

The Effect of Work - Family Role Conflict on Business Startup Decision-Making Processes

John Leaptrott
Georgia Southern University

Abstract

Many important strategic decisions made by business owners in the early stages of operation are both commonly encountered and have important consequences. These decisions relate to the initial configuration of the business regarding the initial business scope and size and procurement of the resources necessary for that configuration. A logic-based decision-making process including information search and analysis can be very complex and time consuming. Small business owners frequently face conflicting demands for time and cognitive resources from their family and their developing business that adversely affect their ability to perform both roles effectively. One adverse effect is an impediment of their decision-making processes by both reducing the time and attention available to properly gather and analyze information for each major business or family decision and by increasing the number of major decisions to be made. This study assessed the effect of work family conflict on the information search behavior in a sample of female entrepreneurs that recently started childcare businesses and found evidence of a significant negative relationship between work-family conflict and the use of professional advisors as information sources when making important startup decisions.



Introduction

Many small business owners strive to perform concurrent demanding roles. One role frequently involves a shared or sole responsibility for managing a family. The other role involves successfully creating and managing a new venture. Both roles usually require substantial time and use of the owner's physical and mental resources. These roles can frequently result in conflicting demands for these personal resources. This reduction in available resources potentially impairs the performance of both roles. An impairment of the decision-making process related to an early stage small business could have serious, long-lasting adverse economic consequences. If this role conflict limits the information search activity, important startup decisions may be made quickly and intuitively rather than made after an appropriate amount of due diligence. Poor startup decisions that result in poor fit between the new venture and its environment may threaten the performance or even survival of the new venture (Venkatraman and Prescott 1990; Baum 1996).

A small business owner typically makes a series of very important decisions before, during and after starting a new business. These include strategic decisions such as what products and services to offer, how to promote them, and where to procure the resources that are needed to begin business operations. For example, a person starting a childcare business will likely have to make decisions about the number and ages of children the business will admit, hours of operation, business location, the number of employees that will be required, the manner the business will be promoted and the method of financing the startup of the business. Poor initial decision-making may require changing locations because of incorrectly estimating market demographics or competitive density, or may involve replacing furnishings or remodeling in order to care for a different age or number of children than originally planned. These examples underscore the importance of making correct initial decisions about the configuration of the prospective small business because of the severe financial impact that making significant revisions to major decisions often have on minimally capitalized small businesses.

Shelton (2006) proposes that while individuals differ in their ability to reduce the impact of this conflict such conflict is more likely to occur for a woman than a man because she typically has greater family management responsibilities. Prior research has supported the greater likelihood that women would face higher degrees of work-family conflict than men (Noor 2004). Studies have also found that such conflict does indeed negatively impact the performance of a small business (Williams 2004; Stoner, Hartman and Arora 1990). These studies suggest that this conflict imposes time pressures that reduce the available hours to manage the business, increases the business owner's dissatisfaction with their performance of these roles and negatively impacts their perception of the financial health of the business.

Because of the likelihood that women who own small businesses will frequently face this conflict, they constitute an appropriate group for testing effects of work-family conflict on their decision-making behavior. The present study assesses the effects that this conflict has on personal and professional information source usage in the decision-making processes related to important startup decisions for a sample of women who had recently started childcare businesses. Assessing the significance of the relationship between this conflict and the use of these sources is significant impact because many small business owners possess little relevant business experience and business education at startup and are

unable to make important startup decisions using logic-based reasoning without receiving input from these sources.

Literature review and hypotheses

Many recent descriptive decision-making models are based on two distinct systems of reasoning (Sloman 1996). Although the terminology used to describe these two systems varies, the characteristics of the two systems are described in a similar manner. Epstein (1994) described the two systems as experiential and rational; Sloman (2002) characterized them as associative and rule-based, Stanovich and West (2000) and Kahneman (2003) have labeled them as System 1 and System 2. The System 1 or the experiential system describes a fast, effortless, intuitive process that is subject to emotional influences and is utilized to make many decisions in a near simultaneous manner. The System 2 or the rational system describes a slow, effortful, rational process that results in decisions that are made sequentially rather than simultaneously. The underlying assumptions regarding the use of the two systems are that System 2 reasoning requires the use of appropriate information and analysis (Kahneman 2003) and that a greater use of System 2 or logic-based reasoning by the decision maker will result in better solutions to more complex problems than a greater use of intuitive reasoning (Stanovich and West 2002).

Work-family conflict

The decision-making research related to the dual processes of reasoning suggests that time pressure and concurrent involvement in multiple cognitive tasks inhibits the use of System 2 reasoning (Kahneman 2003). These two factors can inhibit the process of information search and other aspects of System 2 reasoning in a number of ways. Ordonez and Benson (1997) note decision makers often expedite the decision process under time pressures. Consequently, expediting the decision-making process can result in behavior that includes switching to simpler decision strategies, relying more heavily on negative information and reducing the input of information.

Gilbert (2002) provides evidence of the negative effect of concurrent cognitive involvement of decision-making behavior. He based his research on the premise that “conscious attention is a scant resource” (p. 169). As a result, concurrent involvement in multiple cognitive tasks reduces the ability of an individual to use information in decision-making. In addition to demonstrating the effect of concurrent cognitive activity on initial decision-making, he also offers evidence that effect may be even more significant on subsequent decisions necessary to correct prior erroneous ones. His research has shown information relevant to the correction of an initial categorization is often noticed but not used. He has found evidence that self-regulation by the individual involved in routine everyday tasks can create enough cognitive busyness to severely limit the amount of information used to correct initial categorizations. Thus, the business owner that experiences cognitive busyness from sources such as significant role conflict not only has more difficulty making initial logic-based initial decisions, but will also likely face greater impediments to correcting prior incorrect decisions.

Many prospective small business owners often lack financial resources that limit the scope of the new venture planning process, including information search activities. For example, dealing with normal startup matters related to starting a childcare venture such as

hiring suitable employees, preliminary marketing activities and childcare facility procurement and modification consume valuable time, attention and effort that would otherwise be available to engage in information search. These startup matters typically result in the prospective business owner being increasingly mentally engaged as the date for commencement of operation nears. Issues related to the members of her family also consume time available for information gathering. Providing care to elderly parents, infant children, or family members with special needs can drastically reduce time available for dealing with business startup issues. Domestic relations issues with spouses or domestic partners, maintenance of preexisting social relationships or even routine household maintenance activities also can require time, attention and effort that would otherwise be available to accomplish logic-based decision-making.

One can envision the limitations on elements of logic-based reasoning, such as information search, that might result when the prospective small business owner is subject to time pressures and is immersed in a multitude of activities related to the creation and early operation of a small business. Additional involvement in matters other than those pertaining to the business, such as those pertaining to her family, could also enhance a state of cognitive busyness or sense of time pressure that further limits the ability of the small business owner to engage in logic-based reasoning when making important early-stage business decisions.

Information search activity

The assessment of information search activity related to the assessment of environmental conditions in the strategic management of a business has been the subject of much research. One stream of research has assessed the frequency that information sources are utilized in the environment given various factors external to the organization such as environmental uncertainty (Daft, Sormunen, and Parks 1988; Sawyerr 1993; Elenkov 1994; May, Stewart, and Sweo 2000). Another stream has assessed the intensity of the search that the small business owner employed in that environmental assessment (Cooper, Folta, and Woo 1995). The strategic importance of information search stems from the need for organizations to achieve acceptable levels of fit with their environment in order to sustain satisfactory levels of organizational performance (Venkatraman and Prescott 1990).

The extent of information search activity can affect the quality of important startup decisions and can be provided by a multitude of information sources. Personal sources such as family and friends can provide some information relevant to business decisions, particularly with respect to information related to consumer perceptions of competitors and proposed product or service offerings. Professional sources can provide information about business planning, resource availability, business administration and the general business environment. The degree of information search can affect the quality of the decision-making process. For example, faced with the need to make a critical startup decision such as the minimum level of initial funding required by the new business, the owner may quickly and intuitively decide to start the business based on little or no information search activity. Without seeking relevant information from knowledgeable sources about how much funding would likely be required or what alternative sources are available, an owner would rely upon whatever funds are on hand or available through increasing personal consumer debt. Alternatively, the owner may use a more logic-based approach that includes the gathering of relevant information from knowledgeable sources, particularly sources such as Certified Public Accountants, attorneys and bankers. The owner can then independently, or with the aid

of these advisors, evaluate the information about funding requirements and potential funding sources that has been gathered using criteria such as funds availability, rates and terms and choose the optimum alternative.

In addition to deciding the required capitalization of the new childcare business, the owner makes many other decisions of major importance such as the scope of childcare that will be provided, the required staffing, initial promotional activities and the composition of her team of professional business advisors. The level of information search activity performed by the business owner before making each of these decisions is an important indicator that the owner is engaging in a logic-based decision-making process rather than making decisions quickly and intuitively.

The significance of the relationship between work-family conflict and the intensity and frequency of information search activity should therefore be assessed for both personal and professional sources of information.

Hypothesis 1. There is will be a significant negative relationship between work-family conflict and the entrepreneur's information search intensity using personal sources.

Hypothesis 2. There is will be a significant negative relationship between work-family conflict and the entrepreneur's information search intensity using professional sources.

Hypothesis 3. There is will be a significant negative relationship between work-family conflict and the entrepreneur's information search frequency using personal sources.

Hypothesis 4. There is will be a significant negative relationship between work-family conflict and the entrepreneur's information search frequency using professional sources.

Methods

This study sampled the population of daycare providers licensed in Florida during 2004 and 2005. A list of licensees was obtained from the supervising state agency. Potential respondents were called and only those agreeing to participate were sent a survey for completion. A total of 1,897 calls to business owners were attempted. Nine hundred forty two calls were unable to be completed because of disconnected phone service, wrong numbers or repetitive busy signals resulting in 955 calls completed. Two hundred ninety three potential respondents declined to participate, and fourteen identified their businesses as owned by a non-profit organization and therefore were excluded from the sample. Thus, six hundred forty eight childcare business owners were sent surveys.

A 28.9 percent response rate (187/648) was achieved. The instrument included an item allowing the respondent to report his or her gender. Several respondents chose not to report their gender. Because the focus of this study is information search by women, only the respondents reporting their gender as female were included in the analysis. Approximately one third of respondents chose not to report their gender resulting in 120-125 responses being used in the quantitative analysis. Approximately 45 percent of responding owners had no

employees, 41 percent had 1 to 4 employees with the balance having more than 4 employees. Approximately 62 percent of the businesses were 2 to 5 years old, 28 percent were more than five years old and 10 percent reported being less than two years old.

Work-family conflict

Gilbert (2002) notes conscious attention is a scant resource. He offers evidence to suggest that a state of cognitive busyness reduces the capacity of the individual to use information in drawing inferences. The creation of a new venture occurs over time and periods of cognitive busyness may appear and then ameliorate. Both temporary and long lasting factors impose time pressures and involve current cognitive involvement. For many women, their family and her business have the potential to be long lasting source of both time pressure and cognitive busyness during the initial startup and early operation periods. Therefore, measures of conflict between their family and their business are likely to be reflective of both these two impediments to logic-based reasoning.

The present study slightly modified the Netemeyer, Boles and McMurrian (1996) work-family conflict scale by substituting the term “this business” for the term “work” and the term “my family or my other business activities” for “family”. Rather than replicating the seven-point response scale used by Netemeyer et al., this study used five-point Likert scale items with “strongly agree” and “strongly disagree” anchor points. The five-point scale was used in order to achieve consistency with other items in the instrument. The scale seeks the respondent’s degree of agreement with statements such as “the demands of the new venture interfere with my family or other business activities”. The scale exhibited a unitary factor structure in the present study based on a minimum Eigenvalue of 1.0 and a Cronbach’s alpha of .85.

Netemeyer, et al. and others (for example Kelloway, Gottlieb, and Barnham 1999) have developed both work-family and family-work conflict scales. Noor (2004) reasoned that work into family conflict is likely to be much more significant than family into work conflict in a sample of women because the family role is usually more important than the business role. Therefore, work into family conflict would likely be more distressing, be the cause of more cognitive busyness, be more limiting to system 2 reasoning and therefore be more detrimental to organizational performance than family into work conflict. Consequently, to achieve parsimony the present study limits assessment of the relationship between conflict and information search to work-family conflict.

Information Search Intensity.

Information search intensity is the importance of an informational source to the owner in planning his or her business (Cooper et al. 1995). This study used a five point Likert scale based on the scale developed and also used by Cooper et al. (1995) as the criterion variable reflecting the degree of information search with “extremely important” and “not used” as anchor points. The scale seeks a response to the question, “how important is each information source?” for each of five sources used by Cooper et al. (1995): accountants & bookkeepers, friends or relatives, other business owners, bankers and lawyers or attorneys. The scale in the present study included the Internet as a sixth information source. The scale responses were assessed using factor analysis with Varimax rotation. Two factors with emerged. The first factor consisted of items reflecting importance of accountants, bankers and lawyers as

professional sources. The second factor, reflecting personal information sources, consisted of a single item reflecting the importance of friends and relatives. The items relating to other business owners and the Internet as information sources cross-loaded as items on both factors and were not included in further analysis related to either factor. Cooper et al. experienced a similar result with respect to the sources comprised of accountants, bankers and lawyers loading on the factor representing professional information sources. This professional information source scale achieved a Cronbach's alpha of .81 in the present study and exhibited a unitary factor structure at a minimum factor Eigenvalue of 1.

Information Search Frequency.

Information search frequency is the number of times useful information about the environment is received from each information source. This study measured information search frequency for the personal source consisting of friends and relatives and professional sources consisting of accountants, bankers and lawyers using the same categorization as the information search intensity scale. This study used a five point scale modified from the scale used by Daft et al. (1988) with "less than once a year", "a few times a year", "monthly", "weekly" and "daily" as possible responses to "...how often do you receive information that is helpful to your business from each information source?" The three-item professional source scale only achieved a Cronbach's alpha of .64. This result, falling short of the recommended .70 minimums for exploratory research (Nunnally 1978), was also below the range of scale reliabilities reported by Sawyerr (1993), May et al. (2000). Daft (1988) and Elenkov (1997) did not specifically report reliability information for the scanning frequency scales. As this was not the sole measure of information search activity, the scale was retained to provide a comparison with the information search intensity measure.

Control variables

The present study replicated the use of control variables by Cooper et al. (1995) which included the amount of initial capitalization, the percentage of the business owned by the owner and her family and the number of co owners. They predicted that the amount of information search activity would be positively related to the degree other parties such as other investors, lenders or partners would be involved and would require justifications for requests for funding. Even though the size of new childcare ventures would normally require modest amounts of outside funding, these control variables were utilized in testing the hypotheses in the present study. This study measured initial capitalization with a one-item, eight choice scale with values for the amount of capital invested by the time of the first sale ranging from "under \$5,000" to "\$500,000 and over". The percentage of the business owned by the owner and her family was measured with a one-item, five choice scale with responses ranging from under 25% to 100% and number of business partners with a one-item six choice scale ranging from no partners to five or more.

Additional control variables were included to assess individual characteristics of the respondents that could affect their likelihood of utilizing personal and professional sources in the decision-making process. The age of the business owner represents more personal experience with business ownership directly or through the observation of the behavior of other business owners and could, therefore, decrease the perceived value of professional advice to provide information which they may have already acquired. Respondent age was

measured with a one-item eight choice scale with under 25 and 56 and over as anchors. The degree that an owner employs logic-based reasoning in making decisions related to her business would likely be influenced by the degree of exposure to a formal study of business administration. This exposure has the potential to introduce the individual to a normative business formation and management model that involves understanding the risks of business ownership, the benefits of the preparation of a business plan, the necessity of establishing adequate accounting systems and controls and the desirability of achieving a satisfactory fit with the environment. To assess the effect of that exposure on information search behavior a single-item five choice scales was used to measure the number of college level business administration classes completed. The anchors for this scale were “none” and “four or more”.

Results

Correlations, means and standard deviations for all variables are presented in Table 1.

TABLE 1
Correlations, Means and Standard Deviations

	Variable	Mean	S.D.	1	2	3	4	5	6	7	8	9
1	Initial capitalization	1.83	1.56									
2	Percentage owned by the immediate family	1.11	.52	.29**								
3	Number of co owners	1.06	.28	.11	.33**							
4	Age	4.74	1.99	.17	.14	.11						
5	No. of College Business Courses	2.56	1.70	.10	-.15	-.11	.09					
6	Work – family conflict	2.95	1.19	-.18	.01	.06	.09	.04				
7	Information search intensity – Personal sources	3.50	.87	.14	.06	.10	-.12	.01	-.07			
8	Information search intensity – Professional sources	3.10	1.16	.38**	.06	.05	.10	.19*	-.33**	.36**		
9	Information search frequency – Personal sources	3.44	1.13	.15	.03	.03	-.22*	-.01	-.05	.52**	.17	
10	Information search frequency – Professional sources	1.83	.73	.33**	.08	.01	.11	.10	-.26**	.07	.56**	.27**

* $p < .05$ level (2-tailed); ** $p < .01$ level (2-tailed) N=109

The level of significance of the predictor variable measured after entering the control variables into hierarchical multiple regressions were used to test the hypotheses. The results of these regressions are presented in Table 2.

TABLE 2
Results of Hierarchical Regression Analyses

Criterion: Information Search Intensity-Personal Sources

Predictor: Work-Family Conflict

<u>Variable</u>	<u>B</u>	<u>SE B</u>	<u>β</u>
Step 1			
Constant	3.29	.40	
Initial Capitalization	.06	.06	.12
Percent owned	.03	.18	.02
Number of co owners	.29	.32	.09
Age	-.06	.04	-.14
No. of Business Classes	.02	.05	.03
ΔR^2	.04		
Step 2			
Constant	3.46	.44	
Initial Capitalization	.06	.06	.10
Percent owned	.04	.18	.02
Number of co owners	.31	.32	.10
Age	-.06	.04	-.13
No. of Business Classes	.02	.05	.04
Work-Family Conflict	-.07	.07	-.10
ΔR^2	.01		
Overall R^2	.05		
Adjusted R^2	.01		
Model F	.92		
N	116		

* $p < .05$ ** $p < .0$

TABLE 2 (continued)
Results of Hierarchical Regression Analyses

Criterion: Information Search Intensity-Professional Sources
Predictor: Work-Family Conflict

Variable	B	SE B	β
Step 1			
Constant	2.23	.51	
Initial Capitalization	.26	.07	.34**
Percent owned	-.10	.23	-.05
Number of co owners	.04	.40	.02
Age	.04	.05	.07
No. of Business Classes	.11	.06	.15
ΔR^2	.15		
Step 2			
Constant	2.94	.52	
Initial Capitalization	.22	.07	.28**
Percent owned	-.07	.22	-.03
Number of co owners	.20	.38	.05
Age	.05	.05	.09
No. of Business Classes	.12	.06	.17*
Work-Family Conflict	-.30	.08	-.31**
ΔR^2	.09		
Overall R^2	.24		
Adjusted R^2	.20		
Model F	5.83**		
N	117		

* $p < .05$ ** $p < .01$

TABLE 2 (continued)
Results of Hierarchical Regression Analyses

Criterion: Information Search Frequency-Personal Sources

Predictor: Work-Family Conflict

Variable	B	SE B	β
Step 1			
Constant	3.72	.51	
Initial Capitalization	.12	.07	.17
Percent owned	.00	.23	.02
Number of co owners	.15	.41	.04
Age	-.14	.05	-.25*
No. of Business Classes	.00	.06	.00
ΔR^2	.08		
Step 2			
Constant	3.80	.56	
Initial Capitalization	.12	.07	.16
Percent owned	.01	.23	.00
Number of co owners	.16	.41	.04
Age	-.14	.06	-.25
No. of Business Classes	.00	.06	.00
Work-Family Conflict	-.03	.09	-.04
ΔR^2	-		
Overall R^2	.08		
Adjusted R^2	.03		
Model F	.73		
N	112		

* $p < .05$ ** $p < .01$

TABLE 2 (continued)
Results of Hierarchical Regression Analyses

Criterion: Information Search Frequency-Professional Sources
Predictor: Work-Family Conflict

Variable	B	SE B	β
Step 1			
Constant	1.43	.33	
Initial Capitalization	.14	.05	.29**
Percent owned	.01	.15	.01
Number of co owners	-.06	.26	-.02
Age	.02	.03	.06
No. of Business Classes	.04	.04	.09
ΔR^2	.11		
Step 2			
Constant	1.75	.35	
Initial Capitalization	.12	.05	.25**
Percent owned	.02	.15	.02
Number of co owners	-.02	.26	-.01
Age	.03	.03	.08
No. of Business Classes	.05	.04	.10
Work-Family Conflict	-.14	.06	-.23*
ΔR^2	.05		
Overall R^2	.16		
Adjusted R^2	.11		
Model F	3.32**		
N	114		

* $p < .05$ ** $p < .01$

The only control variable that was significantly correlated to the criterion variables reflecting the importance of friends and relatives as information sources was the negative relationship between age and information search frequency. However, the amount of initial capitalization was significantly related to both the information search intensity and information search frequency criterion variables with respect to use of professional sources. In addition, the number of college classes in business administration that were completed was significantly related to information search intensity for professional sources. The regression assessing the effect of the work-family conflict predictor variable for professional sources search intensity reported significance of the initial capitalization variable ($\beta = .28$; $p < .01$) and the completed business class variable ($\beta = .17$; $p < .05$). The regression assessing the effect of the work-family conflict predictor variable for professional sources search frequency reported significance of the initial capitalization variable ($\beta = .25$; $p < .01$).

Hypothesis 1 predicted a significant negative relationship between work-family conflict and the entrepreneur's information search intensity related to personal sources of information. This study provided no support for that hypothesis. The regression reported a negative term for the work-family conflict predictor variable as hypothesized, but not a significant level.

Hypothesis 2 predicted a significant negative relationship between work-family conflict and information search intensity related to professional sources of information. The regression resulted in a significant negative relationship between the conflict-related predictor and information search intensity ($\beta = -.31$; $p < .01$) providing support for the hypothesis.

Hypothesis 3 predicted a significant negative relationship between work-family conflict and the entrepreneur's information search frequency related to personal sources of information. The hypothesis was not supported. The regression reported a negative term for the work-family conflict predictor variable as expected, but failed to achieve significance.

Hypothesis 4 predicted a significant negative relationship between work-family conflict and information search frequency related to professional sources of information. The regression did result in a significant negative relationship between the conflict-related predictor and information search frequency ($\beta = -.23$; $p < .05$) providing evidence to support the hypothesis.

Thus, the hypothesized negative relationship between information search activities and work-family conflict was supported in the case of utilizing professional sources and not supported in the case of utilizing personal information sources using two different criterion variable measures of information search. The effects of common method variance in the present study were assessed using Harman's one factor test (Podsakoff and Organ, 1986). The factor structure for all variables presented in the hierarchical regression resulted in 3 factors with an Eigenvalue greater than 1. The factor with the highest Eigenvalue accounted for approximately 26% of the variance. These results suggest that common method variance did not adversely affect the validity of the hypothesis testing.

Discussion

The purpose of this study was to assess the extent that an often persistent source of cognitive busyness has on a common and important decision-making process. Specifically, the relationship between work-family conflict and information search behavior related to strategic planning for a new business was examined. This study tested hypotheses predicting this conflict would have detrimental effects of this conflict on information search activity by limiting the use of both personal and professional information sources. These hypotheses were based on a theoretic framework of decision-making that describes reasoning as the result of one of two possible distinct processes; one that is intuitive and the other that is logic-based (Epstein, 1994; Sloman, 2002; Stanovich and West, 2000; Kahneman, 2003). Primarily experimental research stemming from this framework suggested that time pressure and concurrent cognitive activity were two of several predictors of a predominant of use intuitive reasoning processes rather than reasoning processes that are more logic-based. Since both time pressure and concurrent cognitive activity are likely results of work-family conflict, this conflict could reasonably be expected to impair logic-based reasoning in the processes of making important decisions related to the initial operations of a new business.

A person starting a new business will need to decide the scope of products or services to be offered, the geographic boundaries of the new venture's market and the location or locations of operations to serve it. Decisions will also have to be made about initial resource requirements of the new venture and the manner in which these resources will be obtained. The decisions may

be described in a business plan prepared in contemplation of starting a new business or may simply be made on an ad hoc basis as the opening date of the business approaches. Novice business owners that lack industry experience, business education or familiarity with the business trade area will almost certainly need input from several knowledgeable sources to make these decisions using a logic-based process. The extent a logic-based decision-making process is followed by the owner will improve the chances to achieve an acceptable fit between the business and its environment to achieve a higher level of performance and improve chances for survival during the initial periods of operation (Venkatraman and Prescott 1990; Forte, Hoffman, Lamont and Brockmann 2000).

Two patterns of information search behavior emerged from the analysis of data in this study. First, the amount of conflict between the business owner's role with respect to the new business and her family did not affect the information search activity with respect to family and friends as information sources. One possible explanation is that these sources serve more as a source of emotional support than a source of information relevant to the operations of the new business. Another possible explanation is that the patterns of communication between the entrepreneur and her friends and family are typically established long before the new venture creation process began and have often involved providing periodic assistance in maintaining a household (Miller, Fitzgerald, Winter, and Paul 1999).

A much more disturbing pattern is the significant negative relationship between the degree of conflict and the use of professional sources of business information such as certified public accountants, attorneys and bankers. These sources often provide knowledge and experience desperately needed, but seldom possessed, by many small businesses owners. Their professional input may be particularly helpful in evaluating the process the owner is following to make major startup decisions that set the initial parameters of the new business. Their professional expertise would aid in identifying what decisions likely to be the most important to organizational performance and what information is relevant to those decisions. In addition, they can provide guidance on evaluating that information, suggest alternative courses of action and criteria to choose between these alternatives. In addition, they can suggest ways to implement the decisions. Finally, they can help design proper controls and suggest ways to monitor the effectiveness of these decisions so they can be revised if necessary. Inexperienced business owners that lack a recent formal business education may be unfamiliar with analytic procedures such as cost accounting, budgeting, cash flow analysis, break-even analysis, or return on investment analysis that are familiar to these professionals. These owners would be unlikely to use these tools in decision-making if they were unfamiliar with them.

Because of the important role these professional advisors have during the initial period of operation, any factors such as role conflicts between the family and business that impede the less experienced and business educated small business owner's utilization of these sources are significant threats to organizational performance and survival. These professionals can also help the more experienced and business educated decision maker resist the temptations to make hasty, intuitive decisions by simply getting involved in the decision process. The mere act of describing the decision process to one of these professionals may allow one or both parties to note important elements of process that may have been overlooked or review important prior decisions that may have been inappropriate.

The negative impact of the role conflict that results in reduced interaction with professional advisors and their potential contribution to logic-based decision-making is compounded by the effect this conflict has on the owner's ability to perform the due diligence herself. The conflicts that reduce the likelihood the business owner will avail herself of the

professional expertise of advisors will also reduce the likelihood that she could develop an adequate base of knowledge necessary to make logic-based decisions independent of those advisors. Thus, a greater degree of this conflict suggests that there will a greater likelihood that these decisions will be made intuitively. As a result, the owner may choose the first alternative course of action that becomes apparent or may simply mimic the business of a competitor without consideration of potentially significant, but often subtle, differences between the fit of their business with its task or general environments and the fit of an established competitor.

Time pressure and cognitive busyness stemming from role conflicts may be an unavoidable consequence of those who start new businesses. However, interventions that stress the importance of seeking advice from professional advisors would likely increase their use the process of making important decisions. Research findings that identify ways to increase the quantity and quality of interaction with these professionals would be especially helpful. Many small business owners have extremely limited funds, time, relevant experience and prior formal business education. Therefore, this research should also focus on prioritizing the knowledge they would find useful and assessing how the professional advisor could best communicate this information, given the often-limited educational background and experience level of these owners. Making better startup decisions should result in increased performance and survival of these important new businesses benefiting not only their owners but their families and communities as well.

Limitations and implications for future research

Collecting cognitively based data from small business owners often requires the use of self-report measures and reliance on the recollection of past behaviors or attitudes. Busy business owners are often reluctant to participate in survey-based data collection efforts (Newby, Watson, and Woodliff 2003; Markman, Balkin, and Baron 2002). Consequently, the length and related scope of survey instruments is limited as is the ability to assess the relationship of large numbers of variables and these limitations often preclude the desirable use of multiple measures of a single construct.

The lack of field research relating to dual systems of reasoning theories of decision-making raises the issue of content validity for measures that purport to be reflective of the extent individuals used System 1 or System 2 reasoning in decision-making. The information search intensity measure (Cooper et al. 1995) and information scanning frequency measure (Daft 1988) used in this study were intended be consistent with elements of purposeful information search that distinguish between definitions of System 1 and System 2 decision-making. The role conflict measure (Netemeyer et al. 1996) was intended to encompass time pressure and involvement in concurrent cognitive activity both of which were identified by Kahneman (2003) as predicting intuitive reasoning. The reliabilities of these established measures were satisfactory. However, further refinement of assessment methodology is likely as additional field studies examine the dual processes of reasoning theory.

While limiting this study to a single industry reduces industry effects, it also reduces the generalizability of the results. The childcare industry participants are often very small businesses with owners that possess limited business related experience and education. Similar studies of participants in other industries will further assess the extent work-family role conflict affects business decision-making behavior. Work-family conflict is not a condition unique to women. Further research may provide an understanding of how these role conflicts differentially affect both genders in various small business decision-making settings.

References

- Baum, J. A. C. (1996). Organizational ecology. In S. R. Klegg, C. Hardy, and W. R. Nord (Eds.), *Handbook of Organizational Studies* (pp.77-114). London: Sage Publications Ltd.
- Cooper, A. C., T. B. Folta and C. Woo (1995). Entrepreneurial information search. *Journal of Business Venturing*, 10, 107-120.
- Daft, R. L., J. Sormunen, and D. Parks (1988). Chief executive scanning, environmental characteristics and company performance: An empirical study. *Strategic Management Journal*, 9, 123-139.
- Elenkov, D. S. (1997). Strategic uncertainty and environmental scanning: The case for institutional influences on scanning behavior. *Strategic Management Journal*, 18(4), 287-302.
- Epstein, S. (1994). Integration of the cognitive and psychodynamic unconscious. *American Psychologist*, 49, 709-724.
- Forte, M., J. J. Hoffman, B. T. Lamont, and E. N. Brockmann (2000). Organizational form and environment: An analysis of between-form and within-form responses to environmental change. *Strategic Management Journal*, 21, 753-773.
- Gilbert, D. T. (2002). Inferential correction. In T. Gilovich, D. Griffin, and D. Kahneman (Eds.) *Heuristics & biases* (pp.167-184). New York: Cambridge University Press.
- Gundry, L. K., and H. P. Welsch (1994). Differences in familial influence among women-owned businesses. *Family Business Review*, 7(3), 273-286.
- Kahneman, D. (2003). A perspective on judgment and choice: Mapping bounded rationality. *American Psychologist*, 58, 697-720.
- Kelloway E. K., B. H. Gottlieb, & L. Barham (1999). The source, nature and direction of work and family conflict: A longitudinal investigation. *Journal of Occupational Health Psychology*, 4, 337-346.
- Markman, G. D., D. B. Balkin, and R. A. Baron (2002). Inventors and new venture formation: The effects of general self-efficacy and regretful thinking. *Entrepreneurship Theory and Practice*, 27, 149-165.
- May, R. C., W. H. Stewart, Jr., and R. Sweo (2000). Environmental scanning behavior in a transitional economy: Evidence from Russia. *Academy of Management Journal*, 43(3), 403-427.
- Miller, N. J., M. A. Fitzgerald, M. Winter, and J. Paul (1999). Exploring the overlap of family and business demands: Household and family business managers' adjustment strategies. *Family Business Review*, 12, 253-268.
- Netemeyer, R. G., J. S. Boles, and R. McMurrian (1996). Development and validation of work-family conflict and family-work conflict scales. *Journal of Applied Psychology*, 81(4), 400-410.
- Newby, R., J. Watson, and D. Woodliff, (2003). SME survey methodology: Response rates, data quality, and cost effectiveness. *Entrepreneurship Theory and Practice*, 28, 163-172.
- Noor, N. M. (2004). Work-family conflict, work and family role salience, and women's well being. *The Journal of Social Psychology*, 144, 389-405.
- Nunnally, J. C. (1978). *Psychometric Theory*. New York: McGraw-Hill Book Company.
- Ordóñez, L., and L. Benson, III (1997). Decisions under time pressure: How time constraints affects risky decision making. *Organizational Behavior and Human Decision Processes*, 71, 121-140.

- Podsakoff, P. M., and D. W. Organ, (1986). Self-reports in organizational research: Problems and prospects. *Journal of Management*, 12, 531-544.
- Sawyer, O. O. (1993). Environmental uncertainty and environmental scanning activities of Nigerian manufacturing executives: A comparative analysis. *Strategic Management Journal*, 14, 287-299.
- Shelton, L. M. (2006). Female entrepreneurs, work-family conflict, and venture performance: New insights into the work-family interface. *Journal of Small Business Management*, 44(2), 285-297.
- Slovic, S. A. (1996). The empirical case for two systems of reasoning. *Psychological Bulletin*, 119, 3-22.
- Slovic, S. A. (2002). Two systems of reasoning. In T. Gilovich, D. Griffin and D. Kahneman (Eds.) *Heuristics and biases: The psychology of intuitive judgment* (pp.379-396). Cambridge: Cambridge University Press.
- Stanovich, K. E., and R. F. West, (2000). Individual differences in reasoning: Implications for the rationality debate. *Behavior and Brain Sciences*, 23, 645-665.
- Stanovich, K. E., and R. F. West, (2002). Individual differences in reasoning: Implications for the rationality debate. In T. Gilovich, D. Griffin, and D. Kahneman (Eds.) *Heuristics and biases* (pp. 421-440). New York: Cambridge University Press..
- Stoner, C. R., R. I. Hartman, and R. Arora, (1990). Work-home role conflict in female owners of small businesses: An exploratory study. *Journal of Small Business Management*, 28(1) 30-38.
- Venkatraman, N., and J. E. Prescott, (1990). Environment-strategy coalignment: An empirical test of its performance implications. *Strategic Management Journal*, 11, 1-23.
- Williams, D. R., (2004). Effects of childcare activities on the duration of self-employment in Europe. *Entrepreneurship Theory and Practice*, 28, 467-485.

