FAMILY FIRM VALUATION BY FAMILY CEOS: THE ROLE OF SOCIOEMOTIONAL VALUE

THOMAS M. ZELLWEGER
Center for Family Business
University of St.Gallen
Dufourstrasse 40a
CH-9000 St. Gallen
Tel. +41 71 224 71 00
thomas.zellweger@unisg.ch

FRANZ W. KELLERMANNS†
Department of Management and Information Systems
Mississippi State University
Mississippi State, MS 39762-9581
Tel: (662) 325-2613
Fax: (662) 325-8651
fkellermanns@cobilan.msstate.edu
and
INTES Center for Family Enterprises
WHU (Otto Beisheim School of Management)

JAMES J. CHRISMAN
Department of Management and Information Systems
Mississippi State University
Mississippi State, MS 39762-9581
Tel: (662) 325-1991
Fax: (662) 325-8651
jchrisman@cobilan.msstate.edu
and
Centre for Entrepreneurship and Family Enterprise
University of Alberta School of Business

JESS H. CHUA
Haskayne School of Business
University of Calgary
2500 University Drive, NW
Calgary, AB, Canada T2N 1N4
Tel. 403-220-6331
Fax 403-282-0095
jess.chua@haskayne.ucalgary.ca

† Please direct all correspondence to the second author.

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Abstract

Based on the contentions of prospect theory that ownership endows possessions with a value premium, this study provides evidence that socioemotional value in family firms influences the financial value attached to the firm by family owners. While previous work suggests an imputed link between socioemotional value and family firm behavior, the ability to measure the concept is a critical step toward establishing its direct linkage with behavior. The results from two different samples show that the perceived financial value attached to family firms by owner-CEOs increases with their intention for transgenerational sustainability, a distinctive socioemotional attribute of family firm ownership.

1. Executive Summary

The preservation of socioemotional value is suggested in the literature to be an important non-economic goal of family firms and has been used to make important predictions about family firm behavior (e.g., Astrachan and Jaskiewicz, 2008; Gómez-Mejia, Hynes, Nunez-Nickel, and Moyano-Fuentes, 2007; Sharma, Chrisman, and Chua, 1997). However, to the best of our knowledge, the existence of socioemotional value in family firms has been imputed rather than supported by direct evidence. Without such evidence, a direct and measurable linkage between socioemotional value and family firm behavior is difficult to establish, leaving ample room for alternative explanations.

Prospect theory contends that decision makers use the status quo as a frame of reference when valuing possessions. This leads to the perception that parting with possessions is a loss and then through loss aversion to an endowment premium associated with ownership. Applying these contentions to the financial valuations of family firms by their family owners, we argue that as the socioemotional value of the firm to family owners increases so does the loss felt in selling the business. Thus, the greater the socioemotional value, measured in this study as transgenerational sustainability intentions, the greater the endowment premium.
Using two samples of family firm CEO owners from Switzerland (n = 82) and Germany (n = 148), we provide direct evidence that socioemotional value exists and is, indeed, a measurable component of the financial value of family firms to their owners. This is achieved by showing that a portion of the perceived financial value family firm owner-CEOs attach to their firms cannot be explained by financial and other non-financial indicators of firm value but can be explained by their intention for sustainable control across family generations, a socioemotional attribute unique to family firms (Chua, Chrisman, and Sharma, 1999).

For practitioners, our study indicates that, as long as the family firm provides socioemotional value to family firm owners, endowment premiums engendered by status quo biases (Samuelson and Zeckhauer, 1988) may make family firms particularly hard to sell when the potential buyer expects to derive little or no socioemotional value from owning the business. This diminished ability to consummate exchange because of a wide divergence in perceptions of value by sellers and buyers has important implications for both family firm succession and family firms facing failure. For example, a family firm may decide, unadvisedly, to pursue intra-family succession because no buyer is willing to pay a socioemotional value premium. Therefore, a family that cannot decouple emotional attachment from economic reality may hold on too long to a failing business and leave nothing for the next generation to salvage. Our results also suggest that due diligence and non-economic negotiation mechanisms may be particularly important when purchasing a family firm since there would be a strong temptation for sellers to try to harvest socioemotional value when selling the firm.

In short, to the extent that socioemotional value is important to the financial valuation of family firms, our findings contribute to a better understanding of the difficulties associated with transitions of corporate control in family firms (cf., Howorth, Westhead, and Wright, 2004).
2. Introduction

Family control of the dominant coalition in a firm (Chua et al., 1999) and the propensity for family owners to display strong emotional connections to it (Corbetta and Salvato, 2004; Sharma et al., 1997; Shepherd, 2009; Tagiuri and Davis, 1992) are considered key attributes of family firms. As a result, family business researchers believe that family firm owners have strong socioemotional attachments to their businesses (Gómez-Mejía et al., 2007; Zellweger and Astrachan, 2008). Whether socioemotional value exists is important to the theory of the family firm because efforts to secure or protect it (e.g., Astrachan and Jaskiewicz, 2008) can influence decision-making as well as economic performance (Chrisman, Chua, and Sharma, 2005). However, while the idea that family members attach socioemotional value to firm ownership possesses an undeniable logic and appeal, it has never, to our knowledge, been subjected to a direct test.

Consequently, the purpose of this study is to investigate the extent to which socioemotional value exists for owners of family firms and is measurable in financial terms. To accomplish this we use prospect theory to investigate the relationship between a family’s intention for transgenerational sustainability as reflected in the opportunity and desire of continued family control of their business – a measure of socioemotional value unique to family firms – and the price that they would be willing to sell the firm’s equity to a non-family member.

Prospect theory researchers find owners tend to use the status quo as the reference point for viewing exchanges, causing them to place greater weight on the loss of a possession than on the gain from its sale (Hartman, Doane, and Woo, 2001; Tversky and Kahneman, 1991). Such biases in favor of the status quo of keeping an endowment can arise from rational decision making, cognitive misperceptions, psychological commitments (Samuelson and Zeckhauer,
1988), or simply a preference for inaction over action (Ritov and Baron, 1992). Economists further argue that this aversion to loss leads to the endowment effect (Thaler, 1980) which raises the value of an asset to its owner (e.g., Kahneman and Tversky, 1979; Knetsch and Sinden, 1984; Knez, Smith, and Williams, 1985).

We argue that the stronger a family firm owners’ intention for transgenerational family control of the business, the more the endowment effect will raise the price that family firm owners are willing to sell the business to a non-family member. And because this increase in perceived value is caused by a socioemotional attribute of the family firm, it is an indication of socioemotional value.

We test our theoretical contentions using samples of family firm owner-CEOs from Switzerland and Germany. By controlling for financial (e.g., cash flow, growth, risk) and non-financial (e.g., duration of ownership) factors shared by family and non-family firms that might influence their selling prices, we show that a portion of the perceived financial value for family firms that cannot be explained by those factors are, indeed, explainable by the socioemotional attribute of transgenerational sustainability intentions. Thus, the results not only provide direct evidence of socioemotional value’s existence, they also indicate that socioemotional value influences owners’ perceptions of financial value.

Showing that socioemotional value exists and is measurable is very significant for family business theory because it is a critical step toward establishing a direct instead of imputed linkage between non-economic goals and family firm behavior. Our finding of a positive relationship between transgenerational sustainability intentions and perceptions of firm value is also important because the intention for transgenerational sustainability is considered a distinguishing feature of family firms (e.g., Chua et al., 1999). The influence of intentions for
transgenerational sustainability on perceived financial value is an indirect indication that family firms make decisions in light of the socioemotional value that continued involvement and control in the firm confer. This study also has implications for family business succession, the most researched topic in the family business literature (Chua, Chrisman, and Sharma, 2003). By affecting the acceptable selling price for the business, socioemotional value can play an important part in the family’s choice between intra-family succession and selling out.

3. Determinants of Value

It is commonly understood, as any introductory finance textbook would state, that the financial value of a firm is theoretically equal to the present value of the expected future cash flows to the owners. Technically, the present value is determined by discounting the expected future cash flows at an appropriate discount rate that increases with risk. Thus, the value of the firm should increase with cash flows, increase with the growth and sustainability of the cash flows, and decrease with risk.

In addition to cash flow value, however, the finance literature also provides evidence that the dominant coalition may be able to extract additional value from firm ownership at the expense of the other shareholders (Morck, Shleifer, and Vishny, 1988; Villalonga and Amit, 2006). These so called private benefits have been well documented for firms in countries around the world (Nenova, 2003). What financial research has therefore shown is that the dominant coalition’s shares can have a greater value than that reflected in their percentage ownership. It should be noted, however, that the importance of private benefits has been tested on publicly traded firms but not private firms with a family as dominant shareholder.

Finally, building on the precepts of prospect theory the marketing literature contains extensive evidence that the perceived value of an object to its owner can increase with emotional
attachment such that the perceived value is higher than the object’s financial value. Emotional attachment first requires psychological appropriation – a sense that the object is “mine” (Belk, 1992). In addition, possession rituals over time, such as using and caring for an object, give the owned object a personal meaning that connects it with an individual (Belk, 1988; Watson, 1992) resulting in a perceived singularity of the person-object relationship (Belk, 1991; Grayson and Shulman, 2000; Schultz-Kleine, Kleine, and Allen, 1995). For example, research indicates that heirlooms can become part of a family’s legacy or symbolize self-continuity and thereby maintain affective meaning across time (Price, Arnould, and Folkman-Curasi, 2000). Although these studies have been conducted on inanimate objects, it is not unreasonable to draw parallels with owners’ attachment to their firms because business owners do “care for” their business as they nurture it through start-up and growth. They also “use” the firm to receive benefits from it. By interacting over time with the business, owners may extend themselves into the business just as marketing researchers observe them extending themselves into the objects in their possession (Belk, 1988). Since emotional attachment grows with time, its influence on value should increase with the duration of ownership.

In summary, consolidating observations from the finance and marketing literatures suggests that the financial value of a firm has three components: cash flow value, private benefit value, and emotional attachment value. This likely holds for both family and non-family firms.

4. Family Firm Socioemotional Value and Transgenerational Sustainability Intentions

To develop our hypothesis concerning transgenerational sustainability intention as a unique source of socioemotional value in the family firm, we first review the prospect theory explanation for the existence of endowment premiums. Then we outline how socioemotional value in the family firm is related to endowment premiums. After that, we argue that the
intention for transgenerational sustainability is a unique form of socioemotional value in the family firm and state our hypothesis.

4.1 Endowment premium

Economists observe that individuals tend to evaluate the possible outcomes of their decisions relative to the status quo, for example, by considering the marginal benefits and costs of actions relative to the do-nothing scenario. In the particular case of decisions concerning possessions, this leads to the perception that parting with a possession constitutes a loss. If the parting is in exchange for something of equal financial value, there should be no net gain or loss from a financial point of view. However, Kahneman (1979) and Tversky and Kahneman (1986, 1991) observe that individuals are more concerned with the loss of an asset than the gain of equivalent compensation or the acquisition of a different asset in an exchange. This aversion to loss makes the decision maker attach greater weight to the loss than to the financially equivalent gain and causes the minimum price that an individual demands for parting with an asset to be higher than the maximum price the same individual is willing to pay to acquire the same asset (Kahneman, Knetsch, and Thaler, 1990; Kahneman, Knetsch, and Thaler, 1991; Thaler, 1980).

The general existence of this additional value, called the endowment premium, is well documented by researchers across various disciplines (e.g., Boyce, Brown, McClelland, Peterson, and Schulze, 1992; Folkman Curasi, Price, and Arnould, 2004; Kahneman et al., 1991; Price et al., 2000; Schultz-Kleine and Menzel-Baker, 2004). The effect has been shown to persist even in settings where there are opportunities to learn and after controlling for bargaining strategies used to misrepresent a seller’s true reservation price (Kahneman et al., 1990). Although the endowment effect can appear instantaneously (Kahneman et al., 1991), research
indicates that it increases over time (Belk, 1988; Boyce et al., 1992; Watson, 1992) and that preference for the status quo might increase with experience (Burmeister and Schade, 2007).

4.2 Socioemotional value in the family firm as endowment premium - Hypothesis

Gomez-Mejia et al. (2007) argue that unique non-financial benefits in the form of authority, discretion, status, and social capital accrue to a family through its transgenerational control of a family firm. These non-financial benefits are socioemotional in nature and differ from the private benefits discussed in the finance literature because they accrue to the family without the expropriation of benefits from other shareholders. It is natural then for the dominant owners of the family firm to consciously or unconsciously include these socioemotional benefits when setting the value for the business. Thus, the benefits listed by Gomez-Mejia et al. (2007) could comprise a socioemotional source of the endowment premium for owners of family firms.

The socioemotional value arising from the authority, discretion, status, and social capital may also hold for the owners or managers of non-family firms. However, various family business researchers suggest that the effect may be more pronounced in family firms because of a stronger desire to preserve socioemotional value for future generations (Astrachan and Jaskiewicz, 2008; Gómez-Mejia et al., 2007; Zellweger and Astrachan, 2008). Thus, we focus on the intention for the transgenerational sustainability of family control because it appears to be a unique and defining feature of family firms (Chua et al., 1999).

Family business research shows that succession is the most important concern of family business owners (Chua et al., 2003) and preserving the family firm for future generations is commonly seen as a central goal (e.g., Gómez-Mejia et al., 2007; Kets de Vries, 1993; Seymour, 1993; Ward, 1997). Other research shows that individuals draw value from transferring possession to subsequent generations because they see a part of themselves endure through the
continued possession of the asset by the family (Price et al., 2000). In addition, familial
guardianship creates a sense of responsibility for, and value in, the preservation of family assets
for future generations (Folkman Curasi et al., 2004). These factors will make family firm owners
emotionally attached to the business and perceive selling the family business to nonfamily
buyers as a loss. The resulting endowment premium caused by loss aversion should therefore be
a function of the socioemotional value family owners attach to the family firm.

Socioemotional value related to the intention for transgenerational sustainability of
family control may also arise because of evolutionary reasons. Researchers argue that, for certain
populations, the endowment effect may be explained by evolutionary processes (Huck,
Kirchsteiger, and Oechssler, 2005). The transgenerational sustainability of the business, which
entails a concern for the well being of future generations, would qualify as such an evolutionary
benefit. In this case the strength of the endowment effect may be particularly pronounced (Plott
and Zeiler, 2005). Thus, the family business and prospect theory literatures together suggest that
the status quo bias and the endowment effect can cause the intentions for transgenerational
sustainability to generate a source of socioemotional value for family firm owners that is not
available to non-family owners.

This can be summarized as follows: The owners of a business will receive compensation
when they sell their equity in the business. Assuming that the compensation is fair in the sense
that it reflects the financial value of the firm then it could be argued that the owners suffer no
loss from the financial point of view. But, for various reasons, the owning family will wish to
preserve the family firm and its assets for future generations. Thus, once the owning family has
formed intentions for transgenerational sustainability, parting with the business for only its fair
financial value would constitute a loss of socioemotional value. Therefore, we expect that, in the
presence of a desire and opportunity to pass on the firm within the family, it will take a more favorable offer to make the owning family forgo the socioemotional benefits flowing from the family's continued association with the firm.

**Hypothesis:** There is a positive relationship between a family’s intentions for transgenerational sustainability of the family firm and the perceived financial value they attach to the firm’s equity.

5. Methods

We utilize two samples to test our hypothesis. The first sample was obtained from a mailing list provided by a family business center affiliated with a Swiss university. A questionnaire was sent to 1250 privately held Swiss family firms. In a second sample, 4000 questionnaires were sent to family firms in Germany through a mailing list obtained with the help of a major international accounting firm. No bias in the source of that sample is expected because the accounting firm audited less than 3% of the family firms on the mailing list.

In order to ensure that the firms in the two samples were family firms, we verified that the firms on the mailing list had identified themselves as family firms (e.g., Westhead and Cowling, 1998), the family held a controlling interest, and the firm employed at least two family members (Chang, Chrisman, Chua, and Kellermanns, 2008; Eddleston and Kellermanns, 2007; Eddleston, Kellermanns, and Sarathy, 2008).

In common with other studies of family firms (e.g., Kellermanns, Eddleston, Barnett, and Pearson, 2008), a key informant approach was employed in both samples (Kumar, Stern, and Anderson, 1993; Seidler, 1974) owing to our belief that family firm CEOs are most qualified to assess the price at which the family would be willing to sell the family firm. First, they tend to hold significant personal ownership, as was the case in the firms we studied. Second, they have
intimate knowledge of the family firm’s financial position and future prospects.¹ Third, in all cases we ensured that the responding CEOs were family members. However, as suggested in the literature (e.g., Eddleston and Kellermanns, 2007), we collected data from additional family members employed in the organization for a subset of the Swiss sample (n=39) in order to validate our multi-item constructs. For this subset, we calculated the coefficient of agreement (rwg) (James, Demaree, and Wolf, 1984, 1993). We the rwg value for our independent variable to be acceptable, which indicated that it is appropriate to rely on family firm CEOs as the key informants (Eddleston et al., 2008).

We obtained 219 questionnaires from two mailings in the Swiss sample, representing 179 distinct family firms. Thus, our overall response rate was 14.3%. However, only 82 CEOs provided complete information, mostly owing to the highly sensitive nature of the valuation question. In the German sample, we obtained 349 responses after three mailings, resulting in a response rate of 8.7%. This sample was also reduced by non-response to the valuation question to only 148 CEOs. Both response rates are lower than we would have desired but comparable to similar studies (e.g., Chrisman, Chua, Chang, and Kellermanns, 2007). While unfortunate, substantial missing data is a common problem in family firm studies that rely on primary sources for the collection of data that the respondents would consider to be highly confidential (Chrisman, Chua, and Litz, 2004; Schulze, Lubatkin, Dino, and Buchholtz, 2001).

Statistical power could be a problem in small sample tests. We believe, however, that it is not a serious concern for this study for the following reasons. First, the sample sizes are comparable to those in many studies eliciting sales and buying prices (for an overview see Horowitz and McConnell, 2002). Second, we found support for our main effect in both samples,

¹ For example, in most small and mid-sized family firms in Switzerland, the CEO is also the president of the governance board, which further supports our approach to use the CEO as our key informant.
thus diminishing concerns resulting from low statistical power (Aguinis, 1995). Third, a post-hoc power analysis suggested the power levels were acceptable (Cohen, 1988) even for our smaller sample (power = 0.95 where: $f^2 = 0.35$, alpha = 0.05, and $n = 82$, with 11 predictors).

To explore the possibility of non-response bias we compared the data obtained from early (first mailing) and late respondents (second and third mailing) using ANOVA. This test is based on the assumption that late respondents are more similar to non-respondents than are early respondents (Chrisman et al., 2004; Oppenheim, 1966). No statistically significant differences were found in either sample, which at least partially mitigates non-response concerns. We further conducted an ANOVA between the respondents that answered all relevant questions for our study and the respondents who did not to respond to the question used to measure our dependent variable. Here again, no significant differences emerged in either sample.

We were able to further evaluate the representativeness of our Swiss and German sample through a comparison with demographic characteristics of Swiss and German firms obtained from the following national studies: the 2007 Global Entrepreneurship Monitor’s (GEM) Swiss report (Volery, Bergmann, Gruber, Haour, and Leleux, 2007), the 2005 Swiss National Business Finance Survey (Daeppen and Roth, 2005), the Global Entrepreneurship Monitor’s German Report (Sternberg and Lückgen, 2005) and the IFM (Guenterberg, 2007). As shown in Table 1, these comparisons suggest that the firms in our samples are substantially older and slightly larger than the respondents to the larger national studies. However, the respondents themselves were similar in age. Based on these comparisons the greatest difference appeared to be that the firms we studied are more likely to be owned by the second or later generation of the family whereas the comparison samples were more likely to include first generation firms. This potential source of bias should be noted as our results may not generalize to younger family firms.
The potential for multicollinearity, heteroscedasticity, and common method bias were addressed for both samples. First, we investigated the correlations between our variables. We found that the Variance Inflation Factor did not exceed 1.65, thus multicollinearity did not appear to be a concern (Hair, Anderson, Tatham, and Black, 1998; Tabachnick and Fidell, 1996). Second, although heteroscedasticity can sometimes be a problem in valuation research, our tests indicated it was not an issue in this study.

In addition to the single factor test for common method bias suggested by Podsakoff and Organ (1986), which showed no concern, we compared measurement models with method factor models (Podsakoff et al., 2003). For the analysis, we created a control factor latent construct that allowed error terms in addition to the other multi-item constructs. The results showed that the fit for the method factor models (Swiss model: $\chi^2(105) = 650.151$, CFI = 0.220, German model: $\chi^2(105) = 829.841$, CFI = 0.287) were significantly worse than the confirmatory factor analysis models (Swiss model: $\chi^2(102) = 220.270$, CFI = 0.831; German model: $\chi^2(101) = 298.270$, CFI = 0.807). Thus, common method bias does not appear to be a problem.

5.1 Variables

The dependent variable was identical in both samples. However, while similar, our control and independent variables varied somewhat. This was a consequence of the somewhat different data collection goals as well as learning that occurred from the first study to the second. Although the results are not perfectly comparable, the differences in measures do serve to confirm the robustness of our results. We discuss the common dependent variable first and then the remaining variables. We show the items used to measure the dependent and independent variable and the one multi-item control variable in Appendix A.
5.2 Dependent Variable.

The objective of our study is to test whether socioemotional value exists in family businesses by determining whether owners’ perceptions of their firms’ financial value is positively associated with transgenerational sustainability intentions. There is no way to collect precise data on the socioemotional value of a business without actually performing individual valuations for each firm and comparing this value with the value perceived by owners. Instead, we test for the existence of socioemotional value through its relationship with the perceived financial value of the firm after controlling for the financial and non-financial sources of value that are not unique to family firms. Put differently, socioemotional value should represent the difference between perceived financial value and actual financial value. Thus, our dependent variable is the family firm CEO’s perceived financial value of the family firm.

Following approaches used to test the endowment effect we measure acceptable sales price at the owner level of analysis with single-item questions (e.g., Boyce et al., 1992; Carmon and Ariely, 2000). According to recent guidelines pertaining to the wording of the willingness to accept question (e.g., Zellweger and Astrachan, 2008), we asked the CEOs of the sample firms: “What is the minimum acceptable sales-price at which you are willing to sell 100% of your company’s equity to a non-family member?”

This question made it clear that we were looking for: (1) the value of the firm’s equity, (2) when selling the entire firm, (3) to parties outside the family. A pilot study of 29 entrepreneurs provided assurance that family firm owners understood the question. The variable was characterized by high positive skewness and kurtosis (Hair, Black, Babin, Anderson, and Tatham, 2006). In order to achieve a more normal distribution we used the logarithm of the perceived financial value in our analysis (Tabachnick and Fidell, 1996).
5.2 Independent Variable

The primary drivers of intentions, according to the psychology and entrepreneurship literatures are (1) opportunity or feasibility and (2) desire (Ajzen, 1991; Krueger, 1993). Thus, we measured transgenerational sustainability intentions using two items measured on a 7-point Likert-type scale ($\alpha = 0.83$ for the Swiss and $\alpha = 0.70$ for the German study) to measure opportunity/feasibility and desire. For the first, we asked for agreement with the statement: “The family faces the opportunity to pass on the business to future generations” and for the second, agreement with “Continuing the family legacy and traditions is important to us.” The items were added and the sum divided by the number of items to obtain the final variable used.\(^2\)

5.3 Financial Control Variables

The objective of the study was to test for the existence of a unique socioemotional value attached to family firms by family owners. To achieve this, we need to show that intentions for transgenerational sustainability can explain a portion of the family owner-CEOs’ perceived financial value of the firm that is unexplained by financial and other non-financial determinants of firm value that are common to family and non-family firms.

Our financial control variables included proxies for current cash flow, growth and sustainability of performance, risk, and private benefits that the dominant coalition might extract from the business. For both samples, we included cash-flow related controls.\(^3\) In the Swiss sample, we collected free cash flow data by asking the subjects: “What is the free cash flow of your business (Profit + Non-cash charges – Investments)?” In the German sample, we collected

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\(^2\) In a post hoc analysis to test the robustness of our findings, we improved the construct by adding a third item that was available for the German sample: “Having family traditions carried on [to the next generation] is an important aspect of our work.” ($\alpha = .85$). The results were consistent regardless of how the transgenerational succession intention variable was operationalized.

\(^3\) In practice, private firms seem to rely on multiples of cash flow, earnings, sales, and book value of investments to determine financial value, rather than on complex calculations of net present values (Dahl, 2008). Therefore, our financial control measures appear reasonable for the purpose of this research.
cash flow data by asking: “What is the cash flow of your business (Profit + Non-cash charges)?”

We chose the second measure of cash flow in the German study to ensure that our results were robust with respect to the definition of cash flow used. Investments are not deducted in the second measure; this guards against the possibility that firm value may have increased with the investment despite the temporarily depressed free cash flow. As mentioned before, there was learning between the first and the second survey.

Given that the financial reports for these firms are professionally audited and available to owners and CEOs, we were confident our respondents had sufficient information to respond to our questions about the cash flows. Indeed, we obtained objective data (balance sheets and income statements) for a sub-sample of 39 firms in the Swiss sample as part of a benchmarking project. The correlation between the free cash flows reported by respondents to the survey with those from the benchmarking project was 0.86, indicating high response quality and measurement validity.

Since outperforming competitors is the surest guarantee of continued growth and sustainability, respondents were asked to indicate if their performance in the last three years were much worse, about the same, or higher than their competitors. In both samples we asked four questions regarding growth in sales, growth in market share, return on equity, and the ability to fund growth from profits (shortened from Eddleston et al., 2008). The performance indicators were measured on a five-point scale in the Swiss sample ($\alpha = 0.75$) and a seven-point scale in the German sample ($\alpha = 0.82$). Subjective performance measures are commonly used in studies of privately-held firms where public information is lacking (Love, Priem, and Lumpkin, 2002). Subjective measures have also been shown to be highly correlated with objective performance data (Dess and Robinson, 1984; Love et al., 2002; Venkatraman and Ramanujam, 1987).
Because of the difficulties in directly measuring risk for privately held firms, three separate proxies were used: size, industry and long-term orientation. Risk tends to decrease with the size of the business, which was measured by number of employees and transformed by the natural logarithm for the purpose of our study. Risk, and consequently, value, also tends to vary by industry. We classified the firms by industry using two categorical variables representing firms in the construction and service industries in both samples. Finally, risk and returns can vary depending on the extent to which family firms invest in projects that might only pay off in the long term. We assessed the long-term orientation in both samples by asking subjects to respond to the following question on a seven-point scale: “Our family firm is long-term oriented.”

To control for private benefits in the Swiss sample we asked the respondents to rate on a five-point Likert scale their agreement with the statement: “Family members derive attractive perks from the firm.” In the German sample, we improved upon the measure by asking for the actual financial benefit of perks received from the organization (e.g., car, trips, etc.). As the latter values were not normally distributed, we transformed them using the natural logarithm.

5.4 Non-financial Control Variables

We also controlled for non-financial influences that might affect perceptions of value in both family and non-family firms. These included duration of ownership, amount of ownership, and CEO age.

First, as discussed previously, emotional attachment increases with duration of ownership regardless of whether ownership is held by a family or not (Boyce et al., 1992). Consequently, higher valuations should be expected as the duration of the family’s ownership of the business lengthens (Kahneman et al., 1991). Since in all cases the founding families were still in control of the firms in the sample, the duration of ownership was equal to firm age. The length of time
that the family has owned the firm was measured using an open-ended question about the age of
the family firm. Age of the firm is also a useful proxy for the generation of the family in control
of the firm since founder controlled firms tend to be younger than successor controlled firms.

Second, we controlled for the ownership stake of the family since higher levels of
ownership can imply higher levels of control, involvement, and attachment to the firm (Gómez-
Mejia et al., 2007). Furthermore, the endowment effect suggests that ownership will affect the
asset valuations of both family and non-family owners (Kahneman et al., 1991; Thaler, 1980).

Finally, individuals may form an attachment with an organization through long term
association. For example, studies about family firm succession report that incumbent leaders
have problems letting go owing to their emotional ties to the firm (Le Breton-Miller, Miller, and
Steier, 2004). Thus, we controlled for the age of the CEOs.

6. Results

Means, standard deviations, and zero-order correlations of the Swiss and German sample
are shown in Tables 2 and 3, respectively. The hypothesis proposed in the research model was
tested using hierarchical multiple regression analysis (see Tables 4-5). We entered the control
variables in models 1 and 3 for the Swiss and German samples, respectively. The independent
variable was entered in model 2 for the Swiss sample and model 4 for the German sample.

***Insert Tables 2-5 Here***

For the Swiss sample, model 1 shows that family CEOs’ perceived financial value of
their family firms is significantly related to some of the financial value determinants we used as
control variables. Perceived financial value is positively and significantly related to size (p <
0.001). In addition free cash flow (p < 0.01) and our service industry variable (p < 0.05) are
significant. We need to mention that perceived financial value has a negative, albeit non-
significant relationship with private benefits. Overall, the adjusted $R^2$ is 0.470 and the model is highly significant ($p<0.001$).

Model 2 shows that, as hypothesized, perceived financial value is positively and significantly related to the intention for transgenerational sustainability ($p < 0.05$). Furthermore, the adjusted $R^2$ increases to 0.504 ($\Delta R^2 = 0.035, p < 0.05$). Thus, our hypothesis is supported.

The results for the German sample in Model 3 are consistent with the results for the Swiss sample in Model 1. However, more controls are significant. Cash flow ($p < 0.001$), past performance ($p < 0.001$), firm size ($p < 0.001$), ownership duration ($p < 0.01$), and the construction industry control ($p < 0.01$) are all positively and significantly related to the perceived financial value of the firm. In the analysis of the German sample the private benefits measure has a positive beta, as expected, but is again not significant.\(^4\) Overall, the adjusted $R^2$ is 0.478 and the model is highly significant ($p < 0.001$).

In Model 4, the independent variable is entered. The adjusted $R^2$ increases to 0.505 ($\Delta R^2 = 0.028, p < 0.01$). As hypothesized, there is a significant and positive relationship between the intention for transgenerational sustainability and the perceived financial value attached to the firm by the family CEO ($p < 0.01$). Taken together, these results support the contention that socioemotional value increases family owners’ perceptions of the family firm’s financial value.

\(^4\) The insignificant relationship between perceived value and the private benefits of controlling ownership deserves a brief discussion. Although the relationship between these variables does not affect our principal findings, financial theory and evidence from large public companies suggest that the relationship should be significant and positive. However, this is a measure of agency problems between controlling and non-controlling owners. The insignificant relationships found in this study may a consequence of a general absence of such problems in small and medium-sized firms, or at least among those with high levels of ownership concentration. Thus, the average family ownership in both samples used in this study approached 90%. Therefore, extraction of private benefits would likely not benefit the family substantially since they would bear almost the full cost of those benefits. This is in contrast to the case of large, public firms where control is achieved with a much lower ownership stake (cf., Villalonga and Amit, 2006). In that situation, the cost to the controlling owners is a small fraction of the loss of profits caused by the private benefits consumed. In any event, since the findings for both samples diverge from received financial theory, we suggest that caution should be exercised when applying evidence gathered from large public companies to small and medium sized privately held family firms.
6.1 Endogeneity Checks

To supplement our analysis we checked for the possibility of endogeneity between our independent and dependent variables (e.g., Hamilton and Nickerson, 2003) using instrumental variables in a two stage least square estimation. We chose instrumental variables that were conceptually and statistically related to transgenerational sustainability intentions but not to the perceived financial value of the business.\(^5\) The literature suggests that transgenerational sustainability intentions can be affected by the family’s status in the community, the satisfaction arising from belonging and harmony, and the family’s ability to exercise authority (Chrisman, Chua, and Zahra, 2003; Gomez-Mejia et al., 2007). On the other hand, if endogeneity is a problem in this study perceived financial value would cause transgenerational sustainability intentions rather than the reverse as we have hypothesized and there would be no conceptual justification for a relationship between status, belongingness, or authority and perceived financial value. Thus, since the instrumental variables are expected to affect transgenerational sustainability intentions, they would have, at best, an indirect relationship with the perceived financial value of the firm.

The three instrumental variables were used in a two stage least squares regression to test for possible endogeneity as follows. In the first step, the three instruments were used to estimate our determinant of family oriented socioemotional value – transgenerational sustainability intentions. The estimated variable was then regressed against family owners’ perceived value of their firms. As shown in Appendix B, the re-estimated transgenerational sustainability intentions variable remained significant in the predicted direction (German sample, \(\beta = .213; p < 0.001\) and

\(^5\) The instruments were operationalized slightly differently in the Swiss and German sample; however the variables tapped into the same content domains.
Swiss Sample, $\beta = 0.198; p < 0.05$). These results suggest that endogeneity was not a problem in either sample.

6.2 Robustness Tests

Besides testing for endogeneity we ran robustness checks to ensure that our results were not an artifact of the variables used in the study. The significant positive relationship between transgenerational sustainability intentions and the perceived financial value of the firm remained significant when CEO ownership instead of family ownership, and organizational tenure instead of CEO age, were used in the Swiss sample. Furthermore, as mentioned above, our hypothesis was also confirmed when we used a three-item measure of intentions for transgenerational sustainability (see Appendix) in the German sample.

Finally, for all German respondents we compared the owners’ assessment of the minimum acceptable price that they would be willing to sell the firm to family members with the minimum acceptable price that they would be willing to sell the firm to non-family buyers. We found that owners would be willing to sell the firm to family members for 22% less than they would be willing to sell it to an external party ($p < 0.001$). This is consistent with our theory and hypothesis, which would predict the selling price to family members to be substantially lower, since a premium to compensate for the loss of socio-emotional value would not be included in the selling price to family members.

7. Discussion and Conclusions

Using a sample of 82 CEOs of family firms in Switzerland and 148 CEOs in Germany, this study embarked on an investigation of the price that owners of family firms would be willing to sell their firms. Invoking the endowment effect and status quo bias from the economics literature (Samuelson and Zeckhauer, 1988; Thaler, 1980), and socioemotional value concepts
from the family business literature (Gómez-Mejia et al., 2007), we hypothesized that
transgenerational sustainability intentions, a distinctive characteristic of family firms, would
positively influence family owners’ perceptions of the financial value of their family firms.

Our results indicate that family firms do indeed appear to generate socioemotional value
for family owners as suggested in the literature (e.g., Gómez-Mejia et al., 2007; Sharma et al.,
1997). These results are important because efforts to secure or protect socioemotional value are
thought to influence decision-making as well as economic performance (Chrisman et al., 2005).
By providing evidence that socioemotional value exists and can be captured by an essential,
almost definitional, characteristic of the family firm (Chua et al., 1999), our study adds to the
justification and legitimacy of family business studies and indicates that rational, economic-
person explanations of family firm behavior cannot form the sole basis for a theory of the family
firm (see also Astrachan and Jaskiewicz, 2008; Zellweger and Astrachan, 2008). Our results also
have important implications for family business succession because the presence of
socioemotional value could affect the controlling family’s decision to sell the business or pursue
intra-family succession options.

7.1 Limitations

Before discussing implications for research we need to mention the principal limitations
of this study. First, our study utilized a cross-sectional design; therefore, while endogeneity does
not appear to be a problem we can not demonstrate causality. Second, the potential for non-
response bias and common method bias still exists despite the test results suggesting the absence
of these problems. However, as we conducted two separate studies, the possibilities of biases that
would invalidate our results seem remote. Third, our sample sizes are relatively small, which
raises questions about statistical power and the possibilities of Type II errors, i.e., incorrectly
accepting the null hypothesis (Mazen, Hemmasi, and Lewis, 1987). However, this did not seem to be a problem since we found support for our main effects and a post hoc analysis showed acceptable power levels (Cohen, 1988).

We also need to mention that the perceived value of a firm’s equity from the standpoint of family owner-CEOs may not precisely measure the true underlying value of a family firm if it were actually sold. However, to achieve our purpose in this study, we did not need an exact measure of the true financial value of the sample firms; instead, we only needed to show that transgenerational sustainability intention – as an indicator of socioemotional value – is a significant driver of perceived financial value after controlling for financial and non-financial influences common to family and non-family firms. That purpose was achieved in this study. In addition, the post-hoc test for the German sample showing that the price that family owners would sell the firm to an outsider was 22% higher than the price they would demand from a buyer within the family further confirms the validity of our measures and findings.

We also need to mention that CEO-owners’ assessments may be influenced by market forces. While we controlled for industry effects and measured perceived value in two different time frames with no apparent impact on our findings, we encourage future studies to use more fine-grained industry controls as well as measures that control for the market attractiveness of mergers and acquisitions, especially in a longitudinal study.

Our transgenerational sustainability intentions construct only assesses the perceived opportunity of succession and the desire to maintain family legacy and traditions. It does not address the next generation’s willingness to take over the business or current involvement in the organization. While this would not seem to have a significant effect on our results because of the
rather young average age of our respondents (early 50s), future research should measure the willingness and ability of potential successors (De Massis, Chua, and Chrisman, 2008).

Finally, our two samples were composed of firms located in Switzerland and Germany, which may have important cultural differences from firms in the U.S. and other nations (Hofstede, 2001). Since business practices between Europe and the US have become more comparable (Carr, 2005), we do not believe that cultural factors significantly influenced our results. However, more research is needed before we can be confident of their generality.

7.2 Research Implications

Aside from attempting to overcome the limitations of our study by conducting longitudinal research, obtaining data from multiple sources, and confirming or refuting our findings with larger samples and in different cultural settings, there are a number of fruitful directions future research might take. The literature’s emphasis on the importance of non-economic goals in family firms needs to be more fully investigated (Chrisman et al., 2005). Gomez-Mejia et al. (2007) contributed to the literature by specifying the preservation of socioemotional value as a critical non-economic goal of family firms. But because they did not provide direct evidence of the existence of socioemotional value, alternative explanations for the observed family business behavior are possible.

For example, since socioemotional value may also occur in non-family settings where attachments to an organization develop (cf., Kahneman et al., 1991) further research should more fully specify contextual factors that promote the unique development of socioemotional value in family firms. Comparative studies about the importance of the basic demographic factors such as CEO tenure, CEO ownership tenure, number of potential successors, gender, ethnicity, and
whether the principal CEO owner is the founder or successor may also provide supplementary insights to enrich our understanding of socioemotional value in family firms.

This study provides direct evidence on the existence of socioemotional value in family firms but does not attempt to establish linkages between socioemotional value and family firm behavior. Further research on how socioemotional value affects family firm decision-making therefore appears warranted. For example, aside from the willingness to take strategic risks (Gómez-Mejia et al., 2007), socioemotional value may also influence family firms' ability to shed individual assets (Sharma and Manikutty, 2005) and institute professional management practices (Gedajlovic, Lubatkin, and Schulze, 2004). Socioemotional value may also of course have significant implications for management succession (Shepherd and Zacharakis, 2000).

Socioemotional value seems to be multi-dimensional and we make no pretence that this study has addressed all of its relevant components. For example, social identity theory might enrich the socioemotional rationale for the endowment premium of family firms. Indeed, the extent to which an individual’s personal identity is fulfilled through family control (Milton, 2008) also deserves attention as does the family’s social capital (Arregle, Hitt, Sirmon, and Very, 2007). People are known to define themselves based on their group memberships and roles (Ashforth, Harrison, and Corley, 2008). As a result, family members could develop a strong sense of identification with the family business (Davis and Herrera, 1998) and have difficulty separating their mental concepts of the business from their mental concepts of the family (Gersick, Davis, Hampton, and Lansberg, 1997). Thus, family owners may uniquely attach socioemotional value to the continued control of the firm because of their identification with both the firm and the family, and this might have both positive and negative consequences.
The relationship between family altruism (Schulze et al., 2001), stewardship (Corbetta and Salvato, 2004; Eddleston and Kellermanns, 2007), and socioemotional value also could be studied. Socioemotional value might, for example, provide an impetus for altruistic behavior or act as a brake when extreme asymmetries in altruism exist between family owners and family managers. It might also help explain variations in stewardship behavior among family members.

Moreover, our application of prospect theory (Kahneman et al., 1991; Kahneman and Lovallo, 1993; Kahneman and Tversky, 1979; Tversky and Kahneman, 1974) will hopefully inspire additional applications. For example, the isolation effect in prospect theory implies a tendency to judge the risks of each situation individually rather than in the context of the firm’s other activities (Kahneman and Lovallo, 1993). In the context of family firms, the isolation effect might lead to an inaccurate estimation of the risks of a single decision to appoint an individual family manager with limited experience, or that of pursuing a corporate venturing initiative because it fits the skills of a particular family member who wishes autonomy, thus leading to a failure to consider the impact of such decisions on the behavior and performance of the entire management team or the total set of diversification opportunities available.

More applicable to the current study is a recent finding that economic transactions among friends can reverse the endowment effect and cause asymmetric generosity, from sellers to buyers but not from buyers to sellers (Mandel, 2006). If a similar relationship exists in family firms we should expect a wide divergence between the price at which family owners are willing to sell the business to the next generation and the price at which they are willing to sell the business to a nonfamily purchaser. Our post-hoc comparison of perceived selling prices to family and non-family buyers provides initial support for this premise. Furthermore, if next generation family members are able to obtain ownership for a lower-than-market price, this would provide
them with advantages vis-à-vis non-family firms in pursuing entrepreneurial initiatives in new markets by lowering their reservation prices for such investments. Thus, there appears to be a number of research directions from taking a prospect theory perspective that would increase our knowledge about family firms.

7.3 Implications for Practice

Since the perceived financial value of a family business, including its socioemotional value, ultimately reflects the perceived net benefit of owning the firm (Carmon and Ariely, 2000), it is relevant in determining the selling price that family owners are willing to accept (Carmon and Simonson, 1998). Our findings thus provide insight into the cost-benefit considerations of family firm owners. Simply put, socioemotional value considerations, such as those captured through transgenerational sustainability intentions, colors perceptions of firm value, which in turn will influence the likelihood that a family firm can and will be sold. For practitioners our findings indicate that family firms may be particularly difficult to sell or buy when the firm provides substantial socioemotional value to family owners. This difficulty is exacerbated if, as previous research suggests, both buyers (Van Boven, Loewenstein, and Dunning, 2003) and sellers (Loewenstein and Adler, 1995) are unable to estimate the extent to which the endowment effect influences the price at which the seller is willing to part with an asset. While our study thus does not provide a specific formula for predicting the size of the endowment effect it does serve to alert practitioners to its presence and importance.

The inability to consummate exchanges because of a wide divergence in the buyer’s willingness to pay and the seller’s willingness to accept also has implications for family firm owners who face failure. Efforts must be made to decouple emotional attachments from economic realities if anything is to be salvaged for later generations (Shepherd, 2009; Shepherd,
Wiklund, and Haynie, 2009). However, this is exactly what prior research indicates that family firms find so difficult to do (Gómez-Mejia et al., 2007).

Our results also suggest that due diligence on the part of buyers is particularly important in the purchase of a family firm since sellers are likely to systematically overvalue it. Indeed, a complex iterative bidding process may be necessary to achieve convergence between the seller of the family firm and the potential buyer (Coursey, Hovis, and Schulze, 1987). Appraisals from disinterested outsiders may be another alternative.

Given that socioemotional value can materially influence negotiations between buyers and sellers, practitioners should also be aware that the non-financial terms of the deal may be as important as the financial terms. For example, retaining the original name of the firm, providing continued employment to key family and non-family members, and otherwise preserving aspects of the family legacy might be used as levers of negotiation for the benefit (or ill) of one or both parties (e.g., Howorth et al., 2004). In short, to the extent that socioemotional value is an important consideration in firm valuation, our findings take a step toward providing a better practical understanding of the difficulties associated with transitions of corporate control in the context of family firms.

7.4 Conclusions

In conclusion, the results of our study suggest that socioemotional value in family firms can exacerbate typical endowment effects and status quo biases. Furthermore, these results provide crucial insights into the role and meaning of family firms to their owners. Taken individually and together the concept of socioemotional value and the precepts of prospect theory add new possibilities for useful research that can broaden our understanding of family firm behavior and performance.
References


Table 1: Comparison of Descriptive Statistics with GEM Switzerland\(^1\), GEM Germany\(^2\), SBF survey\(^3\) and IFM survey\(^4\)

<table>
<thead>
<tr>
<th>Variable</th>
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<th>Upper Bound</th>
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**Age of respondent**

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**Age of firm**

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<tr>
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<td>49</td>
<td>68.2</td>
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**Sales**

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Sources:

1 GEM Switzerland: (Volery et al., 2007)
2 GEM Germany: (Sternberg and Lückgen, 2005)
3 SBFS: (Daeppen and Roth, 2005)
4 IFM Bonn: (Guenterberg, 2007)
Table 2: Correlation Matrix, Means and Standard Deviations: Swiss Sample

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<th>Variables</th>
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<td>2. Past performance</td>
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<td>3. LN Firm Size (Employees)</td>
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<td>4. Industry 1 (Construction)</td>
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<td>.20†</td>
<td>.22*</td>
<td>.13</td>
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<td>5. Industry 2 (Service)</td>
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<td>.01</td>
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<td>7. CEO Age</td>
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<td>.11</td>
<td></td>
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<td>8. Private Benefits</td>
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<td>-.28*</td>
<td>.06</td>
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<td>11. Transgenerational Sustainability Intentions</td>
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<td>.27*</td>
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<td>.58***</td>
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N =82, † p <.10; * p <.05; ** p < .01, *** p <.001

Table 3: Correlation Matrix, Means and Standard Deviations: German Sample

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<th>Variables</th>
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<tr>
<td>2. Past Performance</td>
<td>5.28</td>
<td>.98</td>
<td>.09†</td>
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<tr>
<td>3. LN Firm Size (Employees)</td>
<td>4.66</td>
<td>1.07</td>
<td>.43***</td>
<td>.06</td>
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<tr>
<td>4. Industry 1 (Manufacturing)</td>
<td>0.40</td>
<td>0.49</td>
<td>.03</td>
<td>.01</td>
<td>.05</td>
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<tr>
<td>5. Industry 2 (Service)</td>
<td>0.27</td>
<td>0.45</td>
<td>-.10</td>
<td>-.13</td>
<td>-.14†</td>
<td>-.43**</td>
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<td>6. Family Ownership</td>
<td>86.83</td>
<td>25.00</td>
<td>-.06</td>
<td>-.13</td>
<td>-.10</td>
<td>.06</td>
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<td>7. CEO Age</td>
<td>51.67</td>
<td>11.27</td>
<td>.20*</td>
<td>.06</td>
<td>.12</td>
<td>.04</td>
<td>.03</td>
<td>.03</td>
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<tr>
<td>8. LN Private Benefits</td>
<td>10.02</td>
<td>1.06</td>
<td>.15†</td>
<td>.12</td>
<td>.02</td>
<td>.15†</td>
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<td>-.01</td>
<td>.10</td>
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<td>9. Duration of Ownership/Firm Age</td>
<td>48.59</td>
<td>39.43</td>
<td>.06</td>
<td>-.08</td>
<td>.17*</td>
<td>.14</td>
<td>-.20*</td>
<td>.29**</td>
<td>-.04</td>
<td>.07</td>
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<tr>
<td>10. Long-term Orientation</td>
<td>6.30</td>
<td>0.97</td>
<td>-.01</td>
<td>.20*</td>
<td>.11</td>
<td>.04</td>
<td>-.11</td>
<td>.07</td>
<td>-.03</td>
<td>-.09</td>
<td>.13</td>
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<tr>
<td>11. Transgenerational Sustainability Intentions</td>
<td>4.85</td>
<td>1.76</td>
<td>-.06</td>
<td>-.01</td>
<td>.04</td>
<td>.01</td>
<td>-.02</td>
<td>.19*</td>
<td>-.01</td>
<td>.07</td>
<td>.30***</td>
<td>.22**</td>
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<tr>
<td>12. LN Acceptable Sales-Price</td>
<td>15.60</td>
<td>1.23</td>
<td>.51***</td>
<td>.34***</td>
<td>.51**</td>
<td>.20*</td>
<td>-.18</td>
<td>-.02</td>
<td>.03</td>
<td>.15†</td>
<td>.26***</td>
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<td>.21*</td>
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N =148, † p <.10; * p <.05; ** p < .01, *** p <.001
### Table 4: Results of Regression Analysis: Swiss Sample

<table>
<thead>
<tr>
<th>Variables</th>
<th>Model 1</th>
<th>Model 2</th>
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<tbody>
<tr>
<td><strong>Controls</strong></td>
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</tr>
<tr>
<td>Free cash flow</td>
<td>.274**</td>
<td>.234*</td>
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<tr>
<td>Past performance</td>
<td>.100</td>
<td>.094</td>
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<tr>
<td>Ln Firm size (Employees)</td>
<td>.434***</td>
<td>.430***</td>
</tr>
<tr>
<td>Industry dummy 1 (Construction)</td>
<td>-.023</td>
<td>-.038</td>
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<tr>
<td>Industry dummy 2 (Service)</td>
<td>.201*</td>
<td>.176†</td>
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<tr>
<td>Long-term orientation</td>
<td>.086</td>
<td>.087</td>
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<tr>
<td>Private benefits</td>
<td>-.139</td>
<td>-.163†</td>
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<tr>
<td>Duration of family ownership/Firm age</td>
<td>.001</td>
<td>-.052</td>
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<tr>
<td>Family ownership</td>
<td>.118</td>
<td>.124</td>
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<tr>
<td>CEO Age</td>
<td>.001</td>
<td>.023</td>
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<tr>
<td><strong>Independent Variable</strong></td>
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<td></td>
</tr>
<tr>
<td>Transgenerational Sustainability Intentions</td>
<td></td>
<td>.203*</td>
</tr>
</tbody>
</table>

R² | .536 | .571 |
Adjusted R² | .470 | .504 |
Δ R² | .035* |
F  | 8.186*** | 8.468*** |

N = 82, † p <.10; * p <.05; ** p <.01, *** p < .001
1 Standardized Regression Weights

### Table 5: Results of Regression Analysis: German Sample

<table>
<thead>
<tr>
<th>Variables</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
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<tbody>
<tr>
<td><strong>Controls</strong></td>
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<tr>
<td>Cash flow</td>
<td>.333***</td>
<td>.349***</td>
</tr>
<tr>
<td>Past performance</td>
<td>.297***</td>
<td>.299***</td>
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<tr>
<td>Ln Firm size (Employees)</td>
<td>.326***</td>
<td>.320***</td>
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<tr>
<td>Industry dummy 1 (Construction)</td>
<td>.180**</td>
<td>.189**</td>
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<tr>
<td>Industry dummy 2 (Service)</td>
<td>.062</td>
<td>.058</td>
</tr>
<tr>
<td>Long-term orientation</td>
<td>.014</td>
<td>-.020</td>
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<tr>
<td>Ln private benefits</td>
<td>.036</td>
<td>.019</td>
</tr>
<tr>
<td>Duration of family ownership/Firm age</td>
<td>.179**</td>
<td>.133*</td>
</tr>
<tr>
<td>Family ownership</td>
<td>.015</td>
<td>-.003</td>
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<tr>
<td>CEO Age</td>
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<td>-.103†</td>
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<tr>
<td><strong>Independent Variable</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transgenerational Sustainability Intentions</td>
<td></td>
<td>.181**</td>
</tr>
</tbody>
</table>

R² | .514 | .542 |
Adjusted R² | .478 | .505 |
Δ R² | .028** |
F  | 11.545*** | 11.066*** |

N = 148, † p <.10; * p <.05; ** p <.01; *** p < .001
1 Standardized Regression Weights
## Appendix A:
### Scale Items and Reliabilities

<table>
<thead>
<tr>
<th>Construct</th>
<th>Items</th>
<th>α Swiss/ α German</th>
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</thead>
<tbody>
<tr>
<td><strong>Dependent Variable</strong></td>
<td></td>
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</tr>
<tr>
<td><em>Acceptable Sales Price</em></td>
<td>What is the minimum acceptable sales-price at which you are willing to sell 100% of your company's equity to a non-family member?</td>
<td></td>
</tr>
<tr>
<td><strong>Independent Variable</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Transgenerational Sustainability Intentions</em></td>
<td>The family faces the opportunity to pass on the business to future generations</td>
<td>.83/.70</td>
</tr>
<tr>
<td></td>
<td>Continuing the family legacy and traditions is important to us</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Having family traditions carried on is an important aspect of our work.¹</td>
<td></td>
</tr>
<tr>
<td><strong>Control Variables</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Past Performance/Growth</em></td>
<td>How would you rate your firm’s performance as compared to your competitors?</td>
<td>.75/.82</td>
</tr>
<tr>
<td></td>
<td>Growth in sales</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Growth in market share</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Return on equity</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ability to fund growth from profits</td>
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</table>

¹Item included in German Sample to enhance alpha in a post-hoc test (α = .85), findings remained consistent regardless of construct conceptualization.
### Appendix B: Endogeneity Tests

**Variables**

<table>
<thead>
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<th>Swiss Sample</th>
<th>German Sample</th>
</tr>
</thead>
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<tr>
<td><strong>Controls</strong></td>
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<td></td>
</tr>
<tr>
<td>(Free) Cash flow(^1)</td>
<td>.248**</td>
<td>.340***</td>
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<tr>
<td>Past performance</td>
<td>.120</td>
<td>.284***</td>
</tr>
<tr>
<td>Ln Firm size (Employees)</td>
<td>.395***</td>
<td>.304***</td>
</tr>
<tr>
<td>Industry dummy 1 (Construction)</td>
<td>-.039</td>
<td>.198**</td>
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<tr>
<td>Industry dummy 2 (Service)</td>
<td>.189*</td>
<td>.070</td>
</tr>
<tr>
<td>Long-term orientation</td>
<td>.029</td>
<td>-.026</td>
</tr>
<tr>
<td>Private benefits(^1)</td>
<td>-.196*</td>
<td>.047</td>
</tr>
<tr>
<td>Duration of family ownership/Firm age</td>
<td>-.031</td>
<td>.138*</td>
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<tr>
<td>Family ownership</td>
<td>.112</td>
<td>-.020</td>
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<tr>
<td>CEO Age</td>
<td>.021</td>
<td>-.094</td>
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<tr>
<td><strong>Independent Variable</strong></td>
<td></td>
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</tr>
<tr>
<td>Transgenerational Sustainability Intentions (estimated)(^2)</td>
<td>.198*</td>
<td>.213***</td>
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<tr>
<td>R(^2)</td>
<td>.565</td>
<td>.552</td>
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<tr>
<td>Adjusted R(^2)</td>
<td>.496</td>
<td>.515</td>
</tr>
</tbody>
</table>

**F**

8.257*** 15.217***

---

Swiss Sample N = 82; German Sample N = 148, \(^1\) p < .10; \(^*\) p < .05; \(^**\) p < .01, \(^***\) p < .001

\(^1\) Constructs were measured differently across samples.

\(^2\) Re-estimated variable using 3 instruments.