979b) concepts of adaptability and cohesion and found that in FOB systems, adaptability and cohesion generally have a positive linear relationship with succession planning and succession training. The limitation with this work is that the researchers only sampled the owners and successors of FOBs. They did not sample other owning family members (e.g using the Three Circle Model, individuals in subgroup 6 and 7 were sampled but not subgroup 1). Secondly, they assumed a linear relationship between cohesion, adaptation, and success. Both of these assumptions are not in line with Olson's recommendations for studying cohesion and adaptability within family systems (Olson, 2000). Olson has suggested that a proper exploration of adaptability and cohesion involves sampling multiple members from the same owning family systems. Olson (2000) has also suggested that adaptability and cohesion have a curvilinear relationship with functionality, meaning that family systems on each end of the adaptability and cohesion continuums exhibit problems in comparison to family systems located in the middle of each continuum.

Zody, MacDermid, and Sprenkle (2006) conducted a similar study and found that cohesion was negatively related to conflict throughout the FOB system. In this study the researchers found that overly connected family systems had less conflict than overly

disconnected family systems. Both of these studies (Lansberg & Astrachan, 1994; Zody et al., 2006) support a linear hypothesis with cohesion and adaptability rather than Olson's (2000) suggested curvilinear hypothesis. In other words, there does not seem to be a cut off point for adaptability or cohesion for FOBs in the existing research. Therefore there does not seem to be a danger of being too adaptable or overly connected, as researchers have noted in family systems research.

While there does seem to be evidence that the adaptability and cohesion of the owning family plays a role in the health and functioning of the entire FOB system, existing methodological limitations in the research limit our understanding of this role. The largest limitation has been the tendency to sample only one representative from each FOB, which historically has not been a good measure of adaptability and cohesion. This point is confirmed by Thomas and Ozechowski (2000) who found that the individual self reports on the cohesion and adaptation scales in FACES III are not as reliable as multi-rater versions. Therefore, a better exploration of cohesion and adaptation within FOBs would include multiple raters from the same FOB system. Finally, measures of cohesion in studies regarding FOBs have been somewhat unsatisfactory, with most showing limited explanatory power for cohesion, especially when controlling for adaption (Lansberg & Astrachan, 1994; Lee, 2006).

Value Orientation

The FOB field has struggled to understand what constitutes a "healthy FOB system" (Sharma et al., 1997; Sharma & Nordqvist, 2008). The main reason for this difficulty has been the field's tendency to privilege the business system goals prior to

evaluating the real desired goals within actual FOBs. Often researchers define success or "health" for these systems through measures such as return on assets, growth in sales, revenue, number of employees and survival rate (Dess, & Robinson, 1984; Kalleberg & Leicht, 1991; Miner, 1997). In studies like these, specific business variables are created, and if the FOB reaches an *a priori* threshold, then the FOB is considered successful or "healthy". The problem is that we have yet to understand what FOBs perceive as success or "what are the meaningful developmental goals" (Castillo & Wakefield, 2007; Distelberg & Sorensen, 2009; Sharma, et al., 1997).

Human Ecological Theory offers a solution to this problem. Human Ecology defines health as a system's ability to obtain and transfer resources to meet goals that the system values (Bubolz & Sontag, 1993). A recent exploration of goals, resources and values suggested that FOBs define "health" through their internal values (valuing the family and business systems equally or privileging one over the other), therefore holding certain developmental goals higher than others and using available resources to meet these goals (Distelberg & Sorensen, 2009). This theory proposes a continuum of values for FOBs, with a business-first value orientation on one end and a family-first value orientation on the other.

This systems perspective brings to light the importance of identifying values within FOBs, as FOBs with different values define health differently. The inclusion of value orientation is supported directly with a previous study on the DMFB (Rutherford, et al., 2006), which found that "ownership orientation" (or whether the ownership valued the growth of the business, or the growth of the family) accounted for more variance across FOBs than the DMFB alone.

One final point of interest regarding values in FOBs is that GST tells us that the system will influence the values of the system members. It is acceptable to assume that within a FOB there will be a great deal of agreement on values. For example if the owners believe that the FOB exists to support the growth and development of the family system then the employees should to some degree share this understanding. But this does not mean that they like it, which leads us to assume that FOBs with a Value Orientation that favors the growth and development of the family system will likely produce higher levels of satisfaction within the family system, but lower levels of satisfaction within nonfamily employees. Furthermore this unity in values assumes a functioning system where no cut offs exists.

Conceptual Model

The current study integrates the concepts above (including the structural assumptions of the Three Circle Model) in an effort to strengthen (expand) the Three Circle Model. This study hypothesizes that the following will play a role in the health and functioning of an FOB: 1) The owning family's dynamics (adaptability and cohesion), 2) The value orientation of the business, and 3) system boundaries. The quality of this integration will be judged by fitting a model that incorporates these concepts. If this expanded model can accurately explain variations in satisfaction and perceptions it will be seen as a step forward in the FOB literature and will address important issues within FOBs such as the top two most frequently indentified weaknesses: 1) failure in generational transfers of ownership, and 2) retaining nonfamily employees (Galvin et al., 2007).

There are three major points to this expanded Three Circle Model that must be explored. First, it is clear that FOBs contain three interdependent systems as presented in the Three Circle Model (Taguiri & Davis, 1982). But what is not clear is whether the three systems overlap in the same fashion for all FOBs. In other words, does the strength of the boundary between the family and the business vary from one FOB to another? This can be explored through the social network phase of this study. By using social network tools one can measure the actual interactions within each FOB. These real interactions will tell us how closely real FOBs follow the Three Circle Model structural assumptions. For example, if the Three Circle Model is 100% accurate across all FOBs, we would expect that the majority of communication regarding the owning family to be limited to the family subsystem (and the overlapping family systems), and little to no communication regarding the owning family to be present in the employee or ownership systems. Or at the very least, this pattern should be highly correlated with the functionality and health of the FOB system (e.g. FOBs that follow the structural assumptions will have higher levels of satisfaction across the FOB system).

This exploration of the Three Circle Model may highlight significant limitations to the Three Circle Model. It is likely (given the theory discussion above) that there is variation in the boundaries proposed in the Three Circle Model (e.g. some FOBs allow more communication and interaction across subsystems than others). If this is found to be true for the businesses in this study there will be two additional points of interest: 1) why do FOBs vary in the strength of their boundaries? and, 2) does boundary strength variation effect individuals within the FOB?

The second point of interest then is "what is the affect of varying boundary strengths in FOBs?" Given the discussion of the current state of FOB theory above, there are likely three issues that influence the strength of the boundary. These issues are: 1) the value orientation, 2) the level of adaptability, and 3) the level of cohesion within the owning family. There does seem to be some evidence in the research that the level of adaptability influences the strength of the boundary (Dyer, 2006; Lansberg & Astrachan, 1994; Zody et al., 2006), but how and to what extent is unclear as well as our understanding of the influence of cohesion and value orientation. Some researchers have attempted to study the role of cohesion (Lansberg & Astrachan, 1994), but the results have been limited which may be a product of the methodology used and a lack of exploration of interactions between cohesion and adaptability. Furthermore, the idea of a value orientation for a FOB is very new and has not been tested. Therefore, we understand that the adaptability of the family influences the structure of the FOB, but we still do not fully know how adaptability, value orientation, and cohesion work together to influence this boundary.

The third point of interest to be explored is how variations in the strength of the Family-Business boundary influence individuals within the FOB. We can measure this influence with two outcome variables. The first is the level of satisfaction. For example, does a permeable boundary increase or decrease the level of satisfaction of an individual within a FOB? Theories have suggested that a permeable boundary has a negative effect on satisfaction (Dyer, 2006), but some preliminary research seems to suggest the opposite (that a permeable boundary increases satisfaction (Zody et al., 2006)).

While both of the explanations above address the relationship between boundary strength and satisfaction, there is likely a relationship between boundary strength and individual values. For example, previous research suggests that FOBs excel at uniting individuals within FOBs in regard to values and goals (Galvin et al., 2007), but the ability to unite individuals may be contingent on the boundaries within the FOB. This study will explore this unity issue by measuring individuals' level of agreement on his/her FOB value orientation (e.g. does an individual see his/her FOB as being closer to the business or family side of the value continuum?).

For both outcome variables (perceptions and satisfaction), there is likely an interaction between the two and variability based on an individual's position in the system (e.g. owners may have higher levels of satisfaction in comparison to employees even when we control for other FOB level characteristics). Both of these issues (an interaction between perception and satisfaction and the individual's position in the system) will be explored in phases 1 and 2 of this study.

Research Questions, Hypotheses and Variable Definitions

Specific Questions and Hypotheses

This study first tested the assumptions of the Three Circle Model, then moved on to qualitatively explore an expanded version of the Three Circle Model. The first phase addressed specific research questions. The exploration of these questions generated testable hypotheses which were explored in the second phase of this study.

PHASE 1: STEP 1

Specific Aim 1: To evaluate the validity of the Three Circle Model's assumptions and its ability to explain interactional patterns within FOB systems.

Hypothesis 1: The Three Circle Model does not fully account for all possible variations in FOB communication structures.

While the Three Circle Model is the most referenced theory within the field, little research has been done to evaluate its practical significance. The first phase of this study tested the structural assumptions of this model directly by measuring communication patterns within FOBs using SNA and compare those interaction patterns to the assumed interactions within the Three Circle Model. For example, the Three Circle Model assumes that there is a boundary for family, employee and ownership interactions. This study measured this assumption for each FOB. It was hypothesized that if communication patterns fit these then assumptions the Three Circle Model would be seen as a valid picture of actual functioning within FOBs.

PHASE 1: STEP 2

In Phase 1: Step 1, the Three Circle Model was found to be helpful, but limited in explaining functioning with FOBs. Therefore this second step within Phase 1 explored integrations to this model that have been previously purposed in the literature, which show promise due to their foundation in systems theory, and which have credible levels of acceptance within the field.

Specific Aim 2: Expand the Three Circle Model validity through the inclusion of family dynamics, value orientations, and boundary creation.

Hypothesis 2.1: Satisfaction increases as value orientation moves closer to the business side of the continuum.

The first hypothesis within this step sought to explore the integration of Value Orientations within the Three Circle Model. More specifically, as explained in Distelberg and Sorenson (2009), the point where a FOB falls on a value continuum has implications for functionality. For example, when a FOB is closer to the family side of the value continuum it is likely that FOB members support the family's goals and development over the business goals and development. This hypothesis suggests that FOBs that follow this side of the value continuum will have lower levels of satisfaction when satisfaction is measured as an average level of satisfaction across all FOB members. This is due to the majority of FOB members being non-family employees. Non-family employees will decrease the aggregated level of satisfaction in FOBs when they perceive that their FOB favors the family development over the business.

Hypothesis 2.2: Satisfaction varies by subgroup membership.

As eluded to in Hypothesis 2.1, individuals within FOBs may vary in satisfaction due to where they are in regard to the Three Circle Model Subgroups. For example, if the average value orientation of a FOB is high (closer to the family side of the value continuum) family members may have higher levels of satisfaction, but non-family employees may have lower levels of satisfaction.

Hypothesis2.3: Employee groups with higher value orientations (closer to the family side of the continuum) than the owning family will have lower satisfaction.

Hypothesis 2.2 suggested that satisfaction varied by subgroups. This hypothesis suggests that value orientations vary by subgroups. Furthermore this hypothesis assumes

that if this variation accounted for subgroup membership alone, the level of satisfaction in the employee group will be lower.

Hypothesis 2.4: Cohesion of the owning family is positively related to satisfaction.

Hypothesis 2.4 attempts to explore the integration of family dynamics and particularly the family dynamic of closeness (i.e. cohesion). This integration was purposed first by Davis and Sterns (1996), and has been tested by Lanberg & Astrachan, (1994) and Zody et al,(2006). These empirical tests have provided limited support for the inclusion of cohesion, but the use of single rater methodology within these studies may have limited the explanatory power of this concept, as the scale used for measuring cohesion often requires multiple raters to achieve a quality measurement (Thomas & Ozechowski, 2000). The theories and studies of closeness with FOB imply that close owning families work better together in FOBs and that closeness within the owning family directly influences the entire FOB system.

Hypothesis 2.5: A rigid boundary for family communication will reduce satisfaction.

Hypothesis 2.6: A rigid boundary for family communication will increase the distance between employee and family value orientation perceptions.

Hypothesis 2.5 and 2.6 attempt to evaluate systems theory within FOBs directly. One of the critiques of the Three Circle Model has been that it does not take into account the general systems theory assumption of variations in systems boundaries. Furthermore the field has consistently debated the "right" strength for boundaries between the family and business systems. Theorists tend to purpose that a rigid boundary between the two systems is optimal (Dyer, 1986; Flemming, 2000), but empirical research highlights the importance of a permeable boundary between the two (Olson et al., 2003; Zody et al.,

2006). Hypothesis 2.5 reflects the empirical research which has consistently shown that rigid boundaries between the family and business reduce satisfaction within the family which increases the level of conflict between family and non-family employees. Hypothesis 2.6 integrated the empirical research on boundaries with the value orientation concept (Distelberg & Sorensen, 2009).

Hypothesis2.7: Adaptation is positively related to satisfaction.

Research (Lanberg & Astrachan, 1994; Zody et al, 2006) and theory (Davis & Sterns, 1996) suggest that the level of adaptability in the owning family is directly related to the FOB's level of health. For this study, satisfaction was used a measurement of health. While satisfaction may not cover all aspects that can be considered "health" it is a good litmus test for the level of functionality within a FOB. If the FOB is not functioning well it is likely that individuals within the FOB will not be happy with many aspects of the FOB system. The satisfaction scale used in this study measured an individual's level of satisfaction with the owning family, how conflict is handled within the business, the strategic direction of the FOB, and the level of satisfaction with employees within the FOB.

PHASE 2: STEP 1

Specific Aim 3: Test the new expanded model for its ability to explain the relationship between owning family dynamics and satisfaction.

Many of the concepts within Phase 1: Step 2 were found to be valuable integrations to the Three Circle Model. In addition, the exploration in this step pointed to some possible interactions between concepts. These interactions are very important to the

field and to date no study has attempted to measure the interaction of these concepts. Phase 2 explored the previous concepts, along with the interactions to provide further evidence of the validity of the new expanded model developed through the exploratory process in Phase 1: Step 2.

Hypothesis 3.1: The distance between an individual's perception of their FOB's value orientation and the actual value of the FOB is negatively related to an individual's level of satisfaction with their FOB.

Hypothesis 2.1 above showed that value orientation is a strong predictor of satisfaction at the FOB level. Explorations of hypothesis 2.6 showed that satisfaction at the individual level is positively related the unity of value orientations across an individual FOBs. Therefore if an individual does not share a similar value orientation as their FOB colleagues, then their level of satisfaction will likely be lower.

Hypothesis 3.2: Subgroup members vary in their level of satisfaction

The exploration of Hypothesis 2.6 showed that value orientations at the individual level vary a great deal within FOBs. The Three Circle Model assumes that values and perceptions vary by subgroup membership. This hypothesis explores whether this relationship actually exists in FOBs.

Hypothesis 3.3: Different family system types produce varying levels of satisfaction within the business.

Hypothesis 2.4 showed that cohesion (owning family closeness) has a relationship with satisfaction. While hypothesis 3.1 from above will accounted for some the variance in satisfaction by measuring the Value Orientation differences within FOBs, hypothesis 3.3 tested the role of owning family cohesion in the presence of varying degrees of

differences in value orientation. In other words, while it was shown in hypothesis 3.1 that individual differences in value orientation can predict some variance in satisfaction, the owning family's level of cohesion will also predict variance in satisfaction.

Hypothesis 3.4: Businesses closer to the family side of the value continuum have lower levels of satisfaction.

Hypothesis 2.1 showed a strong relationship for satisfaction and value orientation at the FOB level, but it was also shown that value orientation at the individual level is influenced by many variables which were addressed in hypotheses 3.1, 3.2 and 3.3. Therefore, after accounting for all of the concepts above, is there still variance in satisfaction that can be explained by the FOB level value orientation alone?

PHASE 2: STEP 2

Specific Aim 4: Test the new expanded model for its ability to explain the relationship between owning family dynamics and value orientations.

Much of the exploration in satisfaction from Phase 1: Step 2 and Phase 2: Step 1 showed that value orientation at the individual level is fluid. In other words, individuals can change their value orientation regardless of the value orientation of their FOB. Even the null model in this current step showed that 75% of the variance in value orientation is accounted for at the individual level. Furthermore, hypotheses 2.1 and 3.4 provide strong evidence that FOBs with a total value orientation closer to the business side of the value continuum have higher levels of satisfaction. Exploration of hypotheses 2.2, 2.5, and the final model in Phase 2: Step 2 all show that value orientation at the individual level is fluid. In other words, FOBs can change their FOB level value orientation by unifying the value orientation of their employees and individual FOB members. Taken together, these

findings suggest that the FOBs who wish to reduce their overall value orientation should begin by looking internally at their individual FOB members. The following hypotheses provide some insight into how a FOB might reduce value orientations within their system.

Hypothesis 4.1: Subgroup membership will affect the value perception of individuals within FOBs.

This model begins by acknowledging that while some things may be done to change Value Orientations, there may be some constants that are not easily changed. For example employees on average tend to have higher value orientations than owning family members. This may be an unchangeable structural issue. Therefore, this model starts by accounting for the variance accounted for by structural subgroupings, and then attempts to measure the following hypothesis.

Hypothesis 4.2: Access to family communication will decrease an individual's the value orientation.

The previous model in Phase 2: Step 1 showed that individuals who are in disagreement with the average value orientation within their FOB have significantly lower levels of satisfaction. Therefore it is important to understand how a FOB can unite value orientations within their FOBs. Phase 1: Step 2 provided many points which support previous research that states that a permeable boundary between the family and business systems is the best options for a FOB system. In this case the boundary is seen as a way to unite or divide value orientations within a FOB. This hypothesis measures this boundary through the use of social network measurements of communication regarding the owning family. In other words a boundary is seen as rigid if employees do

not have access to communication regarding the owning family. If a rigid boundary exists in a FOB than employees who are cut off from family communication will have noticeably higher value orientations in comparison to their FOB colleagues.

Hypothesis 4.3: The value orientation of the owners will be positively related to individual value orientation.

While value orientation at the individual level is important, this hypothesis seeks to understand the role of owners with varying value orientations. For example, do owners with lower value orientations also have employees with lower value orientations?

Variable Definitions

Family Owned Business (FOB): A business is a FOB if 1) the ownership members and the family system members perceive themselves as a FOB, and 2) if a family possesses the majority of the shares. Nonfamily businesses are defined as businesses that do not perceive themselves as FOBs and in which a family does not own the majority of the shares. (Jorissen, et al., 2005)

Subsystem: According to Taguiri and Davis (1982) there are seven subsystems within FOBs. Three larger systems; family system members, ownership system members, and business system members. Because these three systems overlap, there are four additional subsystems: the family-owner subsystem, the family-business subsystem, the business-owner subsystem and the final subsystem which is an overlap of all three systems, the family-owner-business subsystem. For the purpose of this study and its exploration of the three circle model, an individual

can only be a member of one subsystem at a time. Operationally we measure this variable by self reports and then verify self reports with information from the business owners.

Owning Family System: The sum of individuals within the family subsystem, or subsystem members in the family-ownership, family-business, or family-ownership-business subsystems. This is a broader definition than nuclear family as second and subsequent generations of ownership will have multiple nuclear family systems within the owning family system.

Firm Size: Firm size is the size of the business itself. There are two measures of firm size: the gross profit for 2007, 2008, and projected for 2009, and the number of employees within the business.

Generation of Ownership: Generation of ownership is measured by how many successions have taken place in the FOB. For example a founder stage FOB would be in the 1st generation of ownership; when he or she transfers ownership to his/her children, the children would be the 2nd generation of ownership.

Value Orientation: Is a continuum, with FOBs who favor the family system goals only, on one end and FOBs that favor only the business systems goals on the other end.

Cohesion: Is the cohesion scale in Olson (1985). This is a measure of an individual's perception of the systems closeness and distance in regards to emotional connection. When the scale is group mean averaged, the result is the systems level of cohesion.

Adaptation: Is the scale in Olson (1985) for a system's level of flexibility. This continuum ranges from rigid (lack of flexibility) to chaotic (overly flexible). The

scale is an individual's perception of the system's adaptability. When the scale is group mean averaged, the result is the system's level of adaptation.

Boundary: Is conceptually an interaction or communication barrier. In this case, a boundary between the business and family systems would make it difficult for communication to flow from the family to the business (and vice versa). Operationally, this boundary will be measured using social network tools such as centrality, density and block modeling.

CHAPTER II: LITERATURE REVIEW

Introduction

Family businesses provide a benefit to both the family and the business systems (Anderson & Reeb, 2003; Haynes et al., 1999; Kaye, 1991; Olson, 2003; Stafford et al., 1999), especially when combined in the right way. For example, FOBs often use valuable resources from the family to outperform other businesses, and FOBs provide greater employment and wealth opportunities to owning families in comparison to other non-FOB families (Gersick et al., 1997, Sharma, 2004). Unfortunately, it is also clear that if the family and the business do not function well together, serious problems can develop (Dyer, 2006; Olson et al., 2003; Sharma, 2004). There are many anecdotal stories of the business system tearing the family system apart and the family destroying the business (Fleming, 2000; Gersick, et al., 1997; Lansberg, 1992). The question that has driven the field for the last three decades is, "How do the family and the business function in a way that optimizes the benefits for each system?" (Sharma & Nordqvist, 2008).

There have been many attempts to understand this overlap between family and business systems. Earlier theories (Davis & Sterns, 1981; Taguiri and Davis, 1982; Ward, 1987) stressed concepts such as interdependence, adaptability, and unity (often referred to as commitment or cohesion). These theories where based on General Systems Theory (GST) (Bertalannaffy 1969), and reflected the complexity and variability associated with a GST lens. However, much of the research rooted in these theories has not followed GST principles in their methodologies. For example, the last three American Family Business Surveys (Astrachan et al., 1997; 2003; Galvin et al., 2007) have sampled

FOBs on issues directly linked to the interdependence of the family and business systems. While these findings are important, these studies sample only one representative from each FOB. This limitation can be found in almost all empirical studies that measure boundaries, adaptation, unity, or cohesion (Astrachan & Shanker, 1994; Zody et al., 2006). Furthermore, there has been very little empirical exploration of the foundational theories within the FOB literature. For example, while the Three Circle Model (Taguiri & Davis, 1982) has gained wide acceptance (Gersick et al., 1997), there has been no attempt to study whether the assumptions within this model hold true for real life FOBs (e.g. are there seven definable subgroups within a FOB, and do these subgroups vary by the characteristics described in the Three Circle Model?).

This study explored these foundational theory assumptions (subsystem boundaries, adaptation, cohesion, and unity in values) by employing a family systems perspective related to FOB functioning. To do this effectively, the current study used methodologies that evaluated not just one or two representatives of a family/business, but which explored the perspective and experiences of all individuals within the FOB system. Additionally this study highlighted the importance of accounting for family system variability. The findings from this study will encourage practitioners, theorists, and researchers to consider the family systems effect as equally important as some known business system effects (such as the effect of varying industries (Joriseen et al., 2005), management styles (Sorenson, 2000), and generation of ownership (Sonfield & Lussier, 2004; Sonfield et al., 2005)

Defining a Sample Population

Any study which explores FOBs must begin by defining the target population (Astrachan, 2003; Jorisen et al., 2005) because the definition and subsequent findings have significant impacts on not just future research and theory but also public policy and governing bodies (such as the I.R.S. and legislative bodies) (Astrachan & Shanker, 2003). Also, how a researcher defines a FOB changes the measurement and findings of empirical studies. For example the census definition of FOB changes the prevalence measurement significantly from other, broader definitions (Astrachan & Shanker, 2003; U.S. Census 2002). Jorissen, Laveren, Martens and Reheul (2005) proved that definitions of FOBs change FOB versus non-FOB comparisons. For example, Teal, Upton and Seaman (2003) used three criteria to define FOBs

> Founder and families of the founder must control at least 50% of voting shares, a member of the founding family must serve as CEO and the firm must have at least one family member as an internal or external director (Teal et al., 2003, pp. 181).

In comparison, Coleman and Carsky (1999) simply defined FOBs as any business that has an owning family with a 50 percent or larger stakeholder position. Jorissen et al., (2005) and Astrachan and Shanker (2003), have both suggested that conflicted findings in research about businesses are solely due to measuring two different sections of the FOB population, rather than true FOB versus non-FOB differences.

In an effort to minimize the effects of sampling error based on inaccurate FOB definitions, many attempts have been made to present formulas to unify the field's definitions. Some researchers have proposed that the definition of FOB should focus on

the level of influence an owning family has on a business (Astrachan et al., 2002), while others have focused on the number and role of family members within the business (Astrachan & Shanker, 2003). While these and other approaches have provided helpful frameworks for defining FOBs, most research studies have not utilized these tools. One limitation of these definitions is the use of structural and influence criteria in defining the sample. This study assumed that FOBs differ in their structural organization and hypothesized that structural variations influence individual perceptions and in turn are influenced by owning family dynamics. Therefore this type of definition would have clouded the findings due to sampling criteria that were similar to the intended variables of interest.

The definition of FOB used by this study is inclusive, and based on subjective and objective measures, while not limiting sampling by the number of family members or the level of owning family influence. This is the most common sampling process in the FOB literature, and is also used in this study. Jorissen et al., (2005) proposed the following definition of FOBs:

> We classify firms as family firms if they perceive themselves as family firms and if a family possesses the majority of the shares. Nonfamily firms are defined as firms that do not perceive themselves as family firms and in which a family does not own the majority of the shares. (pp. 234)

Important to this definition is the observable and subjective components. The observable is the percentage of family shareholders, and the subjective portion is the perception of being a family business. Both elements should be included in any definition of family owned business, as they seem to be affected by different independent variables and

perceptions. Also, it may be these perceptions or the subjective elements of this system that account for a great deal of variance in conflict and satisfaction (Olson, et al., 2003; Zody et al., 2006). Additionally, family system researchers have frequently cautioned against using objective definitions of family alone. For example, Boss (1987), Vayda (1983) and Bubolz and Sontag (1993) have all attempted to define the family, and each have concluded that inclusivity in the definition is important; some even suggest that the family should have the final authority in defining themselves as a family or not (Boss, 1987; Bubolz & Sontag, 1993).

For the purpose of this study, Jorissen et al.'s (2005) definition will be used as it allows for the sample to define themselves based on their own perception of family and family business. However, it also incorporates a minimum amount of control by including the objective qualifier (e.g. the owning family has to have a majority of the ownership), which in larger businesses simply means that the total stakeholdership of the owning family is a larger percentage than any other stakeholder, not necessarily 51%. For example, the owning family could hold 12% of the shares as long as no other individual holds 12% or more).

Satisfaction in FOBs

Since the beginning of the FOB field, research has focused on understanding how family businesses obtain success or achieve satisfaction. There are two problems with the way in which this research has addressed this issue. First, success is often defined for these systems through measures such as return on assets, growth in sales, annual sales, profits, number of employees, and survival rate (Dess & Robinson, 1984; Kalleberg & Leicht, 1991; Miner, 1997). In studies like these, specific variables are created, and if the

family business reaches an *a priori* threshold, then they are considered successful. The limitation with these studies is that the field has yet to understand what family businesses perceive as success or what the meaningful goals are for individual FOBs (Castillo & Wakefield, 2007; Sharma, et al., 1997; Sharma & Nordqvist, 2008). Therefore these a priori success measures may not be the measures of success each FOB uses internally.

Other studies have let family business representatives report their level of *perceived* success, which is often measured through likert scale items asking respondents to rate their level of satisfaction (Dane *et al.*, 1999; Danes *et al.*, 2002; Zody *et al.*, 2006). While this practice addresses the issue of self perception of success more directly, the limitation has been that these studies often rely on one representative from a family business to report for the entire family business. The problem is that perceived success varies depending on who you ask within a family business (Hienerth & Kesser, 2006; Olson et al., 2003), where an owner may have a different perception of success than his/her spouse, co-owners, or employees.

Human Ecological Theory can help us understand these sometimes conflicting findings. Through this lens, satisfaction is a perception held by an individual or group. This perception is informed by a belief system held by an individual or group, and that belief system includes; a) perceptions of goals (or identifying meaningful goals), b) the availability of resources to meet the goals, and c) the fulfillment of goals (Bubolz & Sontag, 1993). In other words, there is a belief system behind the tangible or objective success indicators, and therefore the objective measures of success and the belief system work together to create a perception of success. Using this as our frame for understanding perceptions of satisfaction, we see that there is a difference between others' perceptions

of success (a priori objective measures of success) and self perception of success, with self perception of success being more closely related to satisfaction. Also, since FOBs differ in what they perceive as meaningful success (which we could call self perception of success) (Dean, 1992; Hamilton, 2006; Wong, McReynolds, & Wong, 1992), using objective a priori measures do not allow us to understand the self perception of success. Therefore, in this study, self perceptions of success will be measured through a series of likert scale items for each individual within the system. This process allowed the researcher to obtain individual self perceptions, and through group "meaning" to obtain group level perceptions of success.

Structure in FOBs

It was illustrated in the first chapter (Figure 1.1) that the Three Circle Model (Taguiri, & Davis, 1982), is made up of three larger systems that overlap within a FOB, (the ownership, family, and business systems). This model allows seven distinct options for subgroup membership, meaning that individuals can be a member of multiple systems. For example an individual can be a member of the family and business systems (e.g. a teenage son of the owning family who is employed in the business), a member of the ownership and family system (e.g. a mother in the owning family system who is also the CEO), a member of the business and ownership systems (e.g. an employee who also holds a minority share), and a member of all three systems (e.g. an entrepreneur who is the father of the owning family, works as an employee but holds the majority of ownership). Each one of these individuals has a distinct role in their FOB and each position influences the FOB in different ways.

The question that has yet to be answered in the literature is how individuals and groups influence FOB structure, and conversely, how does FOB structure affect individuals within FOB systems. This study proposes that FOB structure is a moderating variable, meaning that individual independent variables (in this case, perceived FOB value orientation and individual satisfaction) are influenced by the owning family dynamics (e.g. adaptation, cohesion). Therefore the chosen FOB structure is influenced by the family system dynamics, and the FOB structure influences the individuals within the FOB. For example, a family system which is enmeshed (high in cohesion) and rigid (low in adaptability), may produce a FOB structure with a rigid boundary between the family and the business systems. This structure is likely to create a situation where family members have a higher level of satisfaction than non-family members.

Overlap Between the Family and the Business Systems

Businesses that share an overlap with a family system contain unique "familiness" or idiosyncrasies related to the owning family (Habbershon & Williams, 1999) that give it a certain uniqueness. This uniqueness has been attributed to FOBs success in growth (Anderson & Reeb, 2003; Beehr, Drxler & Faulkner, 1997; Daily & Dollinger, 1992; Gallo, Tapies & Cappuyrns, 2000; McConaughy et al., 2001), opportunities for business ownership in minority populations (Astrachan et al 1997; Galvin et al., 2007), and higher survival rates in the five to seven year startup period (Anderson & Reeb, 2003; Chrisman, et al., 1998; Sharma & Rao, 2000; Sonfield et al., 2005).

Even though FOBs generally are more successful than non-FOB businesses in growth and the initial startup period, how successful a FOB is seems to be due to the

FOB's ability to facilitate the overlap between the business and the family system. For example many studies have looked at resource transfers between the family and business systems. These studies have indirectly shown the effects of variance in boundary strength between these two systems (Haynes et al., 1999; Kaye, 1991; Olson et al., 2003; Stafford et al., 1999; Zuiker, et al, 1998). For example, some FOBs allow very few resources to move from the family to the business (strong rigid boundary) and others allow a great deal of resources to move across the boundary (diffuse boundary).

A problem develops in FOBs when the owning family begins to feel taxed by their relationship to a business, or when they feel that the business has taken over their family (in other words there is diffuse boundary between the two systems). In cases like these, stress develops in the family (Amarapurkar & Danes, 2005; Dane et al., 2002) and that stress easily flows through the diffuse boundary into the business system (Cole, 2000; Danes et al., 1999; Haynes et al., 2007; Masuo et al., 2001; Zody et al., 2006).

Conversely, a rigid boundary seems to have as many problems as a diffuse boundary. While it has been shown that a rigid boundary increases business performance, it also creates high levels of dissatisfaction, anxiety, and conflict within the family system (Olson, et al., 2003; Zody et al., 2006), and limits the family resource transfers that help FOBs outperform non-FOB businesses (Anderson & Reeb, 2003; Beehr, Drexler & Faulkner, 1997; Daily & Dollinger, 1992; Gallo, Tapies & Cappuyrns, 2000). The best option seems to be a semi-permeable boundary where resources are brokered between the two systems rather than restricted or flowing too freely.

While the permeability of the Family-Business system boundary is predictive of satisfaction and conflict, *what* resource is transferred seems to have as much impact as

the FOB's boundary strength. The meaning and value tied to individual resources is predictive of the FOB's perception of success (Cole, 2000; Haynes et al., 2007; Masuo et al., 2001; Zody et al., 2006,). For example, a FOB that values the growth and development of the family system will place a higher value on family resources (such as family time), where as a FOB that places a higher value on business system goals will value business resources (such as CEO salaries) (Olson et al., 2003). Therefore an understanding of effective boundaries between the family and the business system is more complex than measuring how much of a resource, or what type of resources are transferred from the family to the business or vice versa. Rather, an understanding of system boundaries includes the permeability of the boundary and the value orientation of the FOB system.

Overlap of Family, Business and Ownership systems

While the overlap between the family and the business system is complex, the overlap between family, business, and ownership systems is even more complex. Unfortunately this situation has been confounded in the research with the developmental stage of the business, and most of the research in this area is focused on the founders of family businesses, as this overlap (owner, family, business overlap) is most apparent in the startup developmental stage of a family business (Gersick et al., 1997; Sharma, 2004). During other times in the business development cycle we see individuals occupy all three systems less frequently. For example, when businesses move from the single owner to the sibling ownership phase, family members are diverted to the business system (become employees) or the ownership system. It is less likely, as the business grows, to

see individuals within the family occupy both the ownership and a position within the business system (e.g. be a CEO and hold a sales position) (Gersick et al., 1997).

Research also has shown that founders have a significant effect on the values, performance and culture of their firms (Anderson et al, 2003). Founders who occupy all three systems add tremendous value to their families and businesses. Anderson and Reeb (2003) as well as Anderson, Mansi, and Reeb (2003) report that founders outperform not only non-family CEOs, but also successive generations of family CEOs. But founders are under a great deal of pressure to perform. A seminal study in the comparison of family versus non-family CEOs was McConaughy's (2000) study, which showed that family founders have longer tenures (17.6 years compared to 6.43 years) and receive approximately $565,000 less in total compensation than their non-family CEO counterparts. Feltham, Feltham, and Barnett (2005) found that most organizations depend heavily on the leadership of the founder with most making the majority of the decisions, and 57% of founders operate largely alone, with fewer than two key managers to help with the business.

Expanding our focus beyond founders and into all individuals who occupy the overlap between the three systems throughout all the business developmental stages, we see that the management styles of these individuals are important to the level of satisfaction within family businesses. For example, individuals who are central to each system but seek and value the input of all the individuals around them (termed participant leadership) have the best success in terms of creating a functional business and family system and also engendering satisfaction in all the family business members (Sorenson, 2000).

When these individuals are *central* to all three systems the effect seems to be that they outperform nonfamily leaders (Anderson & Reeb, 2003). But "central" is a balancing act. Individuals that are too centralized limit the FOB's effectiveness; for example, FOBs do not perform as well when an individual in this position holds more than a 12% stake in the firm (in publicly traded companies) (Anderson et al, 2003) and stays in an ownership position too long (Zahra, 2005). Therefore these individuals need to be central, as they drive the family business system and have the greatest amount of influence on each of the individual systems, but they have to act as gatekeepers to each of the systems (Morris et al., 1997; Steier, 2001). When they hold the growth and development of each system equally, and broker resources, rather than control resources, they are fundamentally important to the success of each of the three systems as well as the whole (Sharma, 2004).

Boundaries and Cohesion within FOB Systems

Important to the discussion of the boundaries between family systems and business systems is the work of Minuchin and Olson. Minuchin (1974) originally theorized that family boundaries vary from enmeshed to disengaged. Olson et al., (1979a; 1979b) proposed that enmeshment and disengagement were two ends of a "cohesion" continuum. Therefore, disengaged families were defined as families that do not feel connected to each other, and conversely, individuals within enmeshed family systems have difficulty delineating their own ideas, goals, and values from others in their system. In regards to permeable and rigid boundaries discussed in the family business research (Zody et al., 2006), enmeshed FOBs would employ a boundary between the

family and business system that is overly permeable, whereas rigid boundaries would be similar to disengaged systems (very little flow of communication between the family and business system).

From this theoretical foundation, Olson and colleagues (1979a) created a statistical measure of this closeness and distance between individuals within a family system, which they termed cohesion. This scale for cohesion was included in a family systems assessment tool known as the "Circumplex model". Over 200 studies of the Circumplex model have verified the importance of cohesion in family systems (Olson 2000). It is entirely possible that this measure can be a useful tool in understanding the boundaries between the family and the business system. For example, there are more than likely enmeshed and disengaged FOBs when it comes to the intersection between the family and the business. An enmeshed FOB occurs when there is a highly permeable boundary between the owning family and the business. Likewise a disengaged system occurs when there is a rigid boundary between the family and the business. Zody and colleagues (2006) have found that FOBs located closer to the enmeshed side of the continuum had the highest reports of satisfaction. This study indicates that the boundary between the family and business should be not be too rigid, and in fact that boundary should be closer to the enmeshed side of the continuum. Olson and colleagues found this same relationship, but also found that FOBs closer to the rigid or disengaged side of the cohesion continuum also produced conflict within the family system (Olson et al., 2003).

Unfortunately, many of the studies that measure cohesion in FOBs have been somewhat unremarkable. For example, Lansberg and Astrachan (1994) attempted to measure the effects of adaptation and cohesion on succession planning within FOBs

(using the FACES II, a version of the Circumplex model). In this study cohesion was a significant predictor of succession planning, but in the presence of adaptation, cohesion accounted for very little variance in succession planning. A similar effect was found for family conflict in FOBs (Lee, 2007). Taking this into account, it may seem as though cohesion is not a meaningful variable in FOBs, but other theory (Davis & Sterns, 1981; Olson et al., 1979a; 1979b) and family systems research (Olson 2000) insist that cohesion is a factor in both family and organizational functioning. One possible reason for the lack of significance in research studies on cohesion may be due to the problems with the Circumplex model itself.

The relationship between cohesion and adaptation has long been debated. Originally, Olson and colleagues (1979a; 1979b) argued that the relationship between adaptation and cohesion was curvilinear, meaning that adaptation and cohesion form two axes. Individuals who scored high on cohesion and high on adaptation were considered problematic, and likely to exhibit numerous maladaptive symptoms within their family system (similar for low cohesion and low adaptation). Therefore the ideal for family systems was thought to be a good balance in both cohesion and adaptation, although, since the inception of the Circumplex model, many have challenged this notion (see Anderson & Gavazzi, 1990; Amerikaner, Monks, Wolfe, & Thomas, 1994; Dayley, SowersHoag, & Thyer, 1991; Farrell & Barnes, 1993; Fristad, 1989; Green, Harris, Forte, & Robinson, 1991; Hampson, Hulgus, & Beavers, 1991; Perosa & Perosa, 1990; Pratt & Hansen, 1987). Even Olson (1994) himself has conceded that the two scales in the Circumplex model are linearly related (meaning that the higher one is on cohesion and adaptation, the less likely they are to exhibit maladaptive symptoms). But Olson (1994)

and others (Thomas & Ozechowski, 2000) have shown that the reason for the linearity finding in the Circumplex is mostly due to the self report format of FACES I, II and III, rather than the actual constructs or Circumplex model itself. Furthermore, when multiple raters are used to measure cohesion and adaptability, the curvilinear hypothesis is supported (Thomas & Ozechowski, 2000). Since all of the cohesion studies in FOB research have used one representative, it is not surprising that this field has experienced a similar difficulty. Therefore the study of cohesion in FOB must rely on multiple raters within the same FOB system in order to measure cohesion effectively.

Important Structural Issues for this Study

First, the structural characteristics of the ownership, business and family systems are important to this study. How relationships function in these overlaps seems to have a great deal of influence on the overall success and satisfaction of the whole. We do know that FOBs who perceive themselves as successful have a defined structure within the overlaps between family, ownership and business system, and the boundaries between systems seem to be more permeable (rather than more rigid) (Zody et al., 2006).

Second, the centrality of individuals within the family business relates to the overall health and success of the family business system. When an individual is too centralized he/she is in danger of holding system resources too tightly. Individuals who are central, but encourage cross system interaction and broker resources rather than control resources, tend to produce family business systems with higher levels of satisfaction in both the business and the family.

While there is some existing research on different types of structure within family business, little is known about how family businesses choose or employ these structures.

The following section will outline a number of issues that are hypothesized to have an influence on the chosen structure within a family business.

Values

According to Human Ecology Theory, *Values* are human conceptions of what is good, right and worthwhile (Bubolz & Sontag, 1993). Values can be religious or spiritual in nature, such as what is wrong or humane. But they also are deeply rooted in our day-to-day functioning and help us prioritize our resources. Each of the three interconnected entities that make up the FOB system have their own values (Bubolz & Sontag, 1993; Davis & Sterns, 1996; Gersick *et al.*, 1997). The challenge for a family business is related to how to incorporate the values of all three systems and produce a value orientation for the FOB system as a whole.

Two lines of research have given us some idea of the values within FBEs. The first is *Agency Theory* research. The primary concern of research in this area is finding mechanisms where individual and collective values can be united, so that individuals are more inclined to subjugate their individual values for the betterment of the collective (Gomez-Mejia *et al.*, 2002; Schulze *et al.*, 2001). Second, *Resource-Based,* theories have indirectly led us to a broad understanding of the values inherent in family businesses. Although resource-based research does not specifically address values, Human Ecology Theory tells us that the decisions regarding the transfer of resources are driven by the ecosystem values (Bubolz & Sontag, 1993). The conclusions from these lines of research show that resource flows in these systems are rarely equitable. They usually favor either the family system or the business system (Haynes, Onochie & Muske, 2007; Gomez-Mejia *et al.*, 2002; Schulze *et al.*, 2001). Some researchers have titled this phenomenon

the "duality of economic and family ties" (Blance-Mazagato, de Quevedo-Puente & Castrillo, 2007 p. 200). An appropriate assessment from a these studies is that there is a variance between FOBs in what they value (e.g. the health of the family system, the health of the business system, or the health of the entire family business).

In an earlier work, this author proposed that family businesses vary along a continuum of values (Distelberg, 2008; Distelberg & Sorensen, 2009) and then subsequently tested this theory using the 2007 American Family Businesses Survey (Galvin et al., 2007). In this study, values were explored on a continuum, with one end of the continuum representing FOBs that valued the family over business goals, and who supported the family over the business through privileging employment decisions and the transfer of resources to the family. On the other end of the continuum lay family businesses that valued the business over the family. In this study, value orientation did not predict measures of success, but did influence what success goals were valued. For example, in regard to succession goals, FOBs that lay closer to the business side of the continuum tended to value selling the family business outside of the family, whereas family business on the family side tended to value transferring ownership of the business within the same owning family. This study concluded that a continuum of value orientations does exist across family businesses.

The limitation of these studies (Distelberg, 2008; Gomez-Mejia *et al.*, 2002; Haynes, et al., 2007; Schulze *et al.*, 2001;) and others is that they rely on a self report of values by one family business representative. It is likely that the real value orientation of a family business involves more than an overt self-report of values by one or more individuals within the family business. It is possibly even more complex than a sum of

the values of all individuals within the family business. Identifying the value orientation more than likely involves assessing the weighted sum of the values within the family business, because some individuals may have a greater influence on the total value orientation, such as founders or managers.

The current study hypothesizes that values influence which boundaries are employed within the family businesses. For example, Distelberg (2008) found that "business-first" FOBs tend to desire selling the business outside of the family, whereas "family-first' FOBs tended to desire not only keeping the family business in the owning family, but also dividing the ownership equally, whereas FOBs in the middle of that continuum preferred keeping the business in the family but dividing ownership based on individual characteristics (the desire of individuals to become owners, or the amount of time and effort an individual previously put into the business). It is possible that disengaged family systems correlate with the business-first value orientation and that enmeshed family systems correlate with the strong family-first end of the continuum. If this is the case, then not only is the boundary between the family and the business important, but also the value orientation of the owning family to business growth and family business satisfaction.

Agreement on Values

In Distelberg's (2008) study, the actual value orientation explained much less than the "agreement of values" (agreement between owners, family members, employees and clients or customers). According to the findings of the American Family Survey (Galvin et al., 2007), more than 80% of family businesses report a high degree of unity in values.

This means that the representative of the family business reported that the employees, family members, ownership, and customers all shared similar values to the owning family values (Distelberg, 2008). When this is the case (a family business with agreement in value directions on each level), FOBs report a higher level of optimism for the future, and they have an easier time reaching an agreement between generations regarding the future ownership of the business (e.g. sell the business or divide ownership across the family equally).

While the scale used in Distelberg's (2008) study for the "agreement of values" measured only the representative's perception of agreement of values across the family, the employees, and their clientele, this scale hints at the notion of cohesion. This scale is not a measure of family cohesion, but it is appropriate to assume that family systems with a healthy level of cohesion also would share similar values. What is not clear is the relationship between enmeshed family systems and value orientation. It is likely that enmeshed family systems have a high degree of value agreement, but it is also reasonable to think that there might be a disagreement in enmeshed family systems on value orientation.

Adaptability

So far we have discussed FOBs as if they were static; in reality, a certain level of adaptation must exist within each family business. Certain boundaries that were employed during one generation of ownership, or during one stage of the business developmental life span, may not be functional during another stage. A healthy level of adaptation within FOBs will allow FOBs to adjust their values, boundaries, and structure

to accommodate the new goals and challenges in the new generation or stage of business development.

In previous studies of family business values, one of the major foundations has been the role of family adaptability (Lansberg & Astrachan, 1994; Davis & Sterns, 1981; Distelberg & Sorensen, 2009). Human Ecology defines adaptability as the "...behavior of living systems that changes the state or structure of the system, the environment, or both...Adaptation is a necessary process for the growth and progressive integration of living systems" (Bubolz & Sontag, 1993, p. 433). Olson et al., (1979a; 1979b) added to this idea of adaptability to their Circumplex model. In this model, this axis is a continuum with overly flexible and rigid family systems as the two ends of the continuum. In other words, family systems that adapt too much are chaotic. There is very little continuity in the system, as it takes very little to change the structure of the system. Conversely, rigid systems do not adapt enough. Certain environmental and developmental events require that systems adapt to some degree to survive. Rigid systems refuse to adapt even in the face of negative consequences to the system. This idea could be adapted to FOBs.

From organizational theory, adaptability is often referred to as an organization's flexibility. A flexible organization has a structure that allows the organization to succeed under environmental pressure and unpredictability (Ackoff, 1977; Eppink, 1978). It has the ability to make structural changes quickly. To make these structural changes, an organization has to be "decentralized" in decision making, with a high degree of permeability of boundaries and collaborative partnerships (Bahrami, 1992; Krijnen; 1979; Overholt 1997). In other words, certain boundaries allow for adaptability, and certain

structural characteristics of organizations facilitate adaptability better than other types of boundaries and structures.

These ideas have been examined in the study of FOBs. For example, there are many positive benefits to the centrality of owners, but adaptability is limited when owners are too centralized (especially when the FOB is larger, as it often is in second and third generations (Anderson et al, 2003; Anderson & Reeb, 2003; McConaughy, 2000; Zahra, 2005). While organizational concepts like formalization (rigid boundaries), and centrality within organizations decreases adaptability in organizations (Aiken & Hage, 1971; Corwin, 1972; Damapour, 1991), the key to health in FOBs seems to be a balance between centrality and decentralization, where the ownership system is central to the FOB but it also allows others throughout the FOB to use and transfer resources (Burke, 2007; Hatum & Pettigrew, 2004).

From both the Family Systems and Organizational perspectives, an organization must be what General Systems Theorists call an open system (Bertalanffy, 1969). Open systems allow for change within the system based on new information that is introduced. Conversely, a closed system does not allow new information into the system and therefore, since systems like to maintain a steady state or equilibrium, they will not change without new information. Therefore the structure around a system, or the characteristics of a system that allow (or do not allow) information to enter a system are determinants of the system's ability to change or adapt.

The concept of adaptation crosses every one of the previous ideas discussed in the previous sections. According to SFT, the quality of a family system is based on its ability to shift and change structures and functions (Minuchin, 1974). Family systems that do

not change when external or internal environmental changes require a shift produce many problematic symptoms. If a family business does not possess a healthy level of adaptation, they may not be able to make structural, boundary, or value shifts. This is evident in studies like Anderson et al. (2003) and Zahra,(2005), where the leaders of the business, family, and ownership systems were unwilling to train and introduce new leadership, and in the process reduced their family business' profitability and satisfaction.

Other Variables to Consider

The following section provides some specific demographic issues that have been shown to provide variance in the family business population. Therefore, when doing research in this area the following variables need to be controlled for, and the effect of these demographics should be made explicit.

Firm Size

Intuitively the size of the firm would have an effect on many variables relevant to family business research. For example, the strategies used, and the tensions in both business and family systems will likely vary by firm size, especially when firms differ in greater numbers (e.g.. 10 employees versus 10,000). An often criticized feature of the family business literature, that there is very little (or no) delineation between Wal-Mart or Ford (both considered family businesses under some definitions) and the local mom and pop restaurant down on the corner. While it can be argued that these two extremes are just two ends of the same developmental continuum (Gersick et al., 1997), if this demographic issue is not controlled for, the results may be a function of the firm differences, and not necessarily the actual variables of interest, especially when the

objective is a comparison of family businesses versus non-family owned businesses (Jorissen et al., 2005).

To further examine the effects of this issue, Lussier and Sonfield (2006) recently conducted a test of changes in family businesses as they grow and provided a map of differences between small and large family businesses. They found that overall, larger family businesses have significantly ($p < 0.05$) more non-family members within top management and make greater use of outside consultants, advisors, and professional services when compared to smaller family businesses. Additionally, while the larger family businesses exhibit less conflict and disagreement between family members, they also spend more time in strategic management activities, and use more sophisticated methods of financing.

Using a slightly different approach to understanding the limitations of failing to control for family business size, Jorissen, Laveren, Martens and Reheul (2005) found that controlling for firm size eliminated differences often found in the literature between family businesses and nonfamily businesses for strategies used, networking, perception of the firm's environment, long-term planning, nonfinancial control, growth, and management training. This finding also was held up in a comparison between standard t-tests versus multivariate forms, which included controls for firm size. The indication here is that firm size (as well as other demographic variables) can be effectively controlled for through multivariate methodologies.

For the purpose of this study, the size of the family business will be determined in the initial contact with the owner. Size will be defined as the total number of full time and part time employees as well as by the previous year's revenue. Using two different

measures of size will provide two separate variables, and both can be examined to determine any differential effects.

Gender

The research on women in FOBs is in an early developmental stage. As a result there is little that can be said regarding women in these systems. According to the American Family Business Survey (Astrachan et al., 2003) a growing number of women are entering family businesses and taking leadership positions. Businesses founded after 1980 are more likely to be women-owned (21.1%) than those founded before 1980 (14.1%). Since women's leadership in family businesses is a fairly new development, studies of women in leadership are confounded by the age of the firm and the generation of ownership, and therefore it is difficult to determine the actual effect of gender in family businesses. Most of the differences in studies comparing men led versus women led family businesses report differences in managerial style and debt and equity practices. These factors are more than likely a function of firm age rather than gender (Haberman & McTarvish, 2005; Sonfield & Lussier, 2005).

While there is little direction in the current research about differences between men and women, it does seem that a female owner's perception of well-being is tied to her ability to balance both her family and business values and goals. Also, a female owner's well-being seems to be related to the income received from the business (Lee, Danes & Shelley, 2006). Finally, two very interesting trends have developed, and require further exploration: first women in family businesses seem to be overextended with 25% of women working at home, at the family business, as well as at another place of

employment (Lee, Rowe, & Hong, 2006). These women are more likely to be the primary manager of both their family and business (Masuo et al., 2001). Secondly, studies of succession in female run FOBs suggest that women that receive ownership from their father are more successful than when they receive ownership from their mothers (Dean & Vera, 2005). It was suggested that this succession issue is due to gender stereotyping, where the daughter is expected to be similar to her mother, but allowed to be different or unique from her father's management style.

Therefore controlling for gender effects involves an exploration of interactions between firm size, firm age, and (when the focus is succession) the prior generation. Later we will see that controlling for gender also involves an exploration of interactions between, countries, geographic locations, and industry.

Industry

Industry is a specific section of an economic sector (e.g. manufacturing, retail, service, technology) is the grouping of businesses by the services or products they perform/provide. The North American Industry Classification System lists 1,107 different industries within the North American economic sectors (U.S. Census Bureau, 2007). While the classification of industry has become extremely sophisticated, and most businesses follow this system as it relates directly to legal and tax issues, far too few studies have focused on industry effects for FOBs. A handful of studies have focused on a specific industry (Danes & McTarvish 1997; Stewart & Danes, 2001). While these are helpful to that industry, the generalizability of these studies beyond the sample population is unknown. One recent study (Jorissen et al., 2005) found that controlling for

industry eliminated differences often found between family businesses and nonfamily businesses. One important aspect of this study was its ability to control for industry differences using multivariate methodologies.

When controlling for industry, Westhead and Cowling (1997) found that family businesses versus nonfamily businesses are equally growth oriented and equally export focused, whereas Donckel and Fronlich (1991), who did not control for industry, found that family businesses were less growth oriented, more risk averse, less active in networks, and less export oriented. Also, while Daily and Dollenger (1992) found that family businesses and nonfamily businesses had equal growth when there was no control for industry, Gallo (1993) found that there were lower growth levels in family businesses when controlling for industry. Therefore, the question of how industry interacts with other family businesses outcomes is still unknown, but there is enough evidence to argue that the industry should be controlled for in all family business studies.

Geographic Location

The research on the effects of geographic location has produced both limited and sometimes conflicting results. There are at least two levels of influence associated with the geographic location of a family business. First, the higher level is associated with the country location. For example, Sonfield and colleagues (2005) and Sonfield and Lussier (2005) found no differences across four countries for succession planning and strategies in first, second, and third generations. In a similar study, Lussier and Sonfield (2006) found that in comparison to French FOBs, U.S. FOBs have a smaller percentage of women family members working in the business and less conflict and disagreement

between family members; the researchers also found that larger U.S. companies (in comparison to larger French companies) spend more time in strategic management activities, and used more sophisticated methods of financing. This study and others (Astrachan, 2003; Jorissen et al., 2005) have suggested an interaction between country, firm size, firm age, and gender. Therefore when controlling for country level differences one should consider the interaction between the country level, and firm size, firm age, and gender.

The location differences within the boundaries of a country (e.g. urban versus rural locations, or east versus west, or north versus south) is another demographic variable often overlooked in the current literature. An example of the problems associated with not controlling for this level of location can be found by comparing Westhead and Cowling (1997) and Donckel and Fronnlick (1991). When controlling for the location, Westhead and Cowling (1997) found that family businesses and nonfamily businesses are equally growth oriented and equally export focused, but Donckel & Fronlich (1991) did not control for location and found that family businesses were less growth oriented and less export focused. Furthermore, Jorissen et al., (2005) found that controlling for this level of geographical location eliminated differences often found between FOBs and NonFOBs. Therefore controlling for both levels of location is important.

Age of firm

Some examples of the problems associated with not controlling for firm age can be seen by comparing Teal and colleagues (2005) to Westhead and Cowling (1997), and

to Gallo (1995). Teal et al., (2005), and Westhead and Cowling (1997) did control for the firm age and found equal levels of growth between family businesses and nonfamily businesses, but Gallo (1995) found less growth in family businesses when not controlling for firm age. Also, when controlling for the firm age, Westhead and Cowling (1997) found that family businesses are equally growth oriented and export focused, but Donckel and Fronlich (1991) found that family businesses were less growth oriented (did not control for firm age). The importance of controlling for firm age is further explored and supported by the work of Jorissen et al (2005).

Summary

This study begins by exploring the assumptions of FOB structure within the FOB literature. It compares the theory with actual FOBs and integrates owning family dynamics (e.g adaptability and cohesion) and value orientations into this exploration of FOB structure. It is hypothesized for this study that the owning family's level of adaptability and cohesion effects the strength of the boundary between the family and business system. It is also hypothesized that the strength of the family-business boundary influences the individual's within the FOB.

This study's strength over previous studies regarding family dynamics and boundaries is the inclusion of a value orientation and the methodology employed. The value orientation is a new concept for the field and this study will explore the effects of varying value orientations on FOBs. The methodology will sample a wide range of FOBs to account for the issues of FOB size, gender of ownership, generation of ownership and industry. Also the methods allow for sampling multiple representatives

from within the same FOB rather than relying on one representative, allowing for a much more trustworthy picture of each FOB.

CHAPTER III: METHODOLOGY

Introduction

This study explored the role of family systems dynamics in FOBs through carrying out the following four specific aims:

1. Evaluating the validity of the Three Circle Model's assumptions for communication structures within FOB systems.
2. Expanding the Three Circle Model's validity through the inclusion of family dynamics, value orientations, and boundary creation.
3. Testing the new expanded model for its ability to explain the level of satisfaction within and across FOBs.
4. Testing the new expanded model for its ability to explain the variations within and across FOB value orientations.

Each one of these aims addresses the role of family systems in FOBs which has been overlooked in the FOB literature (Distelberg & Sorensen, 2009; Sharma & Nordqvist, 2008). These aims also will directly or indirectly evaluate the effect of variations in FOB structures, evaluate the Three Circle Model for the first time (Taguiri & Davis, 1982), and examine key variables (values, adaptation and cohesion) central in FOBs.

Methods

Sampling Procedures

Given the exploratory nature of the study and the access to funding and resources, the study was limited to one state. The first step in identifying a sample population was

to contact organizations within the state that served FOBs (e.g. Nonprofit membership groups such as the local Chamber of Commerce, the Family Business Alliance and the Family Owned Business Institute). These organizations offer membership to FOBs and provide educational programming as well as networking services to their members. These organizations were briefed on the study and the potential benefits to their member businesses, and were encouraged to advertise the opportunity to their members. The researcher then followed up these advertisements with an email or telephone call to the business owners and invited them to participate.

A total of 63 FOBs were made aware of the study, and 23 business owners expressed interest in participating. Once a business owner expressed interest in participating, the researcher met with that individual and discussed the study process. A total of 12 business owners decided to not participate due to increasing economic stress, planned layoffs, or general uncertainty about the future of the 2009 economic environment, and 11 businesses agreed to participate and completed the entire data collection process.

Prior to collecting any data from the business, the owner was asked a series of questions to determine whether the business met the inclusion criteria of the study. The following two inclusion criteria were evaluated prior to beginning any data collection: First, the FOB needed to meet the following definition of a Family Owned Business:

> A business is a FOB if the ownership members and the family system members perceive themselves as a FOB, and if a family possesses the majority of the ownership shares. Nonfamily businesses are defined as

businesses that do not perceive themselves as FOBs and in which a family does not own the majority of the shares. (Jorissen et al., 2005).

Secondly, the business needed to provide a 70% response rate in all subgroup areas (family members, ownership members, business members). FOB gate keepers who did not believe a 70% response rate was possible were not included in the study. These two criteria allowed 11 FOBs into the sample population, and 492 individuals were surveyed.

Data Collection

Once a business owner had given the researcher permission to conduct the study within the business, the researcher obtained a roster of names for employees, owners and family members. At the same time, the researcher conducted a brief interview with the owners for the purpose of collecting the business level demographic information (e.g. revenue, number of employees, generation of ownership). At the conclusion of this meeting, the researcher collaborated with the business owner to develop a plan of action for collecting data from the employees. In all but two cases the plan involved an advertisement by the owner and a series of emailed and mailed invitations to take the online or paper version of the survey. Advertisements by the owner of a business were carefully planned with the help of the researcher, so that the advertisement met two goals; 1) make employees aware of the study, and 2) highlight "voluntary" and "confidential" participation (employees were aware that they were not required to participate, that participation or a lack of participation would not affect their employment, and their participation was confidential, in that only the researcher would see their responses to

survey items). For each of the three methods of survey administration (email, mail, onsite) participants were given an informed consent form (Appendix E) which detailed the risks and benefits of participation. During onsite administration this consent form was read out loud by the researcher and time was given to address any concerns or questions. The Informed Consent also included information about financial compensation. A lottery was held for each business. For each business one $50 gift card per every 75 employee was given at random to a participant. A random number generator was used to determine the winning participant.

There are a total of three surveys that were used for this study, one for business level variables, one for all participants, and one specifically for family members of the owning family (see; 1) business owner interview (Appendix A), 2) participant survey (Appendix D), and 3) family member additional survey items (Appendix C).

Business Owner Interview (Appendix A)

During the initial meeting with a Business Owner, the researcher conducted an interview using the Gate Keeper Interview in Appendix A. This interview served three purposes: 1) collaboration with the business owner in obtaining access to the sample participants, 2) obtaining a roster of all possible sample participants within the FOB, and 3) collecting business level demographic information. These variables will be used in the case study portion of the analysis (Specific Aim 1). Covariate items from the Gate Keeper Survey are: age of business, generation of current family ownership, industry, gross profit for 2006, 2007 and 2008, construct a family tree to identify family members, and obtain a list of current employees.

Participant Survey

All participants in the study were asked to complete the Participant Survey (Appendix D). This survey includes a number of demographic variables as well as the scales for *Value Orientation*, *Satisfaction* and the *Network Communication* items (addressed in detail below).

Family Member Survey

While all participants received the Participant Survey, individuals who were identified as "family members" received an additional set of 20 questions (Appendix C). These additional questions were used to measure the *Adaptability* and *Cohesion* levels of the family system. These two scales (Cohesion and Adaptability) were taken directly from FACES III (Olson et al., 1985). The primary purpose of these two scales is for business group comparisons in Specific Aim 2, 3 and 4.

Data Imputation

Once all data were collected, the researcher inputted each individual's information into two separate computer programs. First, the researcher entered the network communication items in Ucinet 6.0 (Borgatti, Everett & Freeman, 2002). This program was used to produce the sociograms (using the Netdraw function) in specific aim 2. This program also produced the centrality and density data used in specific aims 1-4. Secondly all of the data were put into HLM 6.06 (Raudenbush & Bryk, 2002). This program was used to develop and test the models used in Specific Aims 3 and 4. SPSS 15.0 was also used to clean data and transfer centrality and density data from Ucinet 6.0 to HLM 6.06.

Ownership Validation

After completing the data imputation and analyzing all 11 business' data, the researcher returned to the ownership of each business and reported general findings regarding the overall study and the location of the owner's business in comparison to the study findings. This process added validity to the findings as all of the owners confirmed the assessments of the researcher for their businesses.

Study Participants: Individuals

A total of 492 individuals completed the survey. These participant responses were used for fitting the models in Specific Aims 3 and 4. While only 492 individuals physically took the survey and provided actual responses, due to the social network items in the survey it was possible to have individuals represented within the networks without having that individual physically take the survey, and as a result the network data represents 853 individuals. Therefore, the sociograms, centrality, and density data are based on the sample population of 853, while the actual models in Specific Aims 3 and 4, as well as the Value Orientation and Satisfaction variables are based on the sample of 492.

One of the largest contributors to the difference between the network N and the sampled N is the economic downturn of 2008 and 2009. All of the businesses sampled were in the process of reducing their number of employees. Therefore, while terminated employees were not available to take the survey, sampled employees maintained communication with these terminated employees and nominated them in the network data. For example while person A (employed) took the survey, they may have nominated

person B (previously employed) in their communication network. Therefore person A and B were included in the network N but only Person A was included in the sampled N.

The participants were divided among three subgroups: Owners, Family Members, and Employees. Table 3.1 below represents this distribution. It should be noted that an individual can qualify for two or more subgroups, as an individual may be an owner but also a member of the owning family, and employed by the business. For example, all but five owners also were family members, and approximately 60% of the family members also were employees.

Table 3.1: Participants by Subgroup

Subgroup	Frequency	Percentage
Family	59	12.0
Owner	38	7.7
Employee	465	94.5
		N=492

Subgroup Definitions

Ownership System Members. Individuals within sampled FOBs were considered a member of the ownership system if they maintained a stakeholder position (own stock in the business) and/or they hold a seat at either a governance board or board of directors.

Family System Members. An individual was considered a member of the owning family system if he/she was related to the owner of the business or owning family through blood marriage or adoption. Individuals also were considered a member of the owning family system if the family system considered them a member of the owning family.

Employee System Members. Individuals were considered members of the business system if they receive compensation for services they provided for the FOB. Most commonly these individuals were employees of the FOB.

Individual participants were given these definitions and first asked to self select in or out of each group. The participant's response was then verified by the business owners, and cross checked with the roster of employee, family and owner members obtained at the first interview with the business owner.

Study Participants: Businesses

The sampled businesses represented a wide variation of generation of ownership, industry, revenue size, employee size and gender of primary owner. Table 3.2 below represents the demographic variation of these businesses.

Table 3.2: FOB Participant Demographics

Company	**Industry**	**Owner's Gender**	**Generation of Ownership**	**Employees**	**Revenue Three Year Average** *(in thousands)*
1	Children Education	Female	1	13	1,700
2	Residential Remodeling	Male	2	8	2,100
3	Agriculture	Both	4	104	17,000
4	Wholesale Distribution	Male	1	100	12,000
5	Commercial Real Estate	Male	2	24	24,842
6	Whole Sale Distribution	Both	2	500	89,876
7	Tourism	Male	3	18	2,100
8	Funeral Services	Male	2	20	4,867
9	Children's Arts/Ed.	Female	1	7	174
10	Finance	Male	2	8	10,500
11	Finance	Male	2	9	15,424

Measures

Value Orientation Scale.

The value orientation scale has been normed using the American Family Business Survey (Galvin et al., 2007) in Distelberg (2008). The actual items and associated alphas are presented in Table 3.3 below. This scale was used in Specific Aims 2, 3 and 4. Using the discussion of FOB values in Distelberg and Sorenson (2009), this scale can be used in different ways depending on the level of analysis. For example, when evaluating an individual's score on this scale, one is actually measuring the individual's *perception* of

his/her FOB's value orientation. When evaluating this scale as a mean of a subgroup, one is measuring the subgroup's perception of the FOB's value orientation. When this scale is averaged across an entire FOB sample the score is considered the actual value orientation of the FOB.

Table 3.3: Value Continuum Items

Likert Scale Response Paired items 1 2 3 4 5 6 7			Factor Loading α
A manager's qualifications (education, experience, etc.) are the only characteristic considered in hiring and promotion decisions		Family members are given preference in hiring and promotion decisions	0.827
All employees are compensated (excepting dividends) based solely on their position and performance		Family members are paid more than non-family members in comparable positions	0.812
This company is a business, which happens to employ people from the same family		This company is a family, which happens to be in business together	.711
The owner(s) primarily get financial and professional satisfaction from this business; working with family is a bonus		The owner(s) primarily get satisfaction from working with family members; the financial rewards from the fir are a bonus	.826
		Cronbach Alpha for Scale	**0.805**
		N	**638**

Satisfaction Scale.

Since the beginning of the FOB field, research has focused on understanding how FOBs obtain success or achieve satisfaction. Many studies have used self assessments of satisfaction as an indication of success (Danes et al., 1999; Danes et al., 2002; Olson et al., 2003; Zody et al., 2006). In these studies a scale is created based on a select number of likert scale items. In most cases these items reflect a combination of satisfaction with

the three systems in the FOB. Unfortunately there does not currently exist an accepted assessment for satisfaction. Therefore the researcher created a scale based on the items commonly used in the literature.

Prior to administering this scale it was pilot tested with the 20 individuals with experience in FOB issues (i.e. 16 business owners, 2 family business organization leaders and 2 family business researchers). These individuals all believed that the seven items in the scale accurately measured satisfaction within a family business, therefore providing face validity to this scale. This scale was used in all four Specific Aims. The individual items as well as reliability estimates are presented below in the Dependent Variable section.

Network items.

These items were used directly and indirectly to address each one of the specific aims. More specifically, these items were used for the Dependent Variable in Specific Aim 1 and the sociograms in Specific Aim 2, and the density and centrality values in Specific Aims 2, 3 and 4 were calculated based on these items. These items reflect the social network analysis portion of this study and as were constructed through an exploration of social network literature.

The typical fashion of evaluating relationship ties in networks through SNA involves asking respondents (nominators) to nominate individuals with whom they have a relational connection (Wasserman & Faust, 1994). Most surveys ask the nominator to either choose from a list of individuals or recall individuals from their memory.

Recently, two important ideas have developed in the SNA literature that relate directly to this study population. First, Marsden (2005) has noted that the typical methods

of asking nominators to identify a nominee are ineffective in densely packed groups (groups with a great deal of interaction on a regular basis). FOBs could be defined as a dense group in terms of interactions and therefore Marsden (2005) recommends using a more precise item, in this case asking participants to nominate interactions that are "*meaningful*" and happened within a finite period of time (three weeks was used for this study). Secondly, SNA researchers have found that if given the ability to choose the number of nominees reported (instead of limiting the nominations to a specific number of nominees), nominators will average between three to five nominees (Marsden, 2005). Therefore it is more efficient to provide space for up to six nominees.

The three network items are:

1. In the last three weeks whom have you had a meaningful conversation with regarding the [INSERT OWNING FAMILY NAME] family, or discussed issues specifically related to the owning family?

2. In the last three weeks whom have you had a meaningful conversation with regarding the day to day functions of the business (e.g. job responsibilities, problems with coworkers, production changes, time off)?

3. In the last three week whom have you had a meaningful conversation with regarding the overall strategy and future of the business (e.g. strategic planning, succession planning, initiating or changing governance boards)?

Each of these items reflects the division between family (item 1), employee (item 2) and ownership (item 3) communication patterns. Theoretically, if the Three Circle Model is correct, employees should have little to no values recorded for items 1 and 3.

FACES III.

The Family Member Participant survey is the FACES III assessment. FACES III contains the *Cohesion* and *Adaptability* Scales which were used as independent variables.

This survey is derived from the Circumplex model (Olson et al., 1979a; 1979b). The Circumplex model has been revised four times (Olson, 2000). The FACES III format is the shortest of these formats (20 items) and has the most research validating its reliability and validity. Table 3.4 below shows the individual items, scales and associated alphas. There are two scales within FACES III, one for family adaptability (α = .62) and one for family cohesion (α = .77).

Table 3.4: FACE III

Items for FACES III	
Cohesion Items	α = .77 X = 39.8 SD = 5.4
	Factor Loading
1. *Family members feel very close to each other*	.60
2. *Family togetherness is very important*	.47
Supportiveness	
3. *Family members ask each other for help*	.51
4. *Family members consult other family members on their decisions*	.48
Family Boundaries	
5. *Family members feel closer to other family members than to people outside the family*	.49
6. *We like to do things with just our immediate family*	.39
Time and Friends	
7. *Family members like to spend free time with each other*	.69
8. *We approve of each other's friends*	.43
Interests and Recreation	
9. *When our family gets together for activities, everybody is present*	.54
10. *We can easily think of things to do together as a family*	.43

Table 3.4 con't

FACES III	
Adaptability	α = .62 X = 24.1 SD = 4.7
	Factor Loading 2
11. Different people act as leaders in our family	.35
12. It is hard to identify the leader(s) in our family Control	.38
13. The children make the decisions in our family	.34
14. In solving problems, the children's suggestions are followed Discipline	.37
15. Children have a say in their discipline	.48
16. Children and parents discuss punishment together Roles and Rules	.37
17. Our family changes its way of handling tasks	.45
18. We shift household responsibilities from person to person	.38
19. Its hard to tell who does which household chores	.34
20. Rules change in our family	.36

Dependent Variables

Value Orientation

Value orientation is a continuum of family businesses based on whether the FOB system values the family side or the business side of the entire FOB system. Previous research using the American Family Business Survey (Galvin et al., 2007; Distelberg, 2008) revealed that family businesses do vary in regard to their preference for the

business or family side of the FOB system. The scale in this study is unique in that it is the first time all members of the system have been measured. For the sample population table 3.5 shows that the total Cronbach Alpha for the scale is .698, and each of the four items load equally well using Cronbach Alpha Factor Analysis. Table 3.6 shows the distribution of this variable and table 3.7 provides descriptive statistics.

Table 3.5: Value Continuum Reliability

Item	**Cronbach Alpha**
Value Item 1	.612
Value Item 2	.603
Value Item 3	.651
Value Item 4	.660
Total Alpha	.698
N	492

Figure 3.6: Value Continuum Histogram

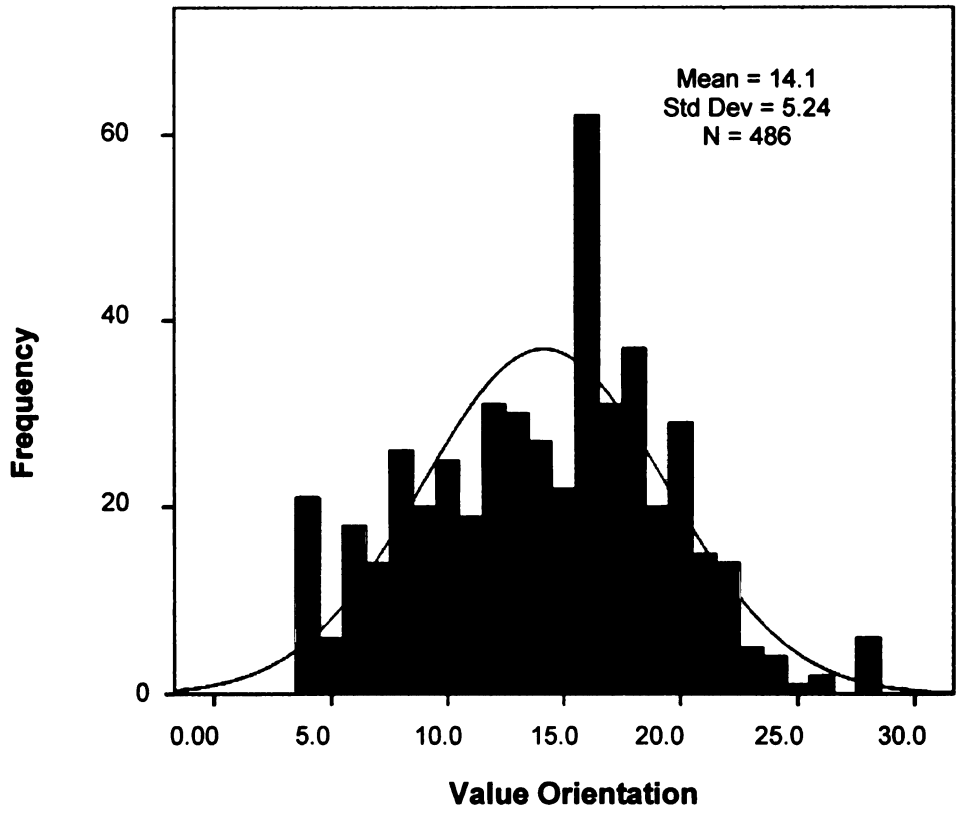


Table 3.7: Value Continuum Descriptive Statistics

N	Valid	486
	Missing	6
Mean		14.1379
Std. Error of Mean		.23752
Median		15.0000
Mode		16.00
Std. Deviation		5.23623
Skewness		-.025
Std. Error of Skewness		.111
Kurtosis		-.445
Std. Error of Kurtosis		.221
Minimum		4.00
Maximum		28.00

Satisfaction

The satisfaction variable was constructed using seven questions on a likert scale of 1-9. Table 3.8 shows the items and the associated factor loadings. Table 3.9 provides a visual representation of the variance, and table 3.10 provides the descriptive statistics for the satisfaction scale. Taken together this is a very strong scale with total alpha for the scale of .91.

Table 3.8: Satisfaction Scale Items

Item	**Cronbach Alpha**
1. Your level of satisfaction with your involvement with the business	.894
2. Your level of satisfaction with the ownership/management of the business	.887
3. Your level of satisfaction with the employees within the business	.907
4. Your level of satisfaction with members of the owning family	.894
5. Your level of satisfaction with the amount of conflict throughout the business	.896
6. Your level of satisfaction with the future direction of the business	.896
7. Your level of satisfaction with how problems are solved within the business	.890
Total Alpha N	.909 484

Figure 3.9: Satisfaction Histogram

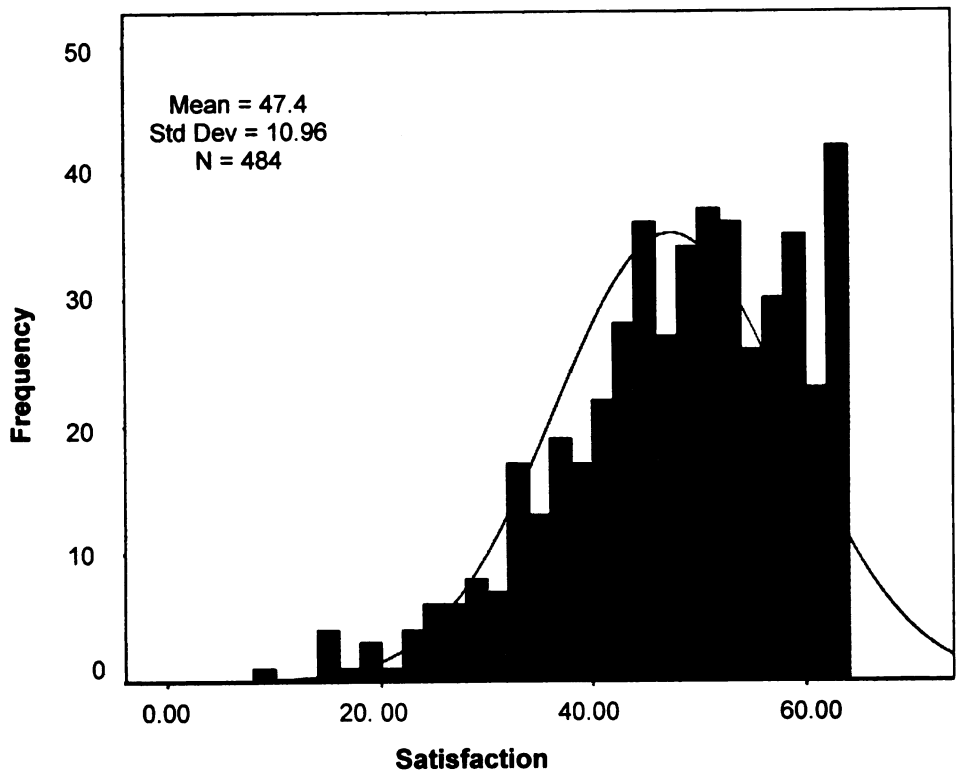


Table 3.10: Satisfaction Descriptive Statistics

N	Valid	484
	Missing	8
Mean		47.4421
Std. Error of Mean		.49800
Median		49.0000
Mode		63.00
Std. Deviation		10.95590
Skewness		-.690
Std. Error of Skewness		.111
Kurtosis		.149
Std. Error of Kurtosis		.222
Minimum		9.00
Maximum		63.00

Independent Variables

Cohesion

The Cohesion scale is constructed using the ten items from *FACES III* (see description above). Since only family members reported on *Cohesion* there are only 58 individual values. These values, when used in the analysis section, are aggregated across each owning family system, providing one score for each family system.

Cohesion is a measure of the closeness and distance within a family. Higher scores indicate a family system that is too close (often referred to as enmeshed, Olsen et al., 1985). Low scores indicate a family system that is distant. Three decades of research using this scale suggests that functional family systems score between the two ($\bar{X}$ = 39.8 SD = 5.4). For the sample population in this study, the $\bar{X}$ = 40.67 with SD = 6.5. A T-test indicates that these values are statistically similar to the National Average (t =1.02, df = 57, p = .31). This suggests that on average the families in this study do not vary significantly from the general population in closeness. Tables 3.11 and 3.12 provide the visual variance in the sample population as well as descriptive statistics.

Figure 3.11: Cohesion Histogram

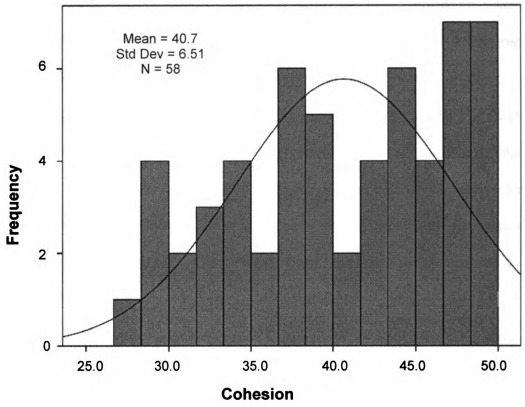


Table 3.12: Cohesion Descriptive Statistics

N	Valid	58
	Missing	434
Mean		40.6724
Std. Error of Mean		.85571
Median		41.0000
Mode		40.00[a]
Std. Deviation		6.51688
Skewness		-.307
Std. Error of Skewness		.314
Kurtosis		-1.016
Std. Error of Kurtosis		.618
Minimum		28.00
Maximum		50.00

Adaptability

The Adaptability scale is constructed using the corresponding ten items from *FACES III* (see description above). Since only family members reported on Adaptability there are only 57 individual values. These values when used in analysis are aggregated across each owning family system providing one score for each family system.

Adaptation is a measure of the flexibility and rigidity within a family. Higher scores indicate a family system that is too flexible (often referred to as chaotic Olson et al., 1979a). Low scores indicate a family system that is too rigid or resistant to change. Three decades of research using this scale suggests that functional family systems score between the two ($\bar{X}$ = 24.1 SD = 4.7). For the sample population in this study the $\bar{X}$ = 28.14 with SD = 5.2. A T-test indicates that the sample population families are significantly different from the National sample ($t = -5.89$, $df = 56$, $p < 0.001$). This suggests that families in family businesses are more adaptable than the average family system. Tables 3.13 and 3.14 provide the visual variance in the sample population as well as descriptive statistics.

Figure 3.13: Adaptability Histogram

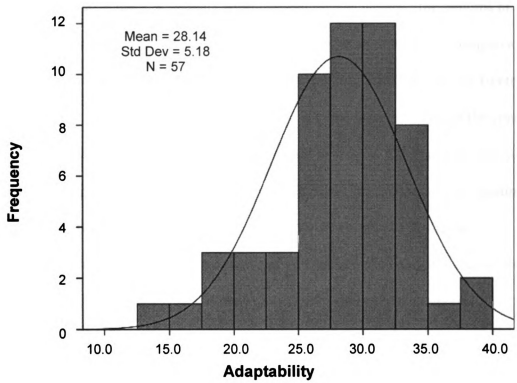


Table 3.14: Adaptability Descriptive Statistics

N	Valid	57
	Missing	435
Mean		28.1404
Std. Error of Mean		.68617
Median		29.0000
Mode		29.00
Std. Deviation		5.18045
Skewness		-.691
Std. Error of Skewness		.316
Kurtosis		.654
Std. Error of Kurtosis		.623
Minimum		14.00
Maximum		39.00

Centrality (Reachability)

In order to compare one business's communication structure to another in Specific Aims 2, 3 and 4, a network measure was used to quantify the patterns of communication. A number of centrality measures are available for this comparison, from the most basic, "Degree Centrality" (Wasserman & Faust, 2007), to "Reach Centrality" (Hanneman & Riddle, 2005). Degree Centrality is a simple count of all of the connections to and from individual *i*. This measurement would be helpful and is used to measure communication density in Specific Aims 1 and 2, but in practice it is easily manipulated by mediating factors (Hanneman & Riddle, 2005). For example, in the survey, individuals were provided enough space to nominate six individuals for each of the three network items. Therefore, if individual A took his/her time to think about six nominations but individual B was rushed and only thought of two individuals, individual A would have a higher rating than person B simply because of the effort put forward on the survey. To some degree this problem can be solved by looking at "In-degree" versus "Out-Degree".

In-Degree is a sum of all the nominations *to* individual *i*, by all individuals *i'*, where as Out-Degree is the sum of nominations *from* individual *i* to all individuals *i'*. Therefore a higher In-Degree for person *i* can be conceptualized as being a person that many people talk to, while a higher Out-Degree conceptually means that person *i* talks to a lot of others.

While In-Degree has fewer issues in regard to sampling error, it only accounts for person *i* ' nominations and does not account for the position of individual *i* '. For example, In-degree centrality measures how many connections individual *i* has but does not

consider "to whom" individual *i* is connected (e.g it is different to be connected to four employee friends than it is to be connected to one owner).

One measure that does account for whom an individual is connected, is "Reach Centrality." Reach centrality is the sum of all *ii'* connections along all possible geodesic paths for individual *i*, and it weights these connections by how many steps away the connection is from individual *i*. For example, if *i* is connected to *j* and *j* is connected to *k*, then *i* is connected to *k* through *j*. Therefore if *j* is a highly connected person then it is more advantageous to be connected to *j* than have multiple connections to other's with few connections. Furthermore, Reach Centrality weights each step, so the number of connections from *i* to *j* is divided by 1, but the connection from *i* to *k* through *j*, is two steps and therefore divided by two (weighting is equal to the 1/n where n = the number of steps). Conceptually this measures an individual's reach to all individuals in the system, or similarly one's access to all individuals in the system. A higher rating of *Access* (Reach Centrality) means an individual can access all the individuals in the system better than an individual with a lower *Access* (Reach Centrality).

In-Degree and Reach Centrality are used to quantify the four communication patterns for each business. Each business produced four communication networks: family issues (*Family Access*), and employee issues (*Employee* Access), ownership issues (*Ownership Access*), and the sum of these three networks creates the "Total Communication Network" (*Total Access*). In each case the standard Reach Centrality was used rather than the Normalized value which is common in comparison of multiple distinct networks (Hannamen & Riddle, 2005) because the normalization of the standard numbers is accomplished by dividing the standard value by the total number of geodesic

vertexes. The same thing can be conceptually accomplished by using the "group-mean centering" function in HLM 6.06.

Family Access. A matrix of interaction between person *i* and *j* was constructed for each business by asking each participant to nominate up to six individuals associated with his/her business that he/she talks to about issues concerning the "owning family". Once a matrix for a business was constructed, a sociogram was created and Reach Centrality measures recorded. *Family Access* is then the individual's Reach Centrality for the Family Communication matrix. Table 3.15 and 3.16 provide the histogram and descriptive statistics for *Family Access* across all businesses. In table 3.15 there are a large portion of individuals who have a low value for *Family Access*. This makes conceptual sense, as not all individuals in the business would have access to family communication. This positively skewed histogram is a problem for the normal distribution assumptions of HLM and will be addressed in the analysis section. (A similar problem exists for *Owner Access*).

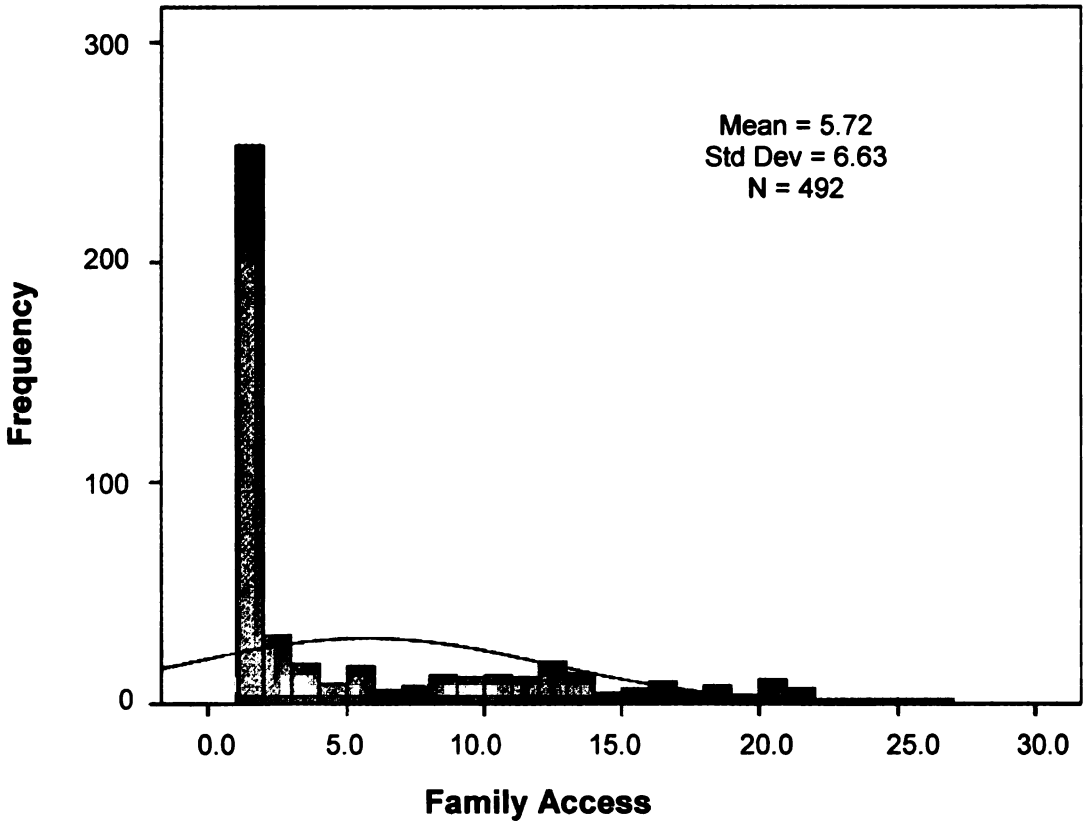
It should be noted for this measure as well as the other "access" measures, the value of the measure is based on the larger network (or the N of 853). Even though only the individuals who participated in the survey were recorded for modeling purposes, the survey process brings in individuals even if they do not take the survey themselves. This is the primary reason for only including businesses that can provide access to 70% of their employees. By sampling 70% of the employees we can be relatively confident that the sampled social network of that business is a fair representation of the business and there are not structural holes due to sampling error (Wasserman & Faust, 1994).

Reach Centrality requires a symmetric matrix and therefore each matrix had to be made symmetric by taking the larger of the column or row values of the matrix. Substantively this is acceptable because if communication happens from person A to person B, it also happens from person B to person A.

Table 3.15: Family Access Descriptive Statistics

N	Valid	492
	Missing	0
Mean		5.7167
Std. Error of Mean		.29874
Median		1.0000
Mode		1.00
Std. Deviation		6.62646
Skewness		1.258
Std. Error of Skewness		.110
Kurtosis		.427
Std. Error of Kurtosis		.220
Minimum		1.00
Maximum		26.83

Figure 3.16: Family Access Histogram

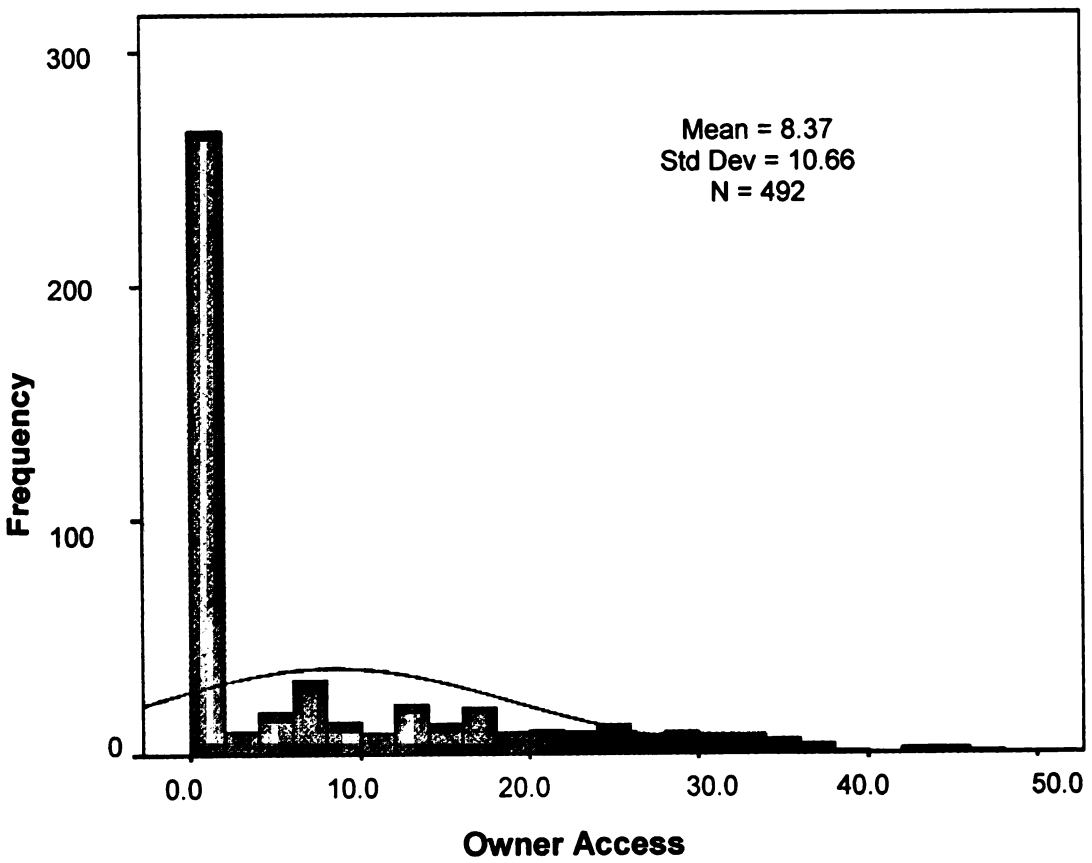


Ownership Access. For each business a matrix of interactions between person *i* and *i'* was constructed by asking each participant to nominate up to six individuals associated with their business with whom they talk about issues concerning the future direction or strategy of the business, typically conversation that the owners would have with individuals. Once a matrix for a business was constructed, a sociogram was created and Reach Centrality measures were recorded. *Ownership Access* is then the individual's Reach Centrality score for the Ownership Communication matrix. Table 3.17 and 3.18 provide the histogram and descriptive statistics for Reach Centrality across all businesses.

Table 3.17: Ownership Access Descriptive Statistics

N	Valid	492
	Missing	0
Mean		8.3704
Std. Error of Mean		.48059
Median		1.0000
Mode		1.00
Std. Deviation		10.65994
Skewness		1.404
Std. Error of Skewness		.110
Kurtosis		1.013
Std. Error of Kurtosis		.220
Minimum		1.00
Maximum		46.52

Table 3.18: Ownership Access Histogram

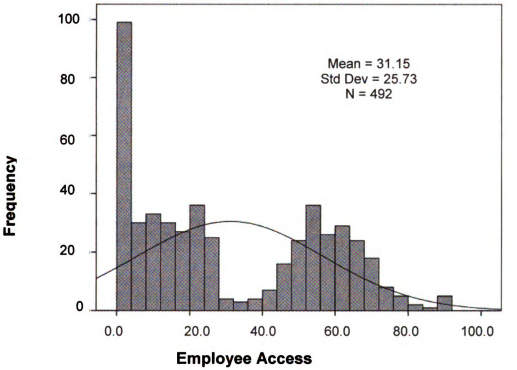


Employee Access. For each business a matrix of interaction between person *i* and *i'* was constructed by asking each participant to nominate up to six individuals associated with his/her business with whom they talk to about issues regarding the day to day function of the business. Once a matrix for a business was constructed a sociogram was created and Reach Centrality was recorded. *Employee Access* is then the individual's Reach Centrality for the Employee Communication matrix. Table 3.19 and 3.20 provide the histogram and descriptive statistics for Reach Centrality across all businesses. There is a noticeable bimodal distribution of this histogram. This suggests that the values are non-randomly varying for *Employee Access.* It could be hypothesized that owners have a higher access on average compared to family and employees. Either way this bimodal distribution violates the normal distribution assumptions within HLM and will be addressed in the analysis section.

Table 3.19: Employee Access Descriptive Statistics

N	Valid	492
	Missing	0
Mean		31.1468
Std. Error of Mean		1.16007
Median		23.0095
Mode		1.00
Std. Deviation		25.73166
Skewness		.348
Std. Error of Skewness		.110
Kurtosis		-1.310
Std. Error of Kurtosis		.220
Minimum		1.00
Maximum		91.51

Figure 3.20: Employee Access Histogram



Total Access. Once the three previous matrices had been constructed the final matrix (Total Communication) was constructed by summing the previous communication matrices. Rather than being a binary matrix, each cell in the matrix has a strength weighting of 0-3. A score of three would mean that the relationship from *i* to *i'* exists across all three communication groups (family, employee, and owner). For example, if person A talks to person B about the family, the employee issues, and ownership issues, cell A-B would equal 3, but if Person A only talks to person B about employee issues, then cell A-B would equal 1. This strengths weighted matrix is used in Specific Aim 2 for the density measure, but the tests in Specific Aim 1 required that this matrix be a binary symmetric matrix. Therefore the weightings were removed (3 and 2 become 1, 0 =0),

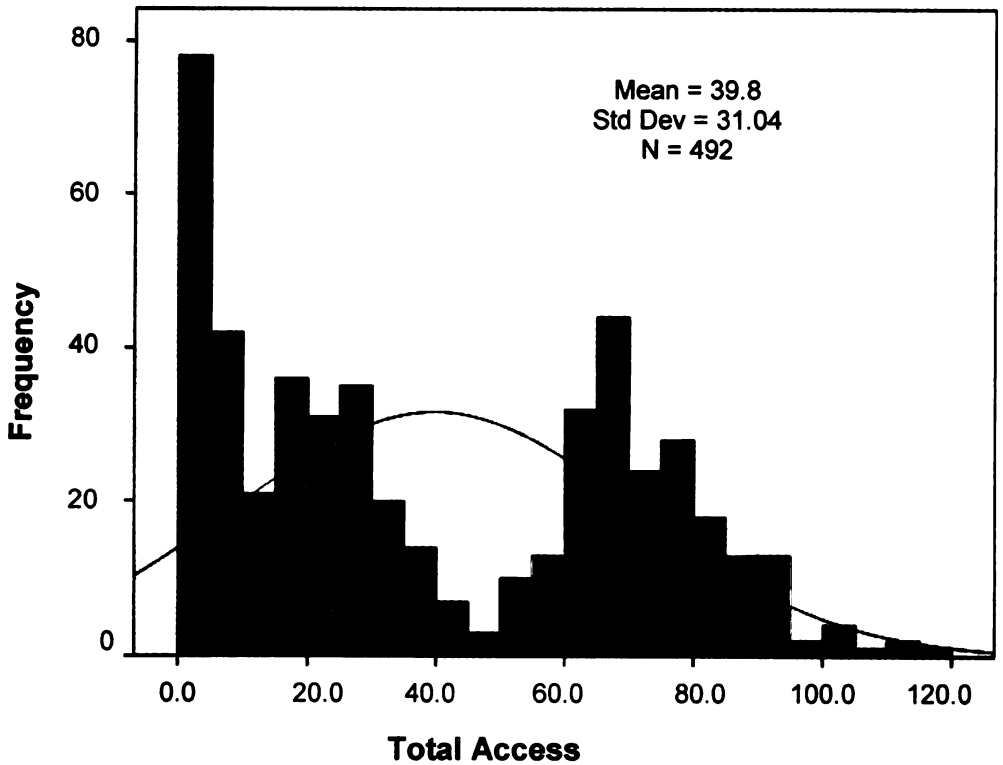
and the matrix was made symmetric by taking the larger value of either the row or column.

Tables 3.21 and 3.22 show a bimodal distribution (similar to the bimodal distribution of the Employee Access variable). Due to this bimodal distribution it cannot be used as is in the HLM models. But the individual block modeling techniques and individual centrality scores can be used in Specific Aims 1 and 3 due to the process of examining one business at a time rather than the total group.

Table 3.21: Total Access Descriptive Statistics

N	Valid	492
	Missing	0
Mean		39.7876
Std. Error of Mean		1.39932
Median		30.1800
Mode		1.00
Std. Deviation		31.03841
Skewness		.299
Std. Error of Skewness		.110
Kurtosis		-1.262
Std. Error of Kurtosis		.220
Minimum		1.00
Maximum		116.35

Figure 3.22: Total Access Histogram



Data Analysis Procedures

The following is a step by step process for exploring the Specific Aims and hypothesis of this study. This analysis process follows two phases. Phases 1 addresses Specific Aims 1 and 2 while Phase 2 addresses Specific Aims 3 and 4.

Phase 1: Step 1 explored the data's ability to support the Three Circle Model. An ANOVA like process will give a model fit comparison for each business. The purpose of this step is to support the hypothesis that the Three Circle Model does not fully account for the flow of communication within FOBs.

Phase 1: Step 2 begins with an exploration of seven research questions across the 11 businesses using the measured values for *Value Orientation, Satisfaction, Cohesion* and *Adaptation*. This step includes a case summary of each of the 11 businesses and also a presentation of their network structures. These structures will be measured in different ways in an effort to show each business's ability to support or failure to support each of the research questions. Conclusions from this step will generate hypotheses that will be tested in Phase 2.

Phase 2: Step 3 will fit a multilevel model for predicting satisfaction within and across businesses. This step uses the information from Phase 1 (Steps 1 and 2), and builds a HLM to test the validity of the findings within the previous steps.

Phase 2: Step 2 will fit a multilevel model for predicting an individual's value orientation perception.

CHAPTER IV: RESULTS

Phase 1: Step 1

Specific Aim 1: Evaluate the validity of the Three Circle Models assumptions for communication structures within FOB systems.

H1: The Three Circle Model does not fully account for all possible variations in FOB communication structures.

To test this hypothesis the *Total Communication* matrix was created by summing the three network communication matrices (*Family Communication, Employee Communication*, and *Ownership Communication*). To test this hypothesis a model was fit for each business. This model is a block modeling technique where an "Expected" matrix is created by randomly placing communication ties within a matrix. A new matrix is formed by correlating this "Expected" matrix with the "Observed" or *Total Communication* matrix. This new "autocorrelated" matrix is considered the Dependent Variable and the subgroups within the Three Circle Model are regressed on the autocorrelated matrix. Conceptually the fit of this model tells us whether the subgroups explain the communication patterns, or whether members of the subgroup prefer to talk to each other or across subgroup (ANOVA *like*). The Three Circle Model (Figure 1.1, Chapter I) provides the subgroupings used in this test. Specifically family member = 1, Owners = 2, Employees = 3, Family members who are Owners are = 4, Owners who also

are Employees = 5, Family members who also are Employees = 6, and individuals who fit into all three groups = 7. This model was fit for each business.

Table 4.1 shows the adjusted r-squared and Chi-Squared significance for each business. It is clear from this exercise that the Three Circle Model does have some explanatory power (e.g. companies 3, 4, 6, 8 and 10 are significant). It is also evident from this exercise that even when the model is significant, it does not explain a great deal of the variance in communication patterns. For example, the model fits for company 8, but the adjusted r-squared is 0.018. This means that to some degree individuals within subgroups talk to each other more than they talk to individuals outside of their subgroup, but these subgroups only explain 1.8% of the variations in communication patterns. There are two exceptions to this finding. The Three Circle Model fits well (statistically significant) and explains a fair amount of the variance (r-squared > 0.10) for companies 3 and 10. This model is a very good fit for Company 10 (adjust r-squared 0.42). But if we also consider the average level of satisfaction and the fit of the model for companies 3 and 10, we notice that both of these companies have significantly lower levels of satisfaction.

Table 4.1 Three Circle Model Fit with Total Communication Matrix as Dependent

Company	Three Circle Model FIT R-squared (p)	Satisfaction $\bar{X}$ = 47.7
1	0.006(0.61)	55.7(7.7)
2	0.000(0.99)	49.5(8.1)
3	**0.10(<0.001)**	**46.3(11.8)**
4	**0.003(0.02)**	**49.4(10.7)**
5	<0.001(0.74)	57.5(6.7)
6	**<0.001(<0.001)**	**46.4(10.7)**
7	0.005(0.42)	43.3(7.8)
8	**0.018(0.04)**	**46.2(9.8)**
9	<0.001(.43)	56.9(6.4)
10	**0.42(0.002)**	**35.7(14.3)**
11	0.002(0.80)	41.3(12.4)

Taken together, the Three Circle Model is relevant for communication patterns, but it does not explain a lot of the variance in communication patterns. It is likely that other variables account for a greater percent of the variance. Furthermore, there may be a negative relationship between the fit of the model and satisfaction. These findings suggest that the next step in phase 1 will be helpful in adding understanding to how and why communication patterns vary within businesses.

Phase 1: Step 2

Specific Aim 2: Expand the Three Circle Model validity through the inclusion of family dynamics, value orientations, and boundary creation.

The process of reaching this specific aim begins by imputing the network data for each business into a computer program, Ucinet 6.0 (Borgatti, Everett & Freeman, 2002). This program allows the user to construct N X N matrix for communication networks.

For this study four matrixes were created for each business: one for the family communication, one for employee communication, one for ownership communication and one for the total (or sum) of the previous three matrices. This program also generated the social network measurements. Netdraw (Borgatii, 2005) (a function within Unicet 6.0) was used to construct the visual sociograms for each sampled businesses.

The following section will provide a brief summary of each of the 11 FOBs. For each business there is a short narrative that discusses the pertinent findings (in relationship to the hypotheses for this section). These findings reference the included sociograms and summary table, which follow each narrative.

Each business will have two sociograms (one for the *Total Communication*, and one for the *Family Communication*). The employee and ownership sociograms are not presented below, they are included in the appendix (APPENDIX F).

Also, each FOB summary will include a table of the company level data. The table includes the values for *Satisfaction, Value Orientation* and the *Cohesion* and *Adaptability* of the owning family. This table also includes a few social network measurements such as each subsystem's density within the total communication network, and Joint Count measurement of the family communication network. The *Satisfaction*, *Value*, *Adaptability* and *Cohesion* scales were developed using a series of items on the survey and discussed in detail in Chapter III.

Since SNA measurements can vary, it is important to summarize how each measurement was calculated in this phase. First, *density* conceptually is a measure of the degree of communication in a given group. This measure is used on the total communication network, which is a strength based matrix (values range from 0-3).

Therefore if everyone in the family talked to everyone in the family on all three communication measures (family, employee and ownership communication), then the density of the family subsystem would be D = 3. Conversely, if there was no communication between any family members on any of the three communication networks the density for the family subgroup would be D = 0. The equation used to determine the density is:

$$D = \frac{L}{n(n-1)}$$

L = the number of lines(connections) present in the subgroup
n = number of individuals within the given subgroup

Second, the Joint Count measurement is similar to an ANOVA method, in that it measures variation within and across groups and provides some comparison of whether the variation can be attributed to a subgroup. Unlike ANOVA, it does not use variance components, but rather it compares the actual count of interaction in a measured matrix to a randomly generated matrix of interactions. The process begins by creating a matrix with random interactions. This random matrix (or the Expected matrix) is compared to the measured matrix of interactions. The measured matrix, or Observed matrix, is each FOB's *Family Communication* matrix. By comparing the Expected to the Observed matrices we can make some judgment about whether, and to what extent, communication exists within a subgroup. Two numbers are presented in the table from this process. The first is the difference between the Observed and Expected connections for each group (e.g Observed – Expected). Therefore, if the number is positive, and high for the family group, we would say that the interactions within the family group are larger than could be expected by random, or conceptually, there is a group called family, it is a meaningful

category because if it were not we would see the Observed value be equal to or less than the Expected values. The difference between the Observed and Expected matrices can also be tested with a Chi-squared test of significance. In other words, is the difference between the observed and expected connections is larger or smaller than could be expected by chance alone (Chi-squared uses 3 *df*, one for each group, family, family-nonfamily interaction, nonfamily). The second number presented for each group in the table is the observed over the expected ratio. Therefore, if the ratio is a 3 for a family in company A, we would say that being a family member in company A provides three times more interactions than seen by random. This allows us to compare the difference across companies because if the ratio for Company B is a 10, then we conceptually can say that the family members in Company B interact more than family members in Company A (this can also be verified by the density measures discussed above).

This process allows hypotheses to be generated about family communication in each business. For example a null hypothesis would be that there is no flow of family communication from the family subgroup to the nonfamily subgroup. We can measure this by looking at the Joint Count analysis of the family-nonfamily interaction group. In this case the null hypothesis would be supported if there is a low (negative) value for the interaction group (and it would be statistically significant, indicating that this negative value is lower than we would expect by chance alone). Furthermore, if there is an extremely rigid boundary for family communication we would see no connections between the family and nonfamily group, or a 0 for the ratio (0/Expected = 0).

Company Summaries

COMPANY 1:

This business is a relatively young business (16 years) in its first generation of ownership. The female owner (1001 from figure 4.2.1, and 4.2.2) provides education and athletic training for young children. The owner's daughter (1002) and sister (1009) are employed by the business also. On average there are 13 employees within the business. The three year revenue average is 1.7 million. Therefore we would conclude that this is a relatively small business.

Within this FOB there have been discussions of the daughter (1002 in figure 4.2.1) taking over the second generation of ownership in partnership with a valuable program manager (1007). But the owner believes that a succession is not likely for at least another 5-10 years

Figure 4.2.1: Company 1: Total Communication

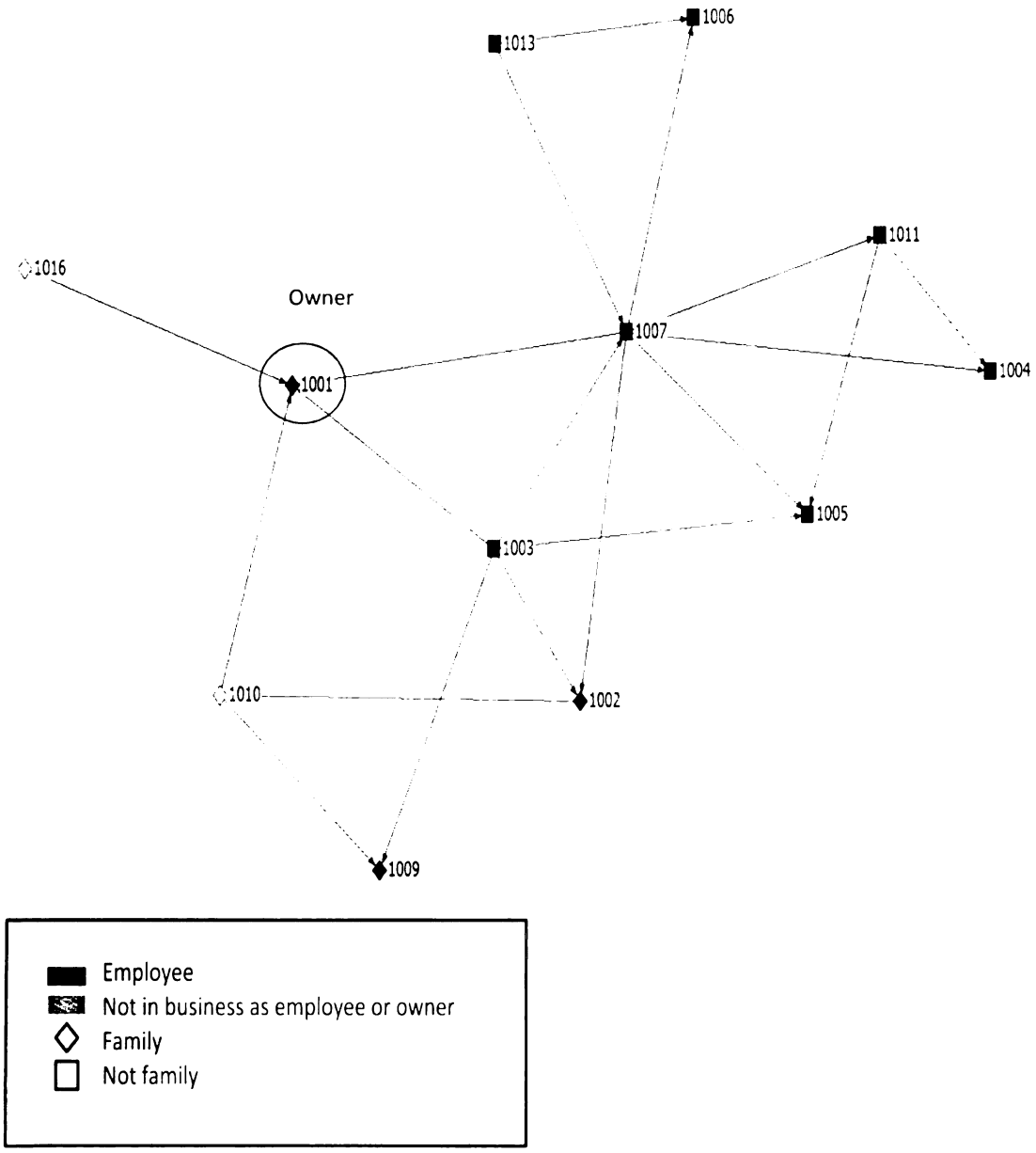
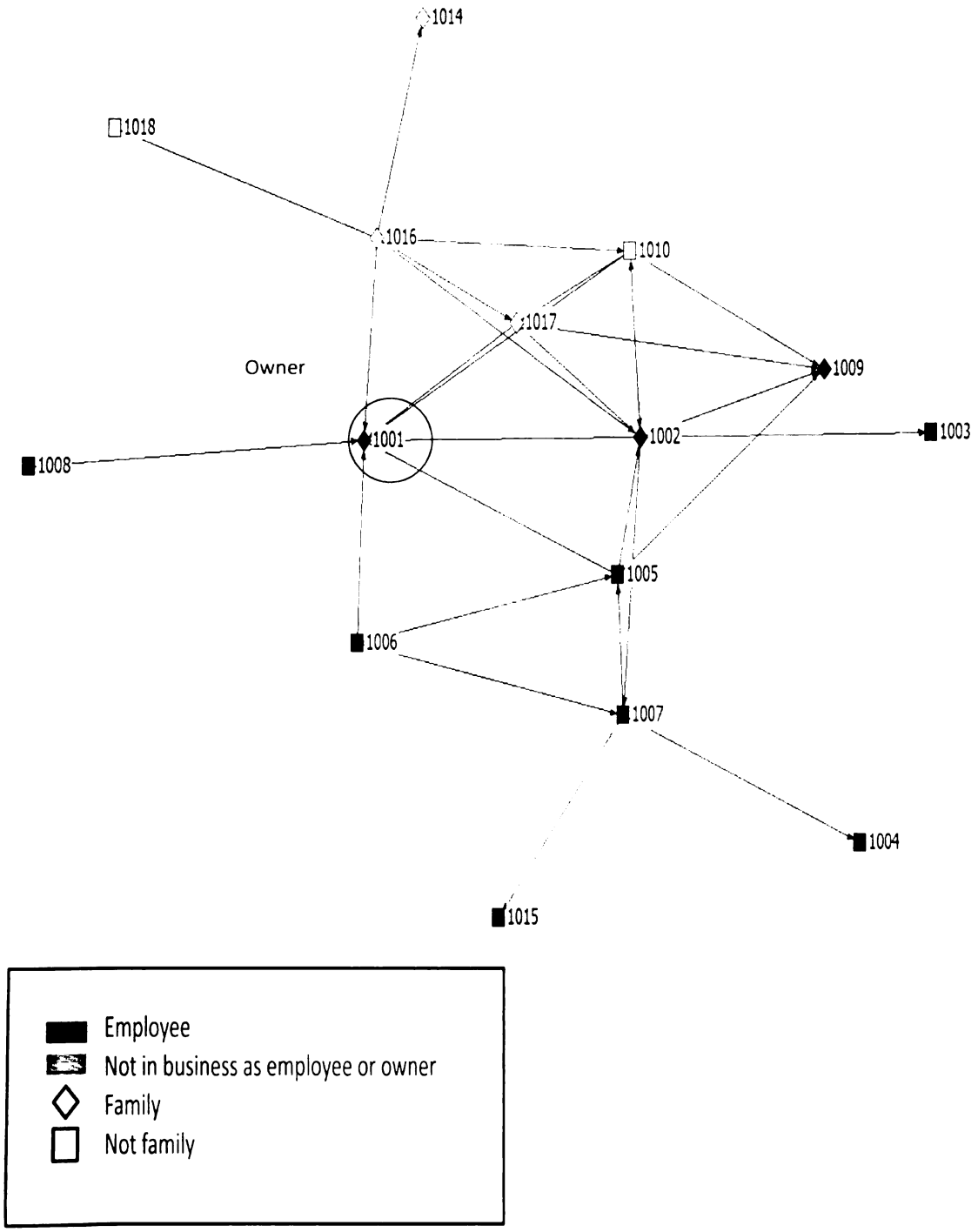


Figure 4.2.2: Company 1: Family Communication



From table 4.2.3 we see that this business is closer to the business side of the continuum (9.2), but the ownership and family members see it even closer to the business side in comparison to the employees (9.6 versus 6.0 and 6.5 respectively). Overall everyone in this business is very happy (satisfaction 55.7 compared to the average 47.7, t-test significance < 0.001). There is a difference of opinions in satisfaction from the owner, family members and employees, with employees being slightly less happy than the owner and the family members. Even so, these employees are happier than the average employee of a family business.

In regard to the family dynamics, this family is very close (cohesion = 43.5). They also are more adaptable than the average American family (adaptability = 26.7) but slightly less adaptable than the families in this study. What is interesting about the communication patterns of this business is that the density of family communication and employee communication across all three types of communication is rather low (D = 1.0 for both). This suggests that there is not a great deal of within group communication for this FOB (the ownership group density is not a measureable number due to there being only one owner).

When we look specifically at the family communication we see that family members communicate between themselves (10.0, $p < 0.001$), and family communication exists between the nonfamily group, but there is a semi-permeable boundary between the two groups. Substantively this means that family communication does not flow freely to the nonfamily groups, although it is not a complete cut off as illustrated by the ratio of 0.5 (close to 0 but > 0) and the family communication sociogram (figure 4.2.2). In this sociogram we see that 1001, 1002 and 1009 (family members) do communicate to the employee group, but there is a visual symmetry to this picture, with all family members on top and all nonfamily members on the bottom. This means that family members talk to each other, employees talk to each other, but in comparison, there is less between group communication.

In summary, this company does have a boundary for family communication, but it is not a cut off. Key family members 1001 (owner), 1002 (daughter) and 1009 (sister) pass family communication on to the nonfamily members. The danger is that the family group does not pass a lot of family communication to the employees, but the employees communicate about the family (2.9 with ratio 0.63). This could lead to a cutoff, and more than likely incorrect information regarding the owning family circulating within the employee (or non-family) group.

Table 4.2.3 Company 1 Summary.

Item	Standard Across all FOBs MEAN(SD)	Company 1 MEAN(SD)	Sig. *(t-test)*
Value Direction	**14.1(5.2)**	**9.2(4.6)**	**0.002**[a]
Employee	14.3(5.1)	9.6(9.2)	ns[b]
Family	10.9(5.1)	6.5(9.2)	0.05[b]
Owner	12.3(5.4)	6.0(9.2)	0.02[b]
Satisfaction	**47.7(10.9)**	**55.7(7.7)**	**0.001**[a]
Employee	47.2(10.9)	54.8(8.0)	ns[b]
Family	50.5(10.7)	59.3(5.3)	0.09[b]
Owner	47.4(11.0)	63.0(5.3)	0.002[b]

Family Dynamics			Density of Subgroup using Total Communication		Family Communication Matrix		
					Groups	Obs-Exp	Ratio(o/e)
Cohesion		**43.5(5.0)**	Family	1.0	NonFamily	2.9	0.63
FB SAMPLE	40.57(6.4)	p = 0.002			InterGroup	-7.1*	0.50
NATIONAL	39.8(5.4)		Employee	1.0	Family	10.1**	3.04
Adaptability		**26.7(4.5)**					
FB SAMPLE	28.1(5.2)**c	p < 0.04	Owner	na			
NATIONAL	24.10(4.7)						

a = t-test significance comparison to all business mean
b = t-test significance comparison to business group mean
c=t-test significance comparison to national sample

** p < 0.05*
*** p < 0.001*
na = not available due to one individual in group

COMPANY 2:

This business is 25 years old. Its primary service is residential remodeling. This business recently (January of 2008) completed a transfer of ownership from the first generation of ownership (individual 2005 in Figure 4.2.4 and 4.2.5) to the second generation (a son) (individual 2001). This business employs eight individuals (4 of whom are family members). The founder and his wife are still employed by the business and provide administrative and sales support. The current owner's wife is also employed by the business as a sales representative. The three year average revenue for this business is 1.9 million. As this is a business directly affected by the economic issues of 2009, the employee count was reduced from 15 to 8 from January 2008 to March 2009.

Important to note in the total communication sociogram and the family communication sociogram is that the new owner (2001) controls almost all of the communication between family members and non-family members. This suggests that a boundary for family communication exists. Also important to note is the role of individual 2002. This non-family employee is communicating with three individuals outside of the business (2010, 2009 and 2008). When this was explored in greater detail, it was found that these individuals are contractors that are used regularly for the business (e.g. electricians, plumber). This seems like a natural and innocent path of communication until we look at the family communication sociogram (figure 4.2.5). In this picture, employee 2002 is talking to the same contractors about the owning family. For this study we did not ask what was being communicated, rather with whom one communicates. Therefore this communication path may be innocent as well, but seeing that there is a relatively strong boundary for family communication between the family

members, and non-family members it is possible that the information received by the contractors may not be completely accurate.

Figure 4.2.4: Company 2: Total Communication

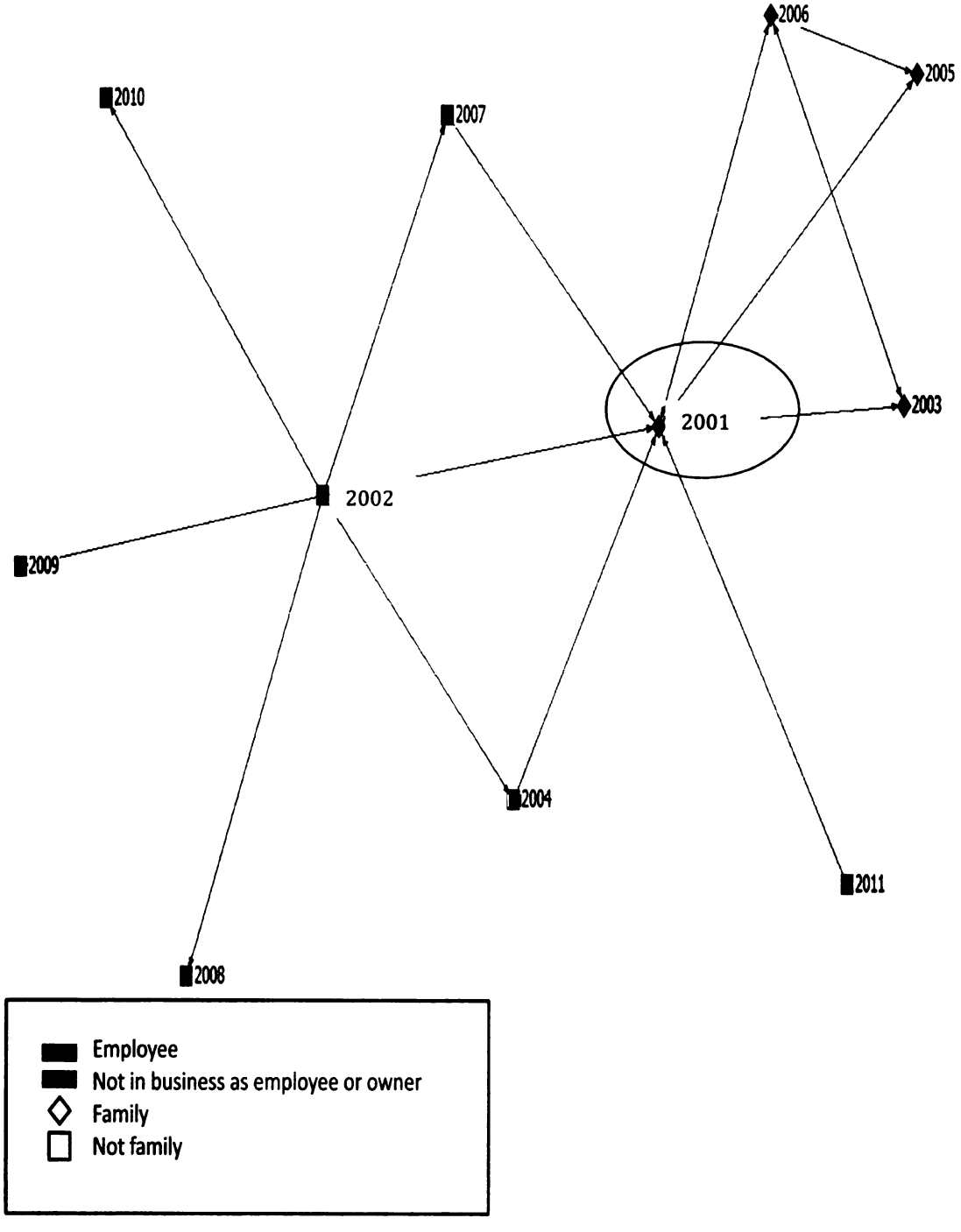
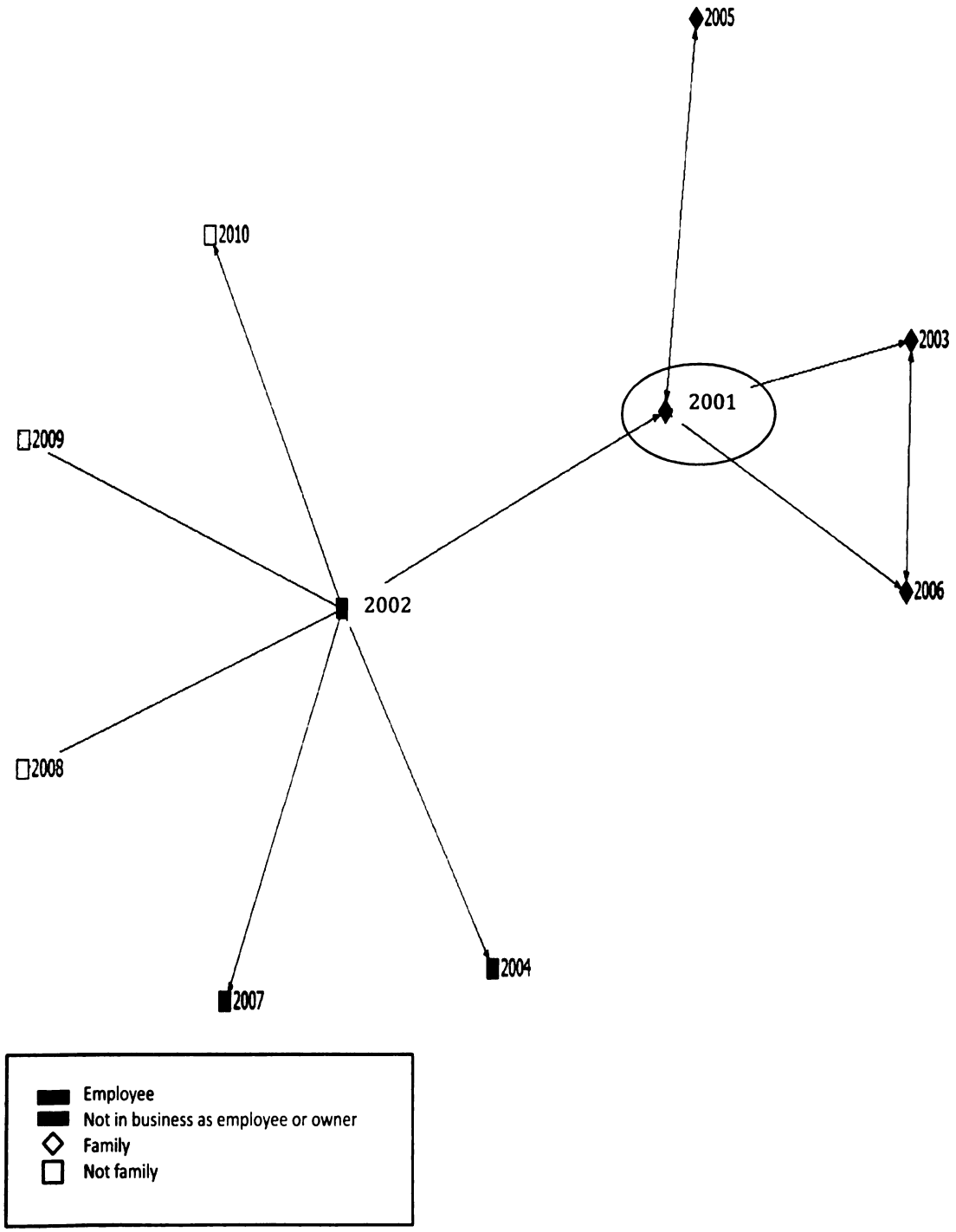


Figure 4.2.5: Company 2: Family Communication



According to the measurements in table 4.2.6, this business is closer to the business side of the value continuum (11.4 $p < 0.001$). There is some disagreement on this issue with employees reporting a value orientation higher than the family (13.7 versus 7.0). In other words, employees tend to view the business as closer to the family side of the value continuum in comparison to the family members. Also, while everyone in the business is rather happy (satisfaction 49.5, $p = 0.001$), employees are less satisfied than the owner and the family, but they are as happy as the average employee in a family business.

This family is not as close as the average FOB family or the average American family (cohesion = 35.8, $p < 0.001$). This would lead us to believe that cut offs within the family exist. This is confirmed by the owner who identified an older brother who used to be employed by the business but was let go and has no contact with the family since that time. While this family is not very close, they are adaptable (32.8 $p < 0.001$). Therefore they are not adverse to change. This is evident by the relatively easy transfer of ownership from the founder to the son.

While the family is not very close, their communication is rather good as the family member density of the total communication is 2.1. There is a developing cut off for family communication as noted in regards to the family communication sociogram (Figure 4.2.5). This is further verified by the Joint Count analysis for family communication. This measure tells us that the family communicates between family members, the employees communicate between themselves, but there is relatively little between group communication (-4.3, $p = 0.01$), the ratio is dangerously close to 0 (0.19) suggesting a rigid boundary for family communication.

Table 4.2.6: Company 2 Summary

Item	Standard Across all FOBs MEAN(SD)	Company 2 MEAN(SD)	Significance (t-test)
Value Direction	**14.1(5.2)**	**11.4(6.5)**	**< 0.001**[a]
Employee	14.3(5.1)	13.7(5.9)	ns[b]
Family	10.9(5.1)	7.0(2.9)	0.05[b]
Owner	12.3(5.4)	10.0	0.02[b]
Satisfaction	**47.7(10.9)**	**49.5(8.1)**	**0.001**[a]
Employee	47.2(10.9)	47.7(7.8)	ns[b]
Family	50.5(10.7)	52.3(7.4)	0.09[b]
Owner	47.4(11.0)	55.0	0.002[b]

Family Dynamics			Density of Subgroup using Total Communication		Family Communication Matrix		
					Groups	Obs-Exp	Ratio(o/e)
Cohesion		**35.8**	Family	2.11	NonFamily	1.67	1.55
FB SAMPLE	40.57(6.4)	p < 0.001			InterGroup	-4.3*	0.19
NATIONAL	39.8(5.4)		Employee	2.17	Family	2.67*	3.0
Adaptability		**32.8**					
FB SAMPLE	28.1(5.2)**c	p < 0.001	Owner	na			
NATIONAL	24.10(4.7)						

a = t-test significance comparison to all business mean
b = t-test significance comparison to business group mean
c=t-test significance comparison to national sample
** p < 0.05*
*** p < 0.001*
na = not available due to one individual in group

COMPANY 3

This agricultural business is an older business with roots dating back to the 1850's. It is currently in its fourth generation of ownership. This is the first generation to have multiple members of the owning family share ownership. The previous three generations of ownership have consisted of one member of the family holding all or the vast majority of ownership. The previous generation (3221 from figure 4.2.7 and 4.2.8) still maintain some ownership and is physically present in the business. The current generation of owners are the four daughters of 3221 (3223, 3219, 3217, 3216), and two of the daughter's husbands (3215 and 3218) also are active in the business and share ownership.

This business has been under a great deal of stress from the 2009 economy and reduced its employee head count from 120 to 98 in the two months data were being collected from this business. Over the last three years this business has produced an average of $17 million in revenue, but this number is dropping quickly due to raising cost of goods sold (specifically the price of gas, corn, and increased government regulation).

Important to note regarding the sociograms is that communication is centered around the family and extends in several distinct branches of communication paths (particularly apparent in figure 4.2.8, but also apparent in the employee and ownership networks in Appendix F figures 6.5 and 6.6). This pattern is not that unusual when we consider that this business has multiple farm buildings and employees usually stay in one location. The danger of this communication structure is that information has to pass through numerous individuals before it reaches the final individual in the path. In organization literature this could be seen as *siloed* organizational structure.

Figure 4.2.7: Company 3: Total Communication

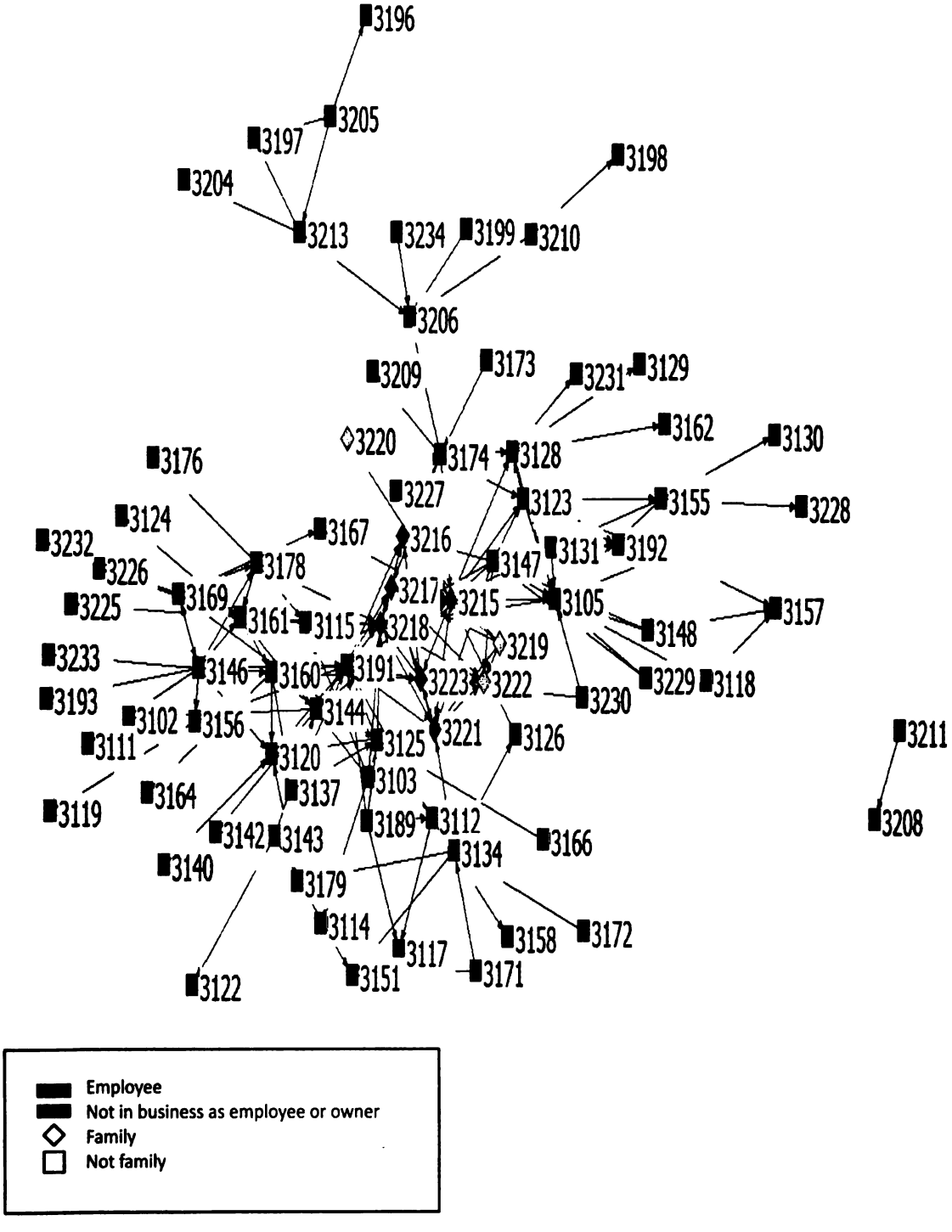
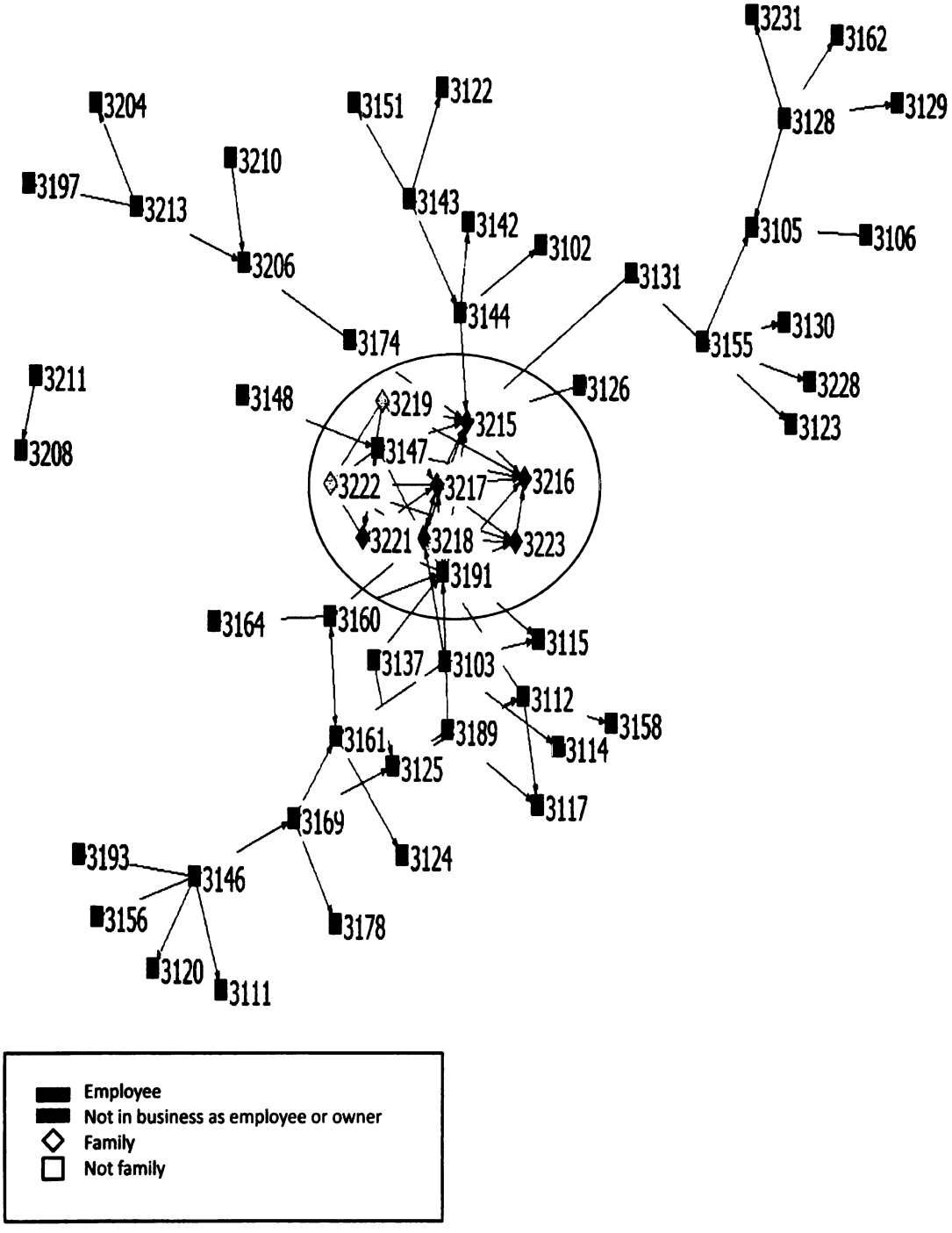


Figure 4.2.8: Company 3: Family Communication



According to table 4.2.9 below, this business is closer to the family side of the value continuum (16.3), which is supported by the entire sibling cohort having ownership in the business and communication being centered around the family (as seen in the sociograms). There seems to be a strong agreement across the family, owners, and employees on this position in the continuum. There also is an agreement on the level of satisfaction, with everyone scoring near 46.3, which is lower than the average level of satisfaction ($p = 0.02$). It is difficult to tell from this single FOB whether this lower level of satisfaction is due to the economic difficulties and the recent layoffs within this business, or whether there is a relationship between the family value orientation and satisfaction.

This family is about as close as the average FOB family, but more adaptable (30.1 $p<4.6$). This closeness is further supported by the high density of family members in the total communication (1.8). The Joint Count analysis of the family communication in this business also tells us that the family members communicate among themselves a great deal. Taken together this family is close, they like each other and talk to each frequently.

What is interesting about this business is that while there are higher levels of communication within the family there is also a lot of intergroup communication, or communication from the family to non-family members (family-nonfamily interaction 7.1). This frequency of communication does not carry over into communication between non-family member (non-family intercommunication = -25.8). Conceptually this would tell us that there is not much of a boundary between the family and nonfamily for family communication. This relates back to the family communication sociogram (figure 4.2.8) where visually the family is centered in the middle of the family communication, and branches of nonfamily members are connected to this center group.

Table 4.2.9 Company 3 Summary Table

Item	Standard Across all FOBs MEAN(SD)	Company 3 MEAN(SD)	Significance *(t-test)*
Value Direction	**14.1(5.2)**	**16.3(4.8)**	**< 0.001**[a]
Employee	14.3(5.1)	16.2(4.9)	ns[b]
Family	10.9(5.1)	17.2(4.7)	0.12[b]
Owner	12.3(5.4)	17.2(4.7	0.12[b]
Satisfaction	**47.7(10.9)**	**46.3(11.7)**	**0.02**[a]
Employee	47.2(10.9)	46.2(11.6)	ns[b]
Family	50.5(10.7)	44.7(10.8)	0.25[b]
Owner	47.4(11.0)	44.7(10.8)	0.25[b]

Family Dynamics			Density of Subgroup using Total Communication		Family Communication Matrix		
					Groups	Obs-Exp	Ratio(o/e)
Cohesion		**40.4(7.2)**	Family	1.8	NonFamily	-25.8**	0.66
FB SAMPLE	40.57(6.4)	p =0.8			InterGroup	7.1	1.7
NATIONAL	39.8(5.4)		Employee	1.5	Family	18.7**	54.8
Adaptability		**30.1(4.6)**					
FB SAMPLE	**c	p =0.006	Owner	1.8			
NATIONAL	28.1(5.2)						
	24.10(4.7)						

a = t-test significance comparison to all business mean
b = t-test significance comparison to business group mean
c=t-test significance comparison to national sample

** p < 0.05*
*** p < 0.001*
na = not available due to one individual in group

COMPANY 4

Company four is a wholesale distributor, selling a specific line of machinery for office use to universities, hospitals and other large businesses. This business is in its first generation of ownership. On average it employs 100 employees (3 of whom are family members). Figures 4.2.10 and 4.2.11 show the position of the two owners. One is a family member (4182) and the head of the owning family. His wife (4183) and two sons (4184 and 4185) also work in the business and are in line to receive ownership of the business. The other owner (4143) is not biologically related to the owner but is considered a member of the family by the owning family.

This business has been less affected by the economic climate of 2009 and has increased revenue while expanding cost of goods sold over the last five years. The three year average for revenue is $12 million.

The sociogram for total communication is rather impressive since this business operates in three separate cities, each of which is more than 50 miles apart. Given this geographic limitation, we would expect to see separate branches of communication for each location, similar to the pattern in company 3. Rather we see a fairly integrated picture (figure 4.2.10). This tells us that even though the business is geographically separated, the communication patterns overcome this separation. Two other points should be noted. First, in both figure 4.2.10 and figure 4.2.11 (also in the employee sociograms in Appendix F figures 6.7) the two owners are not connected directly but communicate through others. The only network in which they share a direct connection is the ownership network (Appendix F, figure 6.8). Also the family communication sociogram (figure 4.2.11) shows that many individuals are connected to the family communication network, but there are four other chains of communication that are not connected to the main family communication network. One could assume that these separated chains have a high probability of circulating information about the owning family that is not accurate.

Figure 4.2.10 Company 4: Total Communication

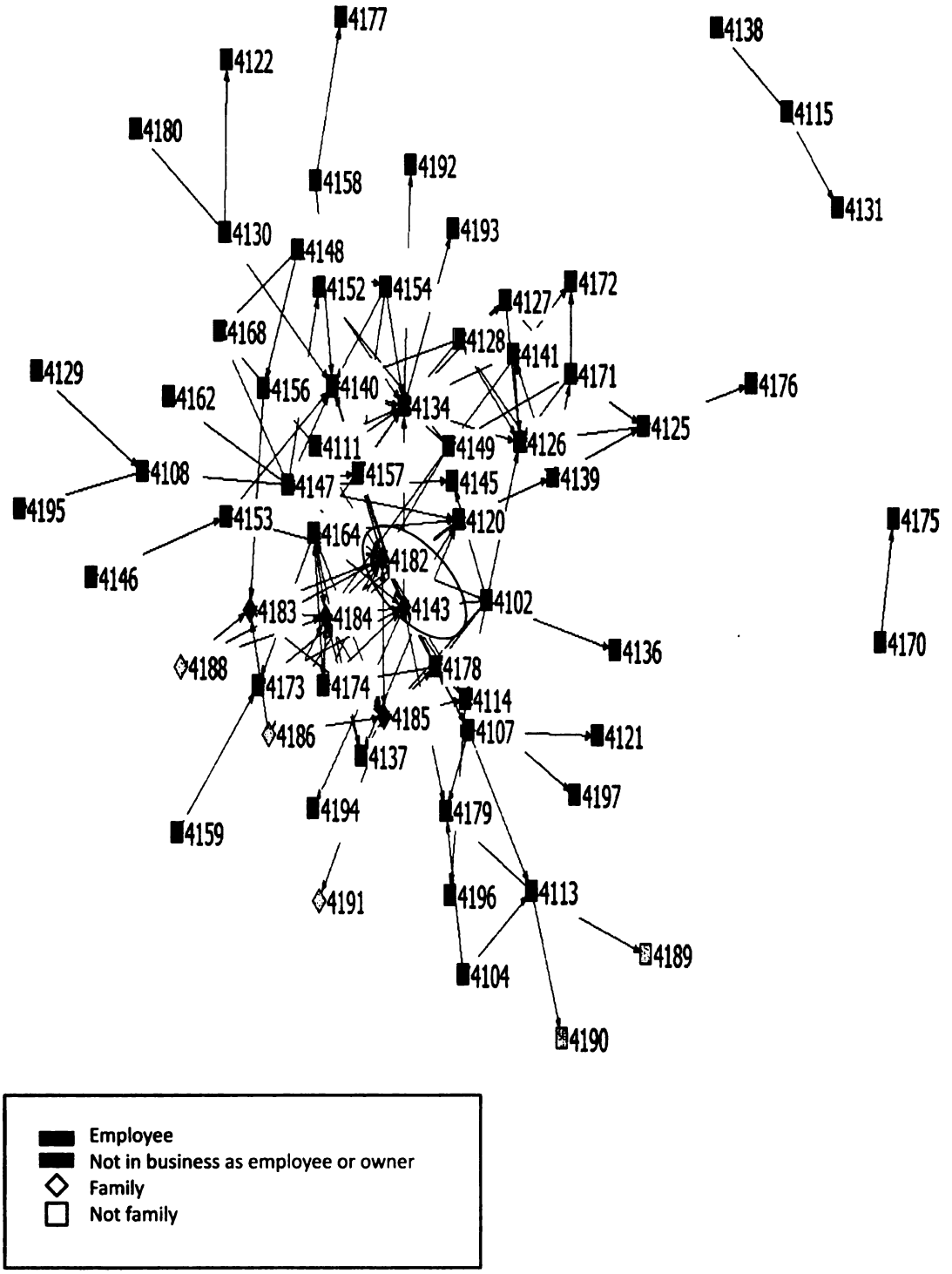


Figure 4.2.11 Company 4: Family Communication

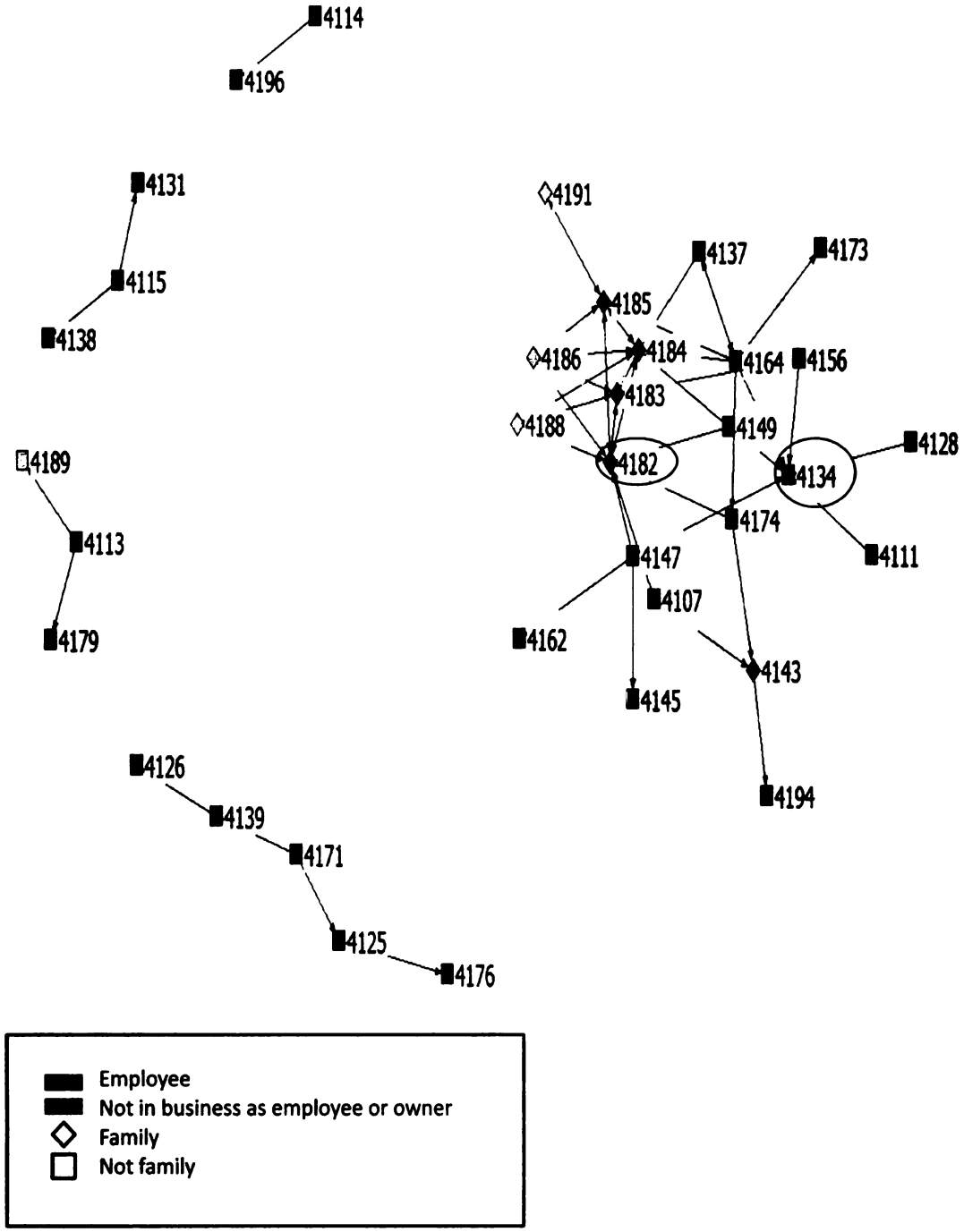


Table 4.2.12 shows that this business is closer to the business side of the value continuum (9.8). The owners and family members tend to see the business even closer to the business side in comparison to the employees, but even the employees believe that this business is closer to the business side of the continuum (10.1). The total level of satisfaction is slightly higher than average, but the owners and family members are significantly higher than the employee's level of satisfaction.

The owning family is very close (cohesion 45.0), and the level of adaptability is average in comparison to other FOB families. This closeness is further supported by the high level of density in the family subgroup (1.8).

The Joint Count analysis shows a similar boundary for family communication in comparison to company 3 where the family members talk to each other (12.7) and to the employees (4.3), but employees do not communication with each other (-17.0). What is different from the boundary found in company 3 is that the family communication sociogram (figure 4.2.11) shows a boundary between *some* employees and the main family communication group. In this picture there are four chains of communication outside of the main centralized communication, and this conceptually means that these employees talk to each other about the family but do not receive communication directly from the family subgroup. The average level of satisfaction in these cut off chains is 34.4, which is significantly lower than the average satisfaction in this business (49.2, $p < 0.001$). In addition, the mean value orientation of these chains is 12.4 which is higher than the average (9.6, $p<0.001$). This suggests that when a boundary for family communication exists, the perceived value orientation increases, and the level of satisfaction decreases.

Table 4.2.12 Company 4 Summary Table

Item	Standard Across all FOBs MEAN(SD)	Company 4 MEAN(SD)	Significance *(t-test)*
Value Direction	**14.1(5.2)**	**9.8(4.7)**	**< 0.001**[a]
Employee	14.3(5.1)	10.1(4.8)	0.66[b]
Family	10.9(5.1)	7.0(4.7)	< 0.001[b]
Owner	12.3(5.4)	6.7(2.3)	< 0.001[b]
Satisfaction	**47.7(10.9)**	**49.6(10.7)**	**0.19**[a]
Employee	47.2(10.9)	49.2(10.7)	ns[b]
Family	50.5(10.7)	59.3(3.6)	< 0.001[b]
Owner	47.4(11.0)	58.0(5.0)	< 0.001[b]

Family Dynamics			Density of Subgroup using Total Communication		Family Communication Matrix		
					Groups	Obs-Exp	Ratio(o/e)
Cohesion		**45.0(4.7)**	Family	1.8	NonFamily	-17.0**	0.54
FB SAMPLE	40.57(6.4)	p <0.001			InterGroup	4.3	1.6
NATIONAL	39.8(5.4)		Employee	1.5	Family	12.7**	37.4
Adaptability		**26.3(5.2)**					
FB SAMPLE	28.1(5.2)**c	p =0.01	Owner	1.8			
NATIONAL	24.10(4.7)						

a = t-test significance comparison to all business mean
b = t-test significance comparison to business group mean
c=t-test significance comparison to national sample

** p < 0.05*
*** p < 0.001*
na = not available due to one individual in group

COMPANY 5

Company five is a 32 year old business dealing mostly with leasing business properties. This business is in its second generation of ownership. The founder (individual 5135 in figure 4.2.13) has little contact with the business and his two sons (5105 and 5112 in figures 4.2.13 and 4.2.14) hold equal shares of ownership and are primarily responsible for the day to day operation of the business. This business, while affected by the 2009 economy, is growing revenue, but expects a decrease in 2009. The average revenue in 3 years is $24.8 million.

The sociograms below show that the current owners are very central to the communication in this business. Also a few non-family employees (5109, 5119, 5123, 5104 and 5115) are highly connected in the communication network. There also are many individuals not in the business that receive communication; for example, individuals 5129, 5130, 5132, 5131, 5126, 5128 and 5127 are not family members and not employed by the business. Some are consultants, while others are contractors that are used frequently. Finally, the family communication sociogram (figure 4.2.14) shows a similar pattern as Company 4, where there is a centralized hub of communication and four separated, or isolated chains of communication.

Figure 4.2.13 Company 5: Total Communication

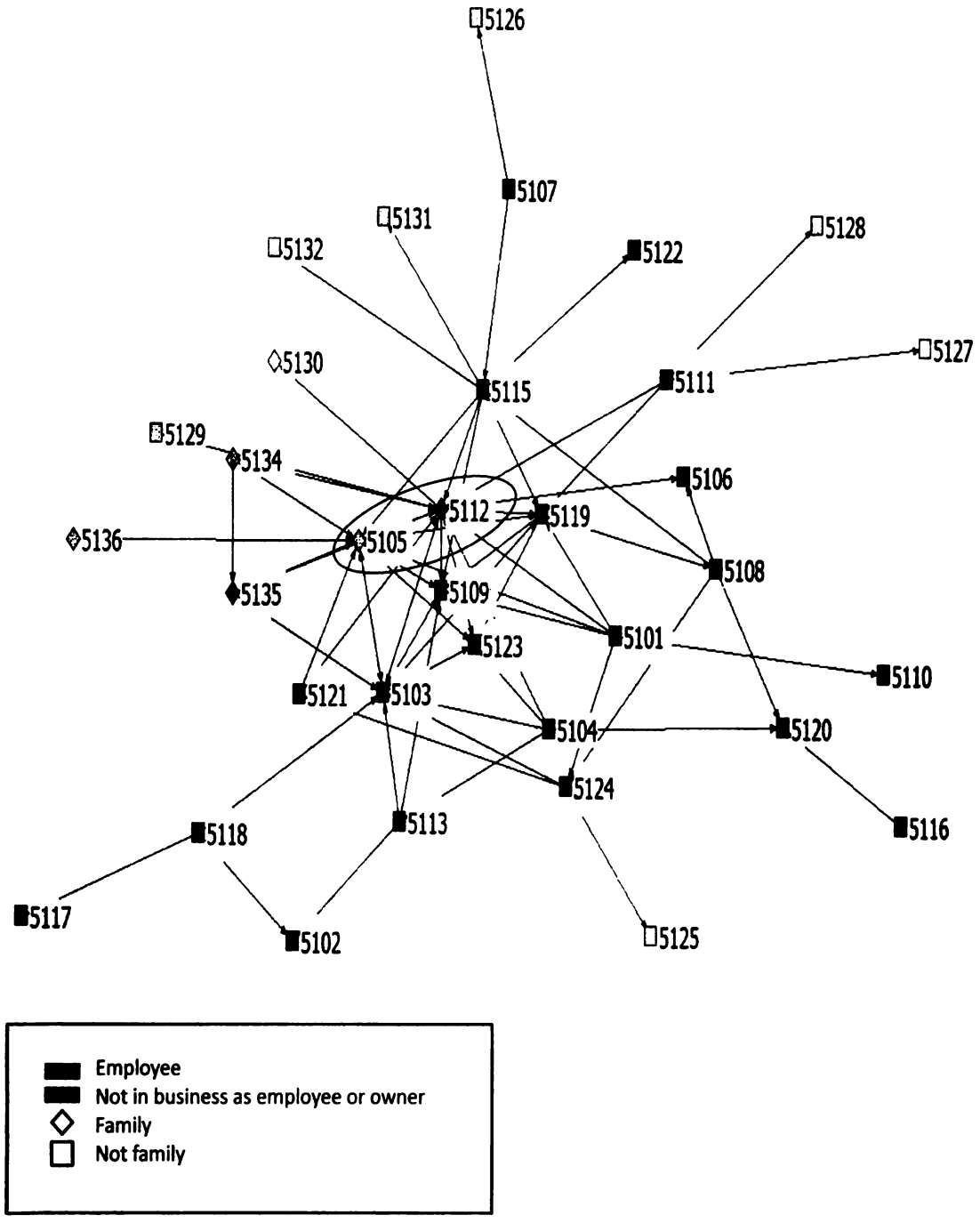
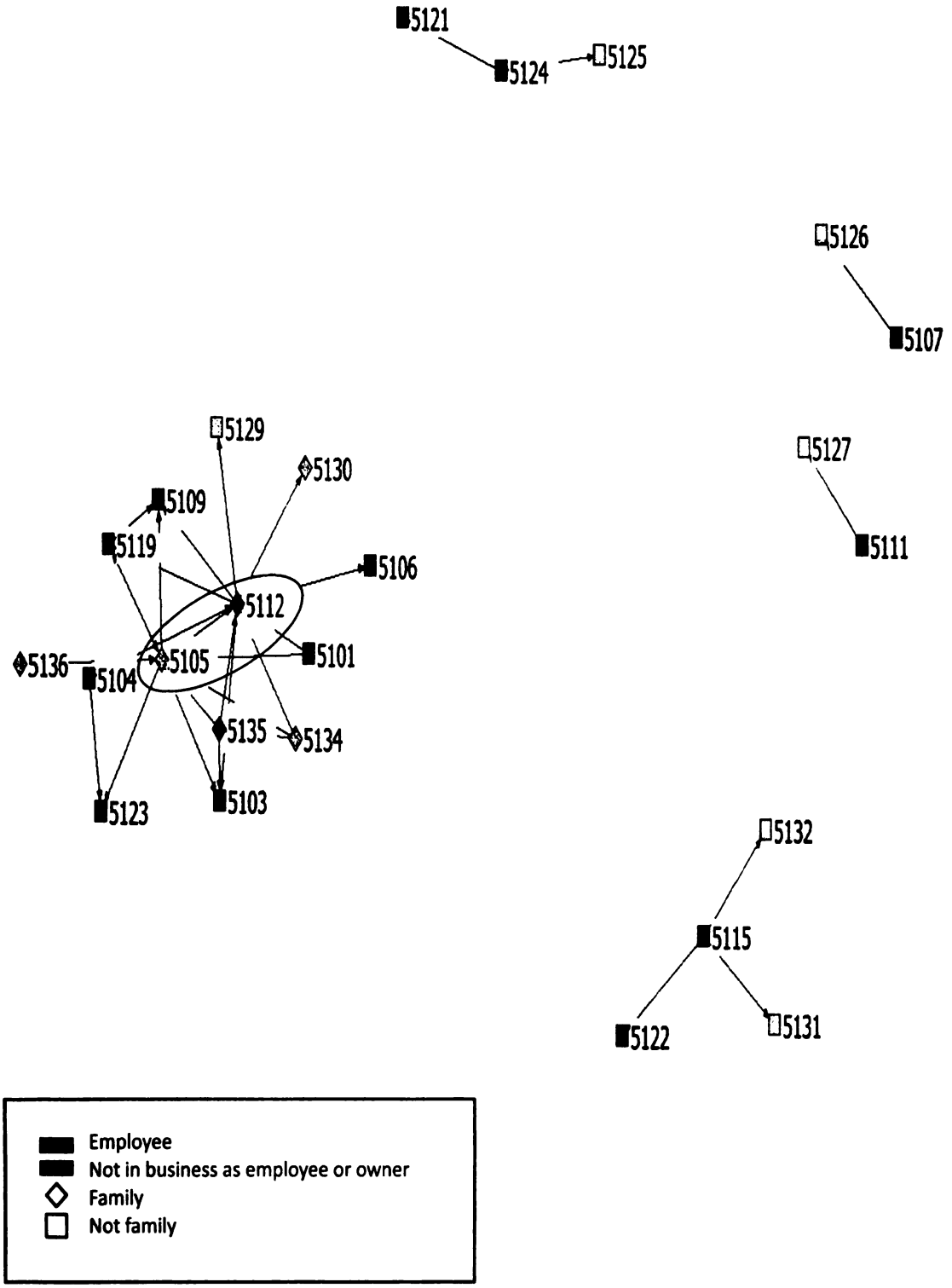


Figure 4.2.14 Company 5 Family Communication



According to table 4.2.15, this business is closer to the business side of the value continuum (11.5, $p<0.001$), The owners and the employees share a similar perception of the value orientation, while the family sees the business even closer to the business side of the continuum (9.6). This difference is not statistically different from the average. Across the business, everyone is very happy, with an average satisfaction of 57.5. This is significantly higher than the average (47.7, $p< 0.001$).

The owning family is very close (cohesion = 43.4, $p=0.02$) and has an average level of adaptability in comparison to the other FOB families, while higher than the all American families. This closeness is further supported by a fairly high density within the family subgroup (1.9).

The family communication boundary in this business is similar to Companies 3 and 4, with family members talking to family members (7.2), to employees (4.2), but employees do not frequently talking to each about the owning family. Similar to company 4, the family communication sociogram (figure 4.2.14) shows four chains of communication within employees that are not connected to the family subgroup. The individuals in this chain do not vary from the average for satisfaction, but they do have a much higher value orientation in comparison to the entire group (16.0, $p<0.001$). This suggests that a boundary for family communication increases the value orientation of the employees.

Table 4.2.15 Company 5 Summary

Item	Standard Across all FOBs MEAN(SD)	Company 5 MEAN(SD)	Significance *(t-test)*
Value Direction	**14.1(5.2)**	**11.5(4.4)**	**< 0.001** [a]
Employee	14.3(5.1)	11.6(4.5)	ns [b]
Family	10.9(5.1)	9.6(3.9)	0.71 [b]
Owner	12.3(5.4)	10.0(3.9)	ns [b]
Satisfaction	**47.7(10.9)**	**57.5(6.7)**	**< 0.001** [a]
Employee	47.2(10.9)	56.8(7.0)	ns [b]
Family	50.5(10.7)	61.0(2.7)	ns [b]
Owner	47.4(11.0)	57.5(4.6)	ns [b]

Family Dynamics			Density of Subgroup using Total Communication		Family Communication Matrix		
					Groups	Obs-Exp	Ratio(o/e)
Cohesion		**43.4(5.3)**	Family	1.9	NonFamily	-11.5*	0.45
FB SAMPLE	40.57(6.4)	p =0.002			InterGroup	4.2	1.5
NATIONAL	39.8(5.4)		Employee	2.5	Family	7.2**	10.6
Adaptability		**26.3(5.3)**					
FB SAMPLE	**c	p =0.01	Owner	1.5			
NATIONAL	28.1(5.2)						
	24.10(4.7)						

a = t-test significance comparison to all business mean
b = t-test significance comparison to business group mean
c=t-test significance comparison to national sample

** p < 0.05*
*** p < 0.001*
na = not available due to one individual in group

COMPANY 6

Company 6 is a 16 year old business in wholesale distribution. This business is growing exponentially, and is in its first generation of ownership. The current owner (6297 in figure 4.2.17) employs his three children (two sons 6298, 6296, and one daughter 6314). There is some talk of succession in ten years, with the daughter taking the operational leadership. She already has begun to purchase shares of ownership from her father. It is currently unclear right now how ownership stakes will be divided across the three children when the succession is complete.

On average, this business has 500 employees, and generates an average of $90 million in revenue. This large size makes identifying visual patterns from the sociograms somewhat difficult. When we look closely at the total communication sociogram (figure 4.2.16) we can see a similar pattern to company 3, where there is a centralized hub of communication and branches coming off this hub (it is difficult to see in figure 4.2.16 because of the size of the picture, but more apparent in larger versions). This branching (like Company 3) follows the six different departments within the business, which suggests the same limitation noted in Company 3 with siloed businesses.

The family communication sociogram (figure 4.2.17) shows a centralized network of family communication which includes non-family employees. It also shows 12 separated chains of communication.

Figure 4.2.16 Company 6: Total Communication

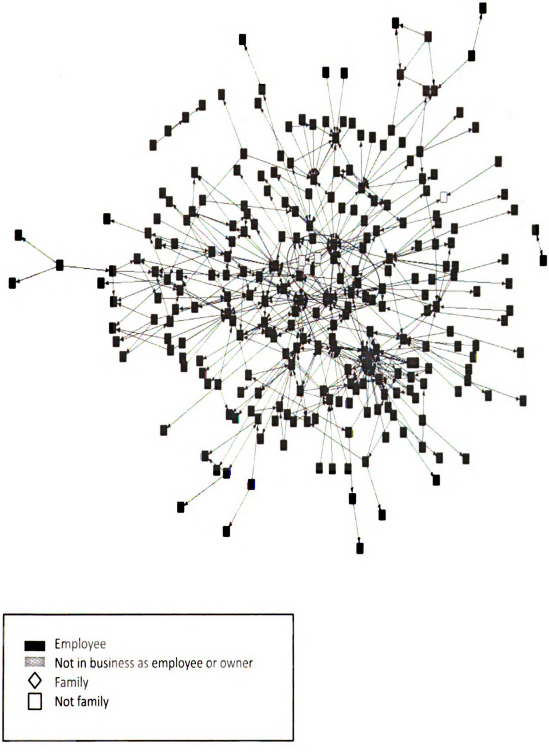
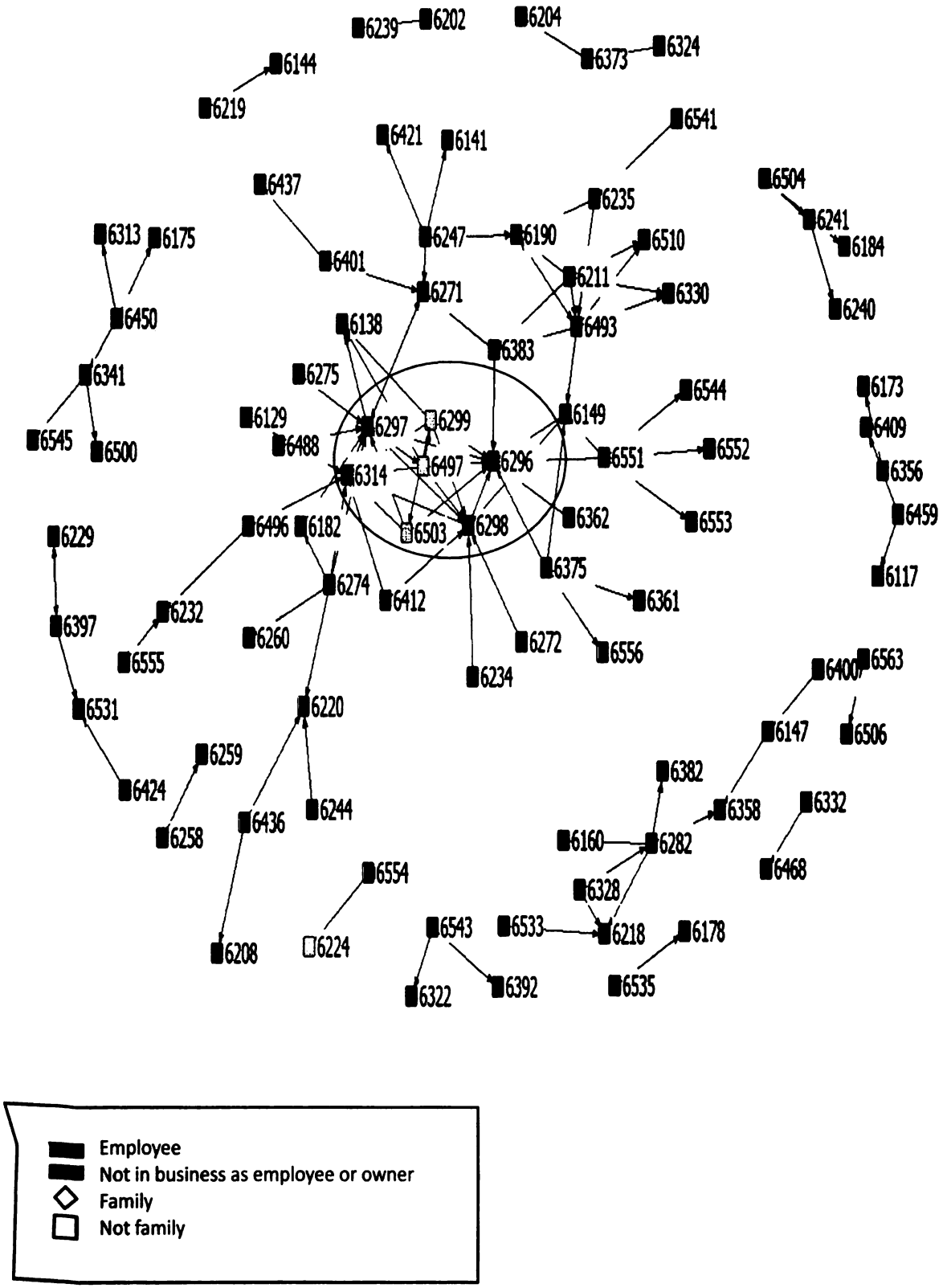


Figure 4.2.17 Company 6: Family Communication



This business is closer to the family side of the value continuum (15.04, $p < 0.001$). There is a great deal of disagreement among the ownership, family and employees regarding this value orientation. Employees see the business at a 15.11, but family members see the business closer to the business side of the continuum (10.7, $p<0.001$), and owners see the business even closer to the business side than family members (8.4, $p<0.001$). On average individuals within this business are slightly less happy than the sample population mean (46.4, $p = 0.04$). Employees show an average level of satisfaction (in comparison to other family employees), Owners show a much greater level of satisfaction (57.2), and family members show the lowest level of satisfaction (46.1).

The owning family is not as close as other family business families (38.0, $p=0.003$), and the level of adaptability is lower than the other families (25.3, $p<0.001$). They are still more adaptable than the average American family. The density (1.8) of family communication somewhat contradicts the low cohesion of the owning family. Furthermore, the Joint Count of the family communication is very high (17.0). Therefore the family talks frequently, but members do not feel close to each other. The Joint Count of family communication also shows that while family members talk to each other, they also include employees in that communication.

Similar to companies 3, 4, and 5, the employees rarely talk to each other about the owning family. Also similar to companies 4 and 5, the sociogram for family communication (figure 4.2.17) shows that while there is a central density of family communication, there is also a boundary for some employees, creating 12 cut off chains of communication between employees. Like company 4 the employees without access to the family communication have lower satisfaction (44.4, $p<0.001$), and like companies 4 and 5 these same employees have a higher value orientation (16.3, $p<0.001$). This finding adds support to the hypothesis that employees cut off from family communication have a perception of the business as closer to the family side, and have a lower level of satisfaction.

Table 4.2.18 Company 6 Summary

Item	Average Across all FOBs MEAN(SD)	Company 6 MEAN(SD)	Significance *(t-test)*
Value Direction	**14.1(5.2)**	**15.04(5.7)**	**< 0.001**[a]
Employee	14.3(5.1)	15.11	0.45[b]
Family	10.9(5.1)	10.7(3.4)	< 0.001[b]
Owner	12.3(5.4)	8.4(2.1)	< 0.001[b]
Satisfaction	**47.7(10.9)**	**46.4(10.7)**	**0.04**[a]
Employee	47.2(10.9)	46.4(10.5)	ns[b]
Family	50.5(10.7)	46.1(15.7)	ns[b]
Owner	47.4(11.0)	57.2(7.1)	< 0.001[b]

Family Dynamics			Density of Subgroup using Total Communication		Family Communication Matrix		
					Groups	Obs-Exp	Ratio(o/e)
Cohesion		**38.0(5.4)**	Family	1.8	NonFamily	-35.3**	0.66
FB SAMPLE	40.57(6.4)	p =0.003			InterGroup	18.4**	6.0
NATIONAL	39.8(5.4)		Employee	1.3	Family	17.0**	607.1
Adaptability		**25.3(9.7)**					
FB SAMPLE	**c	p < 0.001	Owner	1.9			
NATIONAL	28.1(5.2)						
	24.10(4.7)						

a = t-test significance comparison to all business mean
b = t-test significance comparison to business group mean
c=t-test significance comparison to national sample

** p < 0.05*
*** p < 0.001*
na = not available due to one individual in group

COMPANY 7

Company seven is 35 years old and primarily operates in the tourism industry. This business is seasonally dependent and fluctuates its employee count from over 100 in the summer to less than 20 in the winter. This business has been divided into separate wholesale distribution, real estate, dining, car washing and park services businesses. The owners suggested that this happened to provide a separate business for each of the four children of the current owner. The business on average generates $2.1 million in revenue.

The current owner (individual 7107 in figure 4.2.19 and 4.2.20) is 72 years old and still holds a 51% ownership of the business. The remaining ownership is divided between three of the owner's children (individuals 7101, 7103, 7105) and three spouses (individuals 7102, 7104, 7106). The fourth child (7103) is no longer in the business and has cut off relationship with the family. This individual did speak with the researcher over the phone. He is not happy with the owning family, and reported that taking part in the actual survey would bring up too many difficult emotions for him. The owning family all described this individual as the "black sheep" of the family. While this individual did not take the survey, he is noted in the sociogram because others nominated him in their survey responses. Primarily individual 7105 (brother) keeps in contact with him.

It also should be noted the individual 7105 is seen by everyone in the business as the current leader of the business even though his father (7107) still hold the majority share. Individual 7105 and his wife (7111) are the only family members who are regularly onsite at the main buildings of the business.

Figure 4.2.19 Company 7: Total Communication

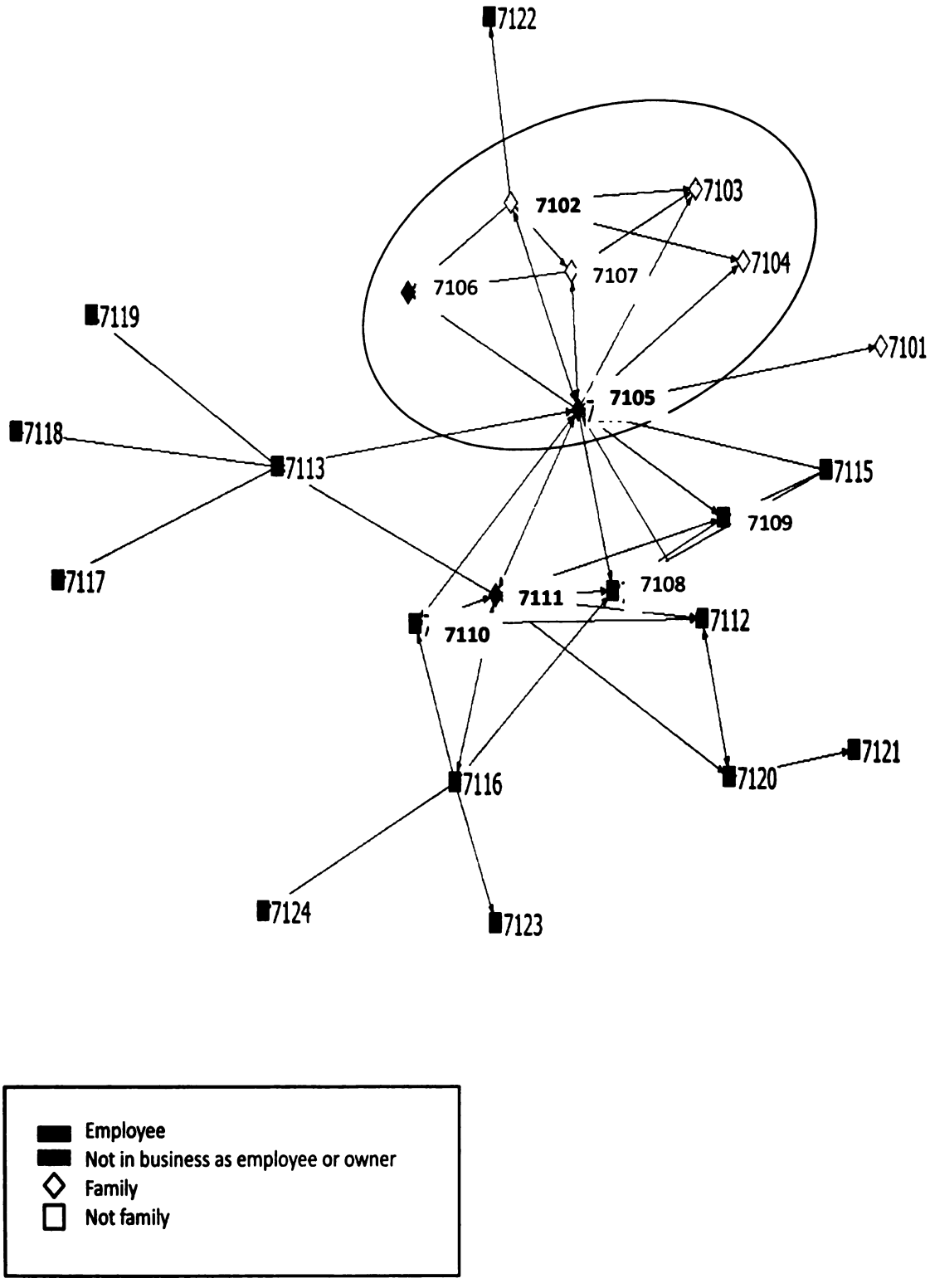
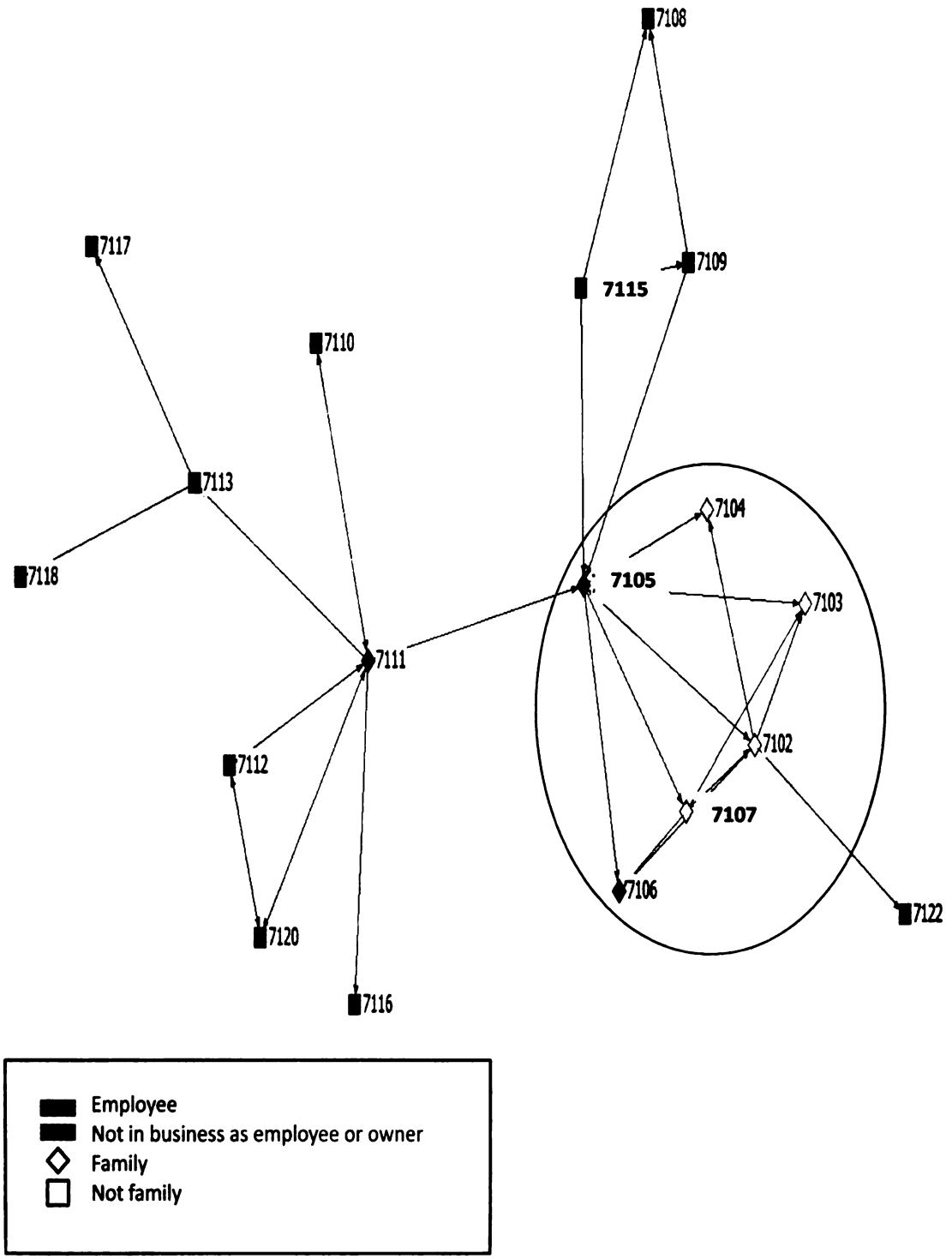


Figure 4.2.20 Company 7: Family Communication



This business is closer to the business side of the value continuum (see table 4.2.21 below), and the employees, family members and owners all agree that the score is an 11.6. While they agree about the value position, the level of satisfaction is rather low (43.3), and the owners have a lower level of satisfaction compared to the other subgroups (39.0).

The owning family is rather distant (cohesion 32.8, $p<0.001$), which was verified by the owners when the researcher returned to discuss the survey results. The current owner (7107) and his son (7105) (a major figure in the operation of the business) told the researcher that the family members do not work well together. Also, this family is not very adaptable in comparison to other family business families (25.2, $p<0.001$). But they are similar in adaptability to other American families. This lack of closeness is further supported by the low family subgroup density of 1.1.

Generally there is little communication in this business, and of the communication that exists regarding family matters, it typically stays within the family, except for what the 7105 releases. Also 7105 is seen as the owner of the business by the employees because he and his wife (7111) are the only family members physically onsite at the business on a daily basis. This cut off in family communication, as well as the cut off with the 7103 (discussed above) is characteristic of low cohesion family systems (Olson, 2000). In this business, the family dynamics seem to be mirrored in the business, with the same pattern of communication seen in the family communication sociogram (figure 4.2.20) and in other communication sociograms (Appendix F). Each one in some way shows 7105 at the center of communication between the employees and the rest of the owners (siblings).

Table 4.2.21 Company 7 Summary

Item	Standard Across all FOBs MEAN(SD)	Company 7 MEAN(SD)	Significance *(t-test)*
Value Direction	**14.1(5.2)**	**11.6(4.5)**	**0.08**[a]
Employee	14.3(5.1)	11.6(5.3)	ns[b]
Family	10.9(5.1)	10.8(1.5)	ns[b]
Owner	12.3(5.4)	10.3(1.1)	ns[b]
Satisfaction	**47.7(10.9)**	**43.3(7.8)**	**0.07**[a]
Employee	47.2(10.9)	42.9(5.2)	ns[b]
Family	50.5(10.7)	43.2(11.3)	ns[b]
Owner	47.4(11.0)	39.0(11.5)	0.07[b]

Family Dynamics			**Density of Subgroup using Total Communication**		**Family Communication Matrix** Groups	Obs-Exp	Ratio(o/e)
Cohesion		**32.8**	Family	1.1	NonFamily	-5.3	0.53
FB SAMPLE	40.57(6.4)	$p < 0.001$			InterGroup	-4.1	0.66
NATIONAL	39.8(5.4)		Employee	2.0	Family	9.53**	4.55
Adaptability		**25.2**					
FB SAMPLE	**c	$p < 0.001$	Owner	1.7			
NATIONAL	28.1(5.2)						
	24.10(4.7)						

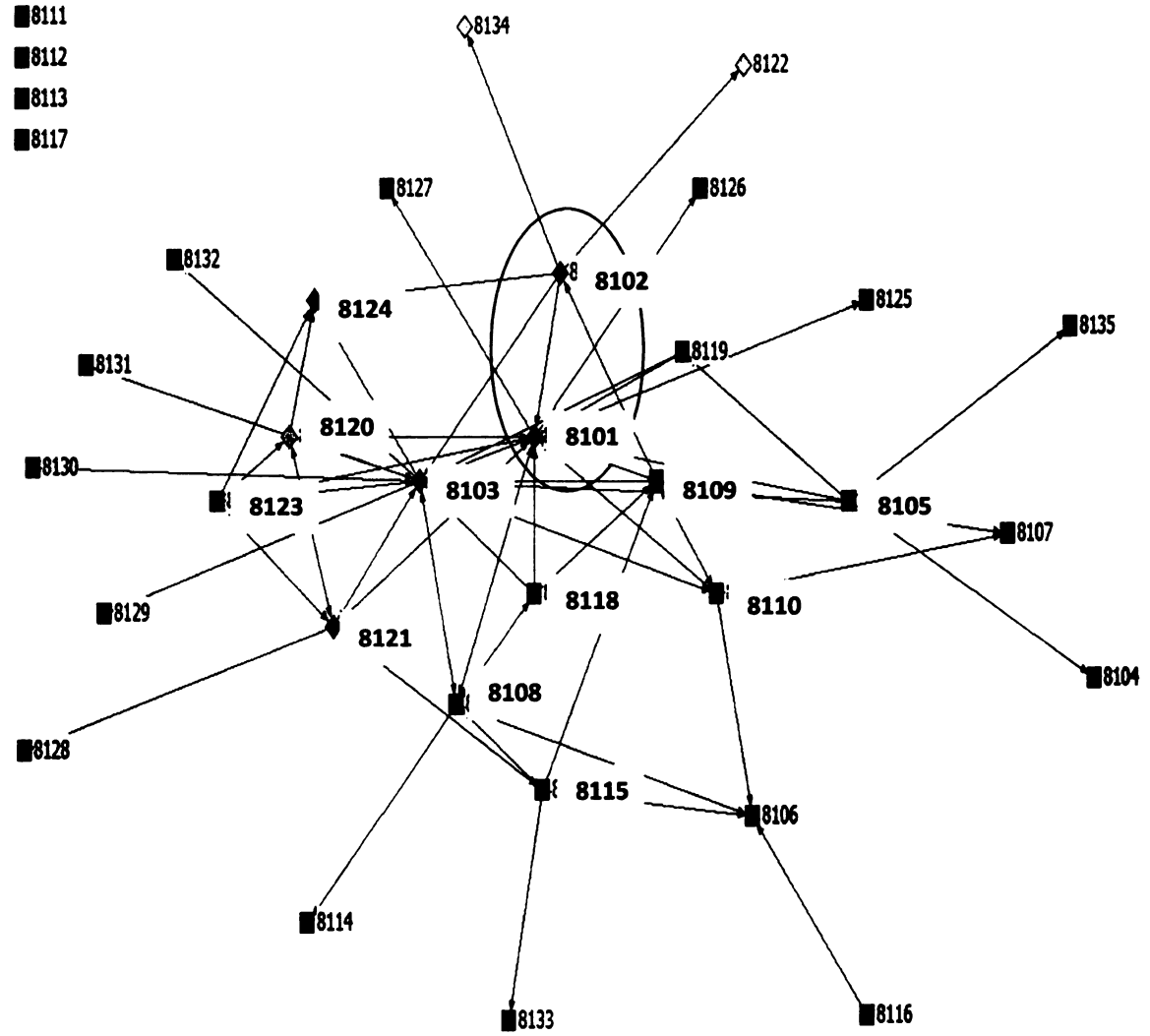
a = t-test significance comparison to all business mean
b = t-test significance comparison to business group mean
c=t-test significance comparison to national sample

** $p < 0.05$*
*** $p < 0.001$*
na = not available due to one individual in group

COMPANY 8

Company eight is 18 years old. It provides mortuary and funeral services. Its primary business is running five funeral homes, but other distribution and real estate businesses have been added over time. One of the current owners (Individual 8001) reported that these off shoots happened out of demand and not to provide separate businesses for the siblings in the current generation. This business is in its second generation of ownership, and rapidly approaching a third. The current generation (2nd generation) consists of two brothers (individuals 8101 and 8102) of the founder (individual 8124). Individual 8101 has three adult children, two of whom are owners in the funeral business and real estate businesses (individuals 8123 and 8121). One is an owner in the real estate business (8134). The son (8103) of 8001 is believed to be the next owner of the funeral and distribution businesses. In total the business employs approximately 25 individuals. Over a three year average, this business generates 4.9 million in revenue.

Table 4.2.22 Company 8: Total Communication



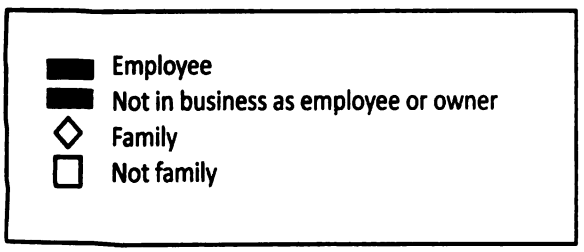
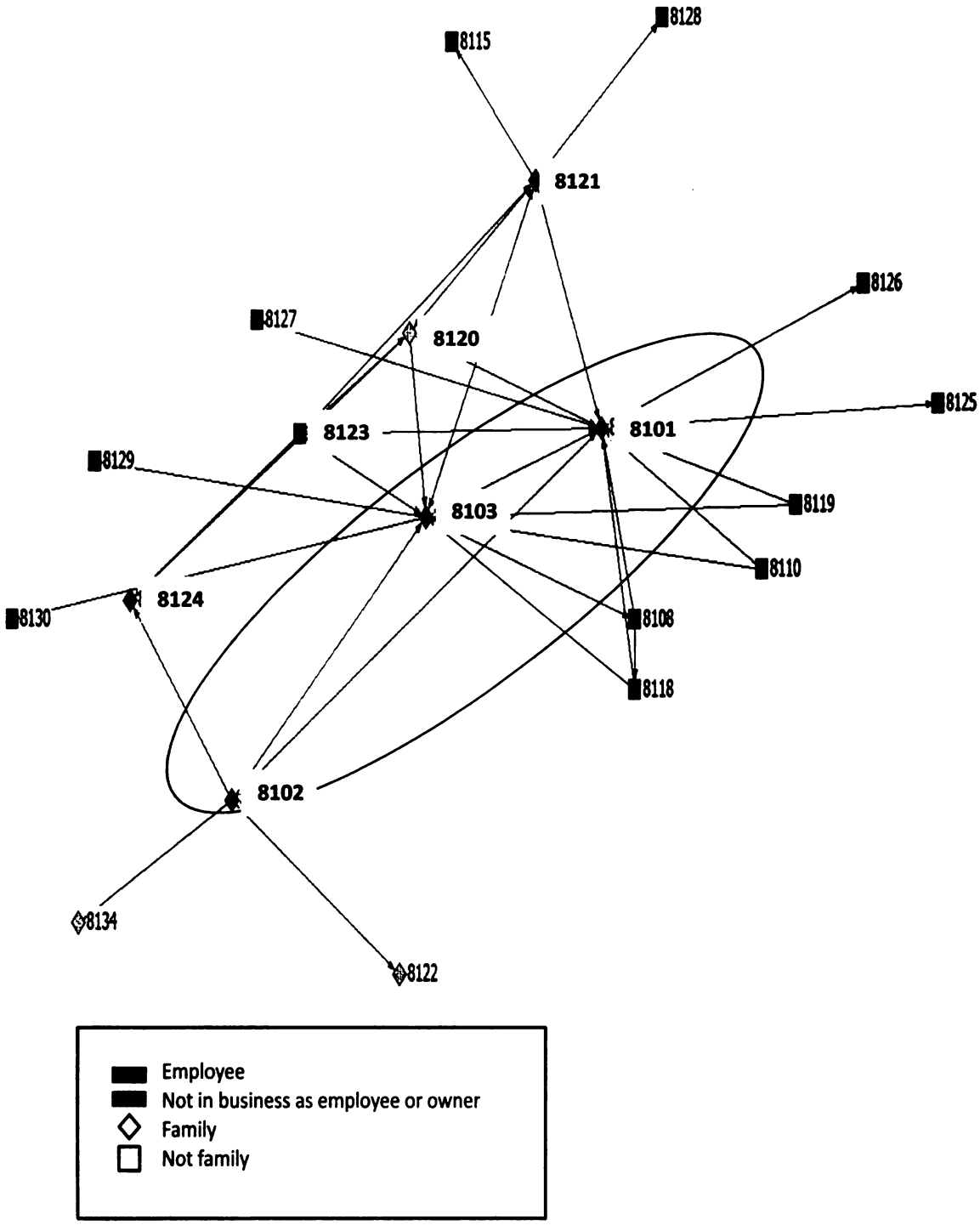


Table 4.2.23 Company 8: Family Communication



This business is closer to the family side of the value continuum (15.7). The employees and owners agree on this position, but the family sees the business closer to the business side of the value continuum than the employees. In general, individuals in the business are less satisfied than other individuals within family businesses. The ownership has the lowest satisfaction, and the family and employees agree on the average level of satisfaction (43.3). When questioned about the low level of satisfaction in the ownership, one of the adult children in generation two discussed the difficulty of knowing who was responsible for what tasks in each of the three business entities. In general the owner believes that all the children get along well and work together, but dividing out responsibilities explicitly between business entities has been difficult.

The owning family is fairly close in comparison to other family business families (42.3, $p = 0.06$). They also share a similar level of adaptability with other family business families. The family subsystem group density verifies this closeness with a high density of 2.2.

The family communication is very dense in the family subsystem (10.4) and there is communication between the family and nonfamily. There is little communication between nonfamily members.

Table 4.2.24 Company 8 Summary Table

Item	Standard Across all FOBs MEAN(SD)	Company 8 MEAN(SD)	Significance (t-test)
Value Direction	**14.1(5.2)**	**15.7(5.3)**	**< 0.001**[a]
Employee	14.3(5.1)	16.3(5.4)	0.65[b]
Family	10.9(5.1)	12.4(2.5)	0.01[b]
Owner	12.3(5.4)	15.7(5.3)	ns[b]
Satisfaction	**47.7(10.9)**	**43.3(7.8)**	**< 0.001**[a]
Employee	47.2(10.9)	42.9(5.2)	ns[b]
Family	50.5(10.7)	43.2(11.3)	ns[b]
Owner	47.4(11.0)	39.0(11.5)	0.07[b]

Family Dynamics			Density of Subgroup using Total Communication		Family Communication Matrix		
					Groups	Obs-Exp	Ratio(o/e)
Cohesion		**42.3**	Family	2.2	NonFamily	-18.5**	0.05
FB SAMPLE	40.57(6.4)	p =0.06			InterGroup	8.0*	1.67
NATIONAL	39.8(5.4)		Employee	1.4	Family	10.4**	7.73
Adaptability		**27.7**					
FB SAMPLE	**c	p = 0.52	Owner	2.0			
NATIONAL	28.1(5.2)						
	24.10(4.7)						

a = t-test significance comparison to all business mean
b = t-test significance comparison to business group mean
c=t-test significance comparison to national sample

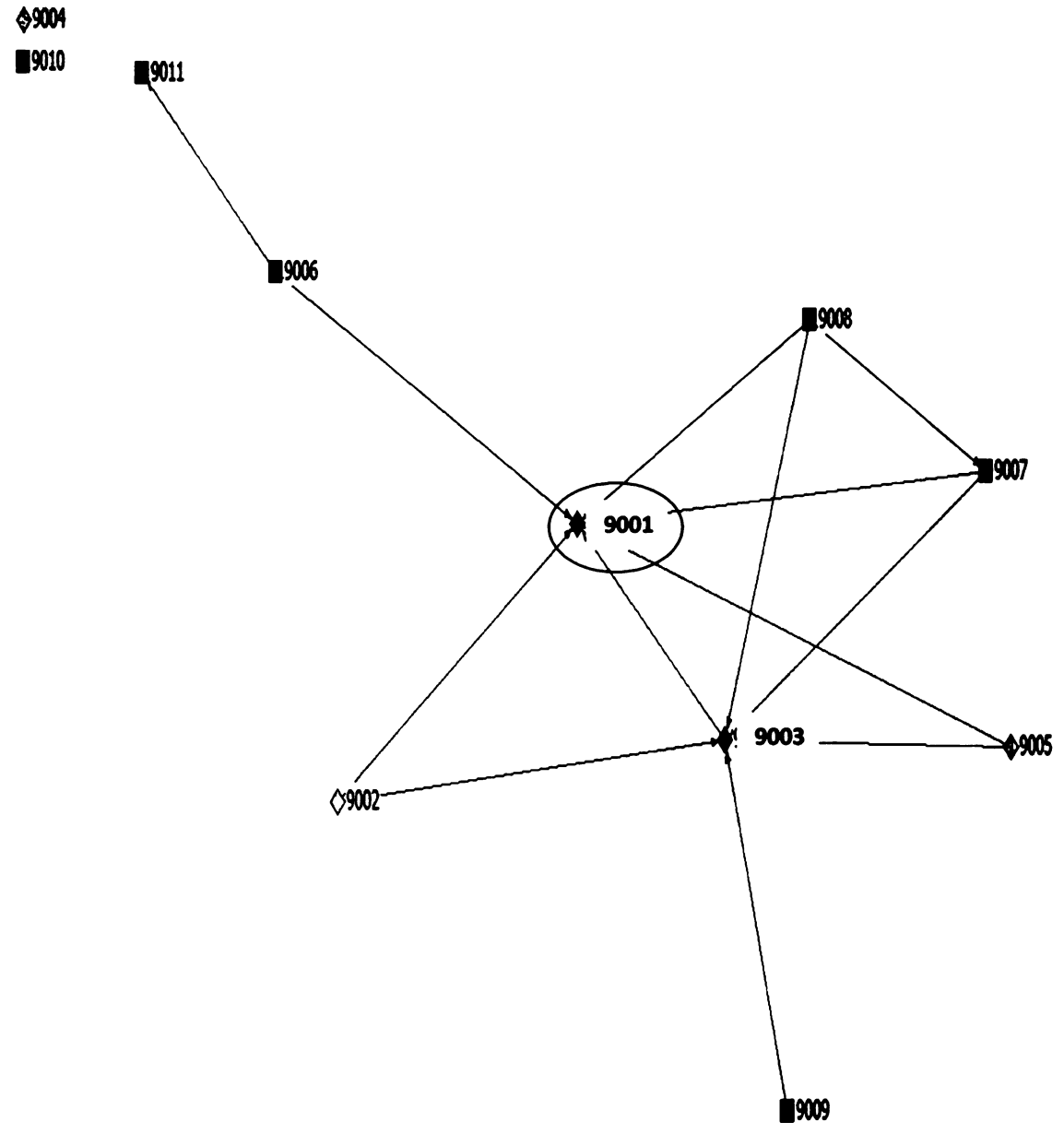
** p < 0.05*
*** p < 0.001*
na = not available due to one individual in group

COMPANY 9

Company nine is in its first generation of ownership. The current owner (9001) offers arts education to young children. The current owner employs her adult son (9003), and there are two other sons (9004 and 9005) not involved in the business. On average this business generates just below $200,000 in revenue. The current owner is the founder of this business and has a great deal of interest in theater and dance. This business generates its revenue by having children take part in a six week program where they learn a play. The business then charges admission to the final performance.

Individuals of interest in this business are 9001's spouse (9002) who is an accomplished Christian music artist and provides much of the music for the plays. Individual 9003 (9001's son) takes care of the administrative duties. Finally this business has two locations which are separated by approximately 50 miles. Individual 9006 manages the second location. All others are volunteers (but referred to as employees in the following), as this business does not have a large enough revenue stream to support other employees.

Table 4.2.25 Company 9: Total Communication



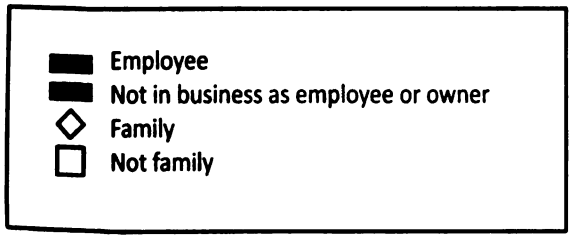
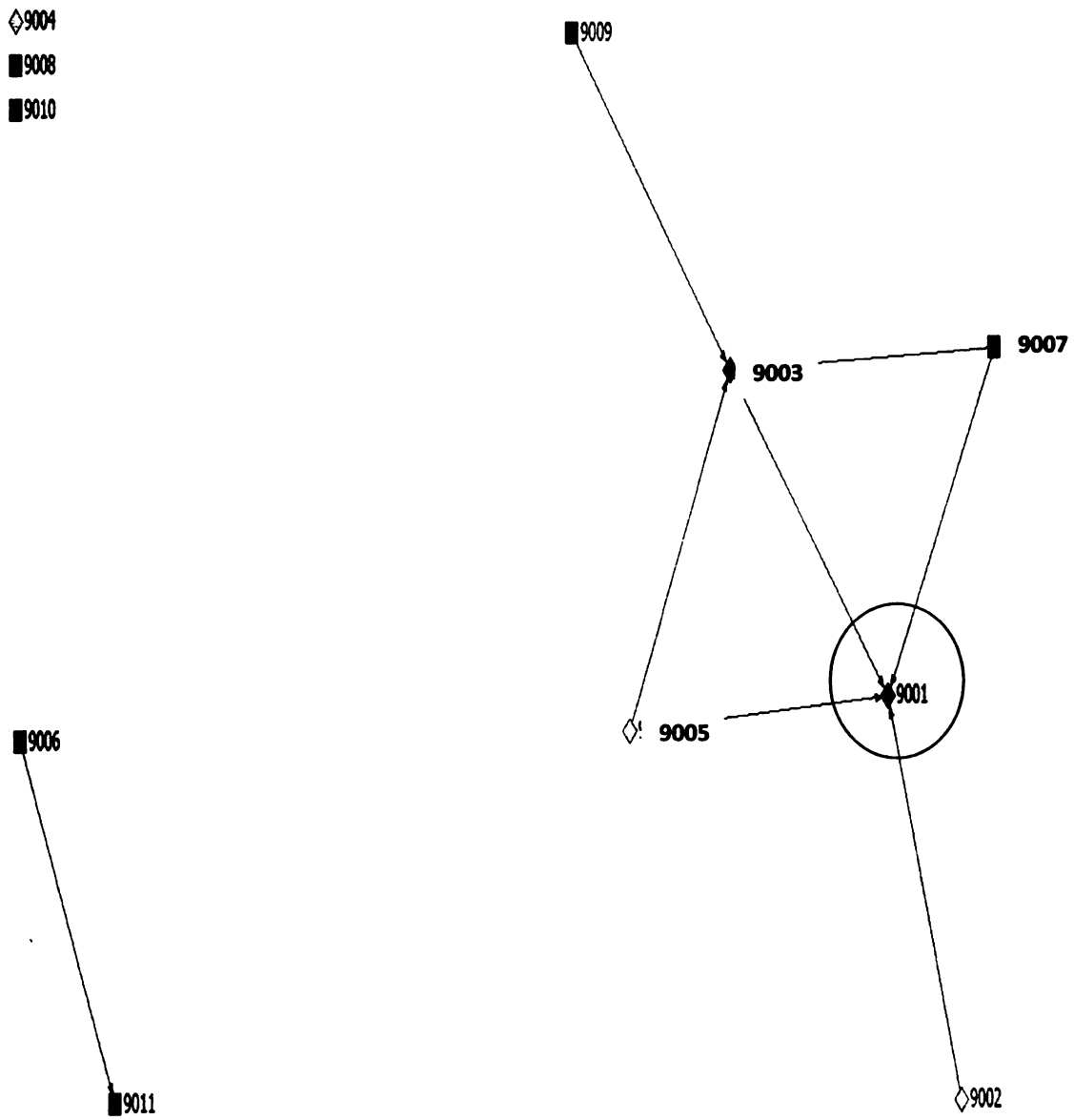


Table 4.2.26 Company 9: Family Communication



This business is very close to the family side of the value orientation (16.0), and the employees, family members, and ownership agree on this position. Individuals in this business are typically happier than employees of family businesses (56.9, $p<0.001$).

The owning family is very close (cohesion = 44.5, $p<0.001$), and has an average level of adaptability in comparison to other family business families. The family communication is dense in the family subsystem (D = 2.2). The Joint Count analysis does show a boundary between the family subsystem and the employees (see figure 4.2.26). There is one employee attached to the family communication (9009 in figure 4.2.26), and this employee has a higher satisfaction than the two employees cut off from the family communication (employee 9006 and 9011 have a mean satisfaction of 52 which is a significant difference of $p = 0.09$).

Interesting to the value orientation and the family boundary is that the disconnected employees have a mean value orientation of 8.0 (compared to the company mean of 16.0). This is a reverse situation from businesses 1-7 were being distances from family communication increased the value orientation. It would seem that the relationship between value orientation and access to family communication is more complex. In this case the cut off increased the difference between the ownership value orientation and the employee value orientation. It would appear from this business that a disconnect from family communication will decrease satisfaction (similar to companies 4, 5, and 6) and increase the difference in value orientation from the employees to the ownership (the direction most likely depends on the value orientation of the ownership, i.e. high value orientation of the ownership will result in a lower value orientation in the employees and vise a versa).

Table 4.2.27 Company 9 Summary

Item	Standard Across all FOBs MEAN(SD)	Company 9 MEAN(SD)	Significance *(t-test)*
Value Direction	**14.1(5.2)**	**16.0(7.6)**	**< 0.001**[a]
Employee	14.3(5.1)	17.0(7.0)	0.74[b]
Family	10.9(5.1)	16.0(7.8)	ns[b]
Owner	12.3(5.4)	20.5(0.71)	0.21[b]
Satisfaction	**47.7(10.9)**	**56.9(6.4)**	**< 0.001**[a]
Employee	47.2(10.9)	56.4(7.0)	ns[b]
Family	50.5(10.7)	54.3(8.0)	0.33[b]
Owner	47.4(11.0)	56.9(6.4)	ns[b]

Family Dynamics			Density of Subgroup using Total Communication		Family Communication Matrix		
					Groups	Obs-Exp	Ratio(o/e)
Cohesion		**44.5**	Family	2.2	NonFamily	-1.18	0.46
FB SAMPLE	40.57(6.4)	p <0.001			InterGroup	-1.36	0.69
NATIONAL	39.8(5.4)		Employee	1.4	Family	2.5	2.75
Adaptability		**27.5**					
FB SAMPLE	28.1(5.2)**c	p = 0.36	Owner	2.33			
NATIONAL	24.10(4.7)						

a = t-test significance comparison to all business mean
b = t-test significance comparison to business group mean
c=t-test significance comparison to national sample
** p < 0.05*
*** p < 0.001*
na = not available due to one individual in group

COMPANY 10

Company ten is 18 years old, in its first generation of ownership. The founder (individual 10006) employs his son (10007) who is in the process of buying out the ownership from 1007. Their primary industry is finance. This business employs five other (nonfamily) individuals (10001, 10002, 10003, 10004 and 10005). Individuals 10008 and 10009 are the spouses of the current owners.

The family sociogram in figure 4.2.29 is particularly revealing of the level of conflict between the family and non-family employees in this business. In this figure it is very clear that the family communication has a strong rigid boundary between the employees and family members. To some degree the same pattern is apparent in the total communication sociogram (figure 4.2.28). In this picture there is a visual symmetry, with the owners on top and the employees on the bottom. What is also shown in this picture is that the employees talk to the father (10006), but they are not talking to the son (individual 1007). This hints at problems with the succession process. Conceptually this tells us that the employees still see the father as the primary leader, and it even shows that the employees are not willing or possible able to develop lines of communication with the future owner, the son (10007).

Table 4.2.28: Company 10: Total Communication

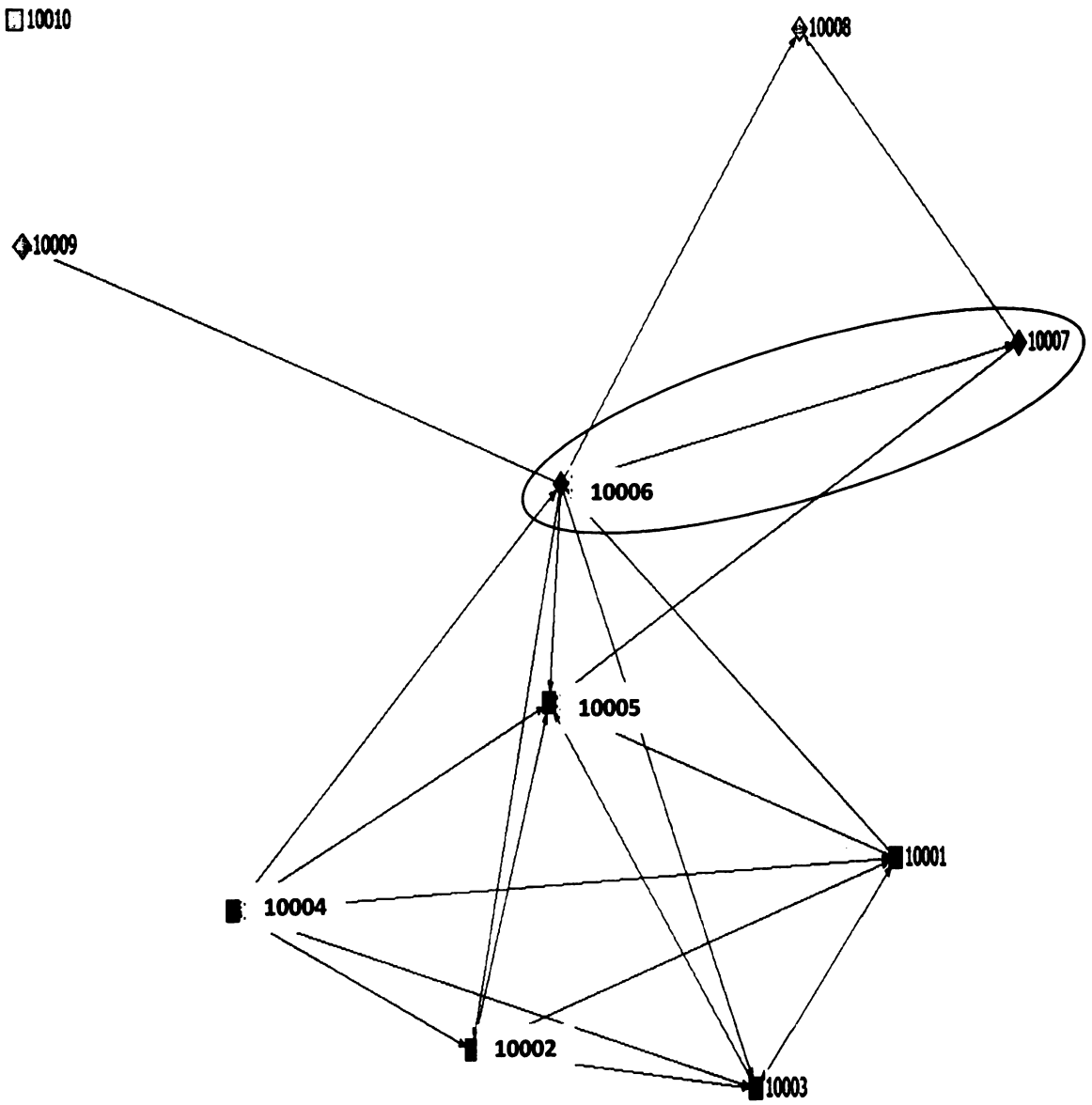
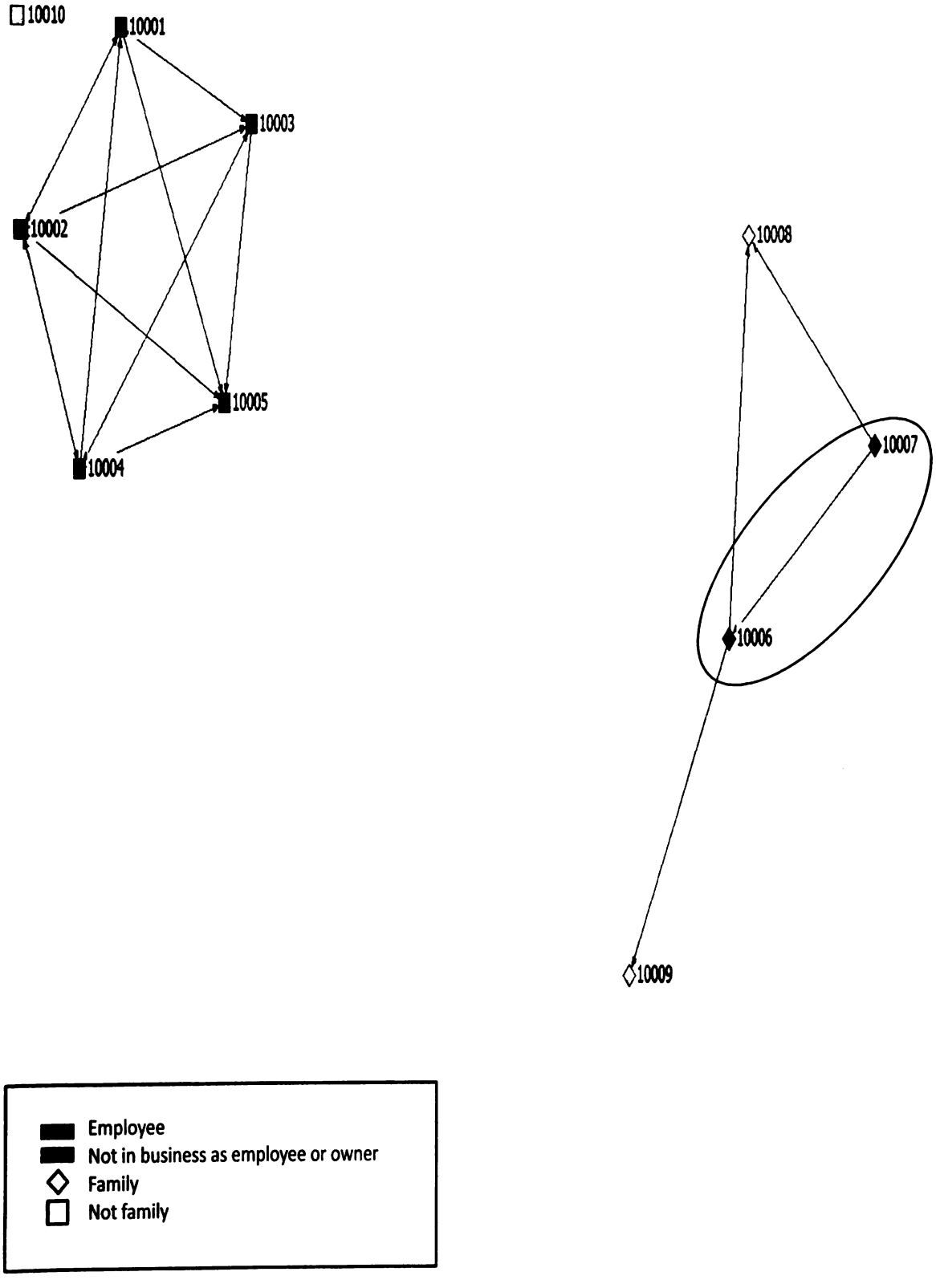


Table 4.2.29 Company 10: Family Communication



The business is closer to the family side of the continuum (15.7, $p<0.001$). There is a lot of disagreement on this perception, with the ownership seeing the business closer to the business side of the continuum (11.5, p , 0.001). The level of satisfaction is very low for this business, and the lowest of all 11 businesses sampled. The ownership and family is very satisfied (54.0), but the nonfamily employees are very dissatisfied (37.0).

The owning family is very close (cohesion 45.0) and has a similar level of adaptation to other family business families (31.0, $p<0.36$). The density of family communication is about average ($D=1.5$), while the ownership communication is very dense ($D= 2.1$). The Joint Count analysis tells us that regarding family communication, the family subsystem does communicate (2.13) although there is not much communication. The Joint Count also shows a very significant boundary for family communication. The nonfamily group has a greater density than the family group for family communication (5.33 versus 2.13). Also there is no communication between the two groups (InterGroup ratio = 0). This distinct boundary verifies the visual boundary seen in figure 4.2.29. This situation adds support to the finding that employees who are cut off from family communication have less satisfaction (37.7 compared to 54.0) and a disagreement between the value orientation (15.7 versus 11.5).

Table 4.2.30: Company 10 Summary Table

Item	Standard Across all FOBs MEAN(SD)	Company 10 MEAN(SD)	Significance *(t-test)*
Value Direction	**14.1(5.2)**	**15.7(3.3)**	**< 0.001**[a]
Employee	14.3(5.1)	15.7(3.3)	ns[b]
Family	10.9(5.1)	11.5(2.1)	0.01[b]
Owner	12.3(5.4)	11.5(2.1)	0.01[b]
Satisfaction	**47.7(10.9)**	**37.7(14.2)**	**< 0.001**[a]
Employee	47.2(10.9)	37.7(14.2)	ns[b]
Family	50.5(10.7)	54.0(5.7)	0.02[b]
Owner	47.4(11.0)	54.0(5.6)	0.02[b]

Family Dynamics			**Density of Subgroup using Total Communication**		**Family Communication Matrix** Groups	Obs-Exp	Ratio(o/e)
Cohesion		**45.0**	Family	1.5	NonFamily	5.33*	2.14
FB SAMPLE	40.57(6.4)	p <0.001			InterGroup	-7.47*	0.0
NATIONAL	39.8(5.4)		Employee	1.5	Family	2.13	2.14
Adaptability		**31.0**					
FB SAMPLE	28.1(5.2)**c	p = 0.36	Owner	2.1			
NATIONAL	24.10(4.7)						

a = t-test significance comparison to all business mean
b = t-test significance comparison to business group mean
c=t-test significance comparison to national sample

** p < 0.05*
*** p < 0.001*
na = not available due to one individual in group

COMPANY 11

Company eleven is in its first generation of ownership and is 23 years old. The current owner (11001) employees his two sons (individuals 11002 and 11006) and two other non-family employees (11004 and 11005). The founder also has a daughter (11009) who is not employed by the business. The primary industry is finance.

From the sociograms we can see that the founder and his two sons are in the middle of the total communication and family communication networks. There also is a good balance of communication going to the founder and his two sons, which is good to see since the founder is considering a succession within the next five years. Also interesting to note from the family communication sociogram (figure 4.2.32) is that the founder's wife and mother of the two brothers (individual11008), and individual 11006's fiancé (individual 11011) are well connected into the family communication network , but not well connected in the employee and ownership networks (see Appendix F, figures 6.21 and 6.22). Conversely, the founder's daughter (individual 11009) is well connected in each of the three communication networks, even though she is not employed and does not hold any ownership within the business. This creates a nested family group within the family system. It would seem that the founder and his three children have a special bond that other family members (spouses) do not share.

Table 4.2.31 Company 11: Total Communication

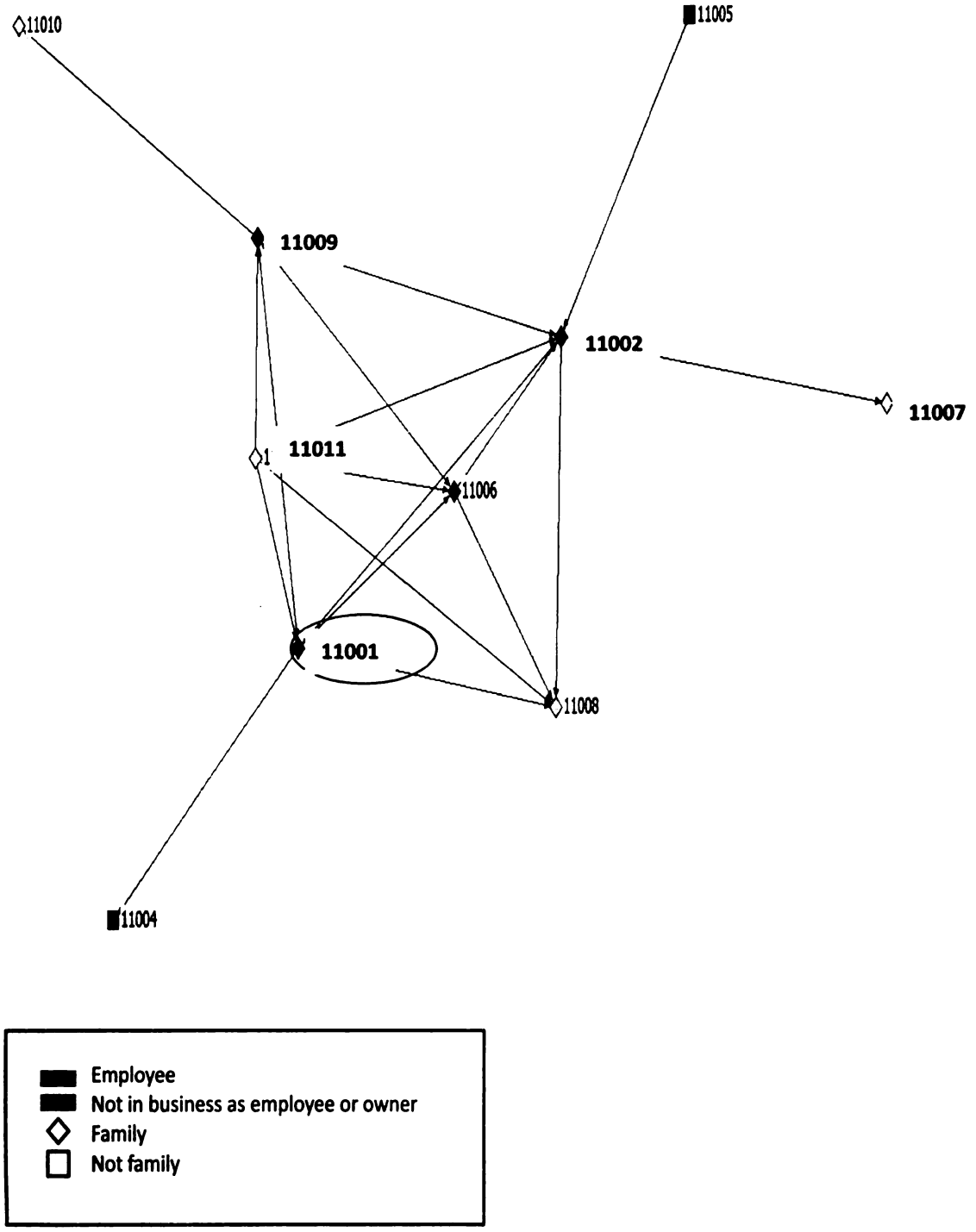
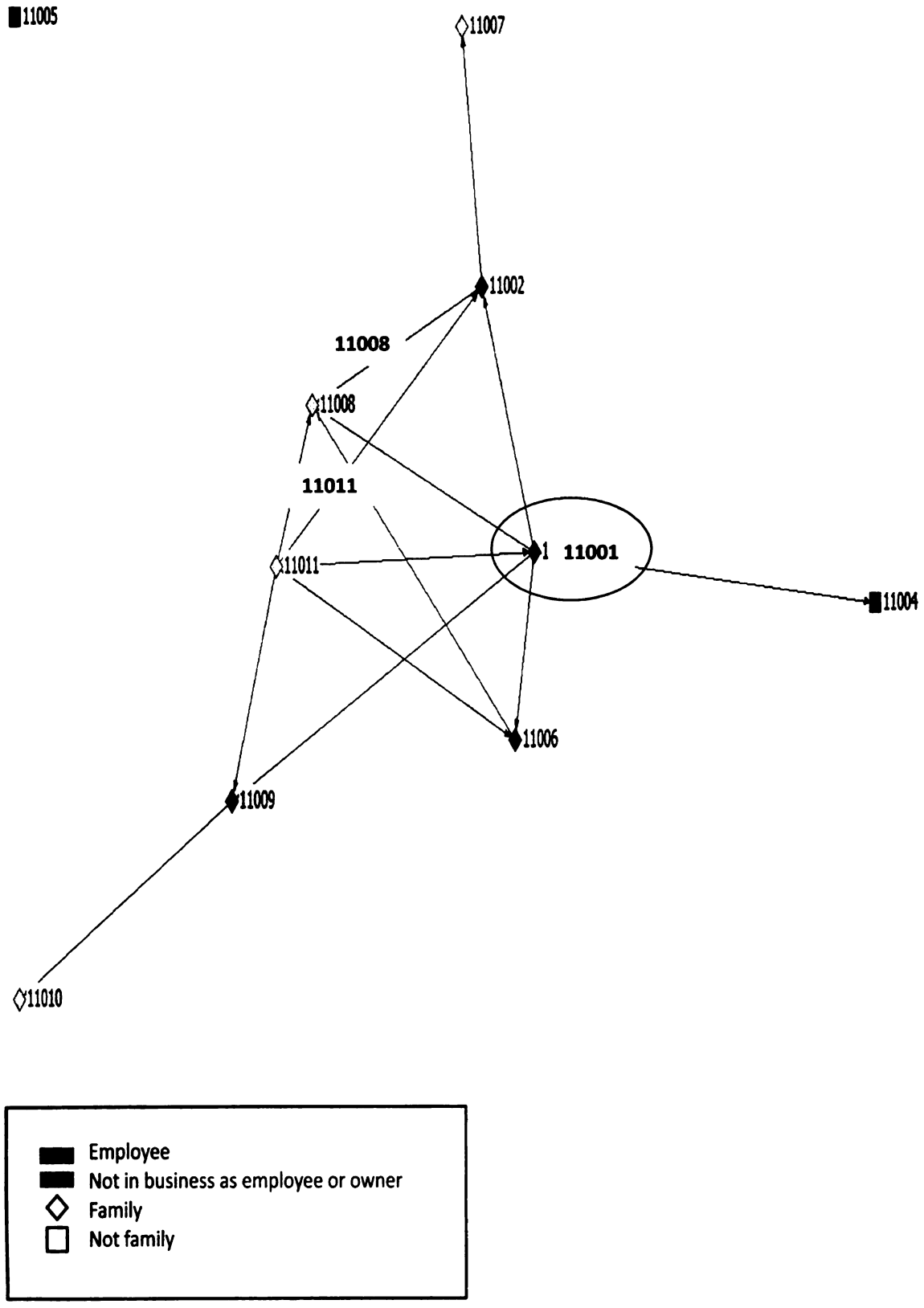


Table 4.2.32 Company 11: Family Communication



This business is very close to the family side of the value continuum (18.5), and there is a great deal of agreement between the owners, family members, and employees. The level of satisfaction is somewhat low (41.33 $p<0.001$).

The owning family is not very close (cohesion 37.8, $p<0.001$), but they are more adaptable than most family business families (30.3, $p<0.003$). There does not seem to be much family communication from the family to employees or within the employee group (Joint Comparison close to 0 for both). Although the Joint Count tells us there is little between group communication, the sociogram (figure 4.2.32) shows that both nonfamily employees are connected. Therefore we would conclude that the family communication is low, but there does not seem to be a rigid boundary between the family and employees.

Table 4.2.33: Company 11: Summary

Item	Standard Across all FOBs MEAN(SD)	Company 11 MEAN(SD)	Significance *(t-test)*
Value Direction	**14.1(5.2)**	**18.5(2.7)**	**< 0.001**[a]
Employee	14.3(5.1)	18.6(3.0)	ns[b]
Family	10.9(5.1)	18.2(2.9)	ns[b]
Owner	12.3(5.4)	17.0(2.6)	0.23[b]
Satisfaction	**47.7(10.9)**	**41.33(12.35)**	**< 0.001**[a]
Employee	47.2(10.9)	44.6(10.5)	0.55[b]
Family	50.5(10.7)	38.4(11.2)	0.12[b]
Owner	47.4(11.0)	39.33(10.3)	0.70[b]

Family Dynamics			Density of Subgroup using Total Communication		Family Communication Matrix		
					Groups	Obs-Exp	Ratio(o/e)
Cohesion		**37.8**	Family	1.6	NonFamily	-0.31	0.0
FB SAMPLE	40.57(6.4)	p =0.001			InterGroup	-3.98	0.2
NATIONAL	39.8(5.4)		Employee	2.2	Family	4.29	1.49
Adaptability		**30.3**					
FB SAMPLE	28.1(5.2)**c	p = 0.003	Owner	1.7			
NATIONAL	24.10(4.7)						

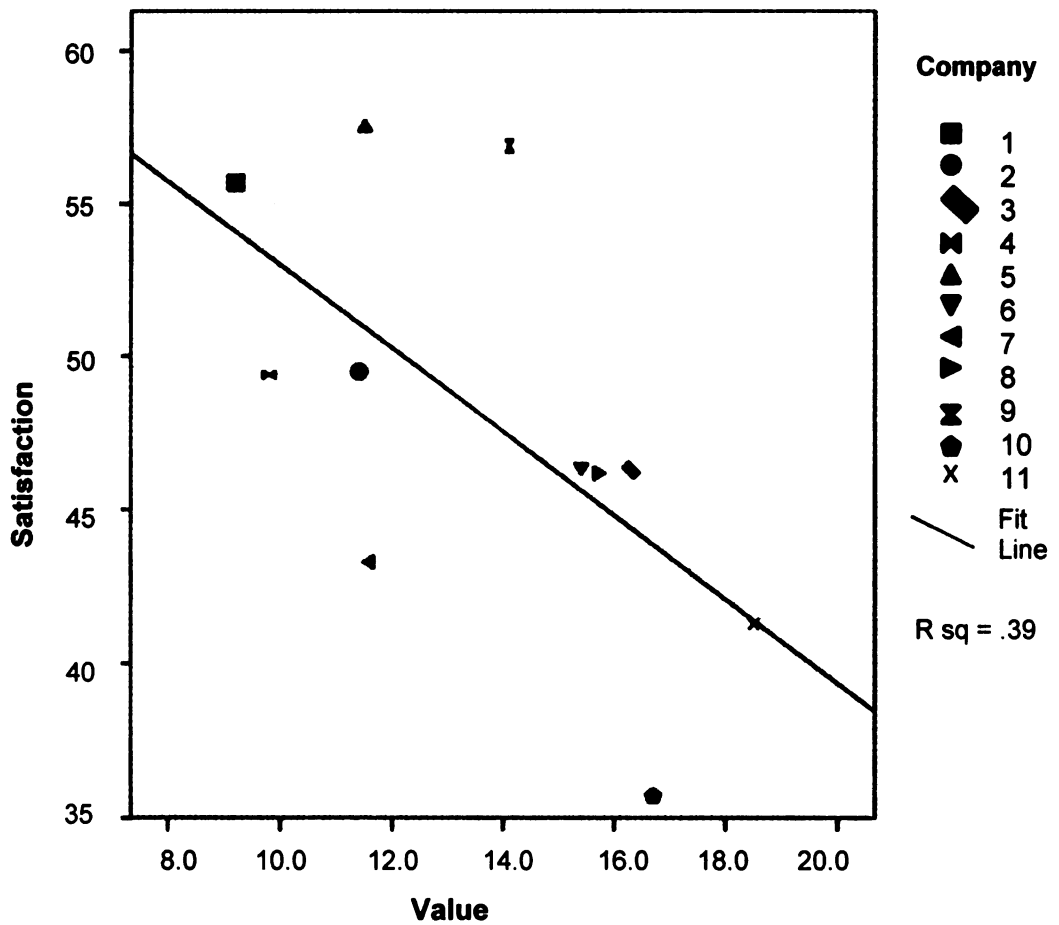
a = t-test significance comparison to all business mean
b = t-test significance comparison to business group mean
c=t-test significance comparison to national sample
** p < 0.05*
*** p < 0.001*
na = not available due to one individual in group

Discussion of Research Questions

2.1 Satisfaction increases as the value orientation of the FOB decreases

There are obviously many factors involved in the level of satisfaction within and across businesses. For example, businesses that are doing well financially probably have higher levels of satisfaction than businesses that are struggling. But even given these other outside factors, there seems to be a strong connection between the overall value orientation of a family business and the overall level of satisfaction. Figure 4.2.34 shows this strong negative relationship using the company level summaries. When we regress the business value orientation on satisfaction we see a very strong adjusted r-square of 0.388, which means that nearly 40% of the variance in satisfaction across businesses is due to the value orientation of the business (i.e. with businesses that are closer to the family side of the value continuum having lower levels of satisfaction than businesses closer to the business side of the continuum).

Figure 4.2.34 Satisfaction and Value Orientation



2.2 Satisfaction varies by subgroup

There does seem to be strong evidence that satisfaction varies by subgroups. Companies 1, 2, 4, 5, 6, 9, and 10 all have ownership and family levels of satisfaction higher than their employees. (Companies 3 and 11 have equal satisfaction across the groups). But in some cases (companies 7, 8) the ownership will have a lower level of satisfaction. Interesting to this deviation is that company 7 is decreasing in revenue, and company 8 is increasing in revenue, therefore it doesn't seem to be the decrease in

revenue alone that creates the decrease in satisfaction. In general it seems that employees have lower levels of satisfaction than the ownership and family, but there is another factor that can change this relationship. This additional factor will be explored in the following questions.

2.3 Employee groups with higher value orientations than the owning family will have lower satisfaction

There is strong support for this hypothesis. This relationship was shown in companies 1, 2, 4, 6, 8 and 10. Companies 3, 5, 7, 9 and 11 had similar (statistically similar) value orientations and levels of satisfaction between the family and employee subgroups. Of the six businesses where this relationship occurred (employees with higher value orientations than the owning family), the hypothesis was supported.

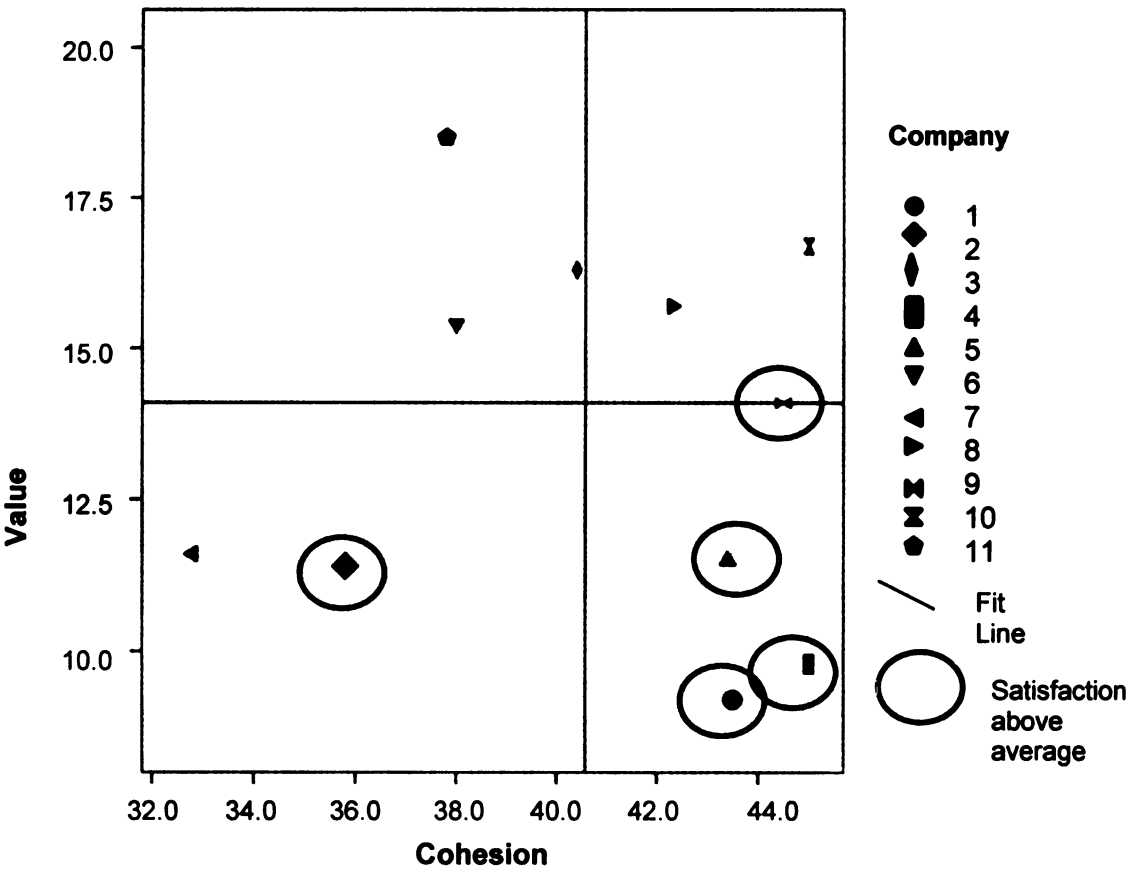
2.4 Cohesion positively related to satisfaction

While there is a positive relationship between cohesion and satisfaction, this relationship is affected by the overall Value Orientation of the FOB. Figure 4.2.35 below depicts this relationship. In general, there is a positive relationship between the closeness of the owning family and the level of satisfaction across the business, but close families that also have a strong leaning towards the family side of the value continuum produce low levels of satisfaction across the business. Figure 4.2.35 shows that businesses in the lower right hand quadrant all have a high level of cohesion and a low

level of value orientation. All of the companies in this quadrant have a level of satisfaction that is above average. Conversely, company 10 (Upper Right Quadrant) has a high cohesion but also a high value orientation. This business has the lowest level of satisfaction in comparison to all of the sampled businesses. Figure 4.2.35 also suggests that the while cohesion plays a role in satisfaction, value orientation has more influence. For example, company 2 (Lower Left Quadrant) has a low cohesion and low value orientation, but it benefits from a high satisfaction due to the low value orientation.

The least appealing relationship seems to be an FOB with a very close family and a Value Orientation that favors the family side of the value continuum (upper right quadrant), followed by distant families that favor the family side of the value continuum (upper left quadrant), when compared to distant families that favor the business side of the value continuum (lower left). The best option is the lower right quadrant in which the owning family is close, but the FOB favors the business side of the value continuum.

Figure 4.2.35 Cohesion and Satisfaction



2.3 A rigid boundary for family communication will reduce satisfaction

There is evidence that a rigid boundary between family and nonfamily members reduces satisfaction. Companies 2, 7 and 10 showed a fairly rigid boundary between all family members and employees and demonstrated a significantly lower level of satisfaction for employees (in comparison to the owners). Additionally, companies 7 and 10 had employees that scored significantly lower on satisfaction than the average employee of a FOB. Furthermore, companies 4, 6 and 9 had employees that were visually cut off from the family communication (using the sociograms). These employees showed a significantly lower level of satisfaction than their connected

counterparts. Finally, employees where communication flows through a permeable boundary from the family system to the nonfamily subgroup produced satisfaction scores that are similar to the owner's (e.g. companies 3 and 11).

It seems that while the value orientation and the level of cohesion of the owning family do have a significant effect on the value orientation of the business, a connection to the family communication also can increase levels of satisfaction in nonfamily employees.

2.6 A rigid boundary for family communication will increase the distance between employee and family value orientation perceptions.

There is evidence that a connection to family communication (specifically having access to family members and an ability to receive communication from that group about the owning family) has an effect on the perceived differences in opinions in the business' value orientation. Hypothesis 2.3 showed that in general employees have a higher score for value orientation in comparison to the family members, but having access to family communication from the owning family seems to reduce this difference. The rigid boundary for all employees in companies 2 and 10 accounts for the much higher value orientation of the employees in this business, and the employees in companies 4, 5 and 6 that were visually identified as cut off (from the sociograms) had a value orientation that was significantly different from the connected employees. Furthermore, companies 3 and 11 have permeable boundaries, and there is agreement between the employees and family members for the value orientation of the business.

2.7 Adaptability is positively related to satisfaction

There does not seem to be a significant relationship between adaptability and satisfaction with this sample population. This may be due to most of the businesses in this study being significantly higher in adaptability than the national average (two businesses' scores were higher than the mean but not statistically different from the mean). The fact that all of the business scores were at or above the mean, and produced a sample mean 4.04 points higher than the national mean (national mean = 24.10, sample mean 28.14, t=5.89, *df* 56, p <0.001) raises the question of whether there is a threshold of adaptability for FOBs, especially those that are successful. In other words, does a family have to be at or even above the mean adaptability to survive as a FOB?

Summary of Phase 1: Step 2

First, FOBs vary in regard to their overall value orientation. This variability has an effect on the overall satisfaction of the individuals within the business, with businesses closer to the family side of the value continuum having on average lower levels of satisfaction. Also Hypothesis 2.4 shows that there is a relationship between the level of closeness in the owning family and the average level of satisfaction. Closeness is somewhat related to satisfaction where closer families have higher levels of satisfaction. However close families have to be careful of forming a FOB with a value orientation that is too far to the family side of the value continuum because FOBs with close owning families and a value orientation closer to the family side have lower satisfaction levels.

The best option is to have a close owning family that has a value orientation that is lower (closer to the business side).

While Cohesion and Value Orientation seem to have some relevance in explaining across business variations in satisfaction, access to family communication and subgroup membership tend to explain the within business variability for satisfaction and value orientation. Hypothesis 2.2 showed that on average individuals within the businesses vary in their scores for satisfaction by their subgroup membership. More specifically, family members tend to have the highest level of satisfaction, followed by the owners, and then the employees have the lowest levels of satisfaction. The level of satisfaction is higher for employees who have access to family communication (Hypothesis 2.5). Hypothesis 2.3 showed a similar trend for the value orientation for individuals. In this case owners have the lowest score for value orientation (tend to see their business as closer to the business side of the value continuum), followed closely by the family members. Employees seemed to see the business as closer to the family side. This difference of opinion becomes exaggerated when there is a rigid boundary for family communication (when employees are cut off from family communication) (Hypothesis 2.6).

Phase 2: Step 1

This final phase of this study will model the relationships found in Phase 1: Step 2. Since the relationships found in Step 2 were qualitative in nature, it makes sense to test these findings using a quantitative methodology and in this way add support to the findings in Phase 1: Step 2. Phase 2: Step 1 addresses Specific Aim 3 and fits a model for the variations in satisfaction within and across the sampled businesses.

Specific Aim 3: Test the new expanded Three Circle Model for its ability to explain the relationship between owning family dynamics and satisfaction

H 3.1 The distance between an individual's perception of his/her FOB's value orientation and the actual value of the FOB is negatively related to an individual's level of satisfaction with his/her FOB.

To test this hypothesis a baseline or unconditional model was created to compare H 3.1 for its ability to explain variations in satisfaction.

Model 1 – Unconditional Model

Level 1

$$Satisfaction_{ij} = \beta_{0j} + r_{ij}$$

$$\beta_{0j} = \gamma_{00} + \mu_{0j}$$

This model and all other models presented in this study will use Restricted Maximum Likelihood (MLR). Raudenbush and Bryk (2002) as well as Kreft and de Leeuw (1998) suggest that when models have larger populations on level-2 (J) the difference between Full Maximum Likelihood (MLF) and MLR is negligible, but for models with smaller *J*, MLF estimation will produce artificially low variance components, as they are reduced by *(J –F)/J* factor, where *F* is the total number of elements in the fixed effects vector, γ. This makes MLR a more appealing option for this sample population of 492 individuals and 11 businesses.

Using MLR estimation, this model converged in 6 iterations, indicating a relatively good fit for this model. The γ_{00}(or intercept) was estimated at 48.39. The estimated between business variance (or τ_{00}) was 27.15. The estimated within business variance was σ^2 = 110.74. The 95% confidence interval for the variance between business intercepts of satisfaction is $48.39 \pm 1.96(27.15)^{1/2} = 58.59, 38.19$. Based on this covariance, the intra-class correlation is: ICC = 27.15/(27.15 + 110.74) = 0.1968. Therefore, approximately 20% of the variance in satisfaction is between businesses, while approximately 80% is within businesses. In other words, while satisfaction does vary from business to business, satisfaction varies even more from one individual in business *j* to another individual in business *j*. This magnitude of variance between businesses can be formally tested ($H_0 : \tau_{00} = 0$), and is distributed using a χ^2 with J-1 degrees of freedom under the null hypothesis. The present unconditional model takes the values of χ^2 = 55.31 with *df* = 10 (J = 11). This is highly significant ($p < 0.001$).

In summary, this model shows that more variance lies within businesses (80%) than across businesses (20%). This means that there is variance to be explained in level one and level two which allows us to use a multilevel model to test the findings from Phase 1: Step 2.

Model 2 – H 3.1 The distance between an individual's perception of his/her FOB's value orientation and the actual value of the FOB is negatively related to an individual's level of satisfaction with his/her FOB.

Level 1

$$Satisfaction_{ij} = \beta_{0j} + \beta_{1j}(Value\ difference_{ij}) + r_{ij}$$

Level 2

$$\beta_{0j} = \gamma_{00} + \mu_{0j}$$

$$\beta_{1j} = \gamma_{10}$$

In this model *Value difference* is a group mean centered variable or $Value_{ij} - \overline{Value}_{.j}$. Therefore this is modeling the distance an individual is from his/her business's mean value (or the true value). β_{0j} is the average level of satisfaction for business *j* when we control for the distance for person *i*'s perception of value from the mean of their business *j* value. Since the independent variables have been standardized by mean centering ($\bar{X} = 0$)and setting the SD to 1, the intercept becomes the average satisfaction for individuals in business *j* for those individuals who have a score of X, and one SD increase in Value Difference produces a corresponding change in Satisfaction.

Model 2 converged in 6 iterations allowing the deviance of this model to be compared with the deviance on the unconditional model. Adding *Value difference* to the model created a better fitting model as can be seen by the change in deviance from the unconditional model to Model 2. With adding one extra parameter, the deviance was reduced by $\chi^2 = 32.2$, (df 1, $p < 0.001$). It is also possible to determine the model's ability to explain variance (or proportion of variance explained). This is accomplished by taking the difference in variance from the unconditional model and the nested model (model 2). The equation for this is $\hat{\rho} = \frac{\tau_{00}(model\ 1) - \tau_{00}(model\ 2)}{\tau_{00}(model\ 2)}$

The $\hat{\rho} = 0.016$ or 2% more variance is explained by this model. The estimated coefficient for the *Value Difference* is -1.69 (df 479, $p = 0.002$). This finding supports the hypothesis that differences in individual perceptions (in comparison to the business *j* mean value)

will decrease *Satisfaction*. In other words, one standard deviation increase in *Value difference* will decrease satisfaction by 1.69.

H 3.2 Subgroup members vary in their level of satisfaction.

Model 3

Level 1

$$Satisfaction_{ij} = \beta_{0j} + \beta_{1j}(Value\ difference_{ij}) + \beta_{2j}(Family_{ij}) + \beta_{3j}(Employee_{ij}) + \beta_{4j}(Owner_{ij}) + r_{ij}$$

Level 2

$$\beta_{0j} = \gamma_{00} + \mu_{0j}$$

$$\beta_{1j} = \gamma_{10}$$

$$\beta_{2j} = \gamma_{20}$$

$$\beta_{3j} = \gamma_{30}$$

$$\beta_{4j} = \gamma_{40}$$

To test this hypothesis three parameters were added to level one. Each parameter is a binary value (1 for a member of the group, 0 for not a member) and therefore not standardized. The model converged in 6 iterations, allowing for comparison with Model 2. This model did reduce the deviance from the previous model by 19.1 ($\chi^2 = 19.1$, *df* 3, $p < 0.001$), but the level 1 variance component increased by 1.1, while the level 2 variance component decreased by only 0.01. Furthermore the t ratios for each parameter were not significant (Owner $t = 0.424$, *df*. 476, $p = 0.671$) (Family $t = 0.11$, *df*. 476, $p = 0.916$)

(Employee t = -1.2, *df*. 476, p = 0.23). Therefore, the addition of subgroup members does not make a significant contribution to explaining variance in *Satisfaction* after controlling for individual differences in *Value Difference*.

A possible explanation for this difference is that once one controls for the perception difference, it is redundant to explain differences for subgroups because subgroups may vary consistently. For example, it may be that family members always have a lower value orientation than employees as discussed in Hypothesis 2.3 above. This will be explored further in Step 2 of this phase. For this step it makes sense to remove the subgroup member variables and continue building a model using Model – 2 as the baseline model.

H 3.3 Different family system types produce varying levels of satisfaction within the business.

To test this hypothesis the level 2 variance was tested. According to Model 1, we know that 20% of the variance in *Satisfaction* is accounted for by between business characteristics. To explain this variance and test Hypothesis 3.3, a fourth model was fitted that included the family system parameters *Cohesion* and *Adaptability*. It made substantive sense that each variable should be fitted for variance on the intercept as well as variance on the slope of the *Value difference* variable. By fitting the slope we are testing the hypothesis that levels of adaptability and cohesion within the owning family affect the intensity of the slopes for each Business *j* on each of the regressions of *Value difference* on *Satisfaction*. For example if cohesion is found to have a significant negative

effect on the slope of *Value difference*, then we would say that the closer a family is, the more intense the negative relationship for *Value Difference* and *Satisfaction.* In other words, while having a different opinion from the mean value orientation reduces satisfaction, it is reduced even more significantly in a FOB with a very close owning family.

Model 4

Level 1

$$Satisfaction_{ij} = \beta_{0j} + \beta_{1j}(Value\ difference_{ij}) + r_{ij}$$

Level 2

$$\beta_{0j} = \gamma_{00} + \gamma_{01}(Cohesion_{.j}) + \gamma_{02}(Adatability_{.j}) + \mu_{0j}$$

$$\beta_{1j} = \gamma_{10} + \gamma_{10}(Cohesion_{.j}) + \gamma_{20}(Adatability_{.j})$$

This model converged in six iterations. The change in deviance from Model 2 to this nested model was χ^2 20.13, *df*, 2, p <0.001. But the level 2 variance explained did not change. Furthermore, neither variable produced a coefficient for the intercept that was significant (*Cohesion* t = 1.27, *df*, 8, p = 0.24) (Adaptability t = -0.36 *df*, 8, p = 0.73). This suggests that neither *Cohesion* or *Adaptability* affect the intercept (or mean satisfaction) for business *j*. While these family dynamic variables did not explain mean *Satisfaction*, *Cohesion* was found to have a significant relationship with the *Value difference* slope of a -2.54; this relationship is further supported with a t-ratio of -2.04 (*df*, 475, p = 0.04). Therefore, the model was fit again using just *Cohesion* for the slope of *Value difference-Satisfaction.* This cleaned version of Model 4 was a well fitting model with a change in deviance of 10.84 (*df*, 1 p = 0.001). This model explains

approximately 1% more of the level 1 variance than Model 2 (using the proportion of variance explained).

This model partial supports Hypothesis 3.3, in that families that are closer (higher on cohesion) increase the magnitude of the *Value Difference* to *Satisfaction* relationship. The γ_{11}coefficient was -2.67 (t = -2.24, *df* 478, p = 0.025). Therefore while having a different perception of the FOB value orientation (in comparison to the group mean) will reduce satisfaction, the magnitude of that reduction is increased as the level of cohesion in the owning family increases.

H 3.4 Businesses closer to the family side of the value continuum have lower levels of satisfaction.

Model 5

Level 1

$$Satisfaction_{ij} = \beta_{0j} + \beta_{1j}(Value\ difference_{ij}) + r_{ij}$$

Level 2

$$\beta_{0j} = \gamma_{00} + \gamma_{01}(Value_{.j}) + \mu_{0j}$$

$$\beta_{1j} = \gamma_{10} + \gamma_{10}(Cohesion_{.j})$$

This model converged in 6 iterations allowing a deviance comparison with the previous model. The change in deviance was 7.04, (χ^2 1.56, *df*, 1 p = 0.008). Therefore, after controlling for individual value perception differences and the effect of the owning family system, 40.8% (using the proportion of variance explained of level-2 variance

components) of the between business variation in satisfaction can be explained by the mean value orientation of the business. More specifically, the estimated coefficient is a -1.19 ($t = -2.34$, *df* 9, $p = 0.045$), meaning that for every standard deviation increase in business *j*'s value orientation, there is a decrease of -1.19 for satisfaction (mean satisfaction for business *j*).

The author stopped fitting this model at this point due to the reliability of the model dropping below 0.70 (reliability of model = 0.69) also the deviance changes are now relatively small. Taken together with issues associated with MLR and a small sample size, further fitting of this model may produce biased variance estimates and shortened confidence interval which would lead to type I errors (Raudenbush & Bryk, 2002).

Table 4.3.1: First Model Summary

Fixed Effects	Null Model(s.e.)	Model 2	Model 4	Model 5
Intercept		48.37(1.76)**	48.37(1.7)**	64.42(7.03)**
Value Difference ($\beta 1$)	48.40(1.69)**	-1.69(0.53)**	-2.08(0.56)**	-2.08(0.56)**
Cohesion ($\gamma 10$)			-2.67(1.19)*	-2.67(1.19)*
Value ($\gamma 01$)				-1.19(0.51)*
Variance Component				
Intercept ($\mu 0$)	27.15	26.58	26.69	15.80
Level 1 (R)	110.52	108.93	107.99	108.03
Model Fit				
Reliability (B0)	0.781	0.779	0.781	0.692
Deviance	3666.227	3634.03	3628.67	3621.63
Deviance Change		32.20	5.36	7.04
df	2	3	4	5

** $p < 0.001$
* $p < 0.05$

Reliability for Phase 2: Step 1 Model

A box plot of the within business residuals can be used to determine if the residuals are centered at 0, and that the variances are consistent across groups. Figure 4.3.2 shows that the residuals seem to be centered at 0. Also, a scatter plot of the residuals against the fitted values is used to test whether there are problems with heteroscedasticity. Figure 4.3.3 shows that there are no recognizable patterns, which indicates that the assumption for heteroscedasticity are reasonably met. Finally a P-P plot (Figure 4.3.4) of the level 1 residuals show that the data seem to normally distributed.

Figure 4.3.2: Box Plot of Residuals by 11 FOBs

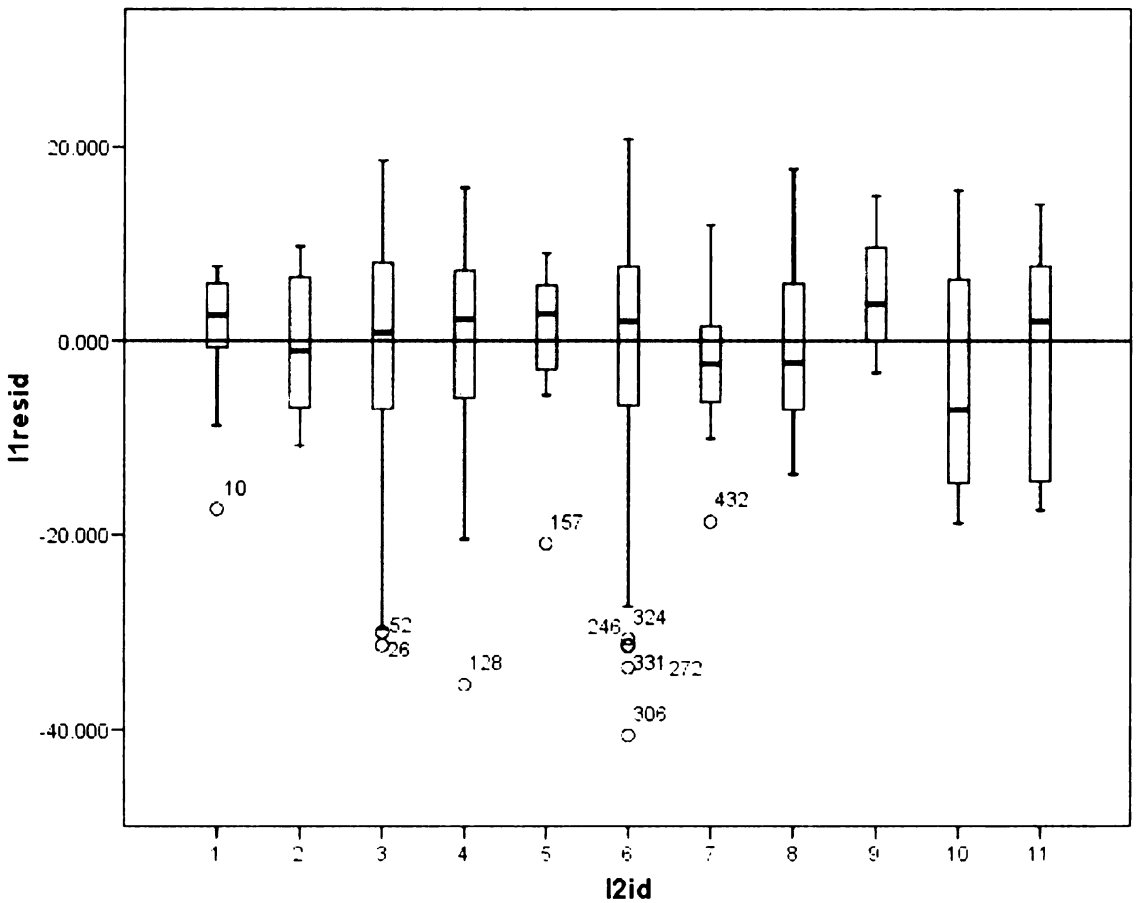


Figure 4.3.3: Scatterplot of level 1 residuals against fitted values

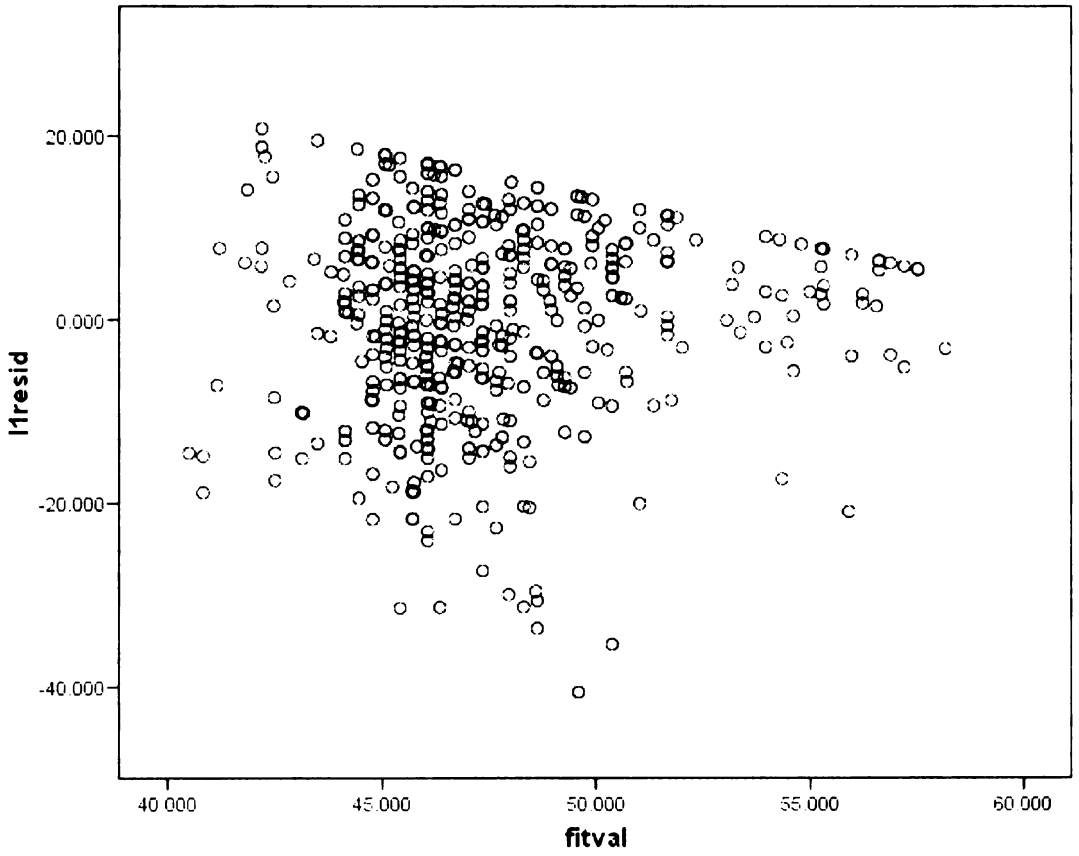
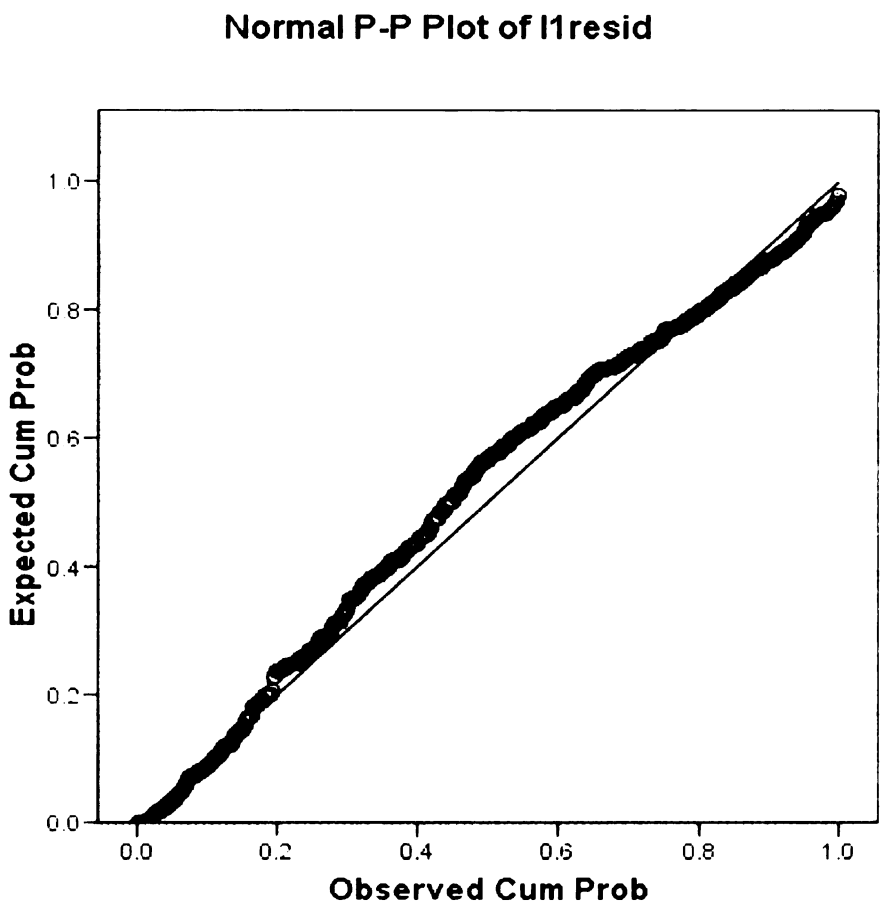


Figure 4.3.4: P-P plot of the level 1 residuals



Phase 2: Step 2

The second step in phase 2 seeks to address Specific Aim 4:

Specific Aim 4: Test the new expanded model for its ability to explain the relationship between owning family dynamics and value orientations.

Phase 1: Step 2 produced a number of hypotheses that suggested that value orientation is not only fluid, but is influenced by business level and individual level factors. Additionally the first step in this phase as well as Phase 1: Step 2 showed that

there is a significant relationship between satisfaction and value orientation. Taken together, if satisfaction is low in a business, the new expanded Three Circle Model would suggest that this is due to value orientation being high, along with the interactions with cohesion and adaptability. Therefore we can affect (or increase) satisfaction by decreasing the value orientation. This Step explores the most efficient ways of changing a value orientation.

H 4.1 Subgroup membership will affect the value perception of individuals within FOBs.

Model 1: Unconditional

Level 1

$$Value\ Orientation_{ij} = \beta_{0j} + r_{ij}$$

Level 2

$$\beta_{0j} = \gamma_{00} + \gamma_{01} + \mu_{0j}$$

Using MLR estimation, the model converged in 5 iterations, indicating a relatively good fit for this model. The γ_{00}(or intercept) was estimated at 13.59 (t = 14.95, *df.* 10, $p < 0.001$). The estimated between business variance (or τ_{00}) was 7.47. The estimated within business variance was $\sigma^2 = 22.92$. Based on these covariances the intra-class correlation (ICC) = 7.47/(7.47 + 22.92) = 0.246. Therefore 24.6% of the variance in *Value Orientation* is between businesses while approximately 75.4% is within businesses. The 95% confidence interval for the variance between business intercepts of satisfaction is $13.59 \pm 1.96(7.47)^{1/2} = 8.23, 18.95$. This magnitude of variance between businesses

can be formally tested ($H_0 : \tau_{00} = 0$), and is distributed using a χ^2 with J-1 degrees of freedom under the null hypothesis. The present unconditional model takes the values of 111.67 with $df = 10$ (J = 11). This is highly significant $p < 0.001$. In summary, this model shows that more variance lies within businesses (75.4%) than across businesses (24.6%). This in itself is an interesting finding as one might assume that everyone in a FOB would have a similar impression of the family versus business value, but this unconditional model suggests that there is greater variation in value perception within a FOB than across FOBs. Since significant variance is within and across FOBs we can test characteristics within and across businesses to explain this variance.

Using this unconditional model as a baseline, we can test Hypothesis 4.1: Does value orientation vary by subgroup membership?

Model 2 – Subgroup membership will affect the value perception of individuals within FOBs.

Level 1

$$Value\ Orientation_{ij} = \beta_{0j} + \beta_{1j}(Family\ Member_{ij}) + \beta_{2j}(Owner\ Member_{ij}) + \beta_{3j}(Employee\ Member_{ij}) + r_{ij}$$

Level 2

$$\beta_{0j} = \gamma_{00} + \mu_{0j}$$

$$\beta_{1j} = \gamma_{10}$$

$$\beta_{2j} = \gamma_{20}$$

$$\beta_{3j} = \gamma_{30}$$

This model converged in 6 iteration, and the deviance change was 18.71 (*df* 3, $p < 0.001$). While this was a relatively better fitting model than the unconditional model, the parameter estimates for *Owner Member* and *Employee Member* were small and not significant (*Owner Member* 0.22, $p = 0.862$; *Employee Member* 0.18, $p = 0.883$), while the estimate for *Family Member* was larger and significant (-2.88, $p = 0.021$). One explanation is that all three variables are binary coded, and the Three Circle Model suggests that there is overlap between the three groups. Therefore, none of the three binary coded variables are a true dichotomy. In this sample the *Family Member* group is the closest to a dichotomy, and arguably the most exclusive variable in comparison to owners and employees. For example, there were 38 owners in the ownership group, and 35 of those were family members, making these two variables somewhat redundant. This leaves the family and employee groups, but a similar problem exists with the employee variable, the majority of family members in this study were also employees. Due to these factors it made sense to isolate the family variable. Furthermore, from Phase 1: Step 2 access to family communication seems to be important to individual value orientation. Therefore, controlling for family group membership while exploring family access will allow us to test the hypothesis that access to family communication affects value orientation even after we have controlled for the effect of being a member of the family.

A new model was run that contained only the family member variable. This new model converged in 6 iterations allowing the deviance of this model to be compared with the deviance on the unconditional model. Adding *Family Member* to the model created a better fitting model as can be seen by change in deviance from the unconditional model to Model 2 ($\chi^2 = 14.10$, *df* 1, $p < 0.001$). In comparing the proportion of variance

explained from Model 2 to the unconditional model, using $\hat{\rho} = \frac{\tau_{00}(model\ 1) - \tau_{00}(model\ 2)}{\tau_{00}(model\ 2)}$, $\hat{\rho} = 0.032$. In other words, 3.2% more of the level 1 variance is explained by model 2 in comparison to the unconditional model. The estimated coefficient for the *Family Members* is -2.83 (df 484, $p < 0.001$). Taken together when we control for family members value orientation the average intercept is 14.48 (from cleaned model 2). Family members tend to have a lower value orientation than other subgroups by a 2.83 point decrease in intercept. Therefore, generally family members tend to see the business closer to the business side of the value continuum in comparison to other subgroups.

H 4.2 Access to family communication will decrease the value orientation of an individual.

To test this hypothesis a model was fit using the *Family Access* variable. There are two problems with this variable. First (as was noted in chapter 3) the distribution of the family access variable is not normal, it is positively skewed. This is because there are often individuals within the business that do not have access to family communication. Secondly the information gained in Phase 1: Step 2 revealed that individuals who communicate about the family, but are not connected to the central communication (or the owning family) have a higher value orientation. The limitation with the *Family Access* measure is that it measures one's "connectedness" but not what group one is connected to. Therefore an individual could be highly connected to a group that is broken off from the family group. For example in company 10 the employees are highly connected with each other but not connected to the family. These individuals would

receive a high score for *Access* because they are connected to each other, but conceptually they are not connected to the *real* family communication. The remedy for this situation involved two steps. First is to create a categorical variable (0 = no access, 1 = access). This step does have a limitation in that we do not know how the strength of access influences the value orientation just that having access is better than not having access. The second step is to account for individuals with access, but not connected to the family group. These individuals were visually identified using the family communication sociograms and coded as 0 (no access).

Model 3 – Access to family communication will decrease an individual's value orientation

Level 1

$$Value\ Orientation_{ij} = \beta_{0j} + \beta_{1j}(Family\ Member_{ij}) + \beta_{4j}(Family\ Access_{ij}) + r_{ij}$$

Level 2

$$\beta_{0j} = \gamma_{00} + \mu_{0j}$$

$$\beta_{1j} = \gamma_{10}$$

$$\beta_{4j} = \gamma_{40}$$

This model converged in 6-iterations, and produced a deviance change of χ^2 = 1488.476 (*df* 1, $p < 0.001$), indicating a much better fitting model than Model-2. Using the proportion of variance explained by the equation, Model 3 explains 4.3% more of level 1 variance than Model-2. This model is considered a much better fit, and tells us that having access to family communication will reduce an individual's value orientation by a -1.77, even after the effect of being a member of the family subgroup has been

controlled. It should be noted that the intercept has increased (15.49) to account for the effects of family communication access.

H 4.3 The value orientation of the owners will be positively related to individual value orientation.

To test this hypothesis a fourth model was nested in Model-3. This nested model contained a variable for owner value on level 2.

Model 4 – Owner Influence on Value Orientation

Level 1

$$Value\ Orientation_{ij} = \beta_{0j} + \beta_{1j}(Family\ Member_{ij}) + \beta_{4j}(Family\ Access_{ij}) + r_{ij}$$

Level 2

$$\beta_{0j} = \gamma_{00} + \gamma_{01}(Owner\ Value_{.j}) + \mu_{0j}$$

$$\beta_{1j} = \gamma_{10}$$

$$\beta_{4j} = \gamma_{40}$$

This model converged in 6 iteration, with a deviance change $\chi^2 = 8.39$ (df 1, $p < 0.001$). This suggests a better fitting model in comparison to Model 3. Additionally the associated coefficient for Owner Value was 0.63 ($t = 4.48$, df 9, $p = 0.001$). This model explains 70.43% of the unexplained level 2 variance. In general, the addition of the owner's value orientation explains a great deal of the between business variance, and the owner's value orientation is positively related to an individual's value orientation. In other words, one standard deviance increase in the ownership value orientation will

produce an increase of their FOB's mean value orientation by 0.63. This is not a large change indicating that after we account for the subgroup, and an individual's access to family communication there is little variance left for value orientation.

Since there is very little variance left on level two, the deviance change was small, and the reliability has dropped to 0.60 the researcher stopped estimating the model here.

Table 4.4.1: Summary of Second Model

Fixed Effects	Null Model(s.e.)	Model 2	Model 3	Model 4
Intercept	13.59(0.909)**	14.48(0.98)**	15.59(1.3)**	8.49(1.76)**
Family Member (β1)		-2.83(0.73)**	-2.25(0.79)**	-2.26(0.78)**
Family Communication (β2)			-1.77(0.82)**	-1.95(0.81)**
Owner Value (γ01)				-1.95(0.81)*
Variance Component				
Intercept (μ0)	7.47	8.35	10.27	2.47
Level 1 (R)	22.92	22.22	21.31	21.22
Model Fit				
Reliability (B0)	0.822	0.840	0.85	0.60
Deviance	2919.606	2905.507	1417.031	1408.64
Deviance Change		14.01	1488.476	8.39
df	2	3	4	5

Reliability for Phase 2: Step 2 Model

A boxplot of the within business residuals can be used to determine if the residuals are centered at 0, and that the variances are consistent across groups. Figure 4.6 shows that the residuals seem to be centered at 0. Also, a scatter plot of the residuals

against the fitted values is used to assess for problems with heteroscedasticity. Figure 4.7 shows that there are no recognizable patterns, which indicates that the assumptions for heteroscedasticity are reasonably met. Finally a P-P plot (Figure 4.8) of the level 1 residuals show that the data seem to be normally distributed.

Figure 4.4.2: Box Plot of Residuals by each of the 11 FOBs

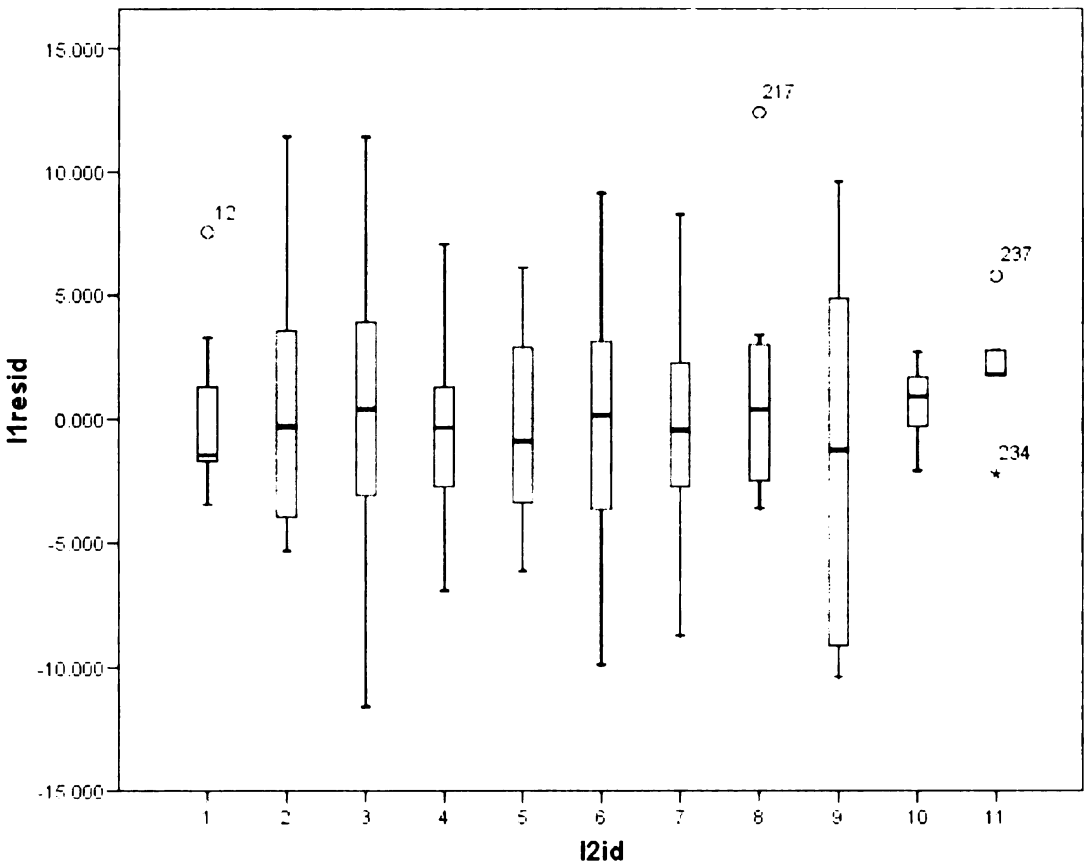


Figure 4.4.3: Scatterplot of level 1 residuals against fitted values

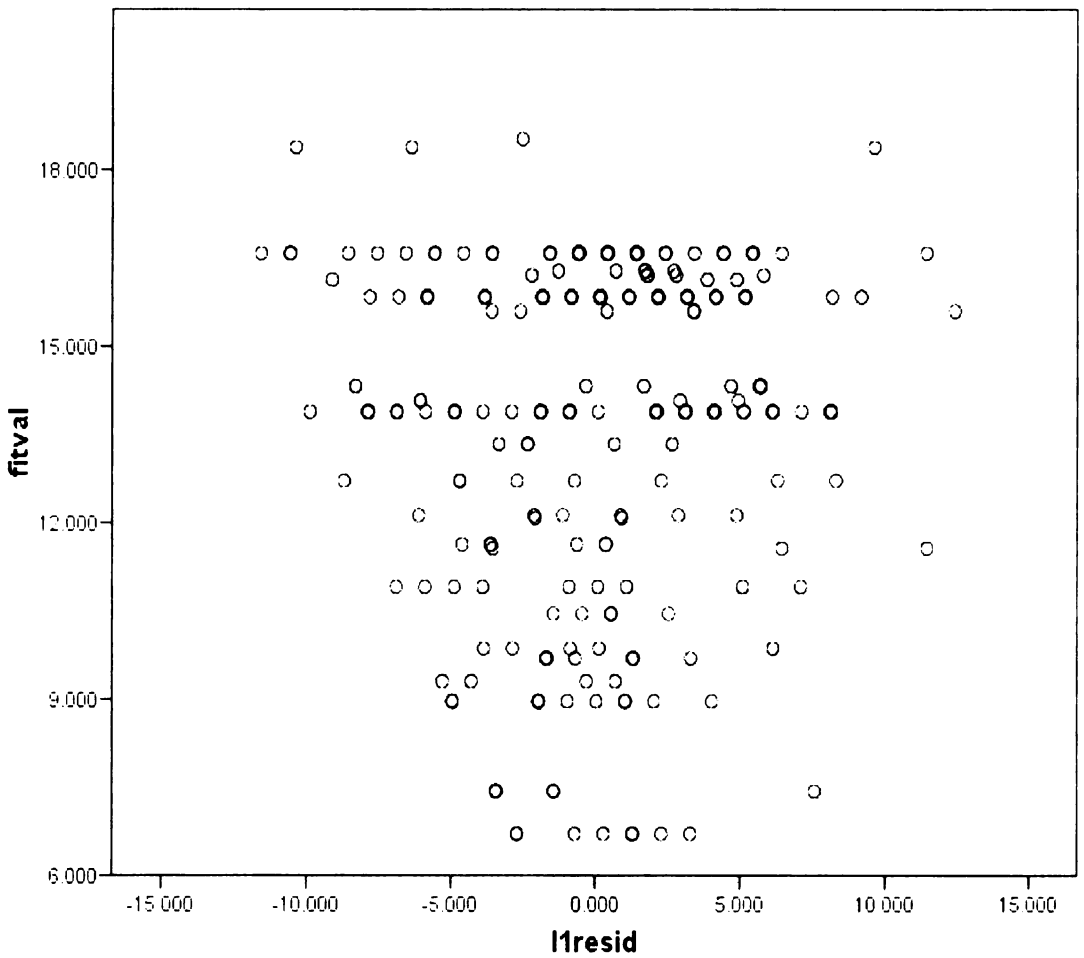
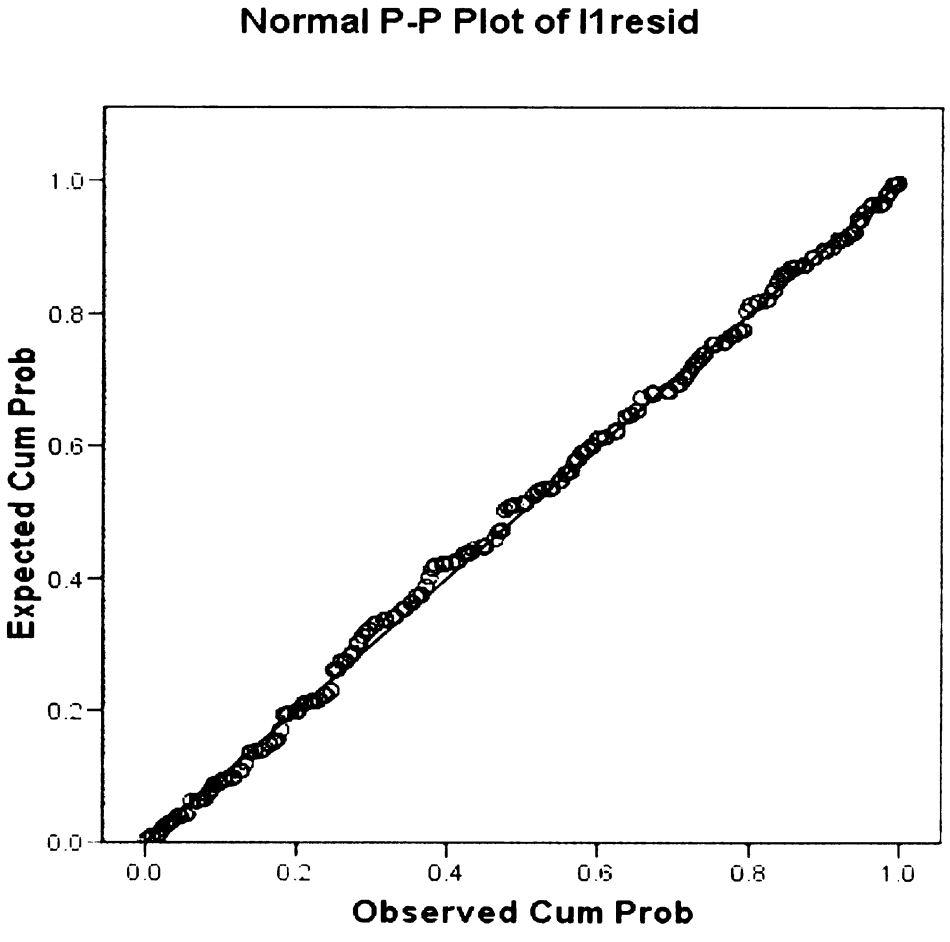


Figure 4.4.4: P-P plot of level 1 residuals



Summary of Findings

Through this exploration of the Three Circle Model it was apparent that the assumptions of the Three Circle Model, regarding subsystems and boundary are valid, but limited. This study found that individuals who share a membership in the family, ownership, or nonfamily employee groups tend to share similar communication patterns, levels of satisfaction and value perceptions with their subgroup members. The limitation with the Three Circle Model is that it does not account for the strength of the boundary between subsystems, the value orientation of the FOB or the family dynamics of the owning family.

The value orientation of the FOB tells us a great deal about the level of satisfaction within the FOB, with FOBs closer to the family side of the Value Continuum exhibiting lower levels of satisfaction. Furthermore, owning families that are close (high level of cohesion) have greater levels of satisfaction throughout their FOBs, but owning families that are close often produce higher value orientations and therefore diminish the effects of the closeness. Within a FOB, the value orientation of individuals (or their perception of the FOB's value orientation) is influenced by their subsystem membership (family members have the lowest value orientation, owners next and employees have the highest value orientation) and the strength of the family to business boundary. In businesses where there is a rigid boundary between the family and business, the individuals who are cut off from the family have a much higher value orientation. That decreases their levels of satisfaction with their FOBs.

Therefore the best option for FOBs is to start with an owning family that is close but also encourages a permeable boundary between the family business systems. This

permeable boundary will create a unity, or shared agreement for the FOB's value orientation (and more than likely bring the value orientation closer to the business side of the Value Continuum). All of these together will produce a FOB with high levels of satisfaction.

Two areas were not explored in this study due to the fact that not enough variance existed in the sample population to test these ideas. The first is the influence of adaptability on this model. The families in this study shared similar levels of adaptability and therefore there was not enough variance available to test the effects of adaptability. Also there is evidence in the literature that a diffuse boundary between the family and business will hurt the business. None of the FOBs sampled showed a boundary that could be conceptually thought of as diffuse. Therefore this study does not support or fail to support the effects of these two issues.

CHAPTER V: DISCUSSION

Introduction

The general purpose of this study was to evaluate and strengthen the foundational theory within FOB literature, the Three Circle Model. The mixed method approach highlights the importance and limitations of the Three Circle Model. This study also points to the significance of integrating the Three Circle Model assumptions with: 1) the owning family dynamics of adaptability and cohesion, 2) the value orientation of the FOB (whether the FOB values the growth and development of the business system, family system, or a balance of both), and 3) the strength of the boundary between the family and business systems. While the findings from the exploration of family dynamics and value orientation are important and novel to the field, the findings regarding the boundary strength are the most important addition to the current literature, and offer a systemic solution to strategic plans requiring a movement along the Value Continuum. Movements along this continuum are often necessary as the economic environment changes (Distelberg & Sorenson, 2009).

The conclusions from this study, and in relation to the current field of literature suggests that: 1) in general FOBs with a total value orientation closer to the business side of the value continuum have higher levels of satisfaction, 2) value orientations vary by subgroups with employees seeing the FOB closer to the family side of the continuum in comparison to owners and owning family members, 3) close owning families have FOBs with higher levels of satisfaction as long as their total value orientation is the same or below the sample population mean, 4) FOB family systems should be adaptable, 5)

satisfaction at the individual level (i.e. individual FOB members) is closely tied to the degree of unity in the FOB's value orientation, conversely, FOBs with a large discrepancy of value orientations at the individual level will have lower levels of satisfaction, and 6) while owners influence the value orientation of individuals within their FOBs, being connected or having access to family communication is a powerful tool to unite value orientations across a FOB.

These conclusions are discussed in more detail below, as well as suggestions for individuals working with or conducting research on FOBs.

Discussion of Results

The following section outlines the findings of each phase of the study. These findings are grouped into two sections; 1) the measured limitations of, and the proposed integrations to the Three Circle Model, and 2) integrating the study findings for family dynamics (adaptability and cohesion), the value orientation of the FOB, and the strength of the boundary between the family and business systems into the new Expanded Three Circle Model.

Evaluating the Three Circle Model

The first Specific Aim of the study focused on testing the validity of the assumed structure within the Three Circle Model (Taguiri & Davis, 1982). Hypothesis 1.1 stated that the model had many benefits, but that this model did not fully account for the actual functioning of a FOB. In this study, functioning was measured by the communication patterns within eleven FOBs. This study operationalized "functioning" as the total communication matrix measured by the sum of the three network items within the

participant survey. This matrix is a good measurement of the functioning of a system for two reasons. First, general systems theory is rooted in cybernetics which relies heavily on the assumption that communication is a function of a system, whether that system is open or closed. Closed systems allow communication to move within the system while open systems allow communication to move within and across systems. Secondly, the total communication matrix is a weighted matrix which is a more robust variable and accounts for the strength of relationships within a system rather than simply measure whether a relationship exists. Therefore the use of the total communication matrix as a measurement of functionality is in line with general system theory, and it provides a robust evaluation of functioning within FOBs.

In summary of the first step in Phase 1, for many of the sampled FOBs the Three Circle Model does indeed explain interactional patterns within businesses. There is some proof that members of each subgroup interact with each other, suggesting some commonality or substantive grouping similar to the Three Circle Model subgroups. Even though there was some support for this model, the amount of variance that it explained was minimal. For three FOBs where the subgroupings produced statistically significant values, the groupings accounted for less than 1.8% of the total variance in communication.

While most of the FOBs did not fit the Three Circle Model, two FOBs fit the Three Circle Model well (more than 10% of the variance was accounted for by the Three Circle Model), but the level of satisfaction across these businesses was dangerously low. The Three Circle Model accounted for 42% of the variance in Company 10, but the

employees in this FOB showed the lowest level of satisfaction across all the employees of *all* FOBs in this study.

The finding in this step provided support to the first hypothesis which stated that the Three Circle Model may be a good foundation, but by itself it does not provide enough explanation to be valuable without integrating other systemic concepts. Furthermore the findings from company 10 and 3 suggest that the model might actually be a model of dysfunction rather than health when the subgroup boundary assumptions are followed too rigidly. This exercise added support to expanding the assumptions of the Three Circle Model.

Expanded Three Circle Model

Chapter I discussed three possible variables that could be used to expand the Three Circle Model: 1) the inclusion of the owning family's dynamics of adaptability and cohesion, 2) the inclusion of the value orientation of the business, and 3) the inclusion of system boundaries between the Three Circle Model subgroups. These variables are taken directly from the current literature and each has been purposed as integrations to the Three Circle Model, although they have little direct supporting empirical evidence. Step 2 in this study sought to evaluate these integrations and determine which, if any, have value in expanding the Three Circle Model.

Specific Aim 2 explored these ideas through in depth case studies of each of the 11 businesses. This exploration utilized social network analysis, family science, and FOB empirical tools to develop hypotheses that were tested quantitatively in Specific

Aims 3 and 4. The following section describes how each of these areas adds strength to the existing Three Circle Model.

Subgroup Membership

As discussed above, the Three Circle Model does have limitations in explaining communication patterns, but it should not be ignored as the subgroups within the model do provide some insight into FOBs especially when we consider subgroup differences in value orientations. Furthermore, this study did find some patterns consistent across FOBs which can be attributed to subgroup membership. These attributes are discussed below.

From Phase 1: Step 2 it was hypothesized (based on the case study explorations), that the family and ownership groups have higher levels of satisfaction and lower levels of value orientation (closer to the business side of the continuum) compared to their employees. In most of the FOBs in this study the highest level of satisfaction was in the family group, followed by the ownership group, and then the employee group. Similarly, the lowest level of value orientation is often seen in the family group, then the ownership group, with the highest in the employee group. In other words, family members tend to perceive the FOB as more professional and business like than do their employees, who tend to see the FOB as more informal and privileging members of the owning family. The relationship between subgroup membership and value orientation was further supported in Phase 2: Step 2, where it was found, that family members rate the FOB value orientation 2.26 points lower (on a 28 point scale, Mean = 14.1, SD = 5.3) in comparison to nonfamily members. In other words, family members, in general, see the FOB closer to the business side of the value continuum in comparison to their employees.

While subsystems have some predictive significance, there are limitations, and issues such as the owning family's dynamics, the FOB's value orientation, and the strength of the family-business boundary. When these areas are combined with the subgroup membership findings the Three Circle Model can provide more insight into the functioning of FOBs.

Family Dynamics: Adaptability

The actual findings for adaptability in this study are inconclusive. There was no measured relationship found for the owning family's level of adaptability on satisfaction, value orientation, or communication patterns. This is more than likely due to all of the FOBs in this study scoring at or above the mean level of adaptability (compared to the national average). Also, the scores for adaptability at the FOB level were relatively similar which provided very little variance to explore.

Although the actual measurements for adaptability for this sample population did not produce significant findings, we should not disregard the affects of owning family adaptability. When we view the findings in this study alongside the conclusions from other studies that used the same measure of adaptability (Burke, 2007; Lansberg & Astrachan, 1994; Zody et al., 2006), and studies that used measures that are conceptually similar (Anderson et al, 2003; Anderson & Reeb, 2003; Bahrami, 1992; Krijnen; 1979; Overholt 1997; Zahra, 2005) it appears that adaptability is important for FOB survival. It is likely that the reason lower levels of adaptability were not found in this study is that a lower level of adaptability decreases the likelihood of survival for FOBs, and these businesses (less adaptable FOBs) would feel the greatest pressure from the 2009 economy. Therefore, they would have declined to participate due to the enormous

economic stress during the data collection time frame, or possibly they failed to survive as FOBs.

This study offers one hypothesis for future testing: *There is a threshold for FOB family systems and adaptability.* This study would suggest that family systems that do not meet the average (and more than likely score below the average) for adaptability on FACES III will have difficulty surviving as a FOB system. Future longitudinal studies of FOBs could learn whether this threshold exists by studying FOBs with owning families who have varying levels of adaptability. This methodology would have to identify FOBs in their early stages of development, as done by Davis and Sterns (1981), as well as the findings from this study suggest that families with lower levels of adaptability may not survive past the initial startup phase.

Family Dynamics: Cohesion

Cohesion, or the level of closeness and distance within an owning family, does add value to the Three Circle Model. Findings from this study suggest that the closer the owning family, the higher the level of satisfaction across the FOB. However, there are some limitations to this explanation. It was found in Phase 1: Step 2 that cohesion and value orientation have an interaction effect on satisfaction, meaning that the positive effects of higher levels of cohesion are reduced when that family has a FOB with a value orientation closer to the family side of the Value Continuum. Figure 4.2.35 in Chapter IV illustrates this relationship and shows that the danger associated with a close owning family is that they may inadvertently privilege a high value orientation for their FOBs, and when this happens, the positive effects of cohesion diminish. Therefore, cohesion has a positive relationship with satisfaction as long as the value orientation of the FOB is

closer to the business side of the value continuum. This finding was further tested in Phase 2: Step 1 where the level-1 negative slope for value difference and satisfaction was found to be magnified by the closeness of the owning family. More specifically the slope for value difference on satisfaction was found to be -2.08, and the level-2 slope of cohesion on value difference was -2.26. This tells us that the higher the level of cohesion in the owning family the greater the effect of value differences on satisfaction. Or, although we know that an increase in value difference will decrease satisfaction in an individual, the decrease is more significant when the individual is in a FOB with a close owning family. Therefore, FOBs with close owning family systems are good for the FOB. But FOBs with close owning families need to be careful not to let their FOB also develop a high value orientation (closer to the family side of the Value Continuum). If both exist in a FOB the level of satisfaction will likely be low.

The findings from this study are in line with previous research on FOBs and cohesion. Previous studies have consistently found that owning families with higher levels of cohesion have less conflict throughout the FOB (Zody et al., 2006), work together more effectively (Lee, 2007), and have better strategic planning skills (Lansberg & Astrachan, 1994). Unfortunately, previous research has been unable to find interacting effects with cohesion, or anything resembling the curvilinear hypothesis of Olson et al., (1979a; 1979b). One possible explanation is the disregard to cautions within family systems research suggesting a multi-rater methodology over a single rater method in studying the curvilinear effects of cohesion (Thomas & Ozechowski, 2000). This study is the closest representation of the hypothesized negative aspect of the upper end of the cohesion scale with FOBs as the study population. In this study, families with higher

levels of cohesion magnified the negative relationship between value orientation and satisfaction. While this study does not offer a definitive causal relationship between cohesion and value orientation, the results from this study offer a similar caution as Olson et al., (1979a: 1979b) for family systems on the upper end of the cohesion continuum. Olson (2000) cautioned that maladaptive behaviors develop when family systems are too close.

Value Orientation

Value orientation is a complex variable and its effects change depending on the level of analysis within the system. For example, when we look at value orientation as the average value orientation across a FOB (i.e., the mean value orientation for all individuals in a particular FOB), we are measuring the actual value orientation of a FOB. When we take this approach we see a negative relationship between value orientation and satisfaction. FOBs closer to the family side of the Value Continuum have, on average, lower levels of satisfaction. Both Specific Aims 2 and 3 showed this relationship. Model 5 from Specific Aim 3 is the strongest evidence of this relationship and shows that the overall value orientation of a FOB accounts for approximately 41% of the differences between businesses for satisfaction. Similarly, Specific Aim 2 (in Phase 1: Step 2) showed that the r-squared from the Value Orientation-Satisfaction slope in figure 4.2.34 is 0.3888 (or 38.8% variance explained). Therefore, we can generalize from these findings that approximately 40% of the between FOB difference in satisfaction is due to the overall value orientation of each FOB. This is a negative relationship where the greater the value orientation (closer to the family side) the lower the level of satisfaction.

When looking only at this level of analysis one could conclude that FOBs that are closer to the family side of the Value Continuum are less successful (defining success as the level of satisfaction throughout the business). In this case Dyer's (2006) argument to professionalize the FOB, or take strides to make the FOB more *business-like* and reduce family characteristics, would seem logical; however the relationship between satisfaction and value orientation is slightly more complex.

Although many have assumed that perceptions such as value are unified across owners, family members, and employees (Dyer, 2006; Fleming, 2000; Galvin et al., 2007) this study challenges this assumption and shows that there is not a great deal of unity in value orientation within FOBs. This is illustrated by the unconditional model in Specific Aim 4 (where 75.4% of the variance in value orientation is within businesses and only 24.6% is between businesses). This brings to light two limitations with the professionalizing hypothesis. First, the professionalizing hypothesis (Dyer, 2006) assumes that the owners know that the FOB is not professional already. Often, as found in this study, the owners perceive the FOB as closer to the business side of the Value Continuum, in relationship to their employees. Since owners tend to see their FOBs closer to the business side of the Value Continuum already, the suggestion to professionalize would seem like more of the same. This may be a missed opportunity to help owners who, rather than being too close to the family side of the value continuum, are not in tune with the perceptions of their employees.

Secondly, this perception problem is not just a structural issue (where too many resources are transferred into the family) but a systemic perception problem involving owners, family members and employees. Phase 1: Step 2 found that an individual's level

of satisfaction is negatively related to the distance he/she is from the average level of value orientation within his/her business. For example, if business A has a total value orientation of 14.1, and two individuals B and C, within business A have corresponding value orientations of 14.3 and 15.7, it is likely that individual B (with a value orientation score of 14.3) also will have a higher level of satisfaction than individual C. This relationship was further supported in Phase 2: Step 1 where it was shown that after controlling for the value position of a FOB (at level-2), there was little effect from an individual's value orientation (level-1). However there was an additional negative effect for the difference between an individual's value orientation and the mean of his/her FOBs value orientation. This relationship reduced an individual's satisfaction by an estimated -2.08 level-1 coefficient, while the level-2 value orientation reduced individual satisfaction by -1.19. In other words, the effect of having a value orientation that varies significantly from the FOB mean is much greater than the negative level-2 relationship.

In summary, while the overall value orientation of a FOB is important, satisfaction is affected to a greater extent by unifying the values within a FOB. This finding is supported with nearly three decades of theory and research on the positive effects of unifying values and goals within FOBs (Davis & Stern, 1981; 1996; Galvin et al., 2007; Sharma, 2004). Furthermore, in many cases the problem is a perception problem and not a family versus business structural problem. The latter can be addressed with the structural resource transfer changes in the professionalizing hypothesis; the former requires a more systemic solution that involves communication or boundary evaluations and modifications that are addressed below in the family boundary discussion.

Family Boundary

In the FOB literature there has been some debate about the role of boundaries between the family and business systems. In some theories it has been suggested that FOBs should maintain a somewhat rigid boundary between the family and business (Blanco-Mazagato, de Quevedo-Puente, & Castrillo, 2007;. Dyer, 1986; 2006; Levinson, 1971; Fleming, 2000). Most often these theories encourage FOBs to strive to resemble non-FOBs by limiting the amount of resource transfers from the business to the family, and building in stronger boundaries between the family and business. While theories like these gather support, empirical evidence continues to disprove the rigid boundary hypothesis. For example Olson et al., (2003), Zahra (2005), and Zody et al. (2006) all have shown that when a rigid boundary is in place within FOBs, the business does do better (in terms of revenue growth) but there is increased conflict within the family and ownership subsystems. This study supports these findings. In this study a rigid boundary was found to increase conflict throughout the business by increasing the value perception differences between employees, owners and family members.

This study operationalized the boundary between the family and business systems as communication interactions between individuals in each subsystem. More specifically two types of communication were measured, total communication and communication specific to the owning family. It was theorized, based on the assumptions of the Three Circle Model, that if a rigid boundary existed within a FOB system there would be little to no flow of communication across subsystems. Specific Aim 1 explored this hypothesis by fitting the Three Circle Model across the total communication matrix in FOBs. Conceptually, if the model fit well for a FOB, it was due to having rigid boundaries

between the subsystems which made communication greater within subgroups than across subgroups. Since this model fit well only for FOBs with very low levels of satisfaction, it was concluded that the rigid boundary hypothesis was incorrect and actually decreases satisfaction within FOBs.

This study did not stop at this finding but also measured the patterns for communication specific to the owning family. Two separate measures were used for this communication pattern. The first was the block modeling analysis used in Phase 1: Step 2. In this exercise there was evidence of a relationship between the strength of the family communication boundary and individual value orientations. FOBs that exhibited a strong family-business boundary (such as Companies 2, 7 and 10) had an associated decrease in satisfaction and an increase in value orientation differences for individuals who had been cut off from family communication. A closer examination of companies 4, 5, 6, and, 9 showed this same relationship between the boundary strength and value orientation. This examination of companies 4, 5, 6, and 9 is particularly interesting because this finding compared employees within the same FOB, thereby limiting almost all possible unknown variables. Furthermore, the measurement of *Family Access* in both Phase 1: Step 2 and Phase 2: Step 2 showed that individuals who were cut off from family communication had a greater disagreement in value orientation (from their FOB mean value orientation) and Phase 2: Step 1 showed that this disagreement has a strong negative relationship with satisfaction. Therefore a rigid boundary will decrease a FOB's ability to unify individuals around a shared value orientation. In cases where non-family employees were cut off from family communication, the result was developing pockets of isolated

networks that tended to reduce satisfaction and increase the distance between the real FOB value orientation and an individual's perception of the FOB value orientation.

It should be noted that the results from this study do not suggest that professionalizing a FOB is a bad thing. It is highly likely that FOBs should be able to move freely across the value continuum as external and internal events may require temporary moves (Distelberg & Sorensen, 2009). In other words, there are times where a FOB should be closer to the family side of the Value Continuum, such as when the family moves through a transition or encounters an environmental stressor. At other times, a FOB should be closer to the business side of the Value Continuum (or in other words professionalize), such as when there is an economic down downturn because the business requires added resources to manage the additional stress. Overall a FOB should be able to move along the continuum when external or internal stimuli require a move. Therefore, this study does not suggest that one position on the Value Continuum is better than another, but offers a strategy for moving along this continuum.

According to this study, the strategy for a FOB that required a move from the family side of the value continuum to the business side (or professionalizing) would include an assessment of the current value position of each subsystem and the strength of the family-business boundary (it is also likely, but not supported in this study, that the owning family's level of adaptability would be important). In other words, if a FOB has a value orientation closer to the family side of the Value Continuum, and the current economic downturn required the FOB to shift closer to the business side of the value continuum, the first step would be to encourage the family system to shift closer to the business side of the value continuum. Unlike the assumptions in the professionalizing

hypothesis, this study does not assume that the employees of this FOB will make the same shift. If a rigid boundary exists within this FOB, the family will make the move but the employees will either maintain the same position or move even closer to the family side of the Value Continuum, which would result in conflict. If a rigid boundary is in place, the next step would involve creating lines of communication between the family and employees. By taking this action the employees would decrease their value orientation and increase in their level of satisfaction.

The findings from the boundary exploration showed that having access to family communication is not only important for family members but also for non-family employees. This finding is not completely new to the field of FOB, as "family meeting" and "family council" theories have previously highlighted the importance of facilitating communication about the owning family within FOBs (Arnoff & Ward, 2002; Habbershon & Astrachan, 1997; Tower, Gudmundson, Schierstedt, & Hartman, 2007). While the concept is not new, this study is one of the first empirical tests, and more importantly this study describes the relationship between boundaries, value perception and satisfaction. Therefore this study bridges the gap between the family meeting literature and the boundary research (Haynes et al., 1999; Kaye, 1991; Olson et al., 2003; Stafford et al., 1999; Zuiker, et al, 1998).

Due to the importance and complexity of this finding it is important to illustrate it in the following short summary of the unintended consequence of Company 10's rigid boundary. Prior to the study, Company 10 was in the process of a generational transfer of ownership. At the end of 2008, it became apparent that Company 10 could no longer financially sustain two owners (the father and the son). Therefore they began a plan to

buy out the father. This would be considered a shift towards the business side of the value continuum as the goal was to reduce (in the long term) the amount of business resources moving towards the family. Both the father and the son understood the long term goals, and thought that the plan was in the best interest of the business even though both would have rather had the business stay in the current ownership structure. The problem with this move was that the father and son felt they should also increase the strength of the family-business boundary. From their perspective they wanted their employees to see the business as a real business and less like a family business. The effect of the stronger boundary was that the employees saw the business even more like a FOB with father and son having many talks outside of the business, and many structural changes happening that "they weren't privy to". After this author spent some time with the father, son and two key managers (post data collection), it was apparent that there was a great deal of miscommunication and incorrect perceptions about the future of the business. After only two meetings, the business built in lines of family-business communication and the conflict and misunderstandings have been dramatically reduced.

Company 10's experience demonstrates the importance of these boundaries. It also shows the interactions between subgroups, satisfaction, value orientations, and boundaries. Furthermore it shows how easily these concepts can be overlooked in practice and how with very little investment they can have a dramatic effect on the satisfaction within a FOB.

Discussion of Methods: Limitations

While the findings from this study bring much needed insight into the role of family dynamics, value orientations, and boundaries, there are a few limitations regarding the methodology and generalizability of these findings.

Three issues can be considered a limitation of the methods used in this study. First the sample size of businesses may be considered small by some. Also having only 11 businesses on level 2 is a limitation for HLM methodologies. It has been suggested that HLMs should have at least 30 groups on level 2 with at least 30 individuals in each group (Snijder & Bosker, 1999). While it is possible to have fewer level 2 groups when there are more than 30 individuals in each group (this study had 73 individuals on average in each group), we should still consider this sample population somewhat small for HLM and therefore we need to interpret the cross level interactions with caution.

One cross level interaction was proposed in this study. In Phase 2: Step 1 cohesion was modeled as a cross level interaction. The danger with this model is a type I error, because the small sample population may produce artificially low variance components which would shrink the error term and create an artificially smaller confidence interval (Raudenbsuh & Bryk, 2002). Conceptually the worry here would be that even though cohesion increased the magnitude of the value difference-satisfaction slope, this finding may not be accurate or even true. If this study proposed this model by itself we would probably disregard the cross level effect of cohesion, but this study found this same effect in Phase 1: Step 2, therefore even though this is a statistical limitation, support from other methods reduce the concern of a type I error, and we should have confidence in the finding that value perceptions and cohesion interact.

A second limitation is that the sampling techniques in combination with the small sample (at level 2) may have biased the FOBs that participated in the study. For example, while close to 70 FOBs were invited to participate in the study, only 11 businesses in this one mid-western state actually participated. Also, these FOBs may be substantively different from the actual population of FOBs because of their interest in the researcher and the study. The researcher built trust with these businesses prior to the study through previous research with three Nonprofit membership groups in the area and through his writings in Family Business publications. Similarly, the FOBs that participated were interested in learning about their FOB in comparison to the other FOBs in the study. Also, most of these FOBs maintained a membership with a nonprofit group that specialized in FOB issues. All of three of these issues likely influenced which FOBs selected in and out of the study. For example, these FOBs were possibly more self aware of the effects of family ownership. FOBs that are active in the FOB community and aware of their FOB status may be different from FOBs that are not active in the FOB community and do not understand that their status as an FOB has effects on family and business functioning.

A similar limitation comes from the individual level sample size. While there were close to 900 individuals associated with these 11 FOBs that could have been studied, only 492 individuals actually took the survey. It is unclear whether the 400 individuals that did not take the survey would have significantly different experiences.

The third and largest limitation to the study was the economic environment in which the study took place. It is largely agreed that January 2009 was a time of economic depression. Since this study collected data from January to mid-April, it was

limited by this economic environment. The most significant effect of this environment was the lack of participation by FOBs. In Chapter III it was noted that 12 additional businesses were originally interested in participating but by mid January they declined because they had numerous concerns about the economy. In two cases the FOB owners told the researcher that they reduced their employee count by 80% and did not want to know the level of satisfaction within the business right now. It is entirely possible that these 12 businesses might have had the variance this study needed to examine different levels of adaptability in the owning family.

Discussion of Methods: Strengths

There are four major strengths to the study that set it apart from other FOB studies. The first strength is the holistic sampling process. This study is the first study in FOB literature to attempt to sample all members of the FOB system from the employees to non-employed family members. Some studies have sampled multiple members of a FOB, but no study to date has produced a sample population of this depth. The benefit of this sample population is the ability to measure the actual value orientations and boundary strengths within FOBs. Previous research that has explored these areas has done so by sampling one representative from each FOB system. While these studies are able to sample more businesses, their results are somewhat limited. As we saw with this study, owners, family members and employees often have different experiences. For example, the owners of company 10 saw their FOB as close to the business side of the Value Continuum and they were very happy. If we only had sampled the owners of this business, we would have held this business up as a model of health. But when we went

farther and sampled the family members and employees, we see real problems with this business, giving it the lowest level of satisfaction across all 11 businesses in this study.

The second major strength of this study is the use of both qualitative (social network case studies) and quantitative methods. The qualitative exploration offered valuable insights in the functioning of FOBs. These insights were then developed into testable hypotheses. These hypotheses were then tested quantitatively using HLM. Since the level 2 and level 1 sample size were relatively small for HLM, the findings by themselves could be subject to misspecification within the HLM models. But the qualitative findings added support and verified the HLM findings. Taken together this mixed methods approach added considerable insight, which allowed for a more complete explanation of FOBs through the Three Circle Model.

The third strength of this study is its roots in empirical and theoretical FOB literature. This study began by examining the Three Circle Model which is the most referenced theory in FOB literature. The proposed expansion of this model is also gaining support in the FOB field as a quality integration of Human Ecology, family, organizational, and FOB theory (Distelberg & Sorensen, 2009). Therefore the hypotheses and research questions have already been proposed in the literature of FOB and thought to be important aspects of FOBs. Furthermore, the findings of this study are in line with current trends in the literature. For example, other empirical studies have found the same relationship between cohesion, adaptability, and success. Other studies have found that subgroup membership affects an individual's experiences with his/her FOB. This study strengthens these previous findings by using a more in depth sampling process. Also, this study presents the first integration of family dynamics, boundary strength, and

satisfaction in the literature. This integration is very important given the overall agreement of the validity of General Systems Theory in FOB literature.

The fourth strength of this study is that the sampling procedures created a sample population of businesses with a good representation of the demographic issues known to influence FOB research. It was noted in Chapter II that the gender of the owner, the generation of owner, the size of the FOB, and the industry of the FOB affect outcome variables. This study represented all of these areas (female and male owners, ownership in founder, 2nd, 3rd and 4th generations, revenues ranging from $200,000-90 million, employee size from 8-500, and multiple industries).

Implications for Family Owned Businesses

This study offers an in depth and complex discussion of functioning and health within FOBs. Four points from this study are important to FOBs and should be highlighted. First, FOBs should be aware of the effects of their value orientation. The greatest awareness should be given to the overall value orientation of the FOB, as this has the greatest effect on satisfaction across the FOB. In addition, owners of FOB may incorrectly assume that since they believe their FOB is closer to the business side of the Value Continuum that others within the FOB may not have the same perception. For example, Companies 1, 2, 5, 6 and 10 were extremely surprised to learn that their employees believed that the FOB was closer to the family side of the Value Continuum. These business owners believed that they had done an effective job of convincing to their employees that they were working in a FOB that valued the business system over the family system. There is strong evidence in this study that the strength of the family-

business boundary is an important predictor of unifying the value perception across the FOB.

While there is an effect of subgroup membership (employees have lower levels of satisfaction and see the FOB closer to the family side of the Value Continuum) this effect can be mediated by the boundary between the family and business system. For example, in FOBs where there was a permeable boundary for family communication there was a much greater level of agreement on the FOB's value orientation and satisfaction. This creates an interesting and somewhat counterintuitive situation for FOB owners who believe that their FOB is closer to the business side of the Value Continuum. More specifically, if an owner believes that their FOB is closer to the business side of the Value Continuum they will probably attempt to limit the amount of "family communication" throughout the business. For example an owner may try to produce an FOB where the value orientation is close to the business side of the continuum. This owner may discourage conversations about the owning family at work to achieve this end. In other words, creating a rigid boundary between the family and business system. While on the surface this makes sense, it may have a very negative effect. In this example when the owner employs a rigid boundary, individuals on the cut off side of this boundary will increase in their value orientation which is the opposite of what the owner was attempting to do. The better option for this owner would have been to maintain his or her value orientation but also encourage more communication between the family and business. This would reduce the non-family member's value orientation and create a unified value orientation which is closer to the owner's.

As seen with other studies of family dynamics, this study shows that the family dynamics of the owning family have an effect on the FOB. There is some evidence from this study that families that are not adaptable will not succeed in the FOBs. Also for the first time the level of cohesion was seen to affect the FOB. While in general families that are close do better than families that are distant, but this closeness has an interaction effect with the value orientation of the FOB. Families that are very close have a danger of producing a value orientation that is high and thereby reducing the level of satisfaction throughout the FOB. These two findings together support the idea that owning families have an effect on their FOB. It would be wise for owning families to work on their level of closeness and work together to create a permeable boundary between the family and business. These are difficult tasks and would be best addressed through methods previous discussed in the FOB literature regarding unity of the Owning family. For example family councils and family meetings may be very helpful in this venture (Arnoff & Ward, 2002; Habbershon & Astrachan, 1997; Tower, Gudmundson, Schierstedt, & Hartman, 2007).

The most significant implication for FOBs from this study is the exploration of non-family employee experiences. In this study it was shown that employees in general have a lower level of satisfaction and a higher value orientation than family members. These differences between the employees and family members become very problematic when there is a strong boundary between the family and business. Many theories have suggested that employees benefit from a "professionalized" FOB (Dyer, 2006; Fleming, 2000). Theories like these tend to suggest that employees would rather not be involved in the family's business. But this does not seem to be true for this study. When employees

are connected to the family communication they have a similar value orientation to their FOB owners, and they have a higher level of satisfaction. Also, if a FOB develops a rigid boundary between the family and business, this boundary does not limit the communication regarding the family. Rather, it produces two separate networks of communication, one within the family systems, and one within the cut off nonfamily employees. This cut off network seems to reduce satisfaction and increase the value orientation of the non-family employees. While this study did not explore the content of communication in these cut off networks, it is likely that the information being circulated is not accurate as it is not connected to a source of accurate information (the family network).

Implications for Future Research

There are three important implications for future research that should be highlighted. The first comes from the methodology of this study. This study used a sampling procedure that allowed for the inclusion of family, owners, and employees. It was clear from this study that these three groups have varying experiences, perceptions, and levels of satisfaction. The measured differences between these groups suggests that other studies that measure only one individual from each FOB will not produce reliable findings for the entire FOB system. Since the vast majority of FOB empirical research samples only the owners, we should view the findings within these studies with caution. This situation is particularly problematic when the outcome variables of interest involve the effects of the owning family on the FOB system.

Secondly, this study shows support for the interactions between family dynamics, value orientation, and boundary strength. Therefore, future studies that explore these

areas need to consider the interaction effect of these issues. For example, when exploring the relationship between adaptability and FOB functioning, we need to consider the interaction effect of the FOB value orientation, the level of cohesion within the owning family, and the strength of the boundary between the family and the business system.

There are a number of findings in this study that should be explored in more detail in future studies. The first would be the effects of owning family adaptability. Other studies have explored adaptability and found evidence of a relationship between adaptability and success, but the current study did not find this same relationship. This is more than likely due to sampling issues (the small N on Level 2, and the 2009 economy). Future studies may be able to explore this relationship more directly, or with other outcome variables. Secondly the family-business boundary should be explored for varying effects of strength. In this study the boundary was conceptualized as an individual having or not having access. This allowed for the finding that having access is better than not having access. But this conceptualization of the boundary did not account for different levels of connectedness for individuals. For example do highly connected individuals vary in perception and satisfaction compared to individuals with less of a connection? Or it may be possible as in Burke (2007) and Hatum and Pettigrew (2004), that a connection to family communication is a curvilinear relationship where having too much access has a negative effects on the individual as well as the FOB system. This situation would create a similar continuum for connectedness as we have for adaptability and cohesion where no connection and being too connected is problematic but having a medium amount of connection is good. This exploration should build on the findings from this study and consider the interaction between connectedness and subgroup

membership and family dynamics. For example the optimal level of connectedness may vary by subgroup, and different family dynamics may create different levels of connectedness.

Implications for Systemic Clinical Interventions

This research points to one of the foundational assumptions of general system theory and that is that systems, while unique, follow basic rules of functioning by which both big and small issues within a system can affect individuals within the system and the system as a whole. Systemically trained clinicians who are effective in working with families should be able to transition seamlessly into working with FOBs by relying on their knowledge of general systems theory. For example problems that develop in family system due to ineffective functioning of a family system will develop in quite the same way in a FOB. The following is an illustration of how family system concepts of functionality relate directly to FOB functionality.

First, the most direct comparison of family and FOB functionality was seen in this study with the exploration of the role of cohesion in owning families. Family systems practitioners are aware that families who are lower on the cohesion scale tend to produce cut offs within the family system. This same pattern was seen in FOBs in this study. Company 2 had a lower score for cohesion and this family had a child that was cut off from the family system. The family even asked the researcher to not contact that individual for this study. A very similar pattern was seen in Company 7. How this develops at the FOB level is that a rigid boundary between the family and business systems leads to a cut off between important components of the FOB often leading to

difficulties within the FOB. Either there is a rigid boundary between the two systems or sections/subgroups within the FOB are cutoff from other systems within the FOB.

On the other side of the cohesion continuum the comparison between the family and FOB systems is not as direct. Looking at Company 10, the owning family is very close with the highest cohesion score in this sample population. For family systems theorists, enmeshment means that there are diffuse boundaries between subsystems. While this family is very close, it is cutoff from the business system. While this cut off functioned in its intent to protect the employees from the family communication, it created low levels of satisfaction in employees. This cut off is similar to family systems that "protect" their children by not letting them interact with external systems. In the case of company 10, the boundary around the family system is strong. The problem is that this strong boundary around the family system prevents them from forming a permeable boundary between the family and business system. This is not to say that the family to business boundaries will always follow these two examples of cohesion, but rather to explain that family cohesion does influence the family to business boundary.

Similarly, adaptability has been seen to effect the functioning of the FOB. This study does not provide definitive results but does provide limited findings suggesting that FOB families need to be adaptable. Future studies may show that this is the most crucial element of family systems in FOBs. It may be that without a high level of adaptability in the owning family, the FOB will not survive long, especially if external economic stresses develop.

Secondly, many family system clinicians are already working with FOBs. We have to assume that if 62% of the North American population is employed by a FOB, that

nearly 60% of all individuals (and possibly more) seeking family therapy, are directly influenced by FOBs. While it may not be practical to enter into a FOB when the client is an hourly 3rd shift worker, it makes good systemic sense to work at the FOB level when the client family is also the owner of a FOB. Systems theory tells clinicians that interventions are more effective when they involve more components of a system. For example adolescent substance abuse treatments are beginning to focus more and more on the adolescent's surrounding family and community context. This is also why family therapists strive to work with families rather than individuals alone. In this same fashion family therapists should seek to understand how their client's family system influences their FOB and vise a versa.

Third, effective systemic interventions with FOBs will come directly out of good systemic theory just like good family based interventions are solidly rooted in systems theory. In this study it was found that the best option for FOB functioning was to have a family system that was: 1) close, 2) that had a lower level of value orientation at the FOB level, and 3) achieved a high level of unity for value orientation at the individual level. If one of these areas is not optimal for an individual FOB, the intervention would closely mirror family system interventions. For example if there was not unity in a value orientation in a particular FOB one should look first at how communication flows through the system; if there were cut offs within the FOB, the goal or intervention would be to build communication bridges. This mirrors family therapy. When a problematic behavior develops in a child, the systemically oriented therapist would evaluate how communication is used to perpetuate the problematic behavior.

In summary, what is known in family systems theory and practice regarding systems and function will hold true also in FOB systems. Therefore a good systemic therapist will be able to understand and work with FOBs.

Concluding Remarks

In conclusion, this study is a step forward for the field of FOB. It was shown that the original Three Circle Model has some merit in explaining differences across FOBs, but there are noticeable limitations, especially in identifying functioning within FOBs. This study found that the Three Circle Model can be strengthened by integrating boundary strengths, value orientations, and family dynamics within the Three Circle Model. While the field has begun to recognize the importance of boundaries within FOB, it is often theorized that these boundaries should be strong, or prevent business to family interactions. This study, along with other empirical research caution against this rigid boundary concept, and suggest that a permeable boundary is the most beneficial for FOBs. Furthermore, similar to previous research, this study found that the FOBs that are close have FOBs that are happier. Finally this study is the first empirical attempt to understand how values affect FOBs. This study found that values are a complex concept and interact with other variables such as the owning family's level of closeness and the boundary strength within the FOB. In summary, the findings from this study suggest that FOBs should have close owning families and work towards a boundary that is permeable.

One of the greatest contributions of this study is the methodology used. This study shows that the typical one rater methodology used in the majority of FOB research has severe limitations. The multi-rater sampling along with the inclusion of statistical methodologies suitable for interdependent systems used in this study provided a great

depth of information. Future researchers can learn from this process and develop similar methods which will either challenge or strengthen many of the previous findings within the existing research.

In conclusion, FOBs are a foundation to the U.S. economy. They also influence many individuals as the majority of workers in the world are employed by FOBs. Understanding how these systems function, as well as understanding how to strengthen them will have a global effect.

APPENDICES

APPENDIX A: Gate Keeper Interview Guide

Questions for family business owners
To be administered verbally

1. Name
2. Company name
3. Year business was founded
4. Primary Industry
5. Gross Profit for 2006_____2007_____
   Projection for 2008_____
6. Number of employees working for the business _____
7. Name of family members employed in business full time
8. Name of family members employed in business part time
9. Construct three generation genogram of family and include their relationship to business
10. List names and contacts to employees.

APPENDIX B: FACES III

	Items for FACES III	
	Cohesion Items	α = .77 X = 39.8 SD = 5.4
	Emotional Bonding	*Factor Loading 1*
21.	*Family members feel very close to each other*	.60
22.	*Family togetherness is very important*	.47
	Supportiveness	
23.	*Family members ask each other for help*	.51
24.	*Family members consult other family members on their decisions*	.48
	Family Boundaries	
25.	*Family members feel closer to other family members than to people outside the family*	.49
26.	*We like to do things with just our immediate family*	.39
	Time and Friends	
27.	*Family members like to spend free time with each other*	.69
28.	*We approve of each other's friends*	.43
	Interests and Recreation	
29.	*When our family gets together for activities, everybody is present*	.54
30.	*We can easily think of things to do together as a family*	.43
	Adaptability	α = .62 X = 24.1 SD = 4.7
	Leadership	*Factor Loading 2*
31.	*Different people act as leaders in our family*	.35
32.	*It is hard to identify the leader(s) in our family*	.38
	Control	
33.	*The children make the decisions in our family*	.34
34.	*In solving problems, the children's suggestions are followed*	.37
	Discipline	
35.	*Children have a say in their discipline*	.48

36.	*Children and parents discuss punishment together*	.37
	Roles and Rules	
37.	*Our family changes its' way of handling tasks*	.45
38.	*We shift household responsibilities from person to person*	.38
39.	*Its hard to tell who does which household chores*	.34
40.	*Rules change in our family*	.36

APPENDIX C: Family Member Survey

Please rate the following items using the scale below. Please rate your experience of your current family

1	2	3	4	5
Strongly Disagree		Neutral		Agree Strongly

1. Family members feel very close to each other _____
2. Family togetherness is very important _____
3. Family members ask each other for help _____
4. Family members consult other family members on their decisions _____
5. Family members feel closer to other family members than to people outside the family _____
6. We like to do things with just our immediate family _____
7. Family members like to spend free time with each other _____
8. We approve of each other's friends _____
9. When our family gets together for activities, everybody is present _____
10. We can easily think of things to do together as a family _____
11. Different people act as leaders in our family _____
12. It is hard to identify the leader(s) in our family _____
13. The children make the decisions in our family _____
14. In solving problems, the children's suggestions are followed _____
15. Children have a say in their discipline _____
16. Children and parents discuss punishment together _____
17. Our family changes its' way of handling tasks _____
18. shift household responsibilities from person to person _____

19. Its hard to tell who does which household chores _____

20. Rules change in our family _____

APPENDIX D: Participant Survey

Please answer the following questions thinking about your family and [INSERT COMPANY NAME]

1. Your Name_____

2. Age_____

3. Circle one Male Female

4. Circle all that apply in regards to your relationship to [INSERT COMPANY NAME]

   a. Owner

   b. Employee

   c. Manager

   d. Family member of owning family

   e. Board of directors member

   f. Other_____

5. For the following questions, please assign a score, which positions [INSERT COMPANY NAME] between the paired statements. **(Select one for each pair of statements)**

A manager's qualifications (education, experience, etc.) are the only characteristics considered in hiring and promotion decisions.	1 2 3 4 5 6 7	Family members are given preference in hiring and promotion decisions.
All employees are compensated (excepting dividends) based solely on their position and performance.	1 2 3 4 5 6 7	Family members are paid more than non-family members in comparable positions.
This company is a business, which happens to employ people from the same family.	1 2 3 4 5 6 7	This is a family, which happens to be in business together.
The owner(s) primarily get financial and professional satisfaction from this business; working with family is a bonus.	1 2 3 4 5 6 7	The owner(s) primarily get satisfaction from working with family members; the financial rewards from the firm are a bonus.

1 Please rate the following items using the scale below

1	2	3	4	5	6	7	8	9	10
Very Dissatisfied				Somewhat Satisfied					Very Satisfied

8. Your level of satisfaction with your involvement with the business [ ]

9. Your level of satisfaction with the ownership/management of the business
10. Your level of satisfaction with the employees within the business
11. Your level of satisfaction with members of the owning family
12. Your level of satisfaction with the amount of conflict throughout the business
13. Your level of satisfaction with the future direction of the business
14. Your level of satisfaction with how problems are solved within the business

For the following questions you will be asked to identify individuals associated with [INSERT COMPANY NAME]. You may list *up to* five names. If you cannot think of a person who fits one or more of the items below please leave the item blank. Please also identify your relationship to the individual you identified (e.g. mother, father, owner, manager, co-worker)

1. In the last three week who have you had a meaningful conversation with regarding [INSERT OWNING FAMILY NAME] family, or issues specifically related to the [INSERT OWNIGN FAMILY NAME]?

   Name_____ Relation to you_____

   Name_____ Relation to you_____

   Name_____ Relation to you_____

   Name_____ Relation to you_____

   Name_____ Relation to you_____

2. In the last three week who have you had a meaningful conversation with regarding the day to day functions of the business (e.g. job responsibilities, problems with coworkers, production changes, time off)

   Name_____ Relation to you_____

   Name_____ Relation to you_____

   Name_____ Relation to you_____

   Name_____ Relation to you_____

   Name_____ Relation to you_____

3. In the last three week who have you had a meaningful conversation with regarding the overall strategy and future of the business (e.g. strategic planning, succession planning, initiating or changing governance boards)
   Name_____ Relation to you_____

Name_____ Relation to you_____

Name_____ Relation to you_____

Name_____ Relation to you_____

Name_____ Relation to you_____

APPENDIX E: Informed Consent

Exploration of Families in Family Owned Businesses

CONSENT TO ACT AS A HUMAN RESEARCH SUBJECT

RESEARCH TEAM
Lead Researcher:
Brian Distelberg Michigan State University Intern
Family and Child Ecology Department
(616) 481-3524
distelbe@msu.edu

Faculty Sponsor:
Adrian Blow Ph.D
Family and Child Ecology
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3B Human Ecology, East Lansing, MI 48824,
blowa@msu.edu

PURPOSE OF STUDY
The purpose of this study is to explore the interaction between families and family owned businesses. This research will explore the influence of the owning family on the family business and vise versa. You are being asked to participate in a research study of family owned businesses. You have been selected to participate in this study because of your relationship to a family owned business through either employment in a family owned business or blood or legal relationship to the owning family of a family business.

In the entire study, you will be asked to complete a short (10-15 minute) survey which focuses in on your experience with a family owned business. Specifically you will be asked about your level of satisfaction with your family business and other specific questions about the family business.

If you are under 18 you cannot be in the study.

WHAT YOU WILL DO
There are two separate phases to this study. First the researchers will conduct an interview with the identified owner of the family business. Then the researchers with the permission of the owner will contact all employees and family members of the family business. The following outlines these two phases.
If you are the Owner or an indentified key person to the business
Prior to collecting information from the family members or the employees of a family owned business, the researcher will conduct a short interview with the identified owner of the business. In this interview, you will be asked to allow access to employees and family members and to collaborate with the researcher in obtaining demographic

information (e.g. number of employees, industry of operation, 2006, 2007 and 2008 revenue) as well as help construct a list of employees and family members who are eligible to participate in the following two phases. Additionally, in businesses where employees computers are subject to company supervision, or oversight, you will agree to not access individual employee or ownership survey responses.

If you are a family or business member

You will participate in a short survey (10-15 minutes) by a means of your choosing (internet, telephone, or pen and paper). The survey will ask about your experiences with working in the business. Family members will be asked to complete a similar survey, but also to complete a survey asking for their experience with being a family member of the owning family. This survey is somewhat longer and should take no more than 15 minute to complete.

RISKS AND DISCOMFORTS

This study involves no more than minimal risk. There are no known harms or discomforts associated with this study beyond those encountered in normal daily life. The researcher will also make every effort to respect you right to privacy and when results of the study are made public all indentifying information will be removed which could indentify the individual and the family owned business. For individuals using an internet based survey, you should be aware that in some businesses other individuals within your business may have access to your survey responses. The owner of your business has agreed to not access your survey responses for the purposes of this study. But you should be aware of the potential for others to access your information if you use a company owned computer to take the survey through the internet. If you are not willing to take the internet survey, you may take a pen and paper survey, or a telephone survey.

POTENTIAL BENEFITS

The benefits of participation include the knowledge gained from the three assessments, taking part in study will educate practitioners and service provider of family businesses, and other family businesses. Knowledge gained from the three assessments will be presented to each organization and when possible suggestions based on the assessments will be given to the business. These three assessments include:

1. The communication map illustrates how information flows through the system. Often times there are ineffective communication blocks, and more time than not there is a key person that all or most communications flow through. Interesting to this study is that it is rarely the CEO/President.

2. We also look at value orientation. In other words is the family business a "family business" with a big "F" or big "B". This assessment has been scaled through the standardization of a national sample (2007 American Family Business Survey). What we found is that this value orientation is a continuum. And where the business falls on that continuum has implications for desired future goals. For example Family businesses like to keep resources in the family and prefer to use succession strategies that promote equal (not necessarily equitable) sale of the business to the next generation. Conversely family Businesses, prefer to keep resources in the business. (Pay family less and prefer to sell the business outside the family). While this assessment is interesting and gives a business an opportunity to examine their value orientation and associated resource transfers and future goals, this does not predict success in future goals. What does predict success is how aligned everyone in the business is with the value orientation.

That is why we have the majority of individuals in the business report their perception of the value orientation. For example a family Business may want to sell the business outside of the family. This is successful when key individuals are aligned, but extremely difficult when only the CEO holds this value and the rest of the system sees the business as a Family business. So this along with the communication map provides a lot of information that can be used to build strategies and align individuals with a common vision and value orientation. Basically avoid a lot of frustration and failure in strategic planning.

1. We also administer an assessment for family dynamics within the family system. This is a well known and thoroughly tested assessment (FACES IV). The purpose is to look at the how family systems with different dynamics employ different communication patterns. For example others have stated that varying family dynamics employ varying level of boundaries between the family system and the business system. The hypothesis stated in the literature points out that certain typologies are better than others. This is new, and we are unsure of the direct benefit, that is why we are doing the study. We do believe there will be important information gained for the business but don't feel comfortable stating what that is yet, because this is the first study to look at this issue in depth. For the family system there is benefit. Many Marriage and Family Therapists use this assessment. To do this assessment for a family in therapy would cost the family upwards of $1,000. There is a plethora of information available from this assessment for the family.
2. After collecting the data the research will come back to the business and discuss their results. We will collaborate with each business to find the best medium for disseminating results.
3. Finally, we offer a lottery system for every business. Right now we have funding to have one $50 gift card for every business (which is given out through a lottery).

The actual process is:

1. First meeting (over phone or in person with a key individual. We collect some demographic information about the business (year founded, revenue for three years, number of employees)
2. Discuss the most effective way to administer the two surveys (above). We are looking for an 80% response rate or better. This includes employees, owners and family members (may be employed or not employed by the business). In many cases email surveys have worked, but we have options for paper and telephone surveys in cases where email and internet are not effective.
3. Discuss any additional information that might be valuable to collect at this time.
4. Administer the surveys
5. Discuss results with key individuals in the business

ALTERNATIVES TO PARTICIPATION

The only alternative to participation in this study is not to participate. You are invited to participate in two phases of this research, but you may choose to participate in one phase or not at all. You are also free to terminate your participation at anytime.
There is potential to modify the procedures and surveys when certain aspects of the process interfere with business operation or individual confidentiality.

COMPENSATION, COSTS AND REIMBURSEMENT
Your participation is strictly voluntary and you will not be paid for your participation in this research study. All participants connected to your business will be eligible to receive a $50 gift card determined by a random drawing of names of participants. There are no known costs to you for participation in this study.

CONFIDENTIALITY
Your confidentiality will be protected to the maximum extent allowable by law. All identifiable information that will be collected about you will be removed at the end of data collection. All other information will be stored and only the researchers will have access to this data. All research data will be maintained in a secure location. Only the researchers will be allowed access to it. All research data that is stored on a laptop computer is password protected and stored in a locked facility. The research team, (Brian Distelberg and Adrian Blow), are the only individuals with access to your study records to protect your safety and welfare. Any information derived from this research project that personally identifies you will not be voluntarily released or disclosed by these entities without your separate consent, except as specifically required by law. Publications and/or presentations that result from this study will not include identifiable information about you. The researchers will keep the research data for 7 years.

YOUR RIGHTS TO PARTICIPATE, SAY NO, OR WITHDRAW
Your participation in this research project is completely voluntary. You have the right to say no. You may also change your mind or withdraw from the study at any time during the course of the study. You also have the right to choose not to answer specific questions or to stop participating at any time.

IF YOU HAVE QUESTIONS
If you have any comments, concerns, or questions regarding the conduct of this research please contact Brian Distelberg at (616) 481-3524 or email: distelbe@msu.edu

If you have questions or concerns about your role and rights as a research participant, would like to obtain information or offer input, or would like to register a complaint about this study, you may contact, anonymously if you wish, the Michigan State University's Human Research Protection Program at 517-355-2180, Fax 517-432-4503, or e-mail irb@msu.edu or regular mail at 202 Olds Hall, MSU, East Lansing, MI 48824.

VOLUNTARY PARTICIPATION STATEMENT

You should not sign this form unless you have been given a copy of this document for your records.

Participation in this study is voluntary. You may refuse to answer any question or discontinue your involvement at any time without penalty or loss of benefits to which you might otherwise be entitled. Your decision will not affect your future relationship with the Family Business Alliance or your Employer. Your signature below indicates that you have been given a copy of the information in this consent form, have had a chance to ask any questions about the study, and agree to participate.

I agree to participate in the study

_____ _____

Subject Signature **Date**

_____

Printed Name of Subject

_____ _____

Researcher Signature **Date**

_____

Printed Name of Researcher

APPENDIX F: Additional Sociograms

Figure 6.1 Company 1: Employee Communication

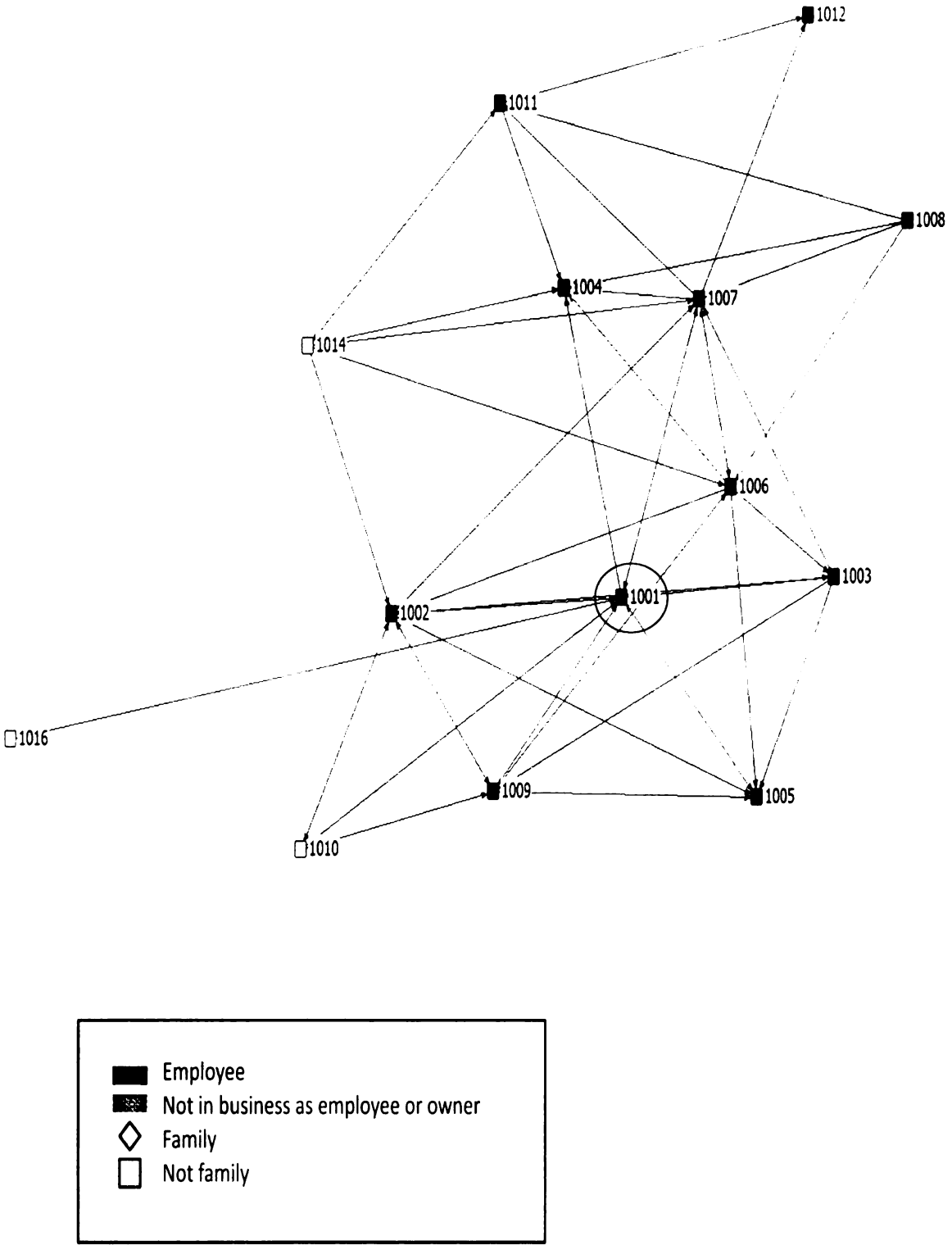


Figure 6.2: Company 1: Ownership Communication

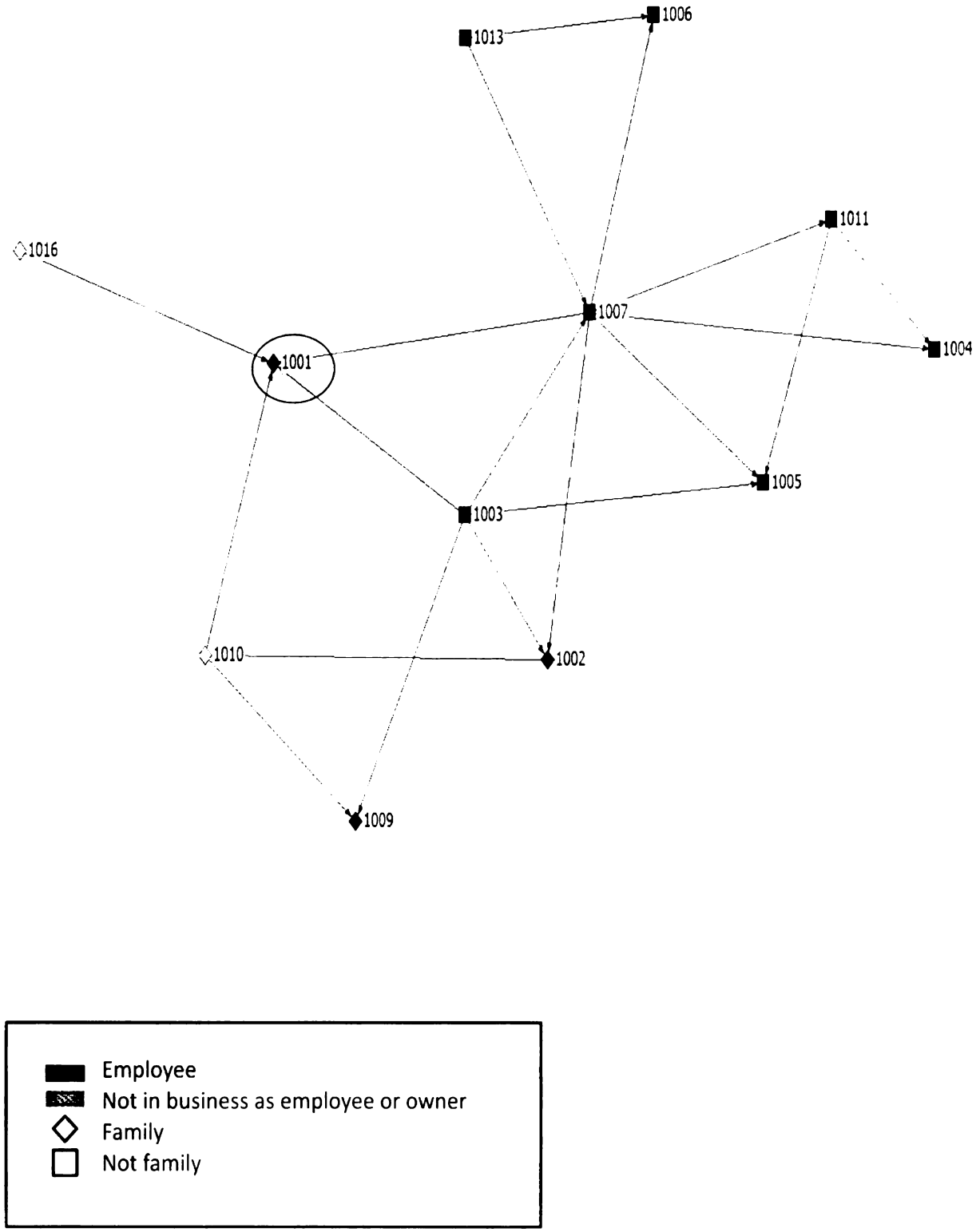


Figure 6.4: Company 2: Owner Communication

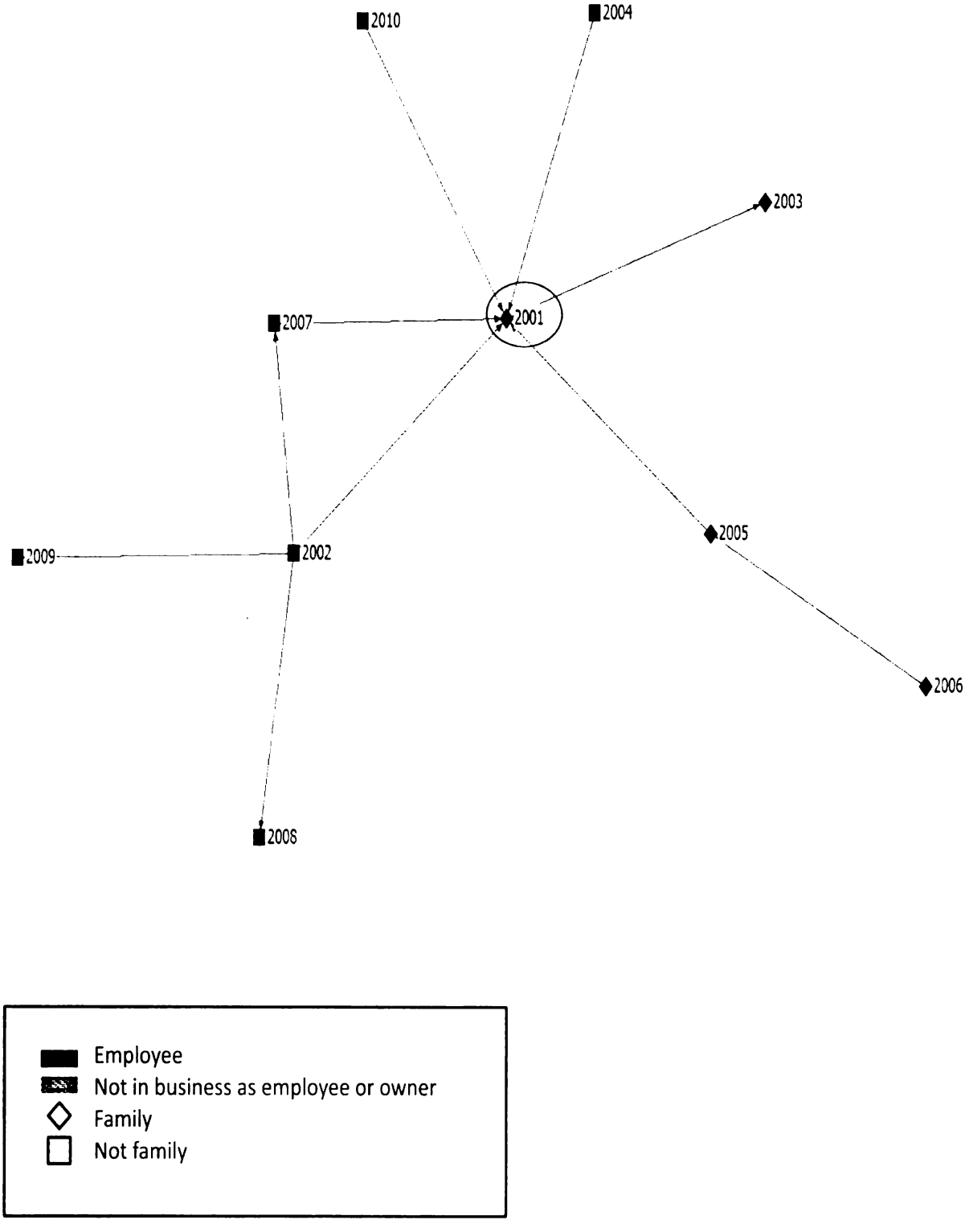


Figure 6.5: Company 3: Employee Communication

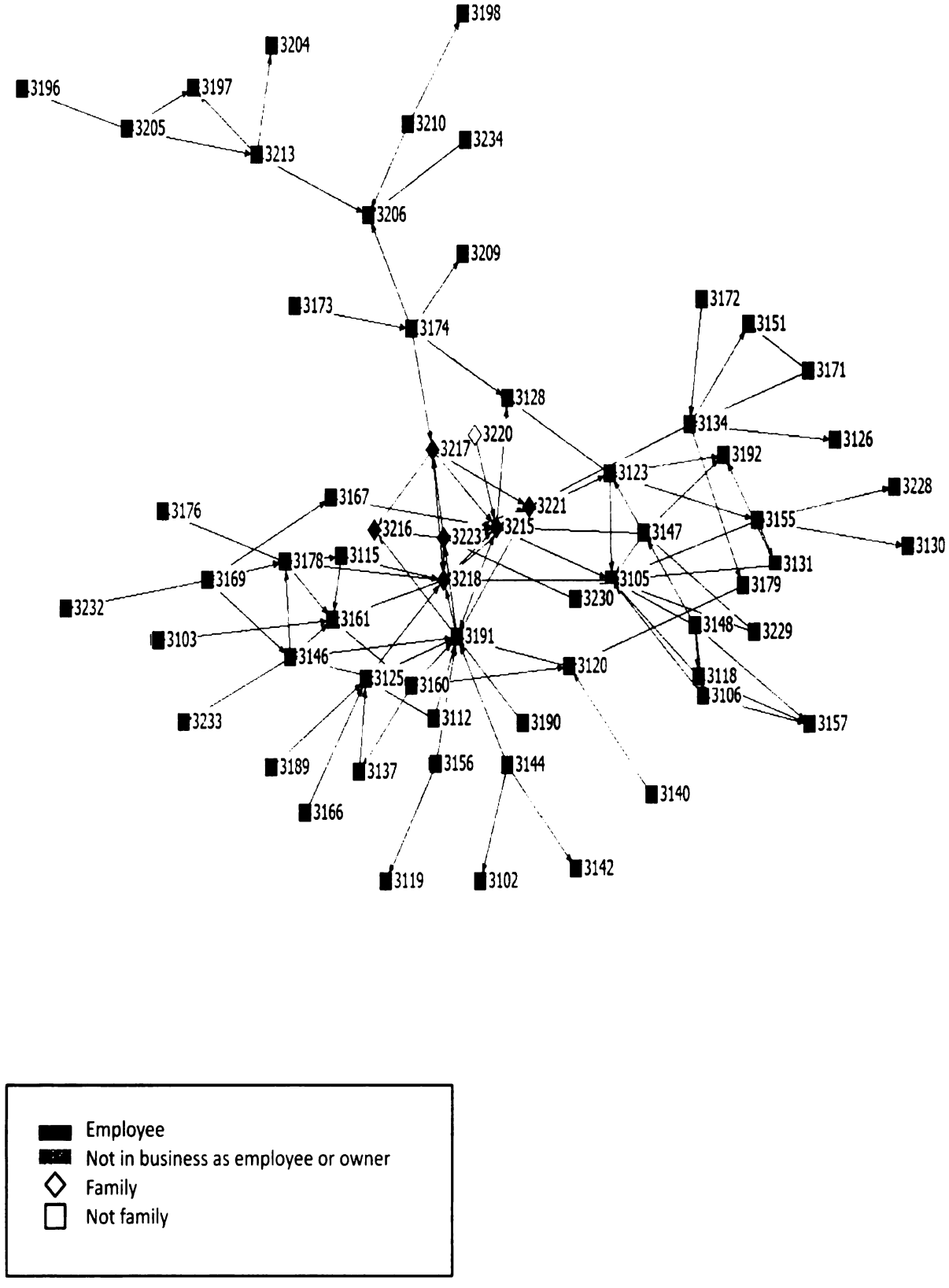


Figure 6.6: Company 3: Owner Communication

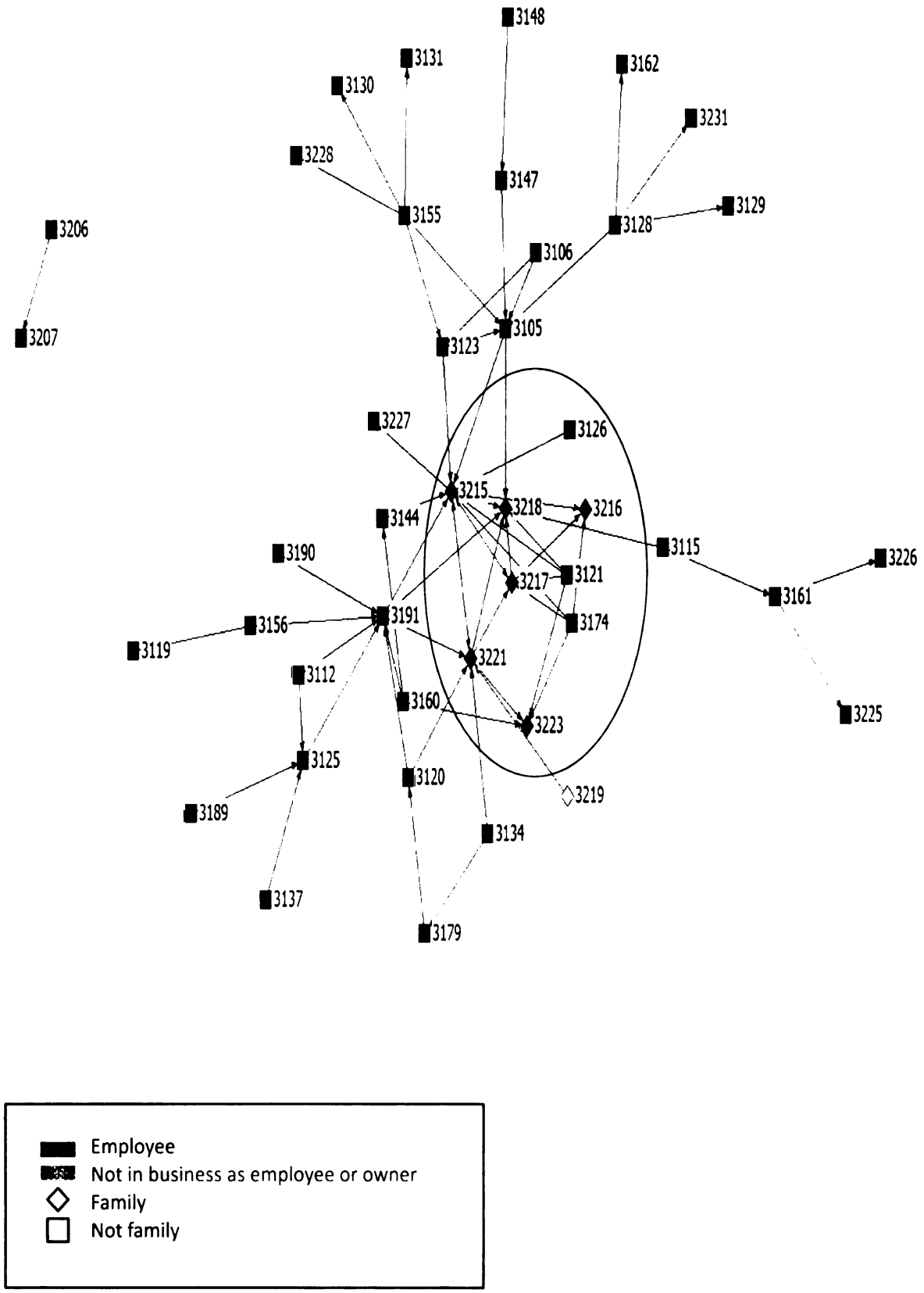
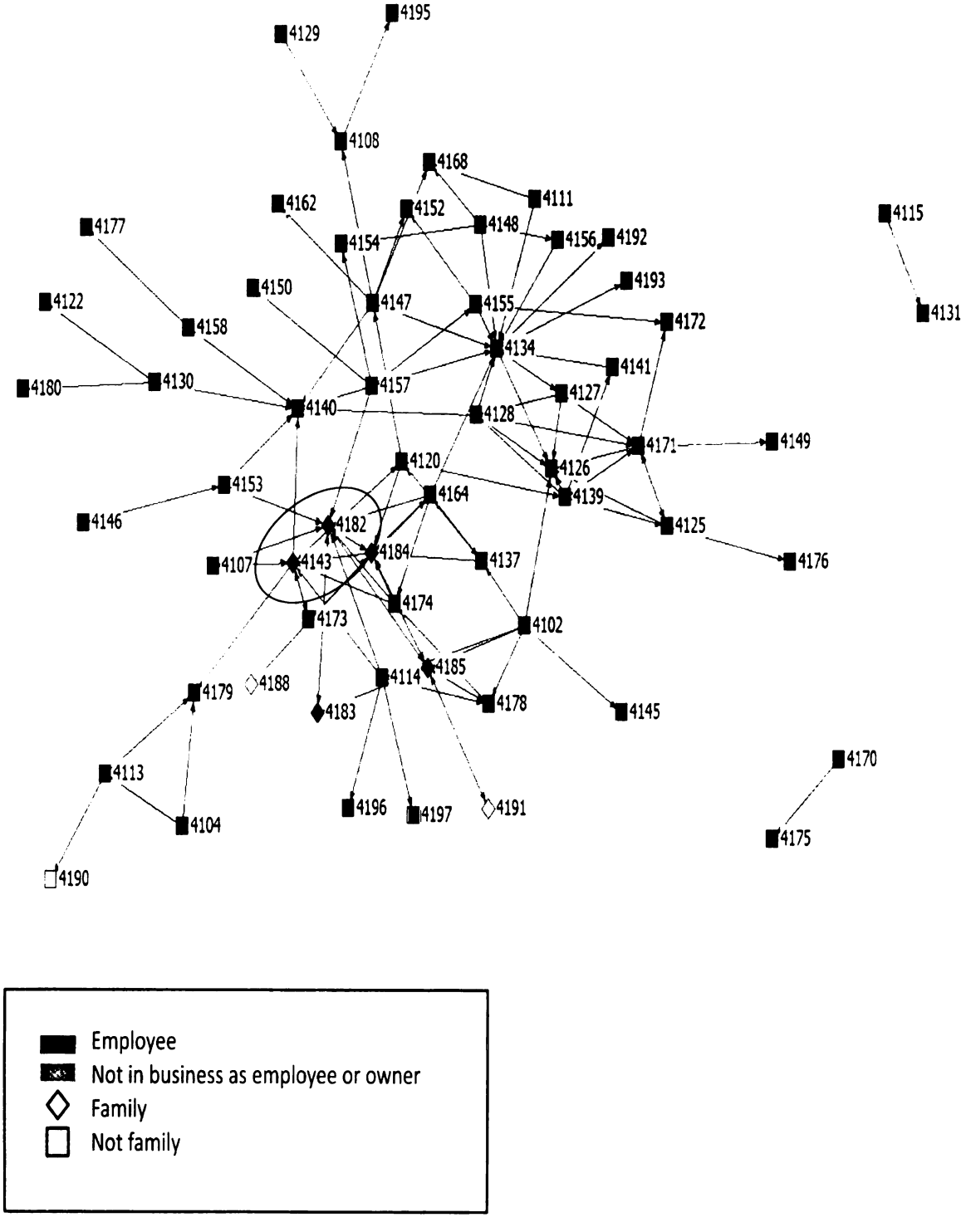


Figure 6.7: Company 4: Employee Communication



Employee
Not in business as employee or owner
Family
Not family

Figure 6.8: Company 4: Owner Communication

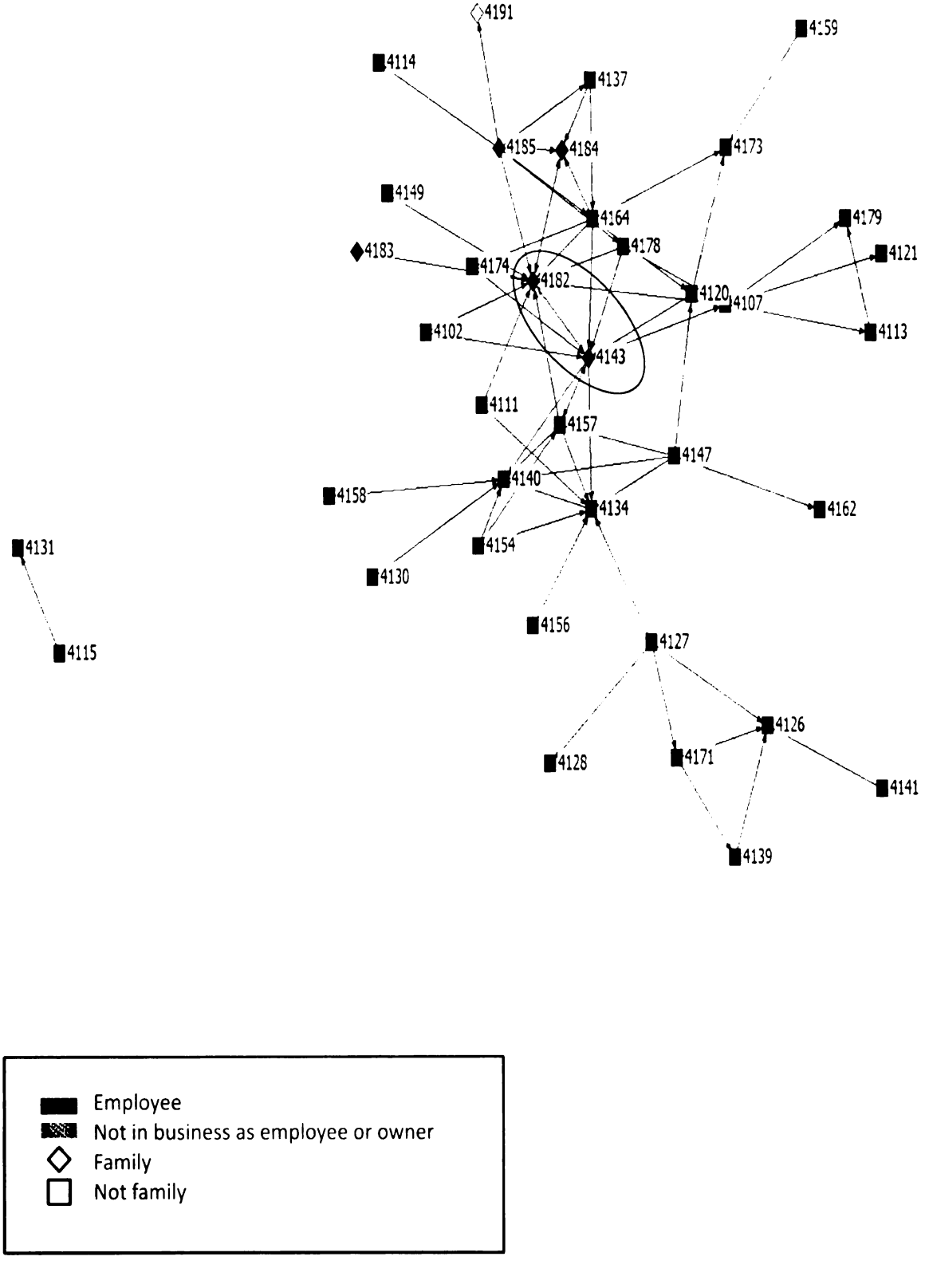


Figure 6.9: Company 5: Employee Communication

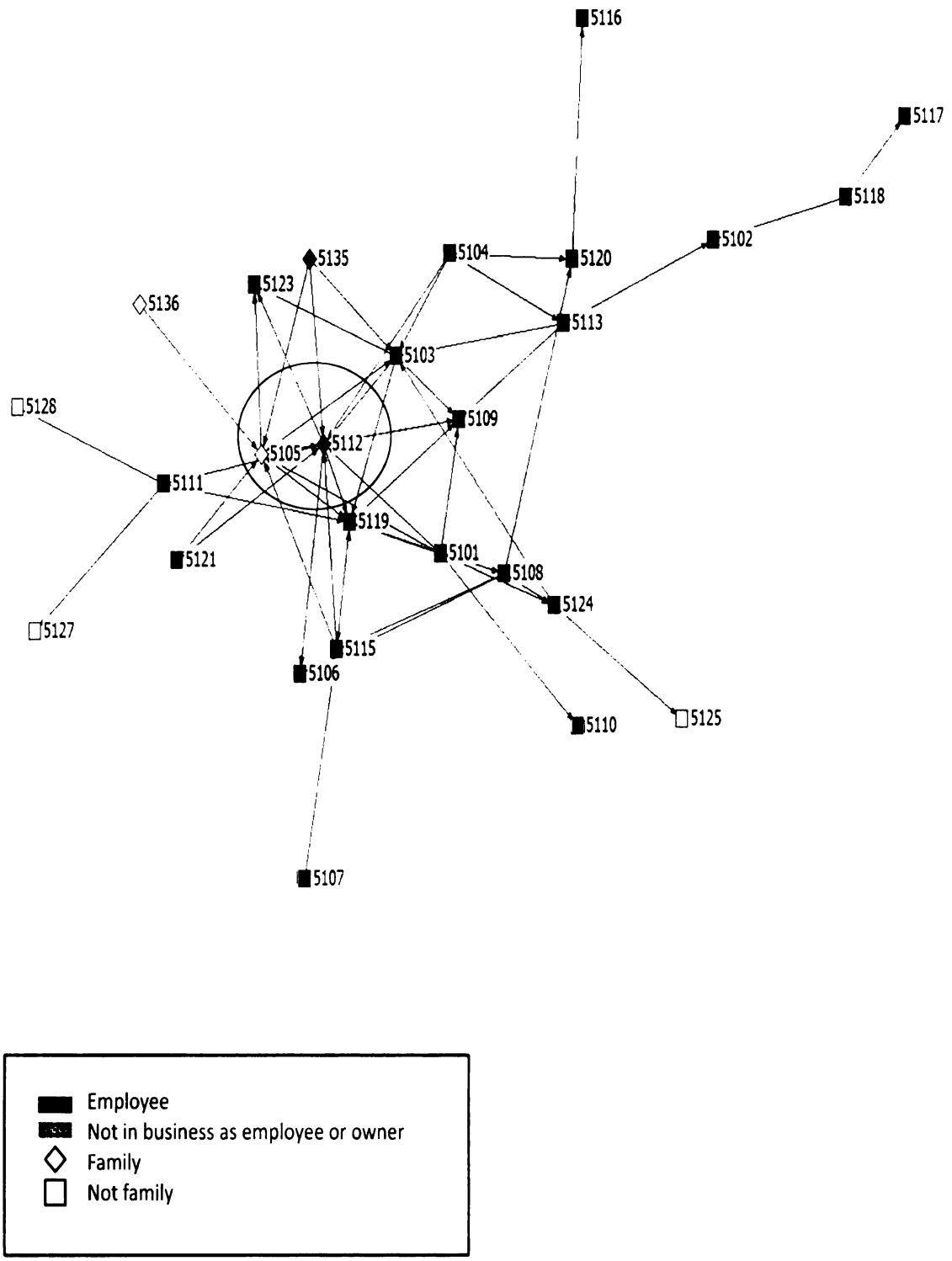


Figure 6.10: Company 5: Owner Communication

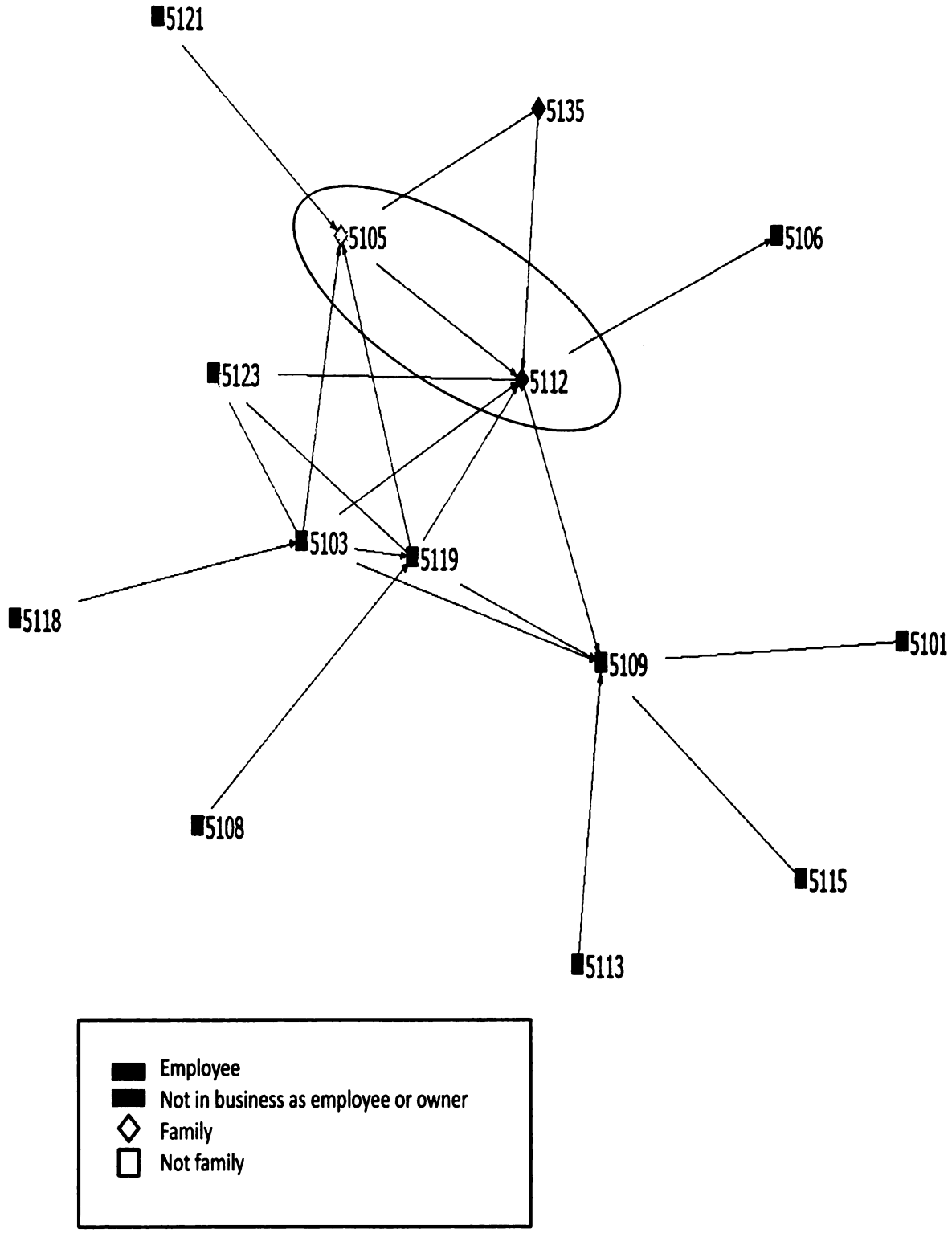


Figure 6.11: Company 6: Employee Communication

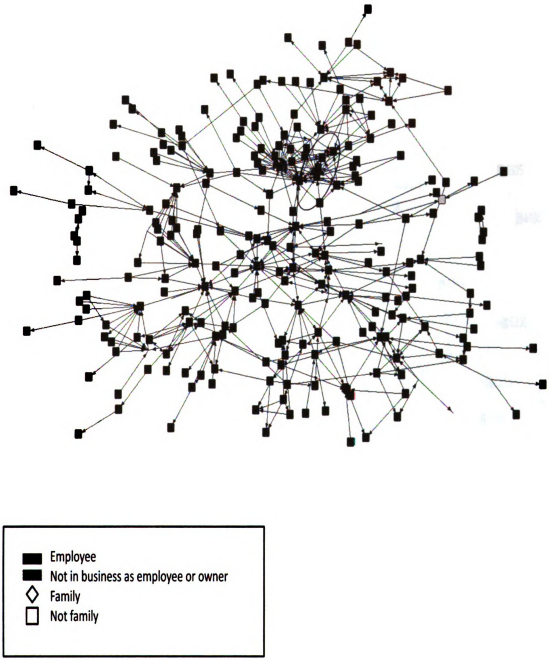


Figure 6.12: Company 6: Owner Communication

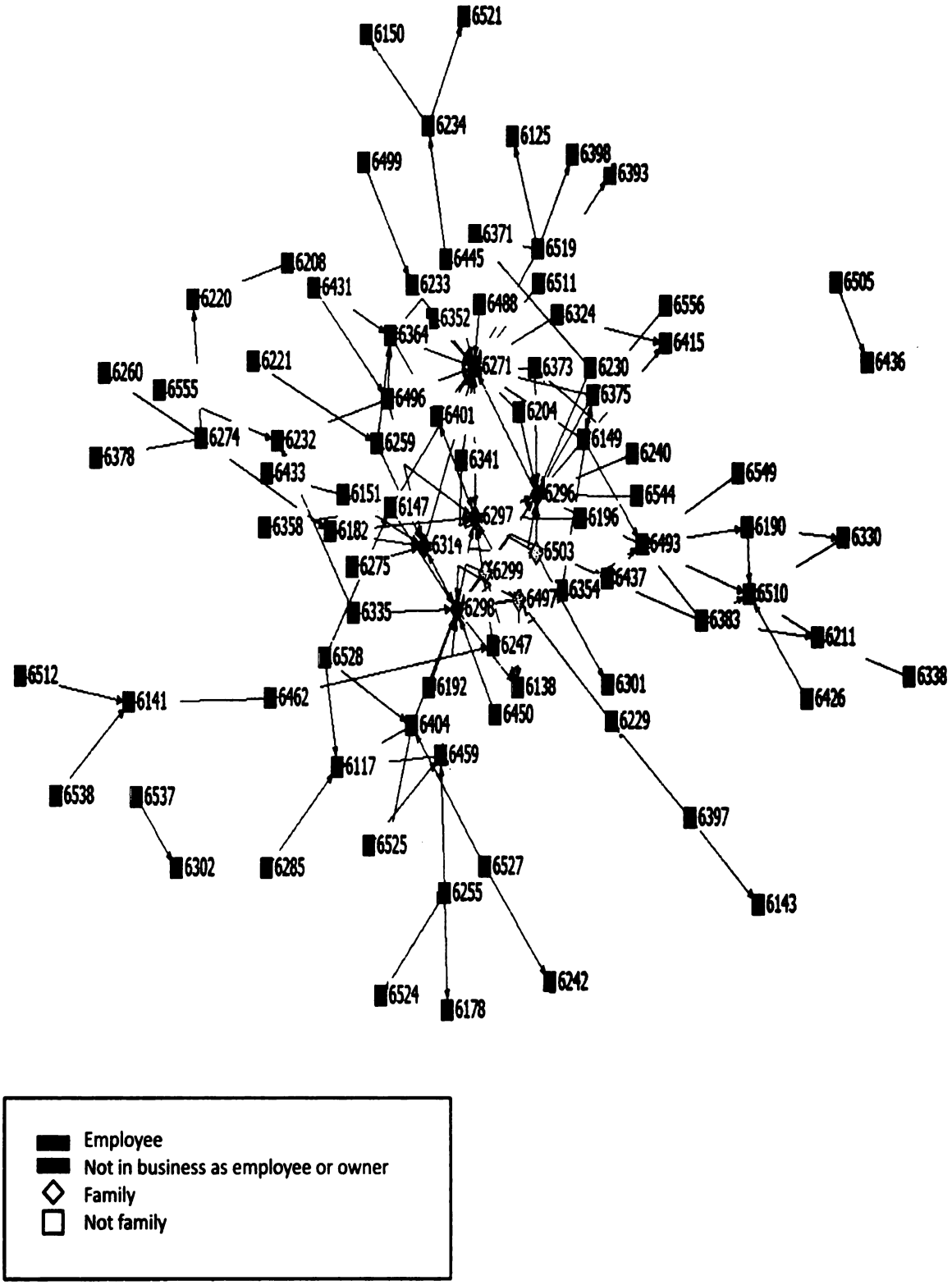


Figure 6.13: Company 7: Employee Communication

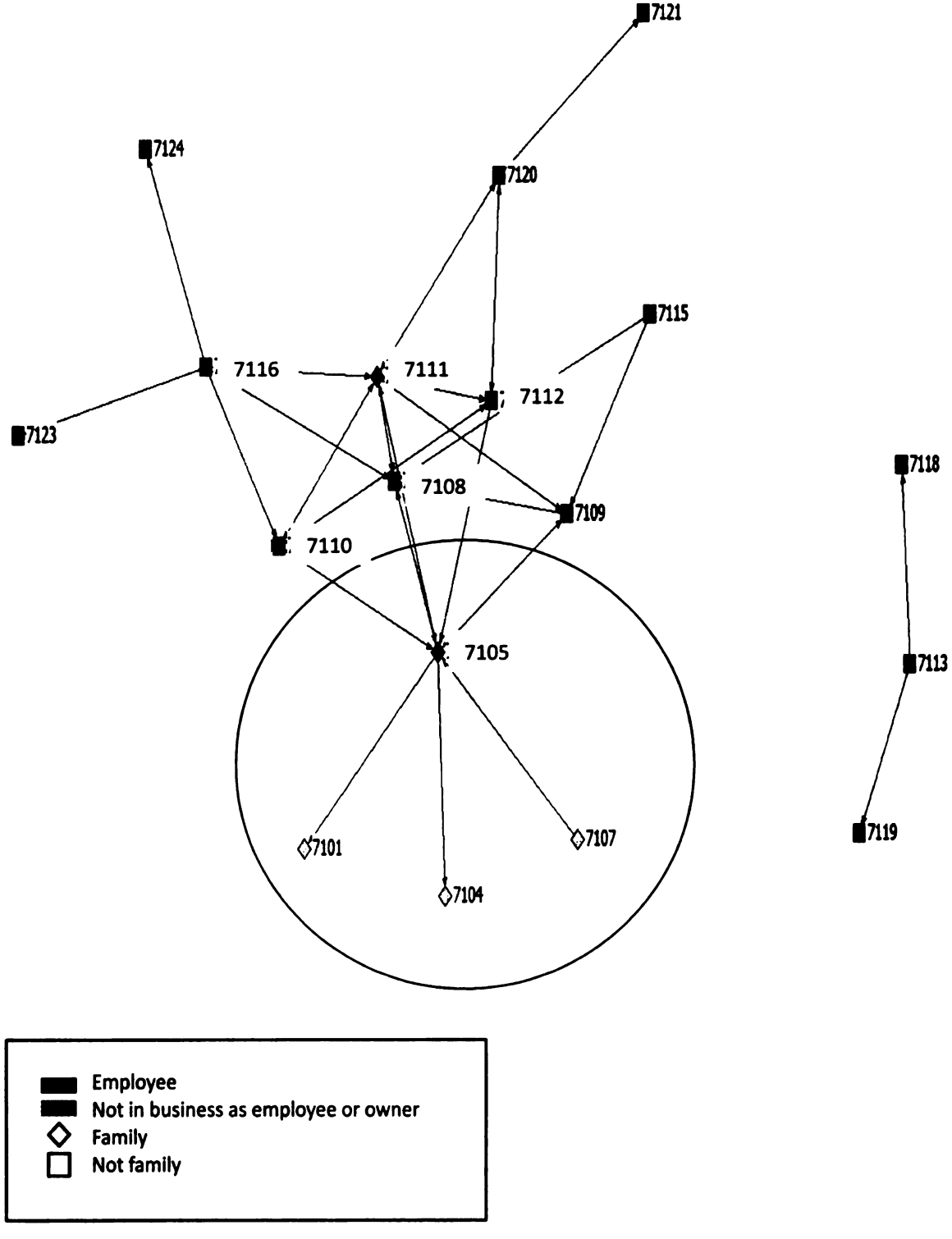


Figure 6.14: Company 7: Owner Communication

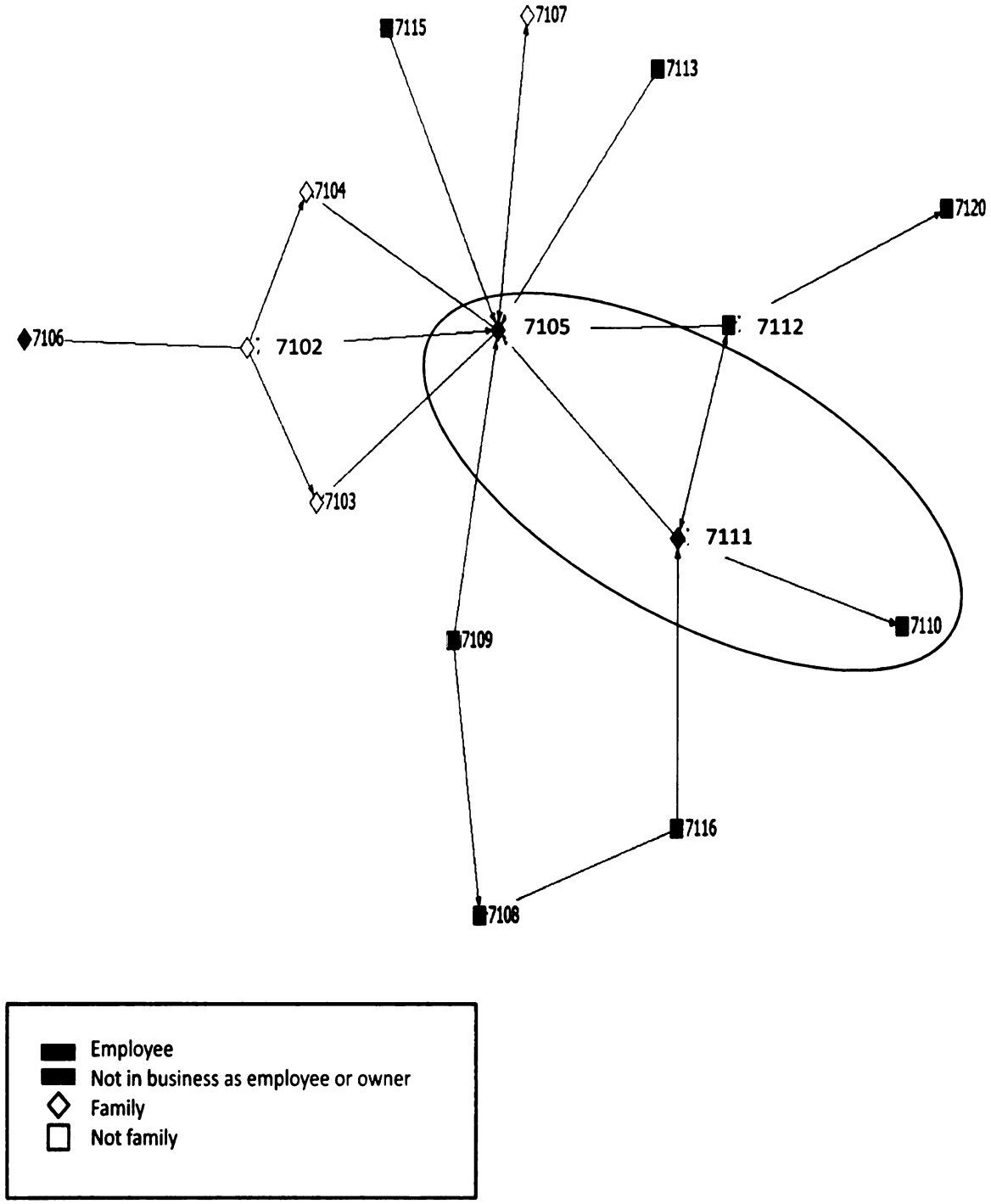


Figure 6.15: Company 8: Employee Communication

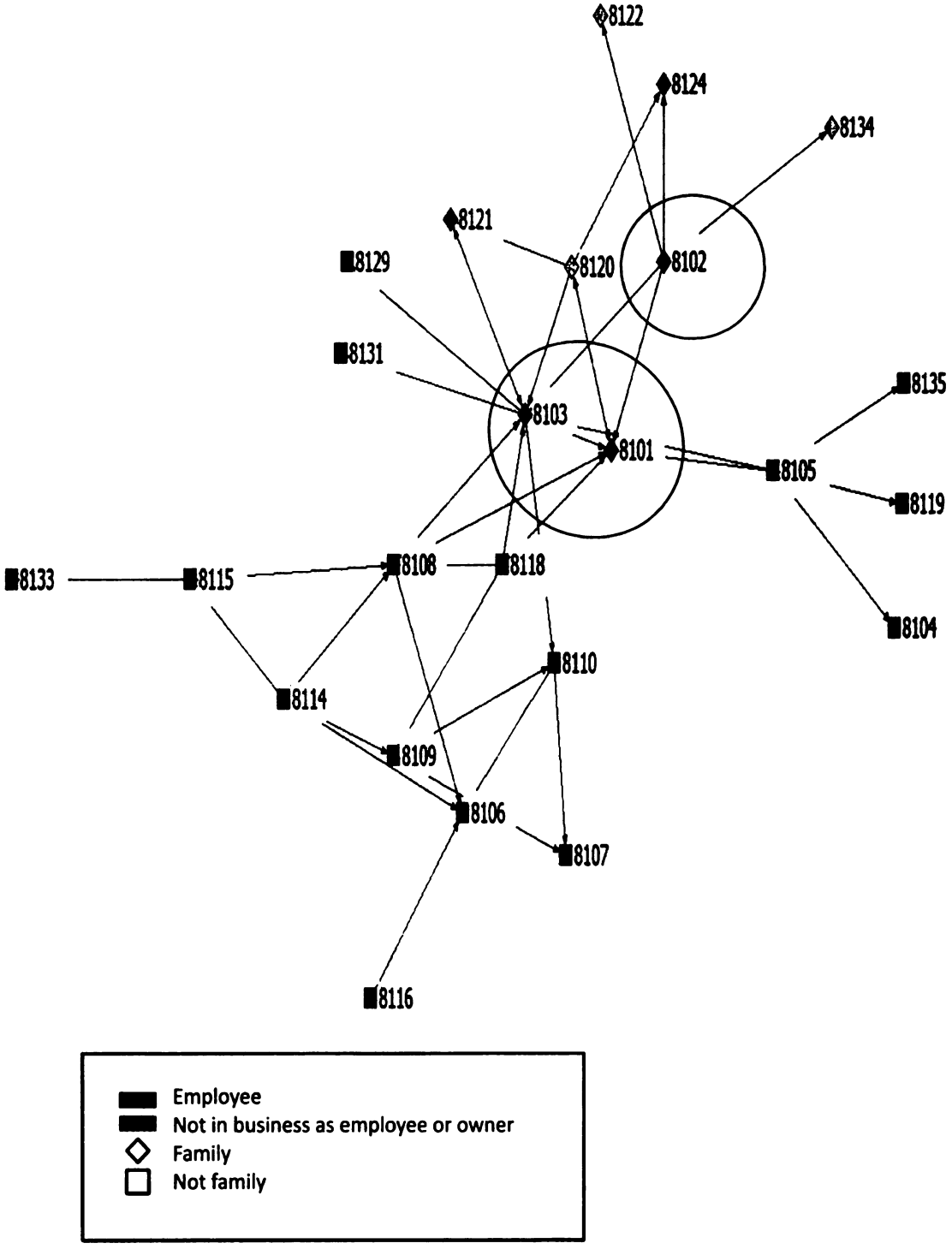


Figure 6.16: Company 8: Owner Communication

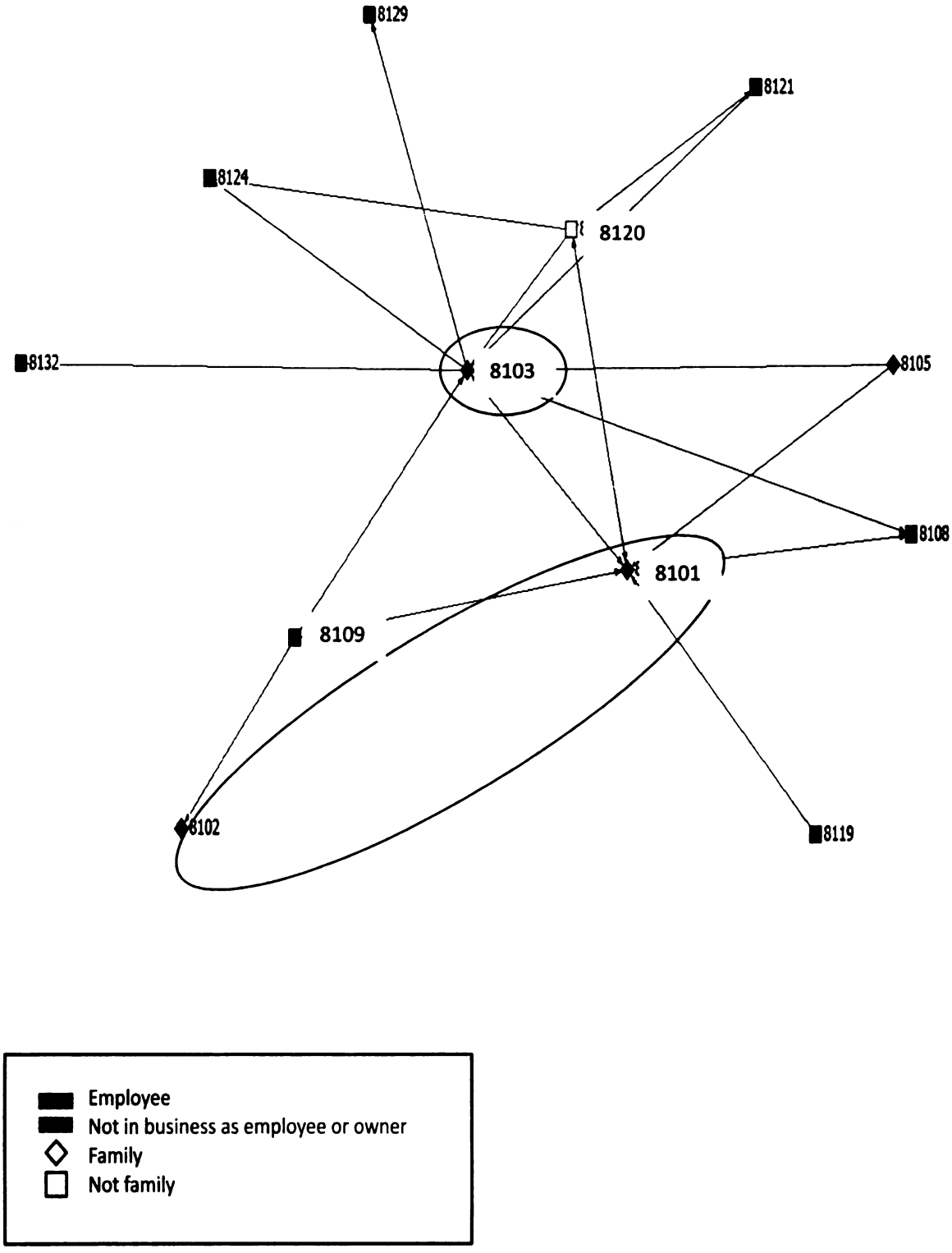


Figure 6.17: Company 9: Employee Communication

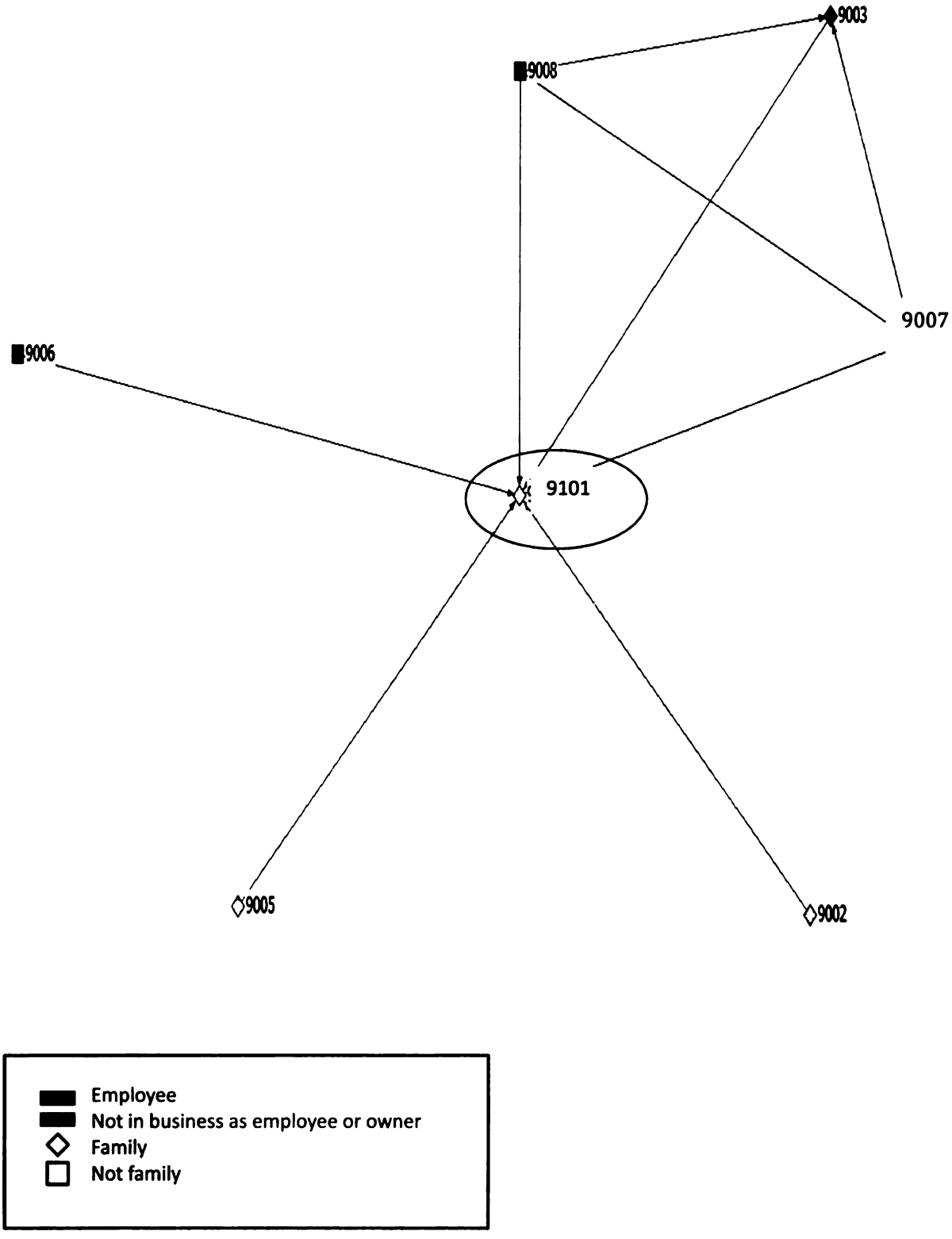


Figure 6.18: Company 9: Owner Communication

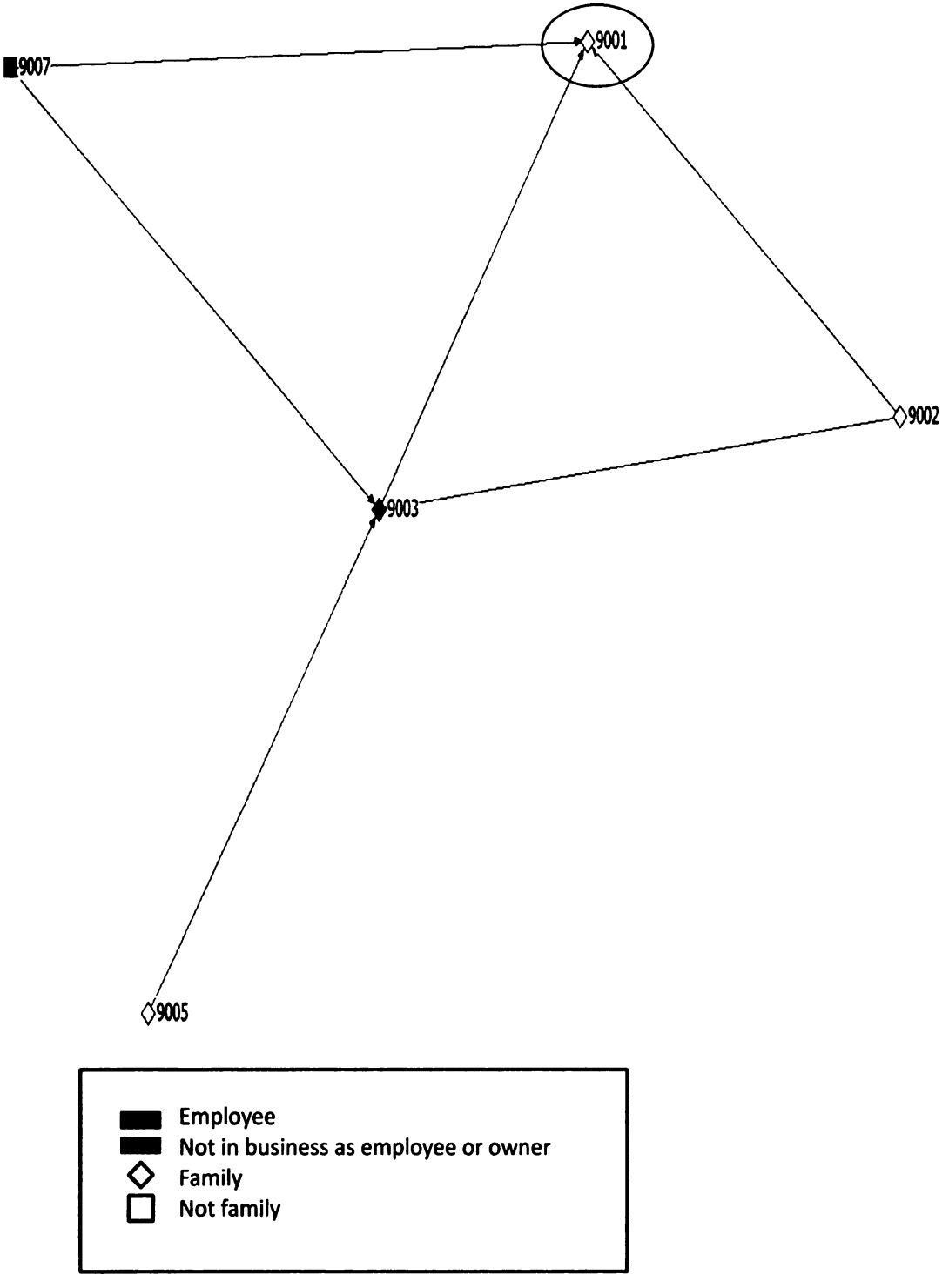


Figure 6.19: Company 10: Employee Communication

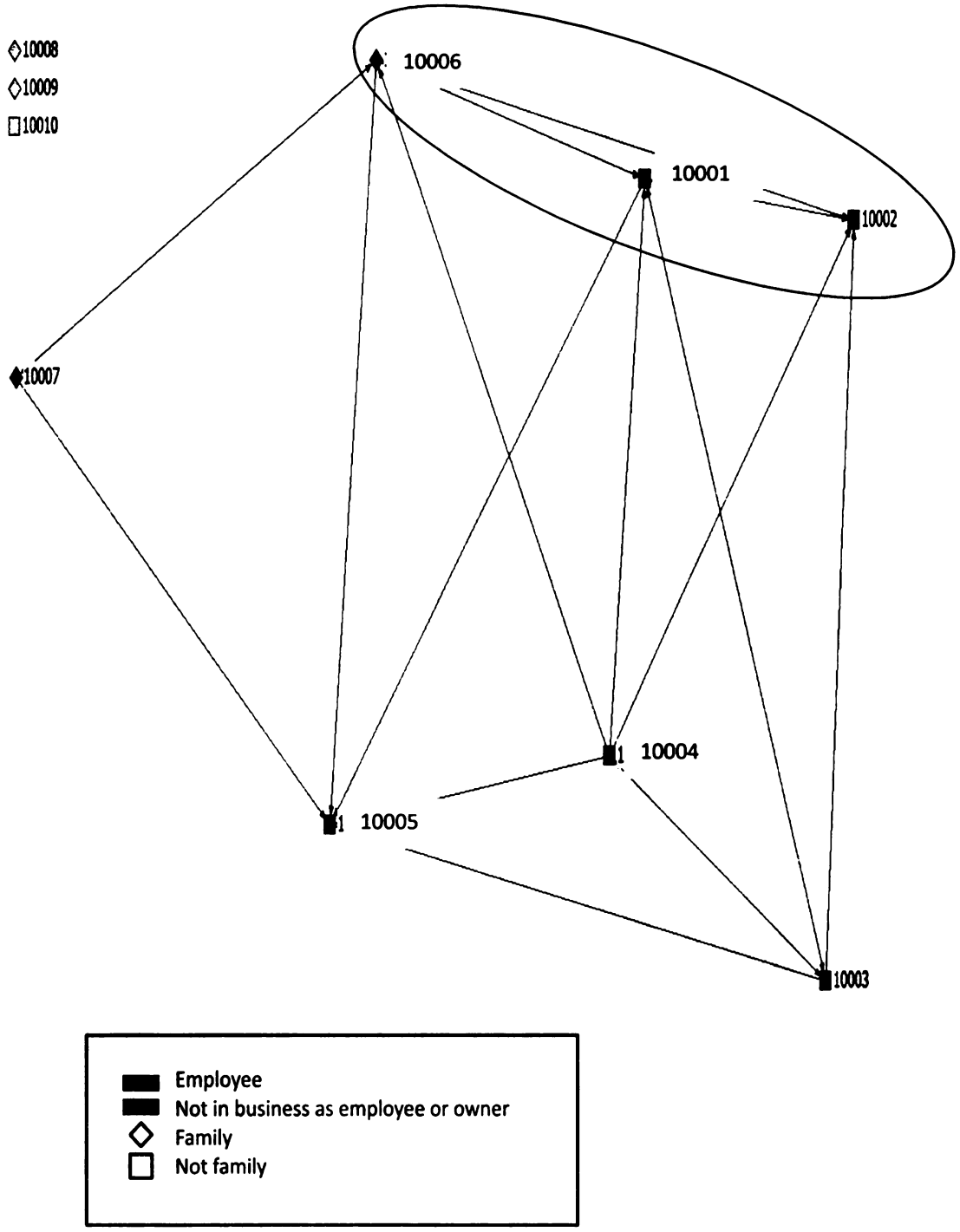


Figure 6.20: Company 10: Owner Communication

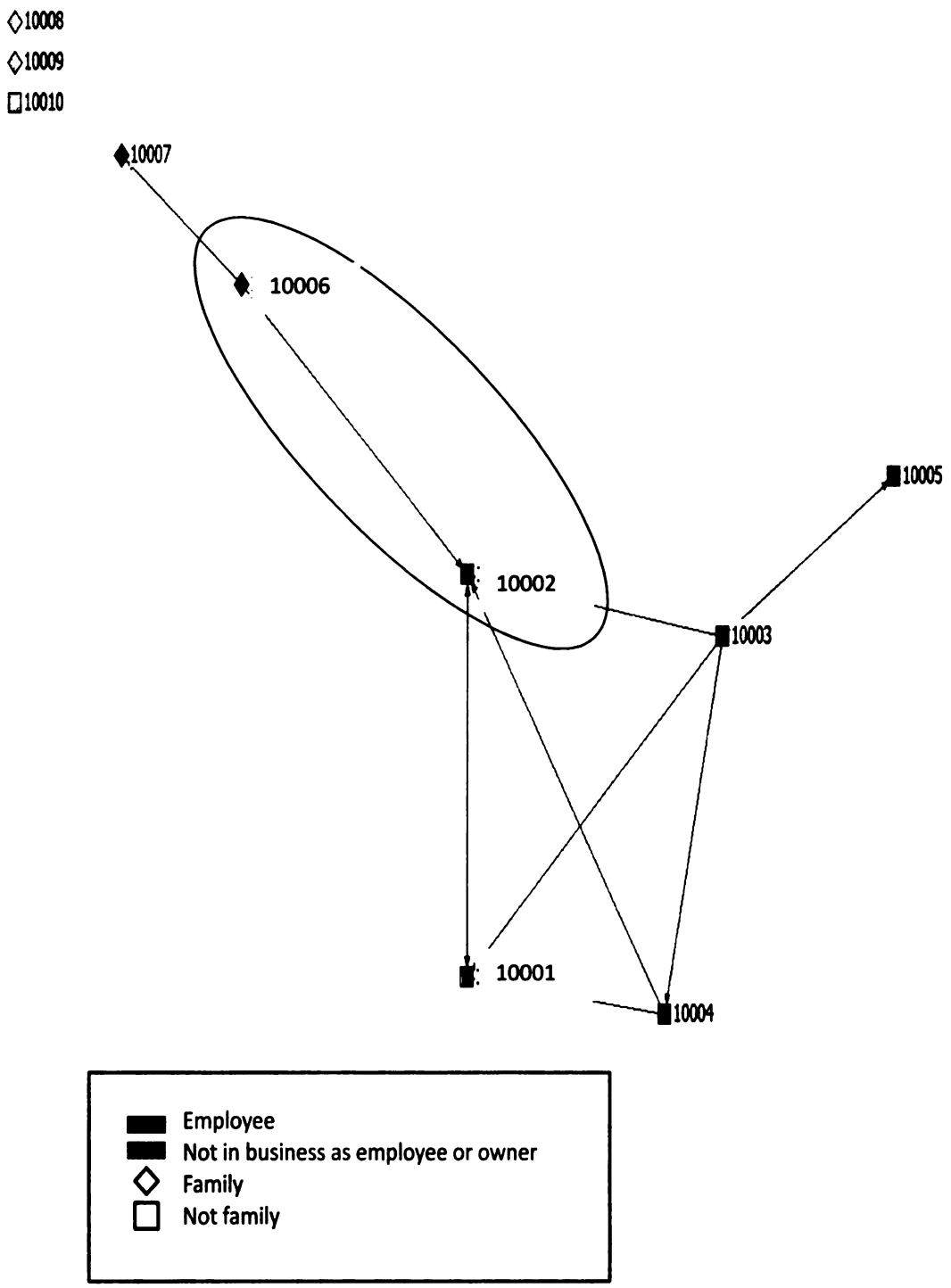


Figure 6.21: Company 11: Employee Communication

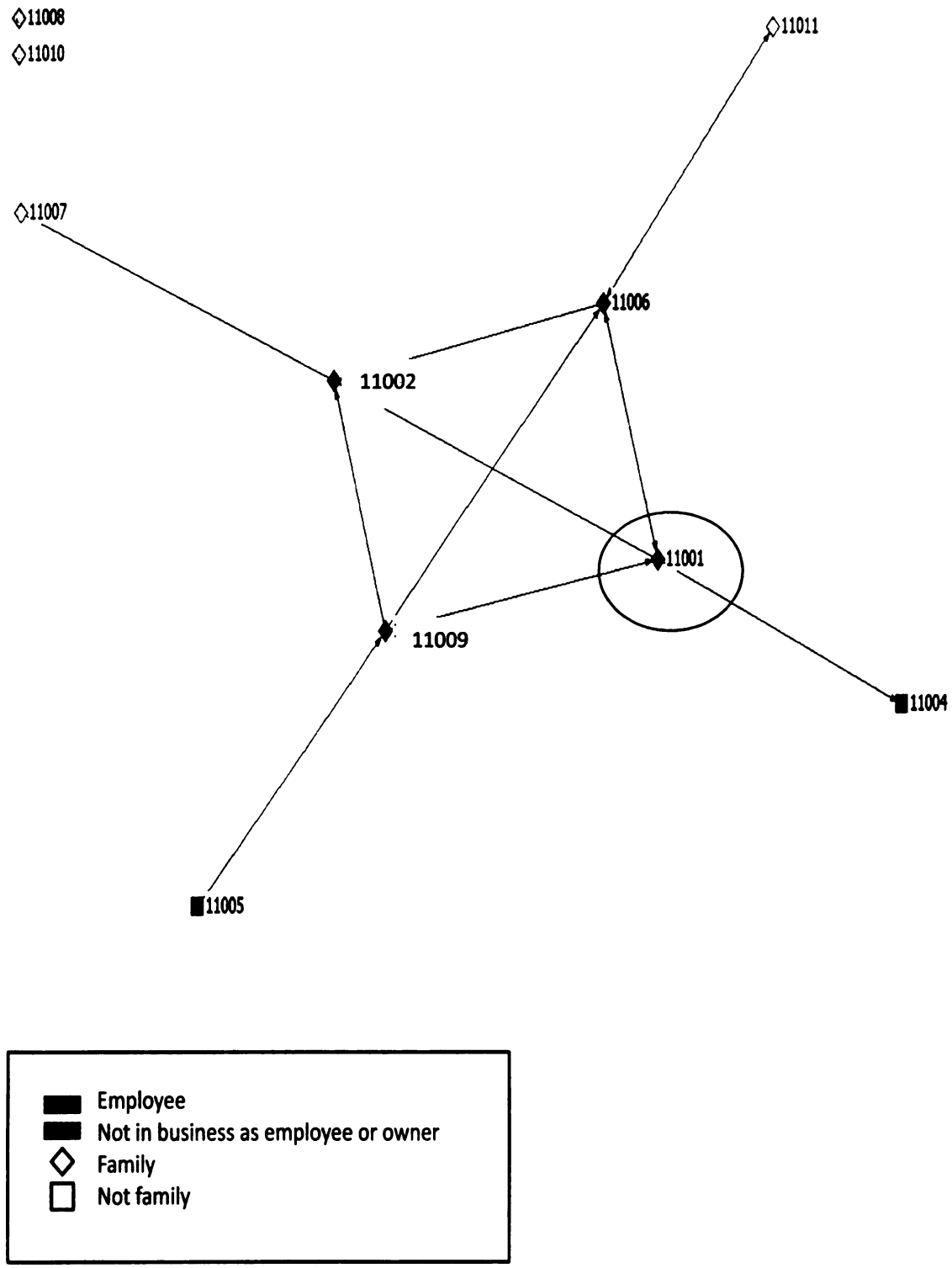
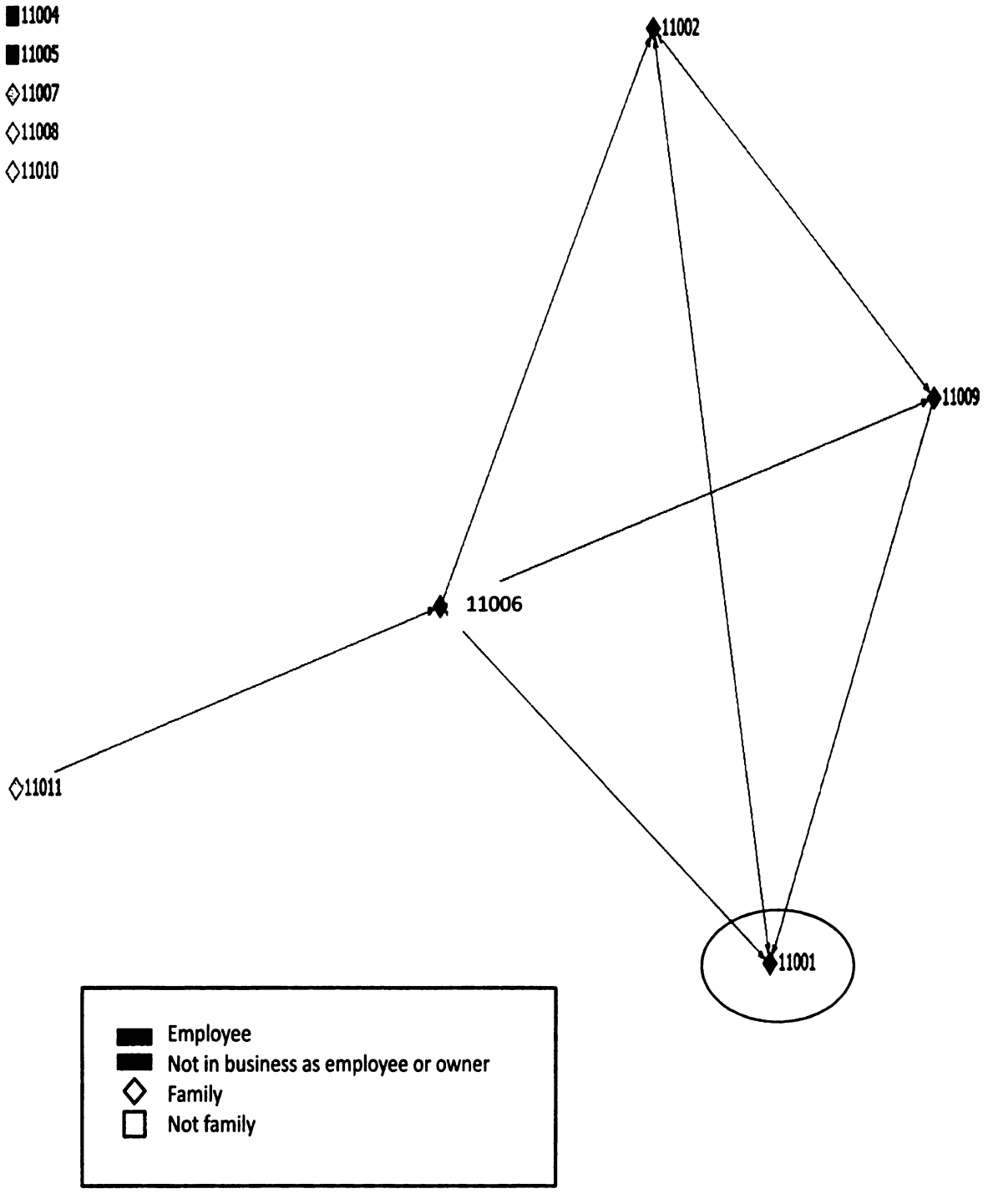


Figure 6.22: Company 11: Owner Communication



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