

**CANADIAN, KOREAN, AND UNITED STATES BUSINESS OWNING FAMILIES'
RESOURCE MANAGEMENT PRACTICES**

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Abstract

Family resource management practices of business owning families in Canada, Korea, and The United States are compared. U.S. respondents are 759 family managers in the 1997 National Family Business Survey. Canadian respondents are 65 family managers from Manitoba in the 1997 Canadian Family Business Survey. Korean respondents are 105 family managers interviewed in 2000 as part of a survey of owners of small to medium enterprises in Seoul. Chi square statistics indicated country differences on each of the ten management practices. Mean responses on eight of the practices were significantly different between countries. Korean and U.S. means were different on eight areas; Canada and Korea were different on four of the practices. Factor analysis of the management scale items yielded different patterns for Canada, Korea, and the United States. Both the number of managerial strategies and the types of strategies used varied in the three countries.

Introduction

While there is universal agreement that the ecosystems approach to family resource management is the most influential currently, questions have arisen about the broad applicability of the Deacon & Firebaugh (1988) ecosystems framework. Engberg (1996) has characterized the dominant approach in family resource management as technical and argued that a technical approach substantially restricts feasible actions in much of the world and should not be used in ethical practice. Zuiker, Stafford, Heck & Winter (1995) have questioned whether the Deacon & Firebaugh framework is better suited to employment management than to family management or to men's management rather than women's management. To the extent gender roles are more

clearly defined and distinguished in less developed countries and nonwestern cultures, the questions raised by Zuiker *et al.* (1995) would, by implication, also raise questions about the application of the Deacon & Firebaugh framework to the situations in less developed countries. The purpose of the present paper is to compare the family resource management practices of business owning families in Canada, Korea, and the United States as measured by a scale based on the Deacon & Firebaugh framework. Such a comparison is an essential step in the assessment of the generalizeability and usefulness of the Deacon and Firebaugh framework, in particular, and the ecosystems framework, more generally.

Review of Literature

The review of literature is organized to provide both an overview of the current state of knowledge of family resource management in each country and an examination of the consistency of results across countries. The first section summarizes recent literature on family resource management in Canada, Korea and the United States. The second section compares results across the three countries.

According to Staff *et al.*, (1999), Deacon and Firebaugh (1988) model of family resource management, the family system is described in terms of relationship rather than structure. The family is composed of two subsystems: personal and managerial. Their systems framework emphasizes mechanisms by which the environment influences family resource-use behavior. Family resource management literature viewed the specification of goals and standards by which attainment of goals would be assessed as sufficient for goal achievement. The introduction of sequencing acknowledged the multiplicity of means by which a single goal could be met and provided a means of coordinating multiple goals. Prior to 2000, the early researchers brought to

their research the models and methods from the respective disciplines even though there was budding recognition that a family business resource management was different from the traditional business (Bowen 1985; Rosenblatt et al, 1990). Post 2000, research efforts have encompassed promising new models and data sources from around the world and with important disciplinary and multidisciplinary perspectives in family resource management (Chrisman, Chus & Litz, 2003; Heck & Mishra, 2006).

Research on the managerial practices of Canadian families has been sparse and narrowly focused. A single managerial concept has been studied such as task sharing or using of employment as a balancing strategy rather than multiple managerial tasks that might, in their totality, be construed as management. None of the focal sub samples included business-owning families. When research has been undertaken, small sub samples of the population were examined. For example, investigation into the managerial practices of Vietnamese and Laotian refugee families in British Columbia has established that, traditionally, there was more sharing of household tasks between spouses than has often been presumed in these cultures and that increased sharing of these tasks has occurred since resettlement in Canada (Johnson, 1998). The effects of gender in family resource management have been studied in Canada. Duncan, Zuiker, and Heck (2000) found that men and women spent different amount of time on household and family resource management. Clearwater & Harvey (1988) found that satisfaction with the companionship and money management abilities of the spouse were the two most important predictors of marital satisfaction for low-income Manitoba couples. In research on families with one adolescent with diabetes, Kieren and Maguire (1996) found that problem solving in these families was characterized by an orderly, as opposed to random, sequence of activities.

An exception to the rule of small subsamples has been research on the role of type of employment in meeting work and family demands. Using nationally representative time-use data from Statistics Canada's 1992 General Social Survey, Duncan (1999) found that women reported spending three minutes per day, on average, in managerial activities. Managerial activities included such tasks as paying bills and planning meals. Although respondents reported little time spent in these managerial activities, time spent on other household tasks was substantial and differed for employed men and women depending on whether or not their employment was home-based. Further, women whose employment was home-based spent more time on household tasks than women whose employment was not home-based raising the possibility that home-based work is used as a means of facilitating the management of competing work and family demands. A similar role also was attributed to self-employment. Using Statistics Canada's 1995 Survey of Work Arrangements to investigate self-employment as a means of coping with conflicting home and workplace demands, Arai (2000) concluded that women, but not men, use self-employment as a work-family balancing strategy. As for office-based employment, Warren & Johnson (1995) found that among Vancouver women who had preschool age children in a licensed group daycare facility, lower levels of work-family role strain were associated with the use of family benefits, a family-supportive workplace, and a flexible supervisor.

While the focus in Canada has been on individual family management processes or behaviors, the focus of Korean research on family resource management has been identifying correlates of family resource management, in general, and the effect of management on family life satisfaction. Resources, both human capital and income, and number of demands have been

correlated with management score in Korea. Resources had a positive effect on wife's family resource management. Education, experience as measured by duration of marriage and mother's level of management ability had a positive effect on family resource management. Lee (1981) and Jeong (2001) reported family managers who had higher educational levels had higher management scores. These researches also found that housewives who had longer marriages had higher management scores. Also, mother's level of management ability had a positive effect on the daughter's management ability (Chi, 1990; Jeong 2001). Oh (1986) found higher management scores for managers of households with higher incomes. Number of demands was significantly correlated with family resource management, but the direction of the effect was inconsistent. Jang (1986) and Lee (1984) found that younger family managers had higher management scores. They had high ability to set goals and manage time. Kim (1997) and Joung (2002) reported employed housewives had higher management scores than unemployed wives. Having more children had a negative effect on management scores. Cho & Im (1991) found style of management was correlated with urban housewives' family life satisfaction. In their study, family resource management behavior was classified on the morphostatic / morphogenic continuum first proposed by Beard & Firebaugh (1978). The typical pattern was for wives to have neutral, rather than morphostatic or morphogenic, management practices and an internal locus of control, and they were somewhat satisfied in terms of family life satisfaction. Education, employment of wives, and internal locus of control were positively associated with morphogenic home management behavior patterns. Years of marriage and number of children were positively associated with morphostatic management behavior patterns. The variables that significantly affected family life satisfaction were number of children, wives educational level, family income,

employment status of wives and locus of control. Wives who preferred morphostatic patterns had higher levels of life satisfaction.

In The United States, daily management was a universal activity; over 99 percent of families reported spending time on it. On average, American family managers reported spending 24 minutes a day in management (Walker & Woods, 1976), more than in Canada (Duncan, 2000). Although the current study does not measure time spent in family resource management, the practice of management requires time (Winter et al., 2004). We would expect time and frequency to be positively correlated. If this assumption were correct, we would expect a higher average management score in the U.S. than in Canada. The U.S. also has the most studies of the family resource management practices of business-owning families (Danes and Morgan, 2004; Ibrahim and Ellis, 2004). The initial studies in the U.S. were for families dependent on income from home-based employment, 75% of who were business owners. More recent studies have been based on a sample of business-owning families, both home-based and office-based. In the United States, type of activity, gender, and number of demands have been found to affect the extent of management practice for business-owning families. Multiple styles of management also have been identified, and, for families with home-based employment, a link between management and satisfaction with life has been found. Family managers tailored their management to the domain or general type of activity. Heck, Winter and Stafford (1992, 1999) and Heck and Stafford (2001) found that family managers engaged in home-based employment managed their family life and their paid employment differently. Men and women managed their family life differently. Zuiker et al. (1995) found that men family managers reported more frequent management than women. They also found that the men managed their family life with

essentially the same frequency they managed their home-based employment; whereas the women reported less frequent use of management behaviors in the family domain. Further, Zuiker *et al.* (1995) reported men have different styles of management from women.

The more demands family managers had to meet, the higher their reported management scores. Men and women who were both family managers and home-based employees or business owners reported higher management scores than family managers who were not engaged in home-based employment. Hunts, Danes, Haynes & Heck (2000) reported higher management scores for the managers of families whose characteristics made them more demanding. Hunts *et al.* (2000) reported higher management scores for managers of larger families and families with young children. Regardless of the extent to which family managers reported they managed, they exhibited a heterogeneous styles of management. A style of management is a proclivity to bundle certain management activities and perform them in concert. The majority of people bundled component behaviors of management and did not perform all the component behaviors with the same frequency. Beard & Firebaugh (1978) found that American family managers were not consistently morphostatic or morphogenic in their style of management. Later research did not characterize management styles as either morphogenic or morphostatic. Rather, style identification was based on which management behaviors were practiced more frequently. For business-owning families, styles have been found to differ by gender and number of demands or roles. As noted previously, Zuiker *et al.* (1995) reported men have different styles of management from women. Heck, Winter & Stafford (1992, 1999) reported single and dual role family managers in households dependent on home-based employment had different styles of management. Duncan, Zuiker & Heck (2000) also found that

single and dual role family managers of business owning families exhibited different management styles. Sung and Stafford (1995) found that in families dependent on income from home-based employment, family resource management was negatively related to satisfaction with income adequacy and satisfaction with control over everyday life. It was not significantly related to satisfaction with children. Other studies of the effect of management behavior on satisfaction focused on satisfaction with financial status. The results were inconsistent. Some of the management behaviors were associated with greater satisfaction; some were not (Titus, Fanslow & Hira, 1989; Mugenda, Hira & Fanslow, 1990; Sumarwan & Hira, 1992; Sharma, 2006, Hect et al., 2006). In none of the studies was family resource management associated with overall satisfaction with life.

Empirical research on family resource management in Canada, Korea and The United States provides little basis for making cross-cultural comparisons or drawing inferences about the applicability of the Deacon & Firebaugh (1988) framework to nonwestern cultures. At most we can compare results across two countries. The effects of resources on family resource management have been studied only in Korea. The effects of gender have been studied only in The United States and Canada. In Canada, Duncan (2000) found that men and women spent different amounts of time on household management. In the United States, Zuiker et al. (1995) found that men and women managed families differently. Korean interviews on family resource management have been with women.

The effects of domain have been studied in Canada and the United States, and in both countries the effect of domain was tied closely to the effects of gender. In the United States women managed family and paid work differently, but men did not. In Canada the evidence for

a domain effect on management was less direct. Women used home-based work and self employment to balance the demands of employment and family, but men did not, and women who had home-based employment spent more time in management than women who did not.

The effects of number of demands on family resource management have been studied in all three countries, but the same indicator variables have been used only in two countries. Results for number of demands were inconsistent between Korea and the United States and within Korea. In Korea, number of children had a negative relationship with family resource management, but in the United States number of children had a positive effect. In Korea, while number of children had a negative effect, wife's employment had a positive relationship with management. In the United States, number of demands had a consistent, positive relationship with family resource management. Number of children had a positive effect. So did being the family manager and the business manager rather than only the family manager. In Canada, number of demands was indicated by whether employment was home-based or office-based. Time spent in management increased with home-based employment for women.

The relationship between family resource management and satisfaction was researched in Korea and the United States. Again, the results are not comparable. In Korea style of management was related to satisfaction, but in the United States there was no relationship between the quantity or frequency of management and satisfaction. In Korea, morphostatic managers reported the highest levels of satisfaction with family life. In the United States, family resource management behavior did not have a significant effect on either satisfaction with how well children were doing or overall satisfaction with life.

No studies have used the same means of measuring management in more than one country. The current study does. The current study also has the advantage of being based on an internationally respected management framework. Consequently, the results of the current study will enlighten both the subject of cross-cultural differences in management and the subject of the cross cultural applicability of the framework used as the basis for the study.

Method

The Family Resource Management Scale

The current study uses the 1997 Family Management Scale, which is based on the Deacon & Firebaugh (1988) model. The 1997 scale is an updated version of the 1992 Household Work Scale (Heck, Winter, & Stafford, 1992) first developed as a summary measure of the practices described in the Deacon & Firebaugh (1988) model. The 1992 scale was developed as a summary measure of the entire set of behaviors covered by the term “family resource management” that could be administered via telephone interviews and used in causal analyses. As such the scale could not contain numerous items and had to be readily understood. The 1997 modifications were prompted by previous results that suggested the words used to operationalize the managerial behavior did not have the same meaning for women as they did for men. Other research suggested that the statement, “Each week you decide some way you can improve your life” in the 1992 scale was not satisfactory in operationalizing the concept of goal setting. Therefore, in the 1997 scale the wording of this item was changed to “Each week you decide something specific you can do for your family.” The specific wording of the scale items and the managerial concepts they represent are presented in Figure 1. For each item, the leading statement was “These next items are about how you manage your household. Think of a scale

from 1 to 5, where 1 means the statement is not at all like you, and 5 means it is exactly like you.” In pretests conducted by the Iowa Statistics Laboratory, a random sample of respondents did not have difficulty rapidly understanding and evaluating the family resource management scale items.

Scores on each of the 10 scale items were summed to give a total management score, which could range from 10 to 50. Higher scores on individual scale items denote more frequent use of the practice that conforms to the Deacon & Firebaugh (1988) model of family resource management and, therefore, are assumed to be associated with more effective management. It was assumed that the higher the score on the household management scale, the more extensive the management practiced by the respondent.

[Figure 1 about here]

Data

The data for the United States are from the 1997 National Family Business Survey (NFBS). The NFBS contains data from both the family manager and the business manager from a nationally representative sample of business-owning families. To be eligible for inclusion, a household had to consist of two or more persons related by blood, marriage or adoption, at least one of who owned or managed a family business. The business owner had to work in the business at least 300 hours a year and have been in business for at least a year. Detailed information on prevalence rates can be found in Heck & Trent (1999). Detailed information on data collection methods and procedures can be found in Winter, Fitzgerald, Heck, Haynes & Danes (1998).

Data for Canada were obtained from a representative sample of 65 business-owning families in the province of Manitoba. Data were collected in 1997 simultaneously with the NFBS in the United States using the same definitions of business ownership and household as criteria for inclusion in the sample. The same interview schedule and procedures were used for the Canadian and the American samples. Both data sets were collected by the Iowa Statistics Laboratory.

Data for Korea were obtained from a representative sample of business owning families in the city of Seoul. Whereas, data from Canada and the U.S. were collected by telephone interviews, data from Korea were collected via face- to- face interviews in January, 2000. Only the family managers of business owning families were interviewed in Korea. They answered questions about both the family and the business. Korean respondents were selected from the small business directory published by the Korean Small Business Association. The 1997 NFBS served as the foundation for the interview schedule used in the 2000 Korean Family Business Survey. Questions from the NFBS were translated into Korean, administered in Korean. After the data were coded, both the interview schedule and the coded data set were translated back into English.

Samples

The sample for the United States is 759 families who completed the family manager interview. Of those 259 were dual managers, managing both their families and a business. The remaining 500 were single role managers. In Canada 61 family managers completed the family interview. Of those, 17 were dual role managers and the remaining were single role managers.

All 105 of the family managers in Korea had a dual role, also working in the family business with their spouses.

Several descriptive characteristics of the business-owning families (n = 925) are shown in Table 1. The average age of the household manager was 45. The mean of educational level for the household manager was 14 years. Over half of the business-owning families owned home-based businesses (51%), they have resided in the community for 19 (19.3) years, and about 55% lived in a rural location (towns of 10,000 or less). Most of respondents (89%) owned their home. On average, the number of children in the household was 1.40, the number of children present aged 0-5 in the household was .23, and the number of children present aged 6-17 in the household was .85, number of total children under 18 years old was 1.04. The average total family income was \$ 68,419, income from the family business was \$ 31,351, and family income from other sources was \$ 37,203. On average, the number of working persons in a household was 2.02. For the large majority (71.8%), the business was owned and managed by the first generation.

[Table 1 about here]

Analysis

Frequency of responses for the 10 statements comprising the 1997 Family Management Scale was tested for independence using the chi square statistic. Also for each statement in the scale and the total management score the mean response was calculated. An F-test for difference in means for each item and the total management score was used to discover whether the three groups of managers differed significantly in their managerial activities. Pair-wise differences in means were tested for significance using the Scheffe and Bonferroni tests. Cronbach's alpha and

a standardized item alpha were used to assess the reliability of the 1997 Family Management Scale for each of the three countries. Finally, factor analysis of the Family Resource Management was conducted separately for Canada, Korea, and the United States. While tests for independence and difference in means identified intercountry differences for each item and the total management score, principle components factor analysis with varimax rotation was used to discover underlying relationships among the items in the management scale and differences or similarities in the underlying relationships among the three countries.

Results

Differences in Management Practice by Country

The results of tests for independence indicated systematic differences in response to the management items by country. The Chi Square statistic for each item was significant at the .05 level or greater. Canadian home managers were as likely to reply with a four as with a five. Korean home managers were more likely to reply with a three or five rating rather than with a four. Americans were most likely to reply with a rating of five, and were more likely to reply with a four than with a three. According to the F tests, mean responses were significantly different for eight of the ten items in the management scale. Only the mean responses for demand clarification and resource assessment were not significantly different. According to the Scheffe and Bonferroni tests, mean responses for all eight of the other items were significantly different between Korea and the United States. There were fewer significant differences in responses between Canada and Korea. Canada and Korea had significantly different mean responses to the items for sequencing, standard setting, adjusting and demand responses. Mean responses were not significantly different between Canada and the United States.

[Tables 2 & 3 about here]

Factor Analyses of the Household Management Scale

Factor analysis of the management scale items yielded different patterns for Canada, Korea, and the United States. Both the number of managerial strategies and the types of strategies used varied in the three countries.

Canada

Four identifiable factors resulted from the analysis of the Canadian data. Canadian household managers are plan oriented, goal oriented, action oriented or outcome oriented.

Standard setting, demand clarification, resource assessment and checking comprised the planning orientation. Plan oriented managers know how they will judge the outcome of their managerial activities before they begin, they ensure that their goals are clear, and they know how much of their resources can be devoted to their goals. These managers also associate checking with these planning activities; checking appears to be focused on ensuring that goals are clear and resources are adequate.

Goal oriented managers emphasize goal setting, adjusting, and demand responses. These managers set goals and associate goals with how well they like the results. That is, how people feel about achievement of goals is important to these managers and adjusting – finding another way to accomplish the goal when plans are not progressing well – is the link between initially setting the goal and achieving satisfactory results. Resource issues do not appear to be a primary concern for these managers.

Action sequencing and actuating load together for action oriented managers. These managers emphasize getting things done. Their managerial activities are focused not on setting

goals or monitoring resources and outcomes but on the actions themselves. Planning when to take action and taking action are the key strategies for these managers.

Finally, monitoring resource changes is the only managerial activity to load on the factor that describes action-oriented managers. For these managers, the primary focus is on the effectiveness of their managerial activities. Unlike their goal-oriented counterparts, these managers do not appear to focus on satisfaction with goal achievement as much as efficiency of goal achievement.

Korea

Three factors resulted from analysis of the managerial practices of Korean household managers. Korean managerial styles were identified as classic, goal oriented, or action oriented, but the goal oriented and action-oriented styles differ from those of their Canadian counterparts.

Classic managers use the planning activities of demand clarification, and resource assessment; the implementing activities of checking and adjusting; and the output activities of demand responses and resource changes to manage family life. Setting goals is not an emphasis for these managers; rather, it appears that the goals are already known and the focus instead is on being sure that the goals are clear and that resources are sufficient to meet goals.

Plans are checked and adjusted as necessary as they progress in order to achieve satisfactory outcomes. Satisfaction with both the extent to which goals are met and resource use in achieving goals are important to these managers.

The second managerial style evident among the Korean managers is a goal-oriented approach. Unlike Canadian goal oriented managers who associated goal setting with adjusting and demand responses, Korean goal-oriented managers pair goal setting and standard setting.

For these managers, deciding which goals to pursue and how to judge if the goals are met drive management.

Finally, action-oriented managers focus on the managerial strategy of actuating. Korean action-oriented managers focus simply on taking action, whereas the Canadian action oriented managers paired putting actions in sequential order with taking action. For Korean action-oriented managers, it is the actions themselves that predominate.

The United States

Analysis of the US sample yielded two identifiable factors. U.S. household managers can be described as process managers and technical managers. Process managers are focused on satisfaction with the outcome of managerial activities. These managers see close associations among the components of planning, standard setting and action sequencing; the implementing activities of checking and adjusting; and the output of demand responses. For these managers, satisfaction with the results is crucial, so standard setting, that is, having a good idea about how to judge the outcome of their managerial processes, is an important activity. Like the classic managers in Korea, these managers check their plans to see if everything is all right and make adjustments if necessary in order to achieve a satisfactory outcome.

In contrast, production managers monitor resource changes, not demand responses. These managers are concerned with the effective use of resources, not feelings of satisfaction with the output. Production managers associate goal setting, goal clarification, resource assessment and actuating with resource changes. They think plans through so that goals are clear and required resources are identified. Taking action is associated with these activities as well. Production managers have a clear focus on resources.

[Table 4 about here]

Discussion

Consistent differences between pairs of countries were found. There were differences in frequencies, means and factor loadings. Before discussing cultural differences in family resource management, it is necessary to acknowledge the possibility of other explanations for the differences among countries reported in this article. In particular, sample characteristics and measurement error may partially explain differences in results. The meaning of cultural differences in management will be discussed. Finally, implications for future research will be discussed.

Several differences in sample characteristics may be related to the differences in means between countries. The Korean families were all dual earner; in fact, both spouses worked in the family business. Only Korean women were interviewed; both family information and business information were provided by women who managed the family and worked in the business. In the United States only 259 or 34 percent of the sample were dual role holders. In Canada, 17 or 28 percent were dual role holders. Previous studies of family management by business owning families in the United States found that dual role holding by the family managers was associated with more extensive management. In the absence of cultural differences, the larger proportion of dual role managers in the Korean sample would have explained higher management scores for the Korean sample. However, most often Korea had the lowest score not the highest. A potential explanation for this result will be discussed under measurement error.

The Korean respondents were all urban; the sample was drawn only from Seoul. The United States and Canada had large proportions of the samples drawn from rural locations. The

greater distances between houses in rural areas may be associated with more extensive management. However, rural incomes are lower than urban incomes in the United States, and lower income may lead to substitution of labor for capital in the form of more extensive management. Therefore, differences in the urban/rural composition of the samples may be responsible for some of the observed differences in mean scores.

Finally, the Korean respondents all owned first-generation family businesses and all were very small businesses. In the United States most, but not all, of the businesses were very small. In Korea, only 13.3% of the respondents owned a home-based business. In the United States and Canada the proportion was much larger. In the United States 55.9% of the respondents and in Canada 61.8% owned home-based businesses. The managers of families with home-based employment in the (Heck, Winter & Stafford, 1992) reported lower management scores, whether dual or single role holders, than the managers of business owning families in the 1997 NFBS, whether dual or single role holders (Duncan, Zuiker & Heck, 2000), however this was not the case in this study. In the absence of cultural differences, these previous results would imply higher management scores for Korea rather than lower scores.

One other possible explanation for the differences in results between Korea and The United States and Canada is measurement error. In both the United States and Korea there is evidence of response bias, a tendency to give the same response to the next question as given to the last questions? Interestingly, there may be a cultural difference in the preferred answer rather than the extent of the bias. Koreans most frequently responded with a neutral three; whereas, Americans most frequently responded with a five, '*exactly like me*'. The preponderance of neutral responses is found in other Korean survey results. To some extent, the bias toward a

neutral response may be mitigated in this study by the use of a Korean interviewer who interviewed the respondents in Korean. The difference in preferred response may be cultural. Americans may be more likely to think they are supposed to say they manage. The question that needs to be asked is whether the observed differences are cultural differences in management practice or cultural difference in perception of the desirability of managing a family.

The remaining explanation for differences between countries is culture. Assuming the observed differences are real and attributable to culture rather than sample characteristics, is the Deacon and Firebaugh systems model of family resource management more applicable to Western cultures than to Eastern cultures? Possibly the answer is yes. The model was developed in a Western culture, and is an outgrowth of empirical studies of management practices of Ohio family managers thought to be managing well by their friends and neighbors. Other cultures were not included in the development of the model. On the other hand, the perennial, persistent problems of families are universal and techniques that make the work of families more efficient should be applicable across cultures. The environment and amount of change the families encounter may be very different from one country to another. Consequently, the prevalent management practices and routines may be different from place to place.

Taken together, these results strongly suggest that further international comparisons of the managerial practices of business owning families are warranted. Relational analyses that control for sample characteristics would help determine to what extent cultural and sample characteristics are responsible for the observed differences in managerial behavior. It is also important to control for the environments of these families in future research. It would also be

valuable to identify attributes of the cultures that explained differences in management practice, assuming the differences are found in the future to be attributable to culture.

Another direction for future research suggested by these results is the use of a different model of family resource management. Stafford & Avery (1991) suggested a family resource management model that would be more broadly applicable than the Deacon & Firebaugh (1988) model yet was consistent with the family systems model on which Deacon & Firebaugh (1988) based their model. To date this model has not been used in empirical research. Perhaps use of their model to guide measurement of managerial behavior patterns would facilitate cross-cultural research. More consistent results might lead to less controversy about the relevance and applicability of western management techniques to nonwestern cultures and the techniques used in developed economies to less developed economies.

FIGURE 1
Family Resource Management Concepts^a and Corresponding Questionnaire Items

Management concepts	Questionnaire Items ^b
Input	
Demands	_____
Goal setting	Each week you decide something specific you can do.
Events	_____
Resources	_____
Throughput	
Planning	_____
Standard setting	Before starting a complex task, you have a firm idea about how to judge the outcome.
Demand clarification	When planning a task, you think the plan through so that your goal is clear before you begin doing the task.
Resource assessment	Before you begin a job, you figure out how much of your time, money, and energy that you can devote to this particular task.
Action sequencing	You think about when to do a task, and not just how much time it will take.
Implementing	
Actuating	_____
Controlling	When there is a task to be done at home, you wait until the last minute to do it. ^c
Checking	_____
Adjusting	As you work, you check whether things are going as you want them to. When things are not going well, you figure out another way to do it.
Output	
Demand responses	When a task is done, you think about how well you like the results.
Resource changes	You are pleased if the work just gets done; you do not spend time thinking about how effectively it was done. ^c You are pleased if the work just gets done; you do spend time thinking about how effectively it was done. ^d

^a Management concepts refer to definitions used in Family Management: Principles and Applications, by Ruth E. Deacon and Francille M. Firebauth, Boston: Allyn and Bacon, 1988.

^b Actual items are listed. The leading statement was: These next items are about how you manage your household. Think of a scale from 1 to 5, where 1 means the statement is not at all like you and 5 means it is exactly like you. Items were not asked in the order listed.

^c This item was reverse coded in descriptive statistics and the factor analysis results.

^d This item of Korean data was not reverse coded in descriptive statistics and the factor analysis results.

TABLE 1

Descriptive Statistics for Selected Characteristics of Business-Owning Families

Variables	Canada (n = 61)			U.S. (n = 759)			Korea (n = 105)		
	Mean	S.D	Percent	Mean	S.D	Percent	Mean	S.D	Percent
Family size	3.52	1.299		3.46	1.33		3.97	.89	
Age of household manager (years)	44.44	9.02		44.85	10.45		45.33	7.55	
Education of household manager (years)	13.15	2.15		13.96	2.24		13.53	2.05	
Number of children in the household	1.48	1.27		1.40	1.27		1.83	.78	
Total family income	99,347.75	405,858.54		68,419.66	122,576.27		52,532.63	66,109.92	
Family income from family business	16,943.27	17,734.82		31,351.31	38,039.13		30,833.46	35,958.05	
Family income from other sources	83,640.36	412,117.35		37,203.93	117,391.59		21,699.17	42,686.24	
Number of working persons in a household	2.10	1.12		2.02	1.17		2.27	.54	
Years in community	23.62	11.94		19.36	14.35		8.44	8.24	
Household with other income			72.1			68.1			70.5
Home ownership			91.5			89.1			75.2
Rural location (10,000 town or less)			59.0			54.9			0.0
Home based business			61.8			50.9			13.3
First generation business			68.9			71.8			100.0
Dual role holder			27.9			41.2			100.0

TABLE 2
Frequency of Responses on Family Resource Management Scale Items within Each Country

Management concept	Frequency of Responses (n, %)															χ ²	Probability	
	Canada (n = 61)					Korea (n = 105)					U.S. (n = 759)							
	Not at all Like me	Somewhat	Exactly like me	4	5	Not at all like me	Somewhat	Exactly like me	4	5	Not at all like me	Somewhat	Exactly like me	4	5			
Input																		
Goal setting	7(11.5)	9(14.8)	15(24.6)	8(13.1)	22(36.1)	15(14.3)	4(3.8)	64(61.0)	9(8.6)	13(12.4)	93(12.3)	76(10.0)	176(23.2)	141(18.6)	273(36.0)	75.330	.000***	
Planning																		
Standard setting	3(4.9)	2(3.3)	20(32.8)	22(36.1)	14(23.0)	6(5.7)	5(4.8)	57(54.3)	19(18.1)	18(17.1)	24(3.2)	46(6.1)	140(18.4)	291(38.3)	258(34.0)	76.258	.000***	
Demand clarification	3(4.9)	2(3.3)	17(27.9)	27(44.3)	12(19.7)	3(2.9)	0(0.0)	42(40.0)	21(20.0)	39(37.1)	41(5.4)	49(6.5)	156(20.6)	200(26.4)	313(41.2)	39.978	.000***	
Resource assessment	4(6.6)	4(6.6)	21(34.4)	22(36.1)	10(16.4)	4(3.8)	4(3.8)	36(34.3)	30(28.6)	31(29.5)	54(7.1)	69(9.1)	164(21.6)	254(33.5)	218(28.7)	18.087	.021*	
Action sequencing	7(11.5)	9(14.8)	20(32.8)	8(13.1)	17(27.9)	1(1.0)	1(1.0)	27(25.7)	31(29.5)	45(42.9)	61(8.0)	73(9.6)	169(22.3)	190(25.0)	266(35.0)	27.704	.001**	
Implementing																		
Actuating	4(6.6)	16(26.2)	17(27.9)	12(19.7)	12(19.7)	15(14.3)	13(12.4)	46(43.8)	17(16.2)	14(13.3)	93(12.3)	104(13.7)	213(28.1)	124(16.3)	225(29.6)	26.990	.001**	
Checking	5(8.2)	0(0.0)	8(13.1)	27(44.3)	21(34.4)	2(1.9)	7(6.7)	32(30.5)	31(29.5)	33(31.4)	18(2.4)	30(4.0)	108(14.2)	262(34.5)	341(44.9)	34.649	.000***	
Adjusting	0(0.0)	1(1.6)	7(11.5)	19(31.1)	34(55.7)	2(1.9)	4(3.8)	30(28.6)	34(32.4)	35(33.3)	17(2.2)	23(3.0)	77(10.1)	240(31.6)	402(53.0)	34.744	.000***	
Output																		
Demand responses	0(0.0)	1(1.6)	4(6.6)	20(32.8)	36(59.0)	7(6.7)	11(10.5)	47(44.8)	19(18.1)	21(20.0)	24(3.2)	21(2.8)	66(8.7)	199(26.2)	449(59.2)	148.096	.000***	
Resource change	10(16.4)	5(8.2)	15(24.6)	10(16.4)	21(34.4)	2(1.9)	1(1.0)	17(16.2)	28(26.7)	57(54.3)	102(13.4)	103(13.6)	137(18.1)	177(23.3)	240(31.6)	41.158	.000***	
Total scale mean			37.180 (4.96)					36.543 (5.78)					38.432 (6.09)					
Cronbach's alpha			.5327					.7589					.6962					
Standardized item alpha			.5741					.7707					.7195					

Note. Sum of percentages for each item may not equal 100% due to rounding.

* p<.05 ** p<.01 *** p<.001

TABLE 3
Means and Standard Deviations of Family Resource Management Scale Items for Canada, Korea, and U.S

Management concepts	Canada (n = 61)		Korea (n = 105)		U.S. (n = 759)		F-test for differences	
	Mean	S.D	Mean	S.D	Mean	S.D	F-Value	Probability
Input								
Goals setting	3.48	1.41	3.01	1.10	3.56	1.38	7.640	.001***
Planning								
Standard setting	3.69	1.03	3.36	1.01	3.94	1.02	15.591	.000***
Demand clarification	3.70	0.99	3.89	1.01	3.92	1.16	.976	.377
Resource assessment	3.49	1.06	3.76	1.04	3.68	1.19	1.052	.350
Action sequencing	3.31	1.34	4.12	0.90	3.69	1.26	9.182	.000***
Implementing								
Actuating	3.20	1.22	3.02	1.19	3.37	1.36	3.582	.028*
Checking	3.97	1.11	3.82	1.02	4.16	0.97	6.075	.002**
Adjusting	4.41	0.76	3.91	0.97	4.30	0.93	8.854	.000***
Output								
Demand responses	4.49	0.70	3.34	1.12	4.35	0.97	51.551	.000***
Resource changes	3.44	1.46	4.30	0.91	3.46	1.40	18.030	.000***
Total scale	37.18	4.96	36.54	5.78	38.43	6.09	5.418	.005**

* p<.05 ** p<.01 *** p<.001

TABLE 4
Factor Loadings for Family Resource Management Scale for Canada, Korea, and U.S.

	Factor loadings for Canada (n = 61)				Factor loadings for Korea (n = 105)			Factor loadings for U.S (n = 759)	
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 1	Factor 2	Factor 3	Factor 1	Factor 2
Input									
Goal Setting	0.04614	0.75165	0.08760	0.13849	0.06851	0.79934	-0.17758	0.26542	0.40299
Planning									
Standard setting	0.85171	-0.00960	0.06439	-0.07717	0.16984	0.87396	0.03991	0.59082	0.41335
Demand clarification	0.81038	-0.07376	0.26061	0.20799	0.65975	0.27774	0.14880	0.42073	0.53205
Resource assessment	0.60888	0.10094	0.52016	0.05574	0.53325	0.44482	0.22390	0.38857	0.53832
Action sequencing	-0.29036	0.17869	-0.74217	0.24199	0.71937	0.00882	0.22349	0.57054	-0.22768
Implementing									
Actuating	-0.04812	0.23073	0.78898	0.22875	0.05356	-0.05953	0.88734	-0.15276	0.63248
Checking	0.66367	0.36748	-0.27889	0.23344	0.72996	0.06565	-0.33277	0.62788	0.31727
Adjustment	0.14470	0.56610	-0.17851	-0.56003	0.78524	0.15237	-0.16383	0.66070	0.07775
Output									
Demand responses	-0.00668	0.82064	0.05287	-0.06232	0.56381	0.24908	-0.26506	0.66845	0.08120
Resource changes	0.22447	0.09439	-0.02548	0.81015	0.58125	0.04045	0.17301	-0.00701	0.61428
Eigenvalues	2.35	1.80	1.64	1.21	3.08	1.77	1.18	2.37	1.85
Percent of variation explained	23.53	18.04	16.37	12.11	30.79	17.73	11.80	23.74	18.49

Note: Highest factor loading for each management concept denoted by numbers in boldface type

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