

# Analysis of Factors that Affect the Successors' Managerial Capability and the Willingness to Succeed with a focus on Digital Capability

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## I. Introduction

Family businesses have various advantages compared to a non-family business because they can utilize established internal resources such as managerial and technological ability and capital accumulated through the firm's history (Penrose, 1995). However, family businesses' diverse and complex characteristics

simultaneously make succession difficult (Le Breton-Miller et al., 2004; Nordqvist et al., 2013). If family businesses fail at succession, it can have a negative impact and be remembered as a traumatic event by family members (Berns & Klammer, 2017). Nevertheless, succession can secure a firm's competitiveness. It maintains the permanence of family businesses (Zahra et al., 2004), firm

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performance (Wennberg et al., 2011), and innovation (Duran et al., 2016; Zybura et al., 2021). Therefore, family businesses select a successor from among family members and proceed with the succession. The initiation and process of succession can be described as an important period from a strategic perspective of the future (Dyck et al., 2002; Le Breton-Miller et al., 2004).

The beginning and end of succession cannot exist without a successor. Therefore, the successor must possess the level of capabilities desired by the family members for the beginning and end of succession (Chrisman et al., 1998) and be prepared to achieve the goals of both the family and the business concurrently (Binz et al., 2017; Verbeke & Kano, 2012). In the past, successors were primarily selected based on characteristics such as being the eldest or male (Bertocchi, 2019). However, in recent years, the emphasis has shifted to the importance of the successor's dedication to the family and capability for the business, rather than their innate characteristics (McMullen & Warnick, 2015; Schell et al., 2020). In other words, the willingness to succeed and capability of the successor act as significant criteria for the selection. Therefore, it can be seen that succession is evolving in terms of its strategy and managed process (Schell et al., 2020). Such changes in environment and perception symbolize the importance of the successor's capability in the

selection and succession process.

From a perspective of a successor, various relationships can exist during succession, such as between the successor and the company, the successor and the incumbent CEO, and the successor and critical stakeholders (Fox et al., 1996). These relationships have a direct impact on succession and therefore, the successor must be able to manage them effectively. Generally, the following points are considered significant in each relationship. First, the relationship between the successor and the company is mainly focused on the managerial ability of the successor. Second, the relationship between the successor and the incumbent CEO is explained by the level of mutual trust. Finally, the relationship between the successor and the key stakeholders can be interpreted as mutual support and the level of the stakeholders' succession preparation. While non-family members related to the company are also crucial among the key stakeholders, family members are emphasized more than others.

The purpose of this study is to analyze the factors surrounding the successor that influence the willingness to succeed and managerial capability, which are critical variables in the succession process. The research question is: "What factors affect the successor's managerial capability and willingness to succeed among the possible relationships with the successor during succession?" This study uses the

integration framework for succession by Fox et al. (1996). The study focuses on the successor and sets digital capability and trust between the successor and family members as independent variables. The successor's managerial capability is established as a mediating variable, and the willingness to succeed is set as the dependent variable.

The topic of this study holds significant implications for members of family businesses preparing for succession. Specifically, the analysis conducted by subdividing the successor's capabilities into managerial and digital capabilities highlights the importance of digital capability for future or current successors. Additionally, by analyzing digital capability, which have been overlooked in previous studies despite the digital era, this research offers academic significance and importance.

This study is structured as follows, including the introduction in Chapter 1. Chapter 2 discusses the main theories and concepts pertinent to this research. Chapter 3 analyzes the relationships between variables to construct the research model and hypotheses. Chapter 4 examines the analysis results, including mediating effects. The final Chapter 5 presents the conclusions, along with the significance and limitations of the research.

## II. Theoretical Background

### 2.1 The Integration Framework for Succession

Although research on successors has been approached from various perspectives, some scholars believe that the weight of research on successors is excessive (Yoo et al., 2014). However, the preparedness of the successor for succession significantly affects the firm's performance. Moreover, the importance of research on successors is increasing because successors substantially influence the management activities of a family business (Mokhber et al., 2017).

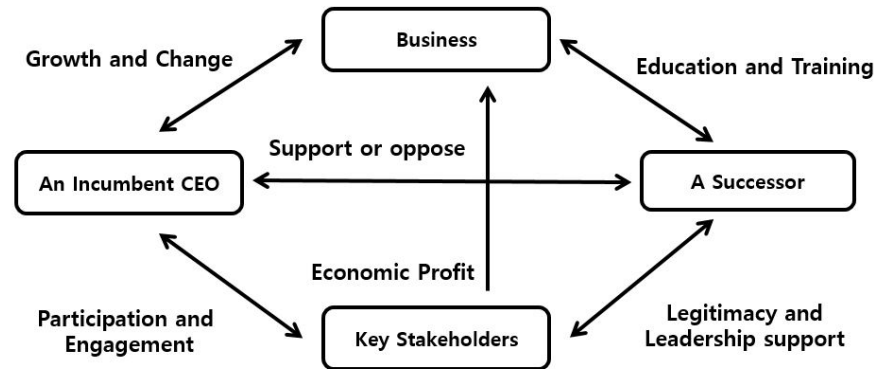
About 25 years ago, Fox et al. (1996) conducted a study on the integrated framework for succession that family businesses should manage during the succession process (as shown in Figure 1). In this research, a total of six relationships are identified that arise during the succession process: 1) between a family business and its key stakeholders (family members and non-family members); 2) between an incumbent CEO and a family business; 3) between a successor and a family business; 4) between an incumbent CEO and a successor; 5) between a successor and key stakeholders; and 6) between an incumbent CEO and key stakeholders. Based on the framework, the importance of the successor is deemed to be as crucial as that of the

incumbent CEO. Each relationship has its own interests, such as support or opposition (between an incumbent CEO and a successor), education and training (between a successor and the business), legitimacy and leadership support (between a successor and key stakeholders), personal growth and change (between an incumbent CEO and the business), participation and engagement (between an incumbent CEO and key stakeholders), and economic profit (between the business and key stakeholders).

According to the framework (Fox et al., 1996), three relationships occur from the perspective of a successor. The first is the relationship between a successor and an incumbent CEO, which can be explained as one of the most critical variables in the succession process (De Massis et al., 2008). Research suggests that successors who have completed succession or received positive evaluations had a unique and good relationship with the incumbent CEO, while those who did not have a poor relationship with the incumbent CEO (Harvey & Evans, 1995). A good relationship is characterized by high mutual trust, respect, support, and good communication (Harvey & Evans., 1995). Through this relationship, the successor and the incumbent CEO can realize the values and goals they want to achieve (Lee et al., 2019). In particular, the trust relationship between a successor and an incumbent CEO has a more

significant influence on the relationship than other factors (Yu, 2020). Positive and trustful family business relationships can also improve the value of family members (Losada et al., 2010) and help to form a healthy family business culture from a long-term perspective (Zahra et al., 2004). This study selects the level of mutual trust as an independent variable and analyzes its effect on the successor's willingness to succeed.

The second relationship is between a successor and a family business. This relationship is mainly explained by the factors necessary for the business, such as the successor's managerial capability or decision-making experience. From the perspective of a firm's future strategy, the importance of this relationship is even more prominent. For example, after an incumbent CEO retires, the successor's management knowledge or capability is essential for leading the company (Peiser & Wooten, 1983). The successor's managerial capability is one of the critical factors, and education and training for managerial capabilities are critical processes (Pyromalis & Vozikis, 2009). Interestingly, as the relationship between the successor and the family business becomes stronger, the incumbent CEO loses their relationship with the family business (Fox et al., 1996). Previous studies have used managerial capability as a general management concept and applied it to the study (Venter et al., 2005; Chrisman et al.,



<Figure 1> The Integration Framework for Succession (Fox et al., 1996)

1988; Dhaenens et al., 2017; Sharma et al., 2012). Managerial capability is established as a mediating variable, and digital capability, considered one of the essential capabilities in the 4th industrial revolution, is set as an independent variable.

The third relationship is between a successor and key stakeholders. Previous studies have examined how key stakeholders' involvement affects business performance because they typically refer to family members (Gomez-Mejia et al., 2011; Villalonga & Amit, 2006; Wagner et al., 2015). Family member involvement can lead to various outcomes, such as organizational purpose, culture, and decision-making processes based on family values that differ from those of non-family businesses (Vazquez & Rocha, 2018; Williams & Segrott, 2018; Corbetta & Salvato, 2004; Martin & Gomez-Mejia, 2016; Poza et al., 1997). Active support from family members

and positive relationships are crucial for successful succession. Conversely, insufficient support and unhealthy relationships can lead to conflicts regarding decision-making processes and work (Sonfield & Lussier, 2004; Welsh et al., 2013; Kellermanns & Eddleston, 2004). Therefore, this study examines succession preparation among family members who are important internal stakeholders. The study tries to find out the effects of the successor's managerial capability and willingness to succeed.

## 2.2 Willingness to Succeed of a Successor

A successor's willingness to succeed is an important factor as much as the significance of an incumbent CEO's willingness to succeed (Sharma, 2004). If an incumbent CEO's willingness is related to succession that may

occur in the present, a successor's willingness to succeed explains its importance from the future perspective. It is because the successor's willingness becomes the basis for continuous growth and development of the future (Richards et al., 2019). Thus, succession is likely completed successfully when the successor has a strong willingness to succeed for the business (Sharma et al., 2003). Particularly, when an unplanned event such as an incumbent CEO's sudden death occurs, the successor's role becomes more vital. In this case, the importance of the willingness to succeed becomes more conspicuous (Maalu et al., 2013).

If a successor does not exist, or if the successor lacks the willingness to succeed, succession cannot proceed (Sharma et al., 2003). Therefore, it is important to confirm the willingness to succeed and managerial capability when selecting a successor to proceed with and finalize the succession (Richards et al., 2019; De Massis et al., 2008). Furthermore, the willingness to succeed is particularly critical and essential when the succession is pursued with family members' goals, such as maintaining family values or securing family harmony (Richards et al., 2019). Due to the increased importance of the willingness to succeed, a successor will make more efforts for succession and responsible decisions (Neubauer, 2003; Bjuggren & Sund, 2000). Previous studies have shown that the

willingness to succeed is a fundamental and essential factor in initiating succession. In this study, the successor's willingness to succeed is set as a dependent variable to investigate the factors required for the successor.

### 2.3 Managerial Capability of a Successor

Various factors influence the managerial capability of a successor. The capability is defined as a concept related to leadership, such as entrepreneurship, decision-making ability, spontaneity, risk-taking ability for business activities, commitment to a family business, and the ability to maintain relationships with employees (Barach & Ganitsky, 1995). Additionally, the concept includes the successor's performance or experience leading an organization or a company (Le Breton-Miller et al., 2004). The successor's managerial capability is emphasized in various contexts because the capability is the factor underlying a family business's sustainable growth and development (Royer et al., 2008).

Managerial capability is a criterion incumbent CEOs use to select a successor (Unger et al., 2011). Developing managerial capability is essential to improve the competitiveness of the family business and to share and achieve the vision with the successor after the incumbent CEO's era (Cabrera-Suárez & Martin-Santana, 2012). Formal education

(Sardeshmukh & Corbett, 2011), work experience outside the company (Brockhaus, 2004), and decision-making experience within the family business (Pham et al., 2018) are ways to improve managerial capability. In this study, managerial capability, while used as an independent variable in previous studies, is established as a mediating variable. This study investigates what variables influence managerial capability improvement and whether the managerial capability (mediator) has the effect between the dependent variable and independent variables.

### III. Research Methodology

#### 3.1 Research Model

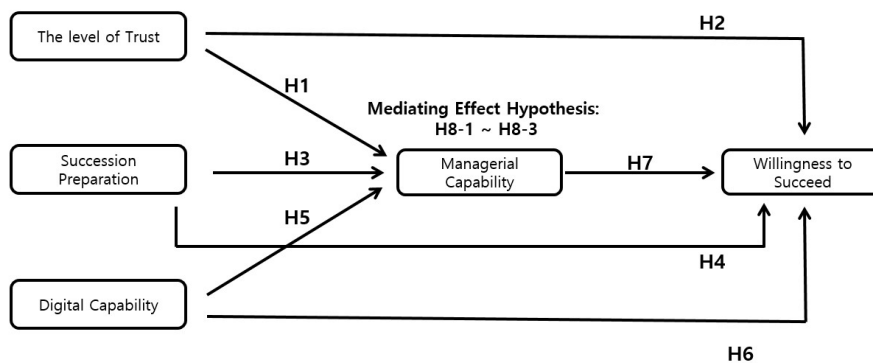
This study, focusing on successors, has established a research model comprising five variables. The independent variables are the level of trust, succession preparation, and digital capability, and

digital capability. The mediating variable is managerial capability, and the dependent variable is the willingness to succeed. The research model of this study is illustrated in <Figure 2>.

#### 3.2 Hypothesis Development

##### 3.2.1 Level of Trust with an Incumbent CEO and Willingness to Succeed

A successor and an incumbent CEO are vital factors in the succession process and participate in management activities (Venter et al., 2005). Therefore, the level of trust between the two players is crucial enough to be the foundation of a family business (Carter et al., 2016). It also determines the success of succession (De Massis et al., 2008). The level of trust affects the satisfaction of various stakeholders (Sharma et al., 2003) and influences the succession to finish successfully (Handler, 1991). Thus, a successor and an incumbent CEO must maintain high trust



<Figure 2> Research Model

(Umans et al., 2021), reducing conflicts and enabling effective and stable succession (Barach & Ganitsky, 1995).

Relational trust forms from accumulated calculated trust (Hauswald, 2012). Calculated trust based on one's costs and benefits can be used as a starting point for trust. Repeated instances of calculated trust can evolve into a relational trust based on mutual dependence and emotions. However, the trust between a successor and an incumbent CEO differs from the general process (Yu, 2020). The trust transforms emotional trust, represented by the parent-child relationship's private realm, to managerial trust represented by the public realm of the successor-incumbent CEO. In addition, emotional and managerial trust do not disappear and exist at both ends. With these characteristics, even if the successor makes mistakes or failures in management activities, the trust from the incumbent CEO does not disappear completely, and it is still supported and trusted (Yu, 2020). Based on previous studies, the higher the successor's willingness to succeed will increase if the higher trust level (Lee et al., 2019).

*H1: The level of trust between a successor and an incumbent CEO is associated with managerial capability.*

*H2: The level of trust between a successor and an incumbent CEO is associated with the willingness to succeed.*

### **3.2.2 Succession Preparation and Willingness to Succeed**

Succession Preparation refers to the planning and preparation needed to ensure a firm's survival and the maintenance of harmony within the family when the firm passes from one generation to another (Lansberg, 2002). Succession preparation is essential, since succession failure means losing the values of both the family and the business (Mathews & Blumentritt, 2015).

During the succession process, various obstacles could arise, such as conflicts between a successor and an incumbent CEO, between family members and a lack of firm competency (Dyer, 1986; Miller & Le Breton-Miller, 2003). In particular, controlling the complicated emotional processes of family and non-family members is crucial (Matthews et al., 1999), so the efforts and interests of stakeholders related to succession are required. Occasionally, the incumbent CEO can become an obstacle to succession. Since the incumbent CEO has been in control of the family and the firm for a long time, the incumbent CEO influences can significantly impact the firm's future strategy, which may cause succession failure (Hnatek, 2015).

Considering that succession is an event that can persist for over 15 years (Palacios et al., 2012b), succession needs to be prepared from stakeholder' perspective. Therefore, succession preparation by stakeholders will lead to smooth



and successful results, and the survival and permanence of a family business will be guaranteed (Ibrahim et al., 2009). The preparation of the successor is also an important area. In a study that subdivided the successor's succession preparation into managerial ability preparation, psychological preparation for succession, and ownership preparation (Cho et al., 2018), it was found that the variables of managerial ability preparation and psychological preparation affect the successor's succession satisfaction. The result which affects the successor's satisfaction can be interpreted as having a positive impact on the successor's willingness to succeed, meaning that succession should proceed through the succession preparation process. The preparation affects the satisfaction of stakeholders and also becomes the criterion for the success and failure of succession (Morris et al., 2017). In other words, the preparation of various stakeholders related to succession, including the successor, can be described as essential.

As discussed above, this study defines and analyse succession preparation by limiting the view of family members. The study aims to determine whether there is a significant relationship among the succession preparation, the willingness to succeed and managerial capability.

*H3: Succession Preparation is associated with managerial capability.*

*H4: Succession Preparation is associated with the willingness to succeed.*

### **3.2.3 Digital Capability and Willingness to Succeed**

With the advent of the Fourth Industrial Revolution, previous studies related to the revolution have been conducted, such as the digital transformation of firm structures, processes, and human factors (Sia et al., 2016; Lee & Moon, 2023), expectations among stakeholders, firm strategy, and culture (Kane et al., 2017). New trend has also been applied to family business research. Digital research in family businesses is mainly carried out on leadership succession (Nicole et al., 2021). In particular, research on the importance of CIOs for digital transformation (Giorgio et al., 2018) has also been conducted. However, there are few studies on how family members influence the digital transformation of family businesses (Soluk et al., 2021). Moreover, due to differences between family businesses and non-family businesses (De Massis et al., 2016), there are difficulties in applying research on the digital transformation of non-family businesses to family businesses.

For digital transformation, firms need to obtain and analyze digital capability and leadership separately (Westerman et al., 2014a). Digital capability is the factor of the ability to use digital technologies and the factor of accelerating internal process innovation

from various perspectives (Westerman et al., 2014b; Kim & Park, 2020).

Furthermore, digital leadership accelerates the digital transformation of an organization (Ghobakhloo, 2020). If digital leadership is lacking, there is a high possibility of failure in digital transformation (Gupta, 2018). In other words, digital capabilities and leadership are factors that companies must have in order to adapt to changing external environments (Baharuden et al., 2019). Considering the impact that managers have in the digital transformation process of a business (Singh & Hess, 2017), if a successor judges that the family business lacks digital capabilities or has a low understanding of digital him - herself, there is a high possibility of giving up succession. This can only have a negative impact from the future perspective of a family business. A successor can influence a family's and business's survival and permanence as a future leader (Lee et al., 2019). The business without a successor cannot be defined as a family business (Dyer, 1986, Cho et al., 2018), and a family business can survive or fail due to the managerial capability of the successor.

This study focuses on digital capability and analyzes the relationship between the capability and the willingness to succeed. Additionally, the study investigates the effect on the successor's managerial capability.

*H5: The successor's digital capability is*

*associated with managerial capability.*

*H6: The successor's digital capability is associated with the willingness to succeed.*

The hypotheses for verifying the mediating effect of managerial capability and the hypotheses regarding the relationship between managerial competence and the willingness to succeed are as follows.

*H7: The managerial capability is associated with the willingness to succeed.*

*H8-1: The managerial capability will have a mediating effect between the level of trust and the willingness to succeed.*

*H8-2: The managerial capability will have a mediating effect between succession preparation and the willingness to succeed.*

*H8-3: The managerial capability will have a mediating effect between digital capability and the willingness to succeed.*

### 3.3 Research Method

The family business in this study is defined by two criteria, i.e., the degree of family member participation (Astrachan et al., 2003) and a firm willing to succeed the vision of family members (Chua et al., 1999). Thus, the survey was conducted on family businesses where the second or third generations work together, including those willing to hand over the business to the next generation even if only

one generation of managers participates in the management. Accordingly, this study surveyed the successors who currently work in the family business or are likely to become a successor in the future. Before distributing the questionnaire, the criteria were confirmed, and it was distributed and collected using online and offline. The survey employed the second-generation communities in Busan and Daejeon, including the alumni association of the Young Entrepreneurship Spirit track (M.B.A.) at Hanyang University, which offers the only master's degree in a family business in Korea. A total of 405 questionnaires were distributed. Out of these, 165 questionnaires (40.5%) were collected. After excluding responses from individuals who were not targets of family business, those not employed in family businesses, and some unreliable responses (62 individuals), 103 valid responses

(25.4%) were used for the final analysis. Also, this study did not use control variables. Considering that digital capability is a variable that have not been mainly used in family business research, the analysis was conducted excluding control variables to prevent the underestimation of the independent variables (Curado et al., 2023).

The items of the questionnaire are divided into five categories. First, the level of trust is measured using six items suggested by Handler (1989). Second, succession preparation consist of five items (Davis et al., 1998; Coffman, 2014). Third, digital capability, comprises six items (Park, 2017). Fourth, managerial capability includes six questions suggested by Brockhaus (2004). Fifth, willingness to succeed is composed of six questions (Venter, 2005, Table 2). SPSS Version 21 and AMOS Version 21 are used for data analysis.

<Table 1> Operational Definition of Variables

| Vairbale               | Definition  | Reference                 |
|------------------------|---|---------------------------|
| Level of Trust         | The level of mutual trust based on respect, understanding, and positive relationships                           | Handler (1989), Yu (2020) |
| Succession Preparation | Preparation for family harmony and business competitiveness during the transition to the next generation        | Lansberg (2002)           |
| Digital Capability     | The ability to drive internal innovation within the business from various perspectives using digital technology | Westerman et al. (2014b)  |
| Managerial Capability  | Managerial competence, including leadership, entrepreneurship, and decision-making skills                       | Barach & Ganitsky (1995)  |
| Willingness to Succeed | The successor's willingness to voluntarily take an interest in and make efforts to succeed the family business  | Sharma et al. (2001)      |

<Table 2> Items of the Questionnaire

| Variable               | Item | Content  | Reference                           |
|------------------------|------|--|-------------------------------------|
| Level of Trust         | LT1  | I have formed a close relationship with the CEO.   | Handler (1989)                      |
|                        | LT2  | The CEO collaborates with me to decide on important matters.   |                                     |
|                        | LT3  | I have smooth communication with the CEO.  |                                     |
|                        | LT4  | I am cooperative with the CEO.   |                                     |
|                        | LT5  | The CEO and I trust each other mutually.   |                                     |
|                        | LT6  | The CEO and I can reconcile our opinions when we have disagreements.   |                                     |
| Succession Preparation | SP1  | Our family business has a documented succession plan.  | Davis et al., (1998); Coffman, 2014 |
|                        | SP2  | Our family business has selected a successor   |                                     |
|                        | SP3  | Our family business has a succession plan in place that evolves over time.   |                                     |
|                        | SP4  | Our family business's CEO strives for the development of the successor's capabilities.   |                                     |
|                        | SP5  | Our family is aware of the business's succession plan  |                                     |
| Digital Capability     | DC1  | I can find appropriate data for problem-solving related to my work.  | Park (2017)                         |
|                        | DC2  | I can analyze data using suitable digital tools.   |                                     |
|                        | DC3  | I can analyze data for problem-solving and decision-making, as well as manipulate data in various ways.                          |                                     |
|                        | DC4  | I can understand and solve complex systems, simplify problems, and extract important information.                                |                                     |
|                        | DC5  | I can gather, analyze, and evaluate various information.   |                                     |
|                        | DC6  | I can effectively communicate complex information using various digital methods such as visualization, modeling, and simulation. |                                     |
| Managerial Capability  | MC1  | I have an understanding of and leadership in various aspects of company operations.  | Brockhaus (2004)                    |
|                        | MC2  | I am acquiring professional knowledge and skills.  |                                     |
|                        | MC3  | I am establishing diverse external networks and interpersonal relationships.   |                                     |
|                        | MC4  | I have a broad perspective and insight.  |                                     |
|                        | MC5  | I possess excellent decision-making abilities and resilience.  |                                     |
|                        | MC6  | I have various external networks.  |                                     |
| Willingness to Succeed | WS1  | I strongly desire to succeed the business.   | Venter (2005)                       |
|                        | WS2  | I am confident in my ability to perform well in most tasks given to me.  |                                     |
|                        | WS3  | I am happy to work in our family business.   |                                     |
|                        | WS4  | I take pride in telling people around me about that I will work for my family business.  |                                     |
|                        | WS5  | I have an interest in company works.   |                                     |
|                        | WS6  | I believe that working in the company provides more challenging opportunities compared to elsewhere.                             |                                     |

## IV. Results

### 4.1 Analysis Results

#### 4.1.1 Demographic Analysis Result

The collected data consists of 103 responses with no missing values or insincere responses. Among the respondents, 79 (76.7%) are men, and 24 (23.3%) are women as successors, while the incumbent CEOs comprise of 93

men (90.3%) and 10 women (9.7%). The overwhelming majority of the respondents are men. In terms of age, the respondents are less than 25 years old (1/1%), between 26 and 30 (15/14.6%), between 31 and 35 (20/19.4%), between 36 and 40 (28/27.2%), and over 40 years old (39/37.9%). Regarding succession status, five respondents (4.9%) have completed the succession, 49 (47.6%) are currently preparing for succession, 31 respondents (30.1%) are in the process of succeeding, and 18 respondents (17.5%) have yet to start succession. Although 17% of the respondents have yet to start succession, the data includes them as they meet the criteria for potential successors.

The respondents are from various industries, with 58 respondents (56.3%) from the manufacturing industry, 13 respondents (12.6%) from the distribution industry, 14 respondents (13.6%) from the service industry, nine respondents (8.7%) from the construction

industry, three respondents (2.9%) from the agriculture industry, and six respondents (5.8%) from other industries.

#### 4.1.2 Mean, Standard Deviation and Correlation Analysis Results

The analysis results for the mean, standard deviation, and correlations are as follows: The mean values range from 3.483 to 3.860, and the standard deviations range from 0.763 to 1.008. With the case of the correlation, all variables show significant correlations at the 0.05 level (Table 3).

#### 4.1.3 Results of Exploratory Factor and Reliability Analysis

Of the 29 items used for exploratory factor analysis, two items (willingness to succeed 2 and succession preparation 1) were excluded due to low factor loading. As a result of reliability analysis, all remaining 27 items exceeded the criteria value of 0.6 (Table 4).

<Table 3> Results of Mean, Standard Deviation and Correlation

|    | Mean  | S.D.  | DC     | SP     | LT     | MC     | WS |
|----|-------|-------|--------|--------|--------|--------|----|
| DC | 3.516 | .894  | 1      |        |        |        |    |
| SP | 3.483 | 1.008 | .277** | 1      |        |        |    |
| LT | 3.860 | .870  | .236*  | .453** | 1      |        |    |
| MC | 3.775 | .763  | .303** | .312** | .583** | 1      |    |
| WS | 3.701 | .950  | .330** | .378** | .575** | .636** | 1  |

\*  $p < 0.05$ , \*\*  $p < 0.01$

Digital Capability: DC, Succession Preparation: SP, Level of Trust: LT, Managerial Capability: MC, Willingness to Succeed: WS

<Table 4> Results of Exploratory Factor and Reliability Analysis

| Name                   | Item | Factor Loading |   |   |   |   | Reliability | Total Explained Variance (%) |
|------------------------|------|----------------|---|---|---|---|-------------|------------------------------|
|                        |      | 1              | 2 | 3 | 4 | 5 |             |                              |
| Level of Trust         | LT1  | .843           |   |   |   |   | .942        | 71.924                       |
|                        | LT3  | .838           |   |   |   |   |             |                              |
|                        | LT6  | .833           |   |   |   |   |             |                              |
|                        | LT5  | .818           |   |   |   |   |             |                              |
|                        | LT2  | .811           |   |   |   |   |             |                              |
|                        | LT4  | .656           |   |   |   |   |             |                              |
| Succession Preparation | SP2  | .844           |   |   |   |   | .861        | 71.924                       |
|                        | SP5  | .843           |   |   |   |   |             |                              |
|                        | SP3  | .790           |   |   |   |   |             |                              |
|                        | SP4  | .684           |   |   |   |   |             |                              |
| Digital Capability     | DC3  | .900           |   |   |   |   | .912        | 71.924                       |
|                        | DC4  | .842           |   |   |   |   |             |                              |
|                        | DC5  | .804           |   |   |   |   |             |                              |
|                        | DC2  | .790           |   |   |   |   |             |                              |
|                        | DC6  | .778           |   |   |   |   |             |                              |
|                        | DC1  | .769           |   |   |   |   |             |                              |
| Managerial Capability  | MC5  | .813           |   |   |   |   | .893        | 71.924                       |
|                        | MC4  | .786           |   |   |   |   |             |                              |
|                        | MC1  | .728           |   |   |   |   |             |                              |
|                        | MC6  | .697           |   |   |   |   |             |                              |
|                        | MC3  | .665           |   |   |   |   |             |                              |
|                        | MC2  | .648           |   |   |   |   |             |                              |
| Willingness to Succeed | WS1  | .734           |   |   |   |   | .861        | 71.924                       |
|                        | WS3  | .707           |   |   |   |   |             |                              |
|                        | WS5  | .699           |   |   |   |   |             |                              |
|                        | WS6  | .665           |   |   |   |   |             |                              |
|                        | WS4  | .621           |   |   |   |   |             |                              |

Kaiser-Meyer-Olkin: .863

Bartlett: x2: 2109.628, df: 351, sig.: .000

#### 4.1.4 Results of Confirmatory Factor and Validity Analysis

Before conducting multiple regression analysis and structural equation analysis to test the hypotheses, confirmatory factor analysis and validity analysis of the model were performed. The confirmatory factor results showed no issues that would undermine the

reliability and validity of all items. However, the AVE value of willingness to succeed was slightly below the standard value of 0.5 (Table 5). Nevertheless, according to Fornell et al. (1981), an AVE value of less than 0.5 is acceptable if the C.R. value is 0.6 or higher. Therefore, the following analysis includes the variable.

<Table 5> Results of Confirmatory Factor and Validity Analysis

| Name                   | Item | Non-standard Coefficient/<br>Standard Coefficient | C.R.   | p-value | AVE    | Construct Reliability |
|------------------------|------|---|--------|---------|--------|-----------------------|
| Level of Trust         | LT1  | 1.000 / .820                                      | -      |         | 0.7472 | 0.9464                |
|                        | LT2  | 1.213 / .881                                      | 11.085 | **      |        |                       |
|                        | LT3  | 1.207 / .885                                      | 11.163 | **      |        |                       |
|                        | LT4  | .838 / .774                                       | 9.109  | **      |        |                       |
|                        | LT5  | 1.054 / .894                                      | 11.357 | **      |        |                       |
|                        | LT6  | 1.067 / .885                                      | 11.162 | **      |        |                       |
| Succession Preparation | SP2  | 1.000 / .715                                      | -      |         | 0.5310 | 0.8179                |
|                        | SP3  | 1.083 / .830                                      | 7.762  | **      |        |                       |
|                        | SP4  | .874 / .710                                       | 6.709  | **      |        |                       |
|                        | SP5  | 1.144 / .877                                      | 8.074  | **      |        |                       |
| Digital Capability     | DC1  | 1.000 / .755                                      | -      |         | 0.6099 | 0.9022                |
|                        | DC2  | 1.189 / .822                                      | 8.868  | **      |        |                       |
|                        | DC3  | 1.446 / .971                                      | 10.606 | **      |        |                       |
|                        | DC4  | 1.090 / .816                                      | 8.792  | **      |        |                       |
|                        | DC5  | .856 / .708                                       | 7.464  | **      |        |                       |
|                        | DC6  | .914 / .657                                       | 6.855  | **      |        |                       |
| Managerial Capability  | MC1  | 1.000 / .767                                      | -      |         | 0.5929 | 0.8965                |
|                        | MC2  | .822 / .645                                       | 8.811  | **      |        |                       |
|                        | MC3  | .849 / .682                                       | 6.863  | **      |        |                       |
|                        | MC4  | .966 / .802                                       | 8.263  | **      |        |                       |
|                        | MC5  | 1.019 / .844                                      | 8.724  | **      |        |                       |
|                        | MC6  | .980 / .754                                       | 7.707  | **      |        |                       |
| Willingness to Succeed | WS1  | 1.000 / .757                                      | -      |         | 0.4588 | 0.8070                |
|                        | WS3  | .905 / .694                                       | 6.934  | **      |        |                       |
|                        | WS4  | .933 / .672                                       | 6.692  | **      |        |                       |
|                        | WS5  | 1.137 / .890                                      | 8.914  | **      |        |                       |
|                        | WS6  | .946 / .656                                       | 6.533  | **      |        |                       |

\*\* p < 0.01

#### 4.1.5 Result of Hypothesis (Multiple Regression: H1 ~ H6)

The results of the multiple regression analysis for hypothesis testing are as follows: Digital capability and the level of trust have a significant effect on managerial capability. However, there was no significant relationship with managerial capability in the case of succession preparation (Table 6).

The results of the hypothesis testing with

willingness to succeed as the dependent variable are as follows. Digital capability and the level of trust have a significant relationship with the dependent variable. In particular, the level of trust has the most significant influence among the independent variables, with a t-value of 5.384. However, there was no significant relationship in the case of succession preparation. Additionally, multicollinearity problems were not found (Table 7).

<Table 6> Result of Hypothesis (H1, H3, H5)

| Model | Non-Standard Coefficient |       | Standard Coefficient | t-value | Sig.  | VIF    | Durbin-Watson |
|-------|--------------------------|-------|----------------------|---------|-------|--------|---------------|
|       | B                        | S.E.  |                      |         |       |        |               |
| 1     | Constant                 | 1.399 | .337                 |         | 4.149 |        | 1.807         |
|       | LT                       | .467  | .079                 | .532    | 5.895 | .000** |               |
|       | SP                       | .018  | .069                 | .024    | .026  | .795   |               |
|       | DC                       | .146  | .072                 | .170    | 2.034 | .045** |               |

R: .608a, R2: .369, Adjusted R2: .350

Sig. F: .000, \* p < 0.05, \*\* p < 0.01

Dependent Variable: Managerial Capability

Digital Capability: DC, Succession Preparation: SP, Level of Trust: LT

<Table 7> Result of Hypothesis (H2, H4, H6)

| Model | Non-Standard Coefficient |      | Standard Coefficient | t-value | Sig.  | VIF    | Durbin-Watson |
|-------|--------------------------|------|----------------------|---------|-------|--------|---------------|
|       | B                        | S.E. |                      |         |       |        |               |
| 1     | Constant                 | .620 | .416                 |         | 1.490 | .139   | 1.790         |
|       | LT                       | .526 | .098                 | .482    | 5.384 | .000** |               |
|       | SP                       | .101 | .085                 | .108    | 1.188 | .238   |               |
|       | DC                       | .198 | .088                 | .187    | 2.245 | .027** |               |

R: .616a, R2: .379, Adjusted R2: .361

Sig. F: .000, \* p < 0.05, \*\* p < 0.01

Defendant Variable: Willingness to Succeed

Digital Capability: DC, Succession Preparation: SP, Level of Trust: LT

**4.1.6 Result of Hypothesis (Mediating Effect Analysis: H7, H8-1 ~ H8-3)**

AMOS 21 Version was used for the mediation effect analysis. The results were analyzed 1000 times using the Bootstrapping technique (Monte Carlo), with Confidence Intervals set at 95% and Bias-corrected Confidence Intervals set at 95%. The results showed an indirect mediation effect, as the results did not include 0 (95% CI) excluding the relationship between succession preparation and the willingness to succeed.

The results of the mediating effect are as

follows: Managerial capability has a significant effect on the willingness to succeed (Table 8). The result is consistent with previous studies and indicates the importance of the successor's managerial capability. The digital capability and the level of trust partially mediate the willingness to succeed through the successor's managerial capability. The variables showed both direct and indirect effects. These results support the hypotheses (H8-1, H8-3) set in this study. The independent variables directly and significantly affect the willingness to succeed, and the variables have a significant relationship



with managerial capability. However, in the case of succession preparation, there is no direct or indirect mediating effect. The results led to the rejection of the hypothesis (H8-2) set in this study.

<Table 8> Result of Hypothesis (H7, H8-1 ~ H8-3)

| Path Analysis - Direct Effects |   |    |   |    | Estimate | S.E. | 95% CI |       | P      |
|--------------------------------|---|----|---|----|----------|------|--------|-------|--------|
|                                | ← | MC | ← | LT |          |      | Lower  | Upper |        |
| WS                             | ← | MC | ← | LT | .505     | .108 | .290   | .714  | .002** |
| WS                             | ← | MC | ← | SP | .128     | .121 | -.135  | .355  | .302   |
| WS                             | ← | MC | ← | DC | .211     | .098 | .000   | .406  | .050** |

Model Fit

CMIN: 461.134, DF: 313, p: .000, CMIN/DF: 1.473

GFI: .769, IFI: .927, TLI: .916, CFI: .925, RMSEA: .068

\* p < 0.05, \*\* p < 0.01

Level of Trust: LT, Succession Preparation: SP, Digital Capability: DC,  
Managerial Capability: MC, Willingness to Succeed: WS

| Path Analysis - Direct Effects |   |  |   |    | Estimate | S.E. | 95% CI |       | P    |
|--------------------------------|---|--|---|----|----------|------|--------|-------|------|
|                                | ← |  | ← | LT |          |      | Lower  | Upper |      |
| WS                             | ← |  | ← | LT | .133     | .142 | -.159  | .415  | .320 |
| WS                             | ← |  | ← | SP | .130     | .110 | -.093  | .339  | .249 |
| WS                             | ← |  | ← | DC | .072     | .096 | -.115  | .275  | .432 |

\* p < 0.05, \*\* p < 0.01

Level of Trust: LT, Succession Preparation: SP, Digital Capability: DC,  
Managerial Capability: MC, Willingness to Succeed: WS

| Path Analysis - Indirect Effects |   |    |   |    | Estimate | S.E. | 95% CI |       | P      |
|----------------------------------|---|----|---|----|----------|------|--------|-------|--------|
|                                  | ← | MC | ← | LT |          |      | Lower  | Upper |        |
| WS                               | ← | MC | ← | LT | .372     | .111 | .172   | .622  | .002** |
| WS                               | ← | MC | ← | SP | -.002    | .077 | -.169  | .152  | .036** |
| WS                               | ← | MC | ← | DC | .139     | .073 | .010   | .295  | .975   |

\* p < 0.05, \*\* p < 0.01

Level of Trust: LT, Succession Preparation: SP, Digital Capability: DC,  
Managerial Capability: MC, Willingness to Succeed: WS

The results of the hypotheses established based on the research model are as follows (Table 9): The level of trust was found to have a significant impact on managerial capability and the willingness to succeed (H1, H2). Also, the hypotheses H5, H6, which were set about digital capability, were adopted. However, it

was found that succession preparation did not affect managerial capability or the willingness to succeed (H3, H4). The results of the mediation effect analysis also yielded similar results. Managerial capability showed a full mediation effect between the level of trust and the willingness, and between digital capability

<Table 9> Result of the Hypothesis

| Hypothesis |   | Result           |
|------------|---|------------------|
| H1         | The level of trust between a successor and an incumbent CEO is associated with managerial capability.                 | Accepted         |
| H2         | The level of trust between a successor and an incumbent CEO is associated with the willingness to succeed.            | Accepted         |
| H3         | Succession Preparation is associated with managerial capability.  | Rejected         |
| H4         | Succession Preparation is associated with the willingness to succeed.   | Rejected         |
| H5         | The successor's digital capability is associated with managerial capability.  | Accepted         |
| H6         | The successor's digital capability is associated with the willingness to succeed.                                     | Accepted         |
| H7         | Managerial capability is associated with the willingness to succeed.  | Accepted         |
| H8-1       | The managerial capability will have a mediating effect between the level of trust and the willingness to succeed.     | Accepted (Fully) |
| H8-2       | The managerial capability will have a mediating effect between succession preparation and the willingness to succeed. | Rejected         |
| H8-3       | The managerial capability will have a mediating effect between digital capability and the willingness to succeed.     | Accepted (Fully) |

and the willingness (H8-1, H8-3), but the hypothesis related to succession preparation was rejected (H8-2). Through the results of the indirect mediation effect, in order to increase the will to succeed, the successor needs to enhance the trust and digital capability.

## V. Conclusion

### 5.1 Research Conclusion

This study analyzes the relationship between the successor's managerial capability and the willingness to succeed, focusing on the successor's digital capability. Based on Fox et al. (1996) integrated framework for succession, variables are established by considering the

successor's perspective during the succession process. The independent variables are the successor's digital capability (successor-family business), succession preparation (successor-stakeholder), and the level of trust (successor-incumbent CEO). Managerial capability is considered a mediating variable, and the willingness to succeed is set as a dependent variable. The conclusions of this study are as follows

Firstly, the successor's digital capability and the level of trust significantly affect managerial capability. Participants in the survey perceive that the level of trust has a more significant effect on managerial capability than digital capability ( $t=5.895, p<0.01$ ). Successors can interpret that the incumbent CEO's know-how or knowledge is needed more than successors'

capability. Successors think that it is necessary to transfer intellectual resources and knowledge to innovate or manage a firm effectively (Cabrera-Suarez, 2001; Duh, 2014). It appears that the successor, based on the knowledge and know-how of the incumbent CEO, judged to be able to establish future business strategies or form leadership to lead the company.

In addition, digital capability affects managerial capability because a firm's environment is rapidly changing following the 4th industrial revolution. As future decision-makers, they judge their managerial capability would naturally deteriorate if lacking the digital capability. In other words, digital capability is recognized as one of the necessary capabilities for the future competitiveness of a family business. The result that the successor's digital capability have a direct relationship with managerial capability implies that the successor needs to develop digital capability before succession. Also, the result that the successor considered digital capability as a precedent factor affecting managerial capability means that they are not guaranteeing the survival of the business by rejecting the trend of the Fourth Industrial Revolution. In other words, it seems necessary for the successor to have continuous interest in improving comprehensive capabilities, including digital capability and leadership.

Secondly, digital capability and the level of trust affect the successor's willingness to

succeed. Digital capability not only affects managerial capability, but also the willingness to succeed, showing successors to recognize the importance of digital capability as a future asset and source of competitiveness for the business. If the successor lacks digital capability, they will probably not contribute to the future of the family business, resulting in a lowered willingness to succeed. Therefore, successors should thoroughly educate themselves on digital capability before or during the succession process, and consider its application and utilization in the family business. The level of trust and willingness should be maintained at a high level throughout the succession process (Umans et al., 2021). The trust relationship between a successor and an incumbent CEO is unique (Yu, 2020) and requires mutual effort. Additionally, managerial capability significantly affects willingness (H7, Accepted). Based on the above, if successors lack confidence in their managerial capability, they are likely to reject leadership and feel unable to become competitive within the family and firm. Therefore, it seems that the successor needs to establish a sequential plan and detailed strategy for improving managerial capability (including digital capability) and maintaining a positive relationship with the incumbent CEO.

Third, managerial capability has a mediating effect between digital capability and the willingness and between the level of trust and

the willingness. Because three variables are closely related, successors will have an opportunity to fill the gap later even if successors recognize a lack of these variables. Therefore, the successors can increase their confidence to the willingness by improving both digital capability and the level of trust. Besides, the analysis reveals a full mediating effect, indicating that digital capability and the level of trust can be interpreted as antecedent variables to managerial capability. Successors may interpret this as necessitating sequential capability development, taking these factors into account. Additionally, successors can strengthen their willingness by gaining acknowledgement and trust from stakeholders, including the incumbent CEO. When successors consider how to establish and carry out the process from their current position, the succession process will be successfully completed.

Fourth, succession is one of the most critical reasons to loss the firm value (Mathews & Blumentritt, 2015). Although succession is an essential event that occurs over a long period (Palacios et al., 2012b), successors are not fully aware of the impact of succession preparation. The reason is that successors think that succession preparation does not significantly affect managerial capability and the willingness, nor does it have a mediating effect on the willingness. For instance, an incumbent CEO typically makes the most of

decisions related to succession preparation, and the successors are aware that they have no decision-making authority regarding succession. In particular, Confucianism is the cultural background in Korea, which influences successors to obey the opinions of their elders and to be hard assert their opinions. Therefore, they feel powerless in the process, so they strive to focus on the relationship with the incumbent CEO rather than the succession. As the incumbent CEO mainly passes on the know-how or abilities of firm operation, the successors have considered the incumbent CEO critical. The successors answered realistically considering that they cannot affect in succession. Given the significance of succession in a family business, educating and training successors about succession preparation and planning is necessary.

The differences between this study and previous research are as follows. Prior studies on family businesses have predominantly focused on literature reviews or the perspective of incumbent CEOs, mainly due to difficulties in data collection. However, this study analyzes the successors, who are the most crucial and necessary key stakeholders in the succession process. This is an essential area of research for the future competitiveness of family businesses and requires continued investigation. Furthermore, the digital capability utilized as a key variable in this study has not been commonly used in family business

research. The study's findings indicate that digital capability is a significant variable influencing successors' managerial capability and willingness to succeed. This suggests the need for more diverse perspectives and extensive research in future family business studies. Based on the statistical significance of this study, qualitative research such as successor interviews and literature reviews could yield high academic value.

## 5.2 Implication and Limitation

The academic implications of this study are as follows. First, the variable of digital capability is redefined and utilized from the view of a successor, who is responsible for the future competitiveness of family businesses in the era of the 4th industrial revolution. The impact of digital capability on essential succession factors has been analyzed. The results demonstrate the statistical significance of digital capability and highlight the need for detailed research in the future. The findings also contribute to the expansion of variables affecting succession. Second, succession preparation has been academically emphasized. However, it is challenging to prepare for succession in reality. Even though the successor is the crucial factor of the future competitiveness of a family business, he or she is not aware of the effect on succession preparation. It shows the gap between

academics and the field. Therefore, future research is required to fill this gap. In conclusion, this study's implications provide valuable insights into the role of digital capability in succession preparation and the challenges faced by successors in family businesses.

This study has the practical implication. The study presents guidelines for succession preparation by emphasizing the importance and necessity of digital capability to successors. The results of this study indicate that the digital capability is an antecedent factor influencing their managerial capability. This underscores the necessity for successors to understand digital capability. In other words, for the success of the family business in the digital age, it is essential for successors to actively engage in digital learning before or during the succession process and integrate these competencies into their management activities. Considering that the succession process is prolonged and significantly impacts the business, promoting innovation activities based on the successor's digital capability is expected to achieve both successful succession and business continuity. Therefore, it is recommended that successors measure their digital capability and strive to improve it to enhance the competitiveness of family businesses in the future.

The limitations of this study are as follows. First, when selecting respondents, the

characteristics such as industry, gender, or status of succession were not taken into account. Due to the difficulty of data collection, the study did not analyze these characteristics, and this has limited the viewpoint. It seems that future research needs to divide and compare the groups because the importance of digital capability appears to differ depending on the characteristics of the business. Second, while digital capability is generally divided and dealt with as digital ability and leadership ability, this study approached from an integrated perspective considering that the application of these variables is in its early stages in family business research. If future research divides and analyzes digital capabilities into digital and leadership areas to provide more detailed and clear guidelines, future research seems that clear guidelines will be provided to successors. Also, if we find out which abilities need to precede these variables, it is judged that it will be helpful for successors preparing for succession.

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<Abstract>

## **Analysis of Factors that Affect the Successors' Managerial Capability and the Willingness to Succeed with a focus on Digital Capability**

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### **Purpose**

The aim of this research is to examine the variables affecting the successor's willingness to succeed during the family business succession process. This study is to determine the variables that influence the successor's willingness to succeed and investigate the correlations among them. Additionally, this study also aims to clarify the connection between the successor's willingness and digital capabilities.

### **Design/methodology/approach**

To achieve the research objectives, the succession framework by Fox et al. (1996) was utilized, with a focus on the relationship between the successor and business. The independent variables were set as the level of trust with an incumbent CEO, succession preparation, and digital capability. Managerial capability was set as a mediating variable, and the successor's willingness to succeed was set as the dependent variable for the analysis.

### **Findings**

The findings of this study are as follows. The level of trust with an incumbent CEO and the successor's digital capability were found to have a significant impact on management competence and the intention to take over. Notably, digital capability, a variable not previously utilized in family business research, is expected to become an important consideration in future studies based on the results of this research.

**Keyword:** Family Business, Succession, Digital Capability, Managerial Capability, Successor

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