

# USING INTERPRETIVE STRUCTURAL MODELLING TO EXPLORE SOCIO-EMOTIONAL WEALTH (SEW) THAT INFLUENCE ON FAMILY FIRM PERFORMANCE

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## ABSTRACT

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Family firm are very important organization form because it generate more than 50 % of GDP of many countries but empirical research still not clear how family involvement in family business influence on firm performance. The objective of this study is to explore the relationships between the factors of socio-emotional wealth relating to governance mechanism, and the entrepreneurial orientation impact on performances of family firm in Thailand. This study was employed interpretive structural modelling technique. Data were collected by applying the Delphi method from the seven experts from scholar and automobile industry. This study found that the factors of socio-emotional wealth has a strong power on ownership, the notion of fairness, the board of directors, an entrepreneurial orientation and firm performance. This finding would be beneficial to practitioners on how to balance their socio emotional wealth or the effective needs or goals of a family and effective strategies to improve family firm performance.

**Keywords:** Interpretive structural modelling, Socio-emotional wealth, family firm performance.

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## Introduction

Family firms are the most important organizational form in the world. They operate in a broad range of industries and create more than 50% of the GDP of some countries (Cheng, 2014). The literature widely recognizes that family firms are the result of combining family and business systems and have a complex web of relations; however, empirical research has not reached a consensus on whether family involvement is efficacious or deleterious to firm performance (Suess, 2014; Pindado & Requejo, 2015). Furthermore, the relationships between governance and firm performance are still unclear because of conflicting and ambiguous empirical findings (Anderson & Reeb, 2003; Miller et al., 2007; O'Boyle et al., 2012). This may be because the performance of a family firm depends on many factors (Reyna & Encalada, 2012).

Among those factors, the socio-emotional wealth of the owner is considered as an interesting facet to explore. It is regarded as a very new concept. In addition, it is believed that the intrinsic

wealth of the owner affects the governance and performance of family firms but there is a lack of empirical evidence about how or can socioemotional wealth of family member who managed family firm impact on governance mechanism and firm performance (Gomez-Mejia, Cruz, Berrone, & De Castro, 2011a). In this scenario, our starting point is to examine how socio-emotional wealth affects the governance mechanism of family firms and their performance by using interpretive structural modelling. These recent developments warrant a more nuanced understanding of the internal dimensions of how family firms interact with each other in order to determine the behaviour of these firms and how to improve the governance mechanisms that are used in family firms to enhance family firm performance.

## Literature Review

In this part, literature is reviewed on family firm, theoretical background and ISM

## FAMILY FIRM

Family firms are defined as firms that governed or managed by a members of the same family with the aim to shape and pursue the vision of the firms that is sustain and transfer business to next generations of the families.(Chua et al., 1999)

Family firms reside at the intersection of two systems: the family system and the business system (Goel et al., 2012). Thus, family involvement has a strong impact on the behaviour within a firm. Moreover, family and non-family managers also exhibit both agent and steward behaviours. Agent behaviours can be harmful and steward behaviours can be helpful to family firms. Therefore, the governance of family firms must curb agent behaviours and enhance steward behaviours within the firm, thus positively affecting firm performance. The organizational reality is that both types of governance may coexist (Madison, Holt, Kellermanns, & Ranft, 2015).

## THEORETICAL BACKGROUND

Agency theory describes the relationship between the principal and the agent-manager from an economics view. The theory suggests that managers will behave according to their opportunistic self-interests rather than behave in order to maximize the principal's interests (Jensen & Meckling, 1976; Eisenhardt, 1989). As such, the principal will establish governance mechanisms to monitor the manager's behaviour, such as the use of a board of directors and ownership to curb opportunistic behaviour, and subsequently increase firm performance ( Cruz et al., 2010). Because a board of directors and family firm ownership can reduce agency problems by aligning the manager's interests with the principal (Conaughy, 2000), the problems associated with the separation of ownership and management are reduced (Jensen & Meckling, 1976 ;Anderson & Reeb, 2003).

Stewardship theory describes the relationship between the principal and steward-manager according to a humanistic model of man. It depicts managers as stewards whose behaviour is based on an intrinsic desire to serve the firm and will therefore naturally align with the principal's interests (Corbetta & Salvato, 2004; Zahra et al., 2008). The stewardship governance mechanism is based on the nature of the work environment and the culture of the organization and includes systems that encourage cooperation and empower and motivate employees through factors such as

fairness, thereby enabling pro-organizational behaviours and enhancing firm performance. Psychological factors, such as identification and intrinsic motivations, are suggested to facilitate steward behaviour (Davis et al., 1997).

According to the literature review and past research reviews, the current study examined 6 factors that affect the performance of family firm, which are given as follows.

Socio-emotional Wealth (SEW) was first introduced by (Gomez-Mejia et al., 2007). These scholars defined SEW as the effective needs or goals of a family. SEW is an affect-related value (Berrone et al., 2012) that is intrinsic to and inextricable from a family firm (Romero & Ramírez, 2016). It represents affective endowment that is attached to kinship ties and affects the performance through the governance mechanism of the family firm (Cruz et al., 2012).

We now focus more on the governance mechanism of the family firm, which is defined as the ownership tool that is used to ease the flow of information among the family firm's members and to clearly reward the members while fostering a sense of ownership (Gersick & Feliu, 2014). A successful family business often creates a unique mechanism of family governance that is dependent on family values (Jaffe & Lane, 2004). It is the process and structure of the family business system that puts it at the highest level of the firm in order to assure accountability and control. The family firm governance mechanism generally exercises the best possible decisions for the direction of the business (Gallo & Rouvinez, 2005). According to various literature reviews, the governance mechanism of a family firm consists of the ownership, fairness and the strategic management of the board of directors.

Ownership is an important factor in family firm governance (La Porta et al., 2000). It is considered as the legal rights of the owner (Rudmin & Berry, 1987). Ownership represents the dispersal of power and control in the family firm, which is very complicated due to the attached family ties and social status (Aguilera & Cladera, 2012). According to agency theory, concentrated ownership results in more effective monitoring and control and affects overall firm performance (Fama & Jensen, 1983).

Fairness is an impression management process within the firm. Fairness as a governance mechanism of the family firm was first initiated by Greenberg in 1988. Fairness is crucial to a family firm because it helps the firm to function effectively by enhancing the power of the board of

directors who must behave fairly in terms of evaluating their employees' performance, the allocation of resources, and the implementation of rules (Lau & Sardesai, 2012).

The board of directors is the most important internal governance mechanism of the firm (Fama & Jensen, 1983). The board of directors is the group of people who have direct access to all the information concerning the strategic management of the firm and oversee all activities affecting the performance of the firm. The positive agency theory indicates that a strong monitoring process by the directors can increase shareholders' value. The effectiveness of the board is then evaluated by its ability to align management in order to reduce the potential losses in firm value (Jensen & Meckling, 1976). Entrepreneurial firms are those in which the top managers have entrepreneurial management styles, as evidenced by the firms' strategic decisions and operating management philosophies. Non-entrepreneurial or conservative firms are those in which the top management style is decidedly risk-averse, non-innovative, and passive or *reactive*.

Entrepreneurial orientation is defined as the top management style that encapsulates the behaviour, the strategic decision making and the managerial philosophy of the firm in relation to innovation, pro activeness, and risk taking (Covin & Wales, 2012).

Firm performance is referred to as a subset of firm variables that cover operational and financial outcomes. As consistently indicated in various literature reviews, firm performance indicators include profits, growth, cost reductions and customer satisfaction (Combs et al., 2005).

## ISM

In 1973, Warfield firstly used ISM for exploring relationship among factors of economic and social systems which were highly complicated (George & Pramod, 2014; Rehman & Shrivastava, 2011). In current years, ISM has been used for management research. (Kumar et al., 2013). ISM refers to the methodical application of the basic views of theoretical, conceptual, and calculation power is engaged to efficiently construct a directed graph, or linkage sketch, of the complex form of the contextual relationship between the various factors of the system (Sindhwani & Malhotra, 2017).

An interpretation of this relationship is based on the judgments of specialists and practitioners from industry and scholar or those

involved in the essential context. The factors are explored whether they are related to the essential context or not and how so (Luthra et al., 2011). The complex relations of the model structure are classified. The completed process gives an overall picture of the model structure and a diagram showing the relations between the factors (Poduval & Pramod, 2015; George & Pramod, 2014; Sushil, 2012).

## RESEARCH METHODOLOGY

Data used in the research were collected by applying the Delphi method. This method is recognized as an iterative process where consensus is reached through feedbacks of experts' judgment and opinion, this technique remains useful to explore the impact of socioemotional wealth of individuals on management activities, particularly in family firm, since empirical evidence of these issues are scarcely (Hallowell & Gambatese, 2010; Suess-Reyes, 2017; Pindado & Requejo, 2015b)

Family firm defined as those firm that family member involve in management and control with the aim to sustain and transfer business to next generation (Chua et al., 1999). This study adopted the working experience and the knowledgeable in field of a family firm or entrepreneurial firm as key criteria to qualify experts, those experts involved refers to professionals or researchers having special knowledge or experience, which are apparent by several particular requirements such as working appointments, professional qualifications (Hallowell & Gambatese, 2009). There are seven experts from scholar and automobile industry in Thailand, particularly those automobile dealer and spare part manufacturing, for the reason that these form of organization more likely to be an entrepreneurial firm that managed and controlled by member of same family. Furthermore, The five experts from family firm consisted of owner/founder and family CEO who are the member of family that manage and control the firm with the aim to transfer family business to their children. The two experts from scholar were consulted. Each qualified expert has over 15 years of experience and is well knowledgeable with family firm governance issues, experts' judgment as shown in Table 1.

**Data analysis** using ISM technique. This technique encompasses eight steps (Rehman & Shrivastava, 2011; Sindhwani & Malhotra, 2017). The detail is as follows.

**Step 1: Identification of the variables**

The first step of ISM is the generation phase. This step requires a literature review of grounded theory and brainstorm of the experts from scholar or industry (Poduval & Pramod, 2015; Sushil, 2012).

**Step 2: Identification of the contextual relationships between the variables**

This step in ISM is the formation of hierarchical structures for a set of variables based on the minimum information about the pairwise connections. In this way, the relationship structure can be defined. It should be noted that the contextual relationships between variables can be directional in one or both ways (Dubey et al., 2015). The number of pairwise relationships depends on the total number of variables. There are 30 pairwise relationships in this study as shown in Table 1

**Table 1** Identification of the contextual relationships between the variables

No.	Variable	Relationship between factors	AP1	AP2	AP3	AP4	AP5	DI	EE	FB	FC
<b>(A) Socioeconomic Wealth</b>											
1	201-02	Socioeconomic Wealth influence on Ownership	V								
2	201-01	Ownership influence on Socioeconomic Wealth		V							
3	211-01	Socioeconomic Wealth influence on Firmness	V								
4	211-01	Firmness influence on Socioeconomic Wealth		V							
5	211-04	Socioeconomic Wealth influence on Board of Director	V								
6	211-04	Board of Director influence on Socioeconomic Wealth		V							
7	211-02	Socioeconomic Wealth influence on Entrepreneurial orientation	V								
8	211-02	Entrepreneurial orientation influence on Socioeconomic Wealth		V							
9	211-05	Socioeconomic Wealth influence on Family Firm Performance	V								
10	211-05	Family Firm Performance influence on Socioeconomic Wealth		V							
<b>(B) Ownership</b>											
11	121-02	Ownership influence on Firmness	V								
12	121-02	Firmness influence on Ownership		V							
13	121-04	Ownership influence on Board of Director	V								
14	121-04	Board of Director influence on Ownership		V							
15	121-05	Ownership influence on Entrepreneurial orientation	V								
16	121-05	Entrepreneurial orientation influence on Ownership		V							
17	121-05	Ownership influence on Family Firm Performance	V								
18	121-05	Family Firm Performance influence on Ownership		V							
<b>(C) Firmness</b>											
19	201-04	Firmness influence on Board of Director	V								
20	201-03	Board of Director influence on Firmness		V							
21	211-05	Firmness influence on Entrepreneurial orientation	V								
22	211-05	Entrepreneurial orientation influence on Firmness		V							
23	211-05	Firmness influence on Family Firm Performance	V								
24	211-05	Family Firm Performance influence on Firmness		V							
<b>(D) Board of Director</b>											
25	121-05	Board of Director influence on Entrepreneurial orientation	V								
26	121-04	Entrepreneurial orientation influence on Board of Director		V							
27	121-04	Board of Director influence on Family Firm Performance	V								
28	121-04	Family Firm Performance influence on Board of Director		V							
<b>(E) Entrepreneurial orientation</b>											
29	121-05	Entrepreneurial orientation influence on Family Firm Performance	V								
<b>(F) Family Firm Performance</b>											
30	121-05	Family Firm Performance influence on Entrepreneurial orientation		V							

**Step 3: Developing Structural Self-Interaction Matrix (SSIM)**

Creating a structural relationship matrix can be done by interpreting the meaning obtained from step 2 and using a symbolic representation instead of the relational form. There are four possible relationship forms: 1) variable A affects B through letter V, 2) variable A is influenced by variable B through letter A, 3) variable A and variable B affect each other through letter X, and 4) no relationship exists between variables A and B through letter O. In this research, four symbols are used and defined as follows: 1) V represents

the forward relationship from Vi to Vj, 2) A represents the reverse relationship from Vj to Vi, 3) X represents the dual directional relationship where Vi and Vj influence each other, and 4) O represents that no relationship exists between Vi and Vj. A typical SSIM of this research is shown in Table 2

**Table 2** Structural Self-Interaction Matrix (SSIM).

	G1	G2	G3	G4	G5	G6
G1	1	V	V	V	V	V
G2		1	V	V	V	V
G3			1	X	O	X
G4				1	X	X
G5					1	X
G6						1

**Step 4: Developing an Initial Reachability Matrix**

The SSIM is then transformed into a reachability matrix, which represents the relationship between variables in a binary format of 1 and 0. In this matrix, the relationships are transformed into binary format by applying commuting, as shown in Table 3

**Table 3** Binary format conversion

Relationship	Vij	Vji
V	1	0
A	0	1
X	1	1
O	0	0

Based on the above conversion, the SSIM given in Table 2 is converted to the initial reachability matrix, as given in Table 4

**Table 4** Initial Reachability Matrix

	G1	G2	G3	G4	G5	G6
G1	1	1	1	1	1	1
G2	0	1	1	1	1	1
G3	0	0	1	1	0	1
G4	0	0	1	1	1	1
G5	0	0	0	1	1	1
G6	0	0	1	1	1	1

Take G3-G5 for example. Given O, cells G35 and G53 in the Reachability Matrix are designated as 0. With the G1-G3 relationship

being forward, cell V13 is designated as 1 and V31 is designated as 0. The other cells in the matrix can be completed based on the relationships in the SSIM. This matrix has been named the Reachability matrix because it shows what variables can be reached using the remaining 19 variables.

This matrix does not require a transformation; therefore, the driving power and dependent power were computed by using the sums of the rows and columns of all variables, as shown in Table 5

**Table 5** Reachability Matrix.

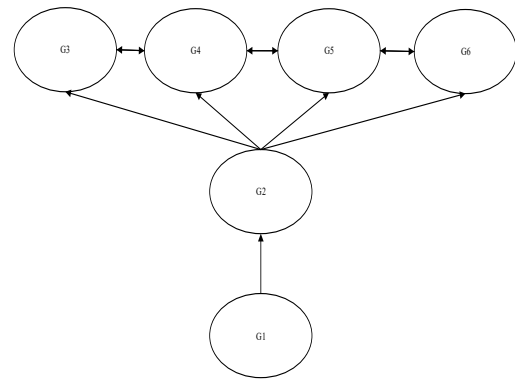
	G1	G2	G3	G4	G5	G6	Driving Power
G1	1	1	1	1	1	1	6
G2	0	1	1	1	1	1	5
G3	0	0	1	1	0	1	3
G4	0	0	1	1	1	1	4
G5	0	0	0	1	1	1	3
G6	0	0	1	1	1	1	4
Dependent Power	1	2	5	6	5	6	25

**Step 5: Defining reachability and antecedent sets**

A reachability set is defined for every variable as a set containing variables that can be reached from any given variable. An antecedent refers to a variable that affects a given variable by considering the appropriate relationships labelled as 1 in the column. Since the intersection set was conducted by crossing the reachability and antecedent sets, then the intersection set that has the same value as the reachability set is defined as the first level. The next step is to repeat the same method without the intersecting factors set from the first level, and the result is the second level of partition. The process is iterated until the final level is reached.

**Step 6: Drawing Digraphs**

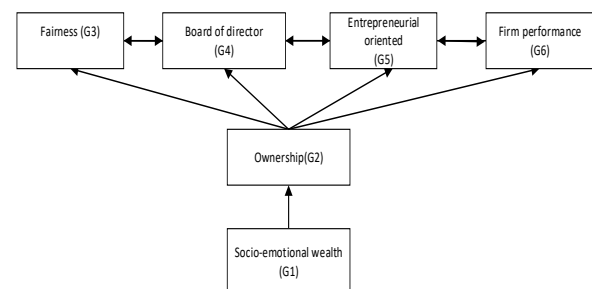
Drawing digraphs is the beginning of modelling. The hierarchal relationship is given for each node, starting with the first and second levels from Table 5 and Table 6 and then linking each node using arrows to form the relationships, as shown in Figure 1



**Figure 1** Digraphs of the variables

**Step 7: Building an Interpretive Structural Model**

In this process, the characters are derived from the graph drawn above, thus resulting in a structural model from the translation, as shown in Figure 2



**Figure 2** Interpretive structural modelling

**Step 8: MICMAC Analysis**

MICMAC analysis is a process to classify the power of variables by using the information from step 5, which gives the driving power and dependence value. The power of each factor is entered in the graph by assigning the dependence power to the X axis and the driving power to the Y axis and dividing the area within the graph into 4 equal parts. Each area has a different meaning as follows.

1. Autonomous (bottom left): Factors that are located here have no influence on any factor in the system and are also not influenced by other factors. Therefore, the variables are not related to the system.
2. Dependent (bottom right): The factors in this position have high dependence. They are influenced by other factors but do not affect other factors in the system.
3. Independent (top left): The factors in this area are very important because they influence other factors in the system, but they are not affected by other factors in the system. The changes in these factors affect all factors in the system.





driving factors are changed. This study confirms the significant role of the socio-emotional wealth of the owner in family firm governance. It shapes

a firm's policy and business strategy, and it supports the performance of the firm.

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