Transition in successors’ behavior and mindset while managing long-lived small and medium-sized manufacturing enterprises: a qualitative study [version 2; peer review: 1 approved, 1 approved with reservations]

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Abstract

**Background:** There have been many studies conducted on succession, which can be considered as the most important issue in family businesses. However, most of these previous studies have focused only on the early stage of succession, uncovering the role of the predecessor and the successor. Only a few studies have made efforts to examine the total lifecycle of succession. The purpose of this study is to explore the process of the transition in successors’ behavior and mindset while managing long-lived small and medium-sized manufacturing enterprises throughout the lifecycle of succession.

**Methods:** Semi-structured interviews were conducted with six successors of small and medium-sized manufacturing companies who are more than half a century old. Their answers were analyzed using the Modified-GTA method to construct a hypothetical model.

**Results:** In total, 46 concepts, four categories, 17 subcategories, and one core category were generated. An analysis result diagram using all concepts and categories was formed. From the observation of this diagram, the successors gained confidence in management through the dilemma between autonomy and constraint in the early stage of succession, which was found in previous research. Following the initial stage, the successors responded to the crisis caused by market constraints and created autonomous strategies in their businesses.

**Conclusions:** By experiencing repetitive crises, the successors tend to acquire new perspectives toward the naturally occurring crises. This change of premise by the successors is considered as the process of double-loop learning. Relationships inside and outside the company influence the generation of this viewpoint. From a long-term perspective, a sense of unity with employees, stable employment, and...
the pursuit of enjoyment constitute the successors' own values in this model.

**Keywords**
Succession, successor, family business, long-lived SMEs, qualitative study, grounded theory approach, M-GTA

This article is included in the University of Tsukuba gateway.

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Introduction
Japan has more old companies than any other developed nation in the world. The number of centuries-old companies in
Japan is 3,937, which is almost double than that of Germany, which has the second largest number of centuries-old
companies with 1,850 (The Nikkei, 2012). According to the database of a research company, there were around 33,000
centenarian companies in 2018 (Teikoku Databank, 2019). Almost all of these companies are family owned, with 80.5%
of them having net worth values that are below one billion yen. This means that the old companies in Japan comprise
small or medium-sized family businesses.

Goto (2014) is known to have collected century-old company data on a worldwide basis. As per his findings, around 40%
of century-old companies in Italy experienced ownership transfer to unrelated families. With respect to Switzerland, Goto
(2014) found 56% of family-owned households to have experienced ownership transfers to another family. However, the
transfer of ownership is extremely rare in century-old Japanese companies. This action is taken as the last resort to survive.
By drawing from a comparison of countries via the worldwide survey, the traits of Japanese long-lived businesses have
been family-owned.

Recently, small and medium-sized enterprises (SMEs) have become a serious issue with their succession of management.
This tendency can be found from the symptoms of increasing aged-management and declining retiring ratio. While the
average ratio of retiring CEOs was around 5% in the 1970s, it was 2.46% in 2011 (The Small and Medium Enterprise
Agency, 2016). The average age of the CEOs of companies is steadily increasing, and has currently reached 59.9 years old
in 2019, the oldest ever recorded (Teikoku Databank, 2020).

With the difficulty of succession in SMEs, the number of suspension firms is increasing (The Small and Medium
Enterprise Agency, 2019). The Japanese government is concerned that this may lead to the loss of employment and GDP
in Japan in the future. Another survey (The Small and Medium Enterprise Agency, 2016) shows that around half of the
CEOs over 60 years are planning to abandon their businesses. Further, 44.9% consider their businesses to have at least
10 years of future possibility. As a result, the reason for the suspension is not the business itself, but the issue of the
successor. From this viewpoint, one of the issues concerning the basic longevity of Japanese SMEs is the difficulty in
tackling the succession problem.

The study of family businesses does not have a long history. In the mid-90s, the researchers of Harvard Business School
focused on the uniqueness of family business and started studies in both U.S. and European business schools. At the same
time, while Japan has a stronghold as the “family business nation,” the study of family business in Japan has a relatively
short history (Okumura, 2015). One of the reasons might be the overlapping of “ownership” and “management,” which is
recognized as an obsolete style. The closed nature of family business might also be a reason for the lack of public
information. This study attempts to explore the process of successors’ progress in long-lived SMEs to help the current
CEOs and potential successors handle succession smoothly, which is the most important issue for SMEs.

Theory and literature
Three-circle model

The modern form of the company is based on the separation of “ownership” and “management,” which has been advocated
by Berle and Means (1932). Many business theories are based on this idea, such as agency theory, which illustrates that the
adjustment of conflict between a company’s owner and manager is the main issue of company governance.

With respect to the case of family business, Tagiuri and Davis (1982) presented the “Three-circle model”, which explains
the crossover of “Ownership,” “Family” and “Business” as an essential aspect of family business, and claims family
business decision making to be determined by balancing the interests of three stakeholders.

The 4Cs model

Miller and Le Breton-Miller (2005) researched the factors for successful family-controlled businesses by comparing
46 successful and 24 struggling family-controlled businesses. Successful factors founded from their qualitative study are
concluded as “the 4Cs”: continuity, community, connections, and command. A brief explanation of these factors is provided in Table 1. Okumura (2015) is of the opinion that the balancing of these factors is important for family business operations.

**Empirical studies on family business**

Asaba (2015) also summarized previous studies on family businesses. In the early stage, the researcher conducted a direct comparison of the performance of family-owned and non-family firms. However, the superiority or inferiority of family businesses pertaining to performance is unclear from the standpoint of Japanese cases (Saito, 2008; Mehrotra et al., 2013) as well as worldwide cases (Anderson & Reeb, 2003). Thus, the interest of studies has shifted from benefit to behavioral characteristics such as investment or market strategies.

Having examined the research on investment in family and non-family businesses, Asaba (2013) concluded that family businesses continued their investment under volatile and stagnant economic conditions, which is difficult for non-family businesses. From the R&D investment viewpoint, family businesses are “avoiding radical innovations and pursuing incremental innovations” (Asaba & Wada, 2019, p.277). These studies imply that family businesses have long time horizons and consider continuity, which is one of the traits of their strategy.

**Succession of family businesses**

Chrisman et al. (2003) examined papers on family business management from 1996 to 2003. They found 29 of the 190 strategy-related papers, 22.1% of the total, that were related to the succession of companies (Category 1). The other categories include economic performance (15.3%) and corporate governance (9.5%). This research study brings to light the fact that succession constitutes a major interest among researchers. Having reviewed worldwide studies related to family business succession, Iguchi (2019) found that there are three major research questions: 1) which factors affect the choice of the successor of a family business; 2) which factors affect the success or failure of a family; and 3) how much does succession impact the performance of the family business. These questions were derived from the top 50 cited papers on economics and management. Iguchi (2019) concluded that the impact on performance, including financial analysis should be studied as empirical studies (research question 3). However, previous studies have only covered the factors responsible for the selection of successors (research question 1), and the factors responsible for the success or failure of succession (research question 2), which were mainly derived from case studies. The many parameters of the family business, such as family connections or emotional factors make empirical studies on these fields difficult, the exception being performance analysis. Thus, the accumulation of case studies is important for the maturation of this field of study. Iguchi (2020) extended his study to find the correlation between the preparation of the successor and the intention for long-term investment by the current CEO. This is fruitful research, as it should that the CEO’s current decision-making affects the expectations of his/her successors.

Kamiya (2018) defined these five factors as the unique issue of SME management and innovation, and created an analytical framework by combining these five items with the timeframe, starting from “Unfreeze,” to “Change,” and then to “Freeze,” introduced previously by Lewin (1947). By interviewing the management of a certain food company, Kamiya (2019) presented the matrix of the five factors of SMEs and Lewin’s three-step transition (unfreeze, change, freeze) as the process illustration of SME transformation.

**Modeling of the succession process**

Le Breton-Miller et al. (2004) created a diagram of an “integrative model of the succession process” by combining empirical research, theoretical research, and anecdotal evidence. In particular, they demonstrated the industrial context and social context, which was previously neglected in the inner-process of the family business. Moreover, a broader viewpoint is required to model the succession process of family businesses. In this study, in order for the transition in family business to be complete and smooth, not just the factors within the family or company, but also industry and social factors should be considered.

<table>
<thead>
<tr>
<th>The 4Cs</th>
<th>Priorities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuity</td>
<td>Pursuing the dream: pursue an enduring and substantive mission.</td>
</tr>
<tr>
<td>Community</td>
<td>Uniting the tribe: nurture a caring culture, made up of motivated people.</td>
</tr>
<tr>
<td>Connection</td>
<td>Being good partners: develop lasting and win-win relations with the outside.</td>
</tr>
<tr>
<td>Command</td>
<td>Acting and adapting freely: courageous and adaptive decisions.</td>
</tr>
</tbody>
</table>
Ochiai (2016b) presented the idea of the successor’s dilemma between autonomy and constraints, which is drawn from the expansion of the observation of many case studies carried out by Gersick et al. (1997).

Previous studies have recognized that the successors from owners’ families are more likely to introduce discontinuous change than the internally promoted managers, for the successors from the owners’ families do not have to consider the predecessors and current employees (Kagono, 2008). From this explanation, the successors seem to conduct autonomous activities. Ochiai stated that the successors from the owners’ families are ascribed status of being the future management and are treated as special person in the family-owned company. Ochiai further stated that they negotiate equally with the current president and have little concern about the employees. However, the successors are under constraints such as limited choice of occupation, restriction from the current management team, or psychological distance from the employees. The intention of reducing this dilemma is to establish the successors’ achieved status and gain acquired legitimacy as future CEOs with their innate legitimacy from the family.

Ochiai (2016a) also found a systematic approach to reduce this dilemma in well-established family-owned companies by conducting interviews with both the current CEOs and the successors from several well-established Japanese companies. This resulted in the formulation of the diagram “autonomy under guardianship”. This diagram presents the current CEO’s role as that of a guardian who gives proper assignments to the successor in order for him/her to adjust to their autonomous behavior and acquire legitimacy. Such modeling of the successor’s behavior is a unique study to understand the wisdom of a well-established family business.

**Study purpose**

The duration of CEOs in a family-owned company is generally 20 years long, for it has been proven that the family-owned businesses’ peak profits and growth usually come at the end of their long tenure (Yamaguchi, 2014; Miller & Le Breton-Miller, 2005). However, many previous studies operated within the framework of business succession, and the research that ended during the period of succession had been completed for several years. Only a few studies have brought out the complete lifecycles of successors, right until the end of their tenure as top management. Ochiai (2017) also stated that current studies focused only on the transition process itself, such as the analysis of the early stage of succession or the transition process of president influence, not covering the entrepreneurship of the successors during the middle of their managerial experience.

The purpose of this study is to try and find the process of succession in long-established family-owned SMEs and understand how successors established their mindsets as the owners of companies and top management post the early stage of succession. The modeling of these processes might be of help to potential successors during their preparation for a smooth succession.

**Methods**

**Study design and participants**

From April to August 2020, semi-structured interviews were conducted with the management of six companies. The interviewees were selected by purposive sampling to meet the following criteria: pre-, current, and former CEOs of family-owned manufacturing SMEs that are more than 50 years old and have been managed by three generations. Methods of approach for participants were face to face, email, telephone, or online. The list of interviewees with their attributes and the contact measures for participation is shown in Table 2.

**Ethical considerations**

In accordance with the ethical guidelines of University of Tsukuba, Faculty of Business Science, concerning human beings or specimens, no ethical approval was sought for this study. This is due to the study not involving any physical or mental intervention on the participants. Written informed consent to participate was obtained from each participant prior to the interview.

**Data collection**

The interview time ranged from a minimum of 50 minutes to a maximum of 100 minutes (average time was 78 minutes). All interviews were conducted at their workplace face-to-face or online without the presence of any other participants (Table 2).

Prior to the interviews, the participants agreed on the purpose of the interview and the expected questions, and they granted permission to audio recording for research purposes.

The verbatim transcriptions were made from the entire recorded data so that the field notes were not created through the interviewing process. Transcripts were not returned to the participants.
The interview items are as follows: 1) self-introduction, 2) the business domain and the transition of the main business, 3) how to tackle the past market change, 4) how to access the new market, 5) the creed related to the organization, human resources, and management philosophy, 6) future perspectives on business, and 7) anything else.

**Data analysis**

The data were analyzed using the modified grounded theory approach (M-GTA). The original GTA (Glaser & Strauss, 1967) is a qualitative study method to generate “grounded theory” based on actual data by creating “concepts” from the original data and finding the relationship between these concepts. One of the features of the original GTA is the process of fragmentation of sentences to create the concept by removing the researcher’s bias (Saiki-Craighill, 2014). M-GTA is a modified version of the original grounded theory approach, which holds the intention of being rigorous and scientific with the symbolic methodology of fine fragmentation of sentences constituting as raw data for research. Kinoshita (2003), who developed the M-GTA method, noticed that the original GTA method lost the context, including the cultural aspect, and hindered the formulation of richer concepts from the data (Kambaru, 2018). One of the key features of M-GTA is its avoidance of the fragmentation process by keeping the rigorousness of the original GTA method intact and introducing the procedure of creating the “concept,” which refers to the analytical theme and analytical person, by using an “analytical worksheet” to balance the deep interpretation of data and the rigorous procedure.

M-GTA is a tested method for finding the process in social human interaction and solving the actual problem via a generated theory (Kinoshita, 2007); therefore, this method is judged to be appropriate for this study. The analytical theme of this study is finding the process of succession and developing the management principle in long-lived small and medium-sized manufacturing enterprises. The analytically focused persons are successors in long-lived family-owned manufacturing SMEs, up to some hundred employees with a history of more than a half-century.

The interviewees included in the study.

<table>
<thead>
<tr>
<th>Interviewees (approach to participate)</th>
<th>Business domain</th>
<th>Business model</th>
<th>Company history</th>
<th>Interviewee title (age)</th>
<th>Interview duration and type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interviewee A (face to face)</td>
<td>Uniforms</td>
<td>business to consumer</td>
<td>120 years</td>
<td>Former CEO (70s)</td>
<td>100 min face to face</td>
</tr>
<tr>
<td>Interviewee B (email)</td>
<td>Cosmetics</td>
<td>business to consumer</td>
<td>120 years</td>
<td>Vice president (30s)</td>
<td>60 min online</td>
</tr>
<tr>
<td>Interviewee C (email)</td>
<td>Printing</td>
<td>business to business</td>
<td>80 years</td>
<td>President (60s)</td>
<td>75 min online</td>
</tr>
<tr>
<td>Interviewee D (telephone)</td>
<td>Parts-milling</td>
<td>business to business</td>
<td>53 years</td>
<td>President (60s)</td>
<td>50 min face to face</td>
</tr>
<tr>
<td>Interviewee E (telephone)</td>
<td>Parts-milling</td>
<td>business to business</td>
<td>90 years</td>
<td>President (60s)</td>
<td>105 min face to face</td>
</tr>
<tr>
<td>Interviewee F (online)</td>
<td>Plating</td>
<td>business to business</td>
<td>100 years</td>
<td>Vice president (40s)</td>
<td>80 min online</td>
</tr>
</tbody>
</table>

The interview items are as follows: 1) self-introduction, 2) the business domain and the transition of the main business, 3) how to tackle the past market change, 4) how to access the new market, 5) the creed related to the organization, human resources, and management philosophy, 6) future perspectives on business, and 7) anything else.
5) The generation of concepts is finished when no new concepts are distilled, which is considered to reach the "theoretical saturation." In this study, the new concept was not generated during the analysis of the sixth interviewee so that the data saturation was considered to be achieved in this stage.

6) Examine the relationship of each concept, and create a "category," which is the integrated idea of several concepts. The "analytical result diagram" showing the relationship between "categories" is formed as the result of the analysis. Figure 1 presents the overall analysis procedure for the M-GTA method.

Results
As a result of the analysis, 46 concepts, 17 subcategories, four categories, and one core category were generated and reached theoretical saturation. These categories and concepts are listed in Table 4. The analysis result diagram integrated with these elements is shown in Figure 2.

The results are presented using the storyline or detailed explanations of the analytical result diagram shown in Figure 2 via the use of core category, category, sub-category, and concept, with examples of the statement using quotes selected from the interview data.

Table 3. An example of an analytical worksheet created in this study.

<table>
<thead>
<tr>
<th>Concept name</th>
<th>Acceptance of repetitive crisis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definition</td>
<td>Reflecting the history, accepting the crisis should be repeated</td>
</tr>
<tr>
<td>Examples</td>
<td>Looking back on that, there were a lot of pinches that seemed to collapse. In the old days, the atomic bomb was dropped and we almost died, and after that, there was an oil shock, bubble burst, an IT bubble, Hanshin-Awaji earthquake, September 11, Lehman shock, East Japan earthquake, and so on. After all, it comes repeatedly. (Interviewee C) As I mentioned at the beginning, in about 10 years there has been a number of big things that happened, not just COVID-19, but Lehman shock, the bubble burst, 1st and 2nd oil shock, something big happened. It seems that we can flexibly respond to major changes in the industry among companies. After all, I think it is the robustness of the corporate constitution, and then we have to have strong finances. (Interviewee A)</td>
</tr>
<tr>
<td>Theoretical notes</td>
<td>CEOs are doing business under the premise that the good time and bad time of financial difficulty would happen, and which is the viewpoint of well-established companies and the successors who plan to manage for a long time.</td>
</tr>
</tbody>
</table>

Figure 1. The procedure of the M-GTA method (modeled by the author).
<table>
<thead>
<tr>
<th>Core category</th>
<th>Category</th>
<th>Subcategory</th>
<th>Concept</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autonomous action</td>
<td>Establishment of individuality</td>
<td>33: Effort to establish own creed</td>
<td>Effort to establish one’s own values and ways of thinking as a successor</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>8: Conflict with previous executives</td>
<td>Disagreement with the predecessor’s leader and executives</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>34: Friction with previous CEO</td>
<td>Differences in values and conflicts with previous management</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Creating one’s own organizational system</td>
<td>20: Forming their own management team</td>
<td>Creating a next-generation system, leading position, and training of right-handed people</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>39: Fostering informal interaction with employees</td>
<td>Efforts to create an informal relationship with employees as a successor</td>
<td></td>
</tr>
<tr>
<td>Constraints under predecessor</td>
<td>Inheritance of basic values</td>
<td>35: Following Instruction from the founder/predecessor</td>
<td>Lessons learned as the teachings of the preceding president or the founder</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>36: Awe for previous CEO</td>
<td>Respect for the decisions and reputation of the predecessor</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Performing tasks using the successor’s expertise</td>
<td>31: Expanding domestic/overseas sales channels</td>
<td>Expanding sales channels in domestic and overseas market</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>32: Launching R&amp;D/production facility</td>
<td>Launch of resources such as R&amp;D department and production department</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Being prepared for succession</td>
<td>37: Preparation for debt guarantee</td>
<td>Preparation to personally guarantee company debt</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>38: Having confidence to manage company</td>
<td>Being confident in managing the company that was acquired after joining the company</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>41: Feeling of conflict with regard to succession</td>
<td>Resistance to proactively taking over the business</td>
<td></td>
</tr>
<tr>
<td>Acquiring a higher perspective</td>
<td>Experience and acceptance of crises</td>
<td>Occurrence of crisis</td>
<td>A newly tackled market gets stuck due to sluggish sales or lack of technology</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2: Demise of previous CEO</td>
<td>First recognition of lack of social credibility and psychological burden when the predecessor passed away</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1: Unjustified treatment from customers</td>
<td>Unjustified response from customers almost like subcontract bullying</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Response to crisis and accepting its impact</td>
<td>4: Effort to improve products quality</td>
<td>Trying to meet the high quality requirements compared to conventional products in the new market</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>9: Difficulty in securing funds</td>
<td>Struggles to secure funds with financial institutions or families</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>10: Withdrawal from market</td>
<td>Withdrawal from market when the future perspective becomes difficult</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>11: Difficulty to build good relationships with employees</td>
<td>Failure to build relationships with employees during a company crisis</td>
<td></td>
</tr>
</tbody>
</table>
Table 4. Continued

<table>
<thead>
<tr>
<th>Core category</th>
<th>Category</th>
<th>Subcategory</th>
<th>Concept</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reviewing corporate strategy</td>
<td>46: Reconfirmation of strengths</td>
<td>46: Reconfirmation of strengths</td>
<td>Reviewed company’s strengths to use it to build business strategy</td>
<td></td>
</tr>
<tr>
<td>5: Reviewing position in the market</td>
<td>5: Reviewing position in the market</td>
<td>5: Reviewing position in the market</td>
<td>Looking back on their position in times of crisis</td>
<td></td>
</tr>
<tr>
<td>30: Focus on profitability than sales</td>
<td>30: Focus on profitability than sales</td>
<td>30: Focus on profitability than sales</td>
<td>Management that emphasizes profit margin, not sales</td>
<td></td>
</tr>
<tr>
<td>Acceptance of repetitive crises</td>
<td>39: Focus on specific field</td>
<td>39: Focus on specific field</td>
<td>As SME with limited resources, narrowing down to business areas fitting that fit the company size</td>
<td></td>
</tr>
<tr>
<td>Utilization of crisis</td>
<td>27: Aligning direction with employees</td>
<td>27: Aligning direction with employees</td>
<td>Using the crisis as an opportunity to motivate employees</td>
<td></td>
</tr>
<tr>
<td>Clarification on corporate characteristics</td>
<td>40: Clarification on the company’s uniqueness</td>
<td>40: Clarification on the company’s uniqueness</td>
<td>Pursue uniqueness for a differentiating strategy</td>
<td></td>
</tr>
<tr>
<td>Perspective change through human interaction</td>
<td>6: Support from employee and customers</td>
<td>6: Support from employee and customers</td>
<td>Supported experiences from customers and employees in times of crisis</td>
<td></td>
</tr>
<tr>
<td>7: Unexpected approval from customers</td>
<td>7: Unexpected approval from customers</td>
<td>7: Unexpected approval from customers</td>
<td>Unexpected approval from a major customer obtained through business</td>
<td></td>
</tr>
<tr>
<td>Enlightenment in business network</td>
<td>16: Encounter with the master</td>
<td>16: Encounter with the master</td>
<td>Encounter with a person who should be called a management teacher</td>
<td></td>
</tr>
<tr>
<td>17: Influence from another businessperson</td>
<td>17: Influence from another businessperson</td>
<td>17: Influence from another businessperson</td>
<td>Encounter with a businessperson with new perspective</td>
<td></td>
</tr>
<tr>
<td>Transformation of management viewpoint</td>
<td>1: Long term perspective</td>
<td>1: Long term perspective</td>
<td>Management based on a long-term perspective having the ownership</td>
<td></td>
</tr>
<tr>
<td>22: Willingness to maintain employment</td>
<td>22: Willingness to maintain employment</td>
<td>22: Willingness to maintain employment</td>
<td>Management view that they are the ones with employees</td>
<td></td>
</tr>
<tr>
<td>47: Sense of unity with employees</td>
<td>47: Sense of unity with employees</td>
<td>47: Sense of unity with employees</td>
<td>The feeling that management and employees are one team</td>
<td></td>
</tr>
<tr>
<td>Building uniqueness</td>
<td>45: Establishing HR development policy</td>
<td>45: Establishing HR development policy</td>
<td>Establishing the concept of human resource development unique to SMEs</td>
<td></td>
</tr>
<tr>
<td>18: Sharing common value with employees</td>
<td>18: Sharing common value with employees</td>
<td>18: Sharing common value with employees</td>
<td>Share principles with employees, such as work ethics and gratitude</td>
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<td>19: Preparing long-term working environment</td>
<td>19: Preparing long-term working environment</td>
<td>19: Preparing long-term working environment</td>
<td>Creating an environment where people can work if they are motivated even after retirement</td>
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<tr>
<td>Acquisition of new resources</td>
<td>12: Acquiring new resources by M&amp;A</td>
<td>12: Acquiring new resources by M&amp;A</td>
<td>Acquisition of resources through M&amp;A</td>
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</table>
The successors of long-lived manufacturing SMEs join the company sometimes by having the feeling of conflict with regard to succession. They experience a dilemma between constraints under the predecessor and autonomous action by accumulating their business experiences. This model is not directly the same as the “Autonomy Under Guardianship Model” (Ochiai, 2016a), however, it can be regarded as a similar transitional process of succession with there being a conflict between constraint and autonomy (Ochiai, 2016b).

### Constraints under the predecessor

During the first stage of joining the company, the successor starts performing tasks using the successor’s expertise and improves his/her business performance by carrying out tasks related to his/her educational background or experience before joining the company, such as expanding domestic/overseas sales channels and launching the R&D/production facility.

While gaining work experience by following the instructions of the founder, the successor inherits the basic philosophy and management spirit. Besides, he/she acquires the awe toward previous management by knowing the predecessors’ excellent decision making during the past business development and their deep relationship of trust with customers. This way, the inheritance of the basic values from the predecessors is observed by following the examples of the following statement:

“Well, the most important creed for me is developing people. I told my employees the other day if there were people A, B, and C who made products using the same milling machine program, the appearance of products will be different, depending on each person. This idea was taught to me by my father, and it is the reality.” (Interviewee D).

<table>
<thead>
<tr>
<th>Core category</th>
<th>Category</th>
<th>Subcategory</th>
<th>Concept</th>
<th>Definition</th>
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<td>14: Application of digital technology and internet</td>
<td>Utilization of digital processing and e-commerce in the Internet age</td>
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<td>15: Collaborative development market with another organization</td>
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<td>24: Entering and investing to new market</td>
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<td>Top-management themselves are willing to open up new customers and new markets</td>
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<td>A market approach that creates opportunities for direct contact with customers</td>
</tr>
<tr>
<td>Preparation for next generation</td>
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<td>28: Local contribution and social action</td>
<td>Incorporate local and social contribution perspective in the business.</td>
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<td>29: Training for the successor</td>
<td>Educating attitude as a successor to next successor (son, son-in-law)</td>
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<td>42: Being sensitive to social change</td>
<td>Having sensitivity to capture the new phenomena of social change</td>
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<td>43: Considering future markets</td>
<td>Thinking about new market initiatives in the future that may not happen immediately</td>
<td></td>
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<td></td>
<td></td>
<td>44: Consolidation of shares into the owner-family</td>
<td>Consolidation of diversified stocks as a successor issue of owner companies</td>
<td></td>
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</tbody>
</table>
Another example is the idea of frugality taught by the predecessor. When sales were increasing due to the bubble economy, the (predecessor) often said: “suppress the spending.” Another thing that often remarked was “when you make a profit, you should store it, you shouldn’t use it just because you made a profit.” (Interviewee A).

Autonomous action
At the same time, the successor’s unique movement against company constraints were also observed at the same time. Since the successor is a special person in the company, he/she makes efforts to foster informal interaction with employees to have a close relationship, such as having a meal with them or holding sports events after business hours. Also, the successor starts forming their own management team to gradually build people of the same generation who meet his/her values as a management team for creating their own organizational system.

While accumulating management experiences, the successor often encounters friction with the previous CEO or conflict with previous executives, which is the opportunity to clarify his/her ideas. And his/her proactive effort to establish one’s own creed by joining a gathering of employers’ groups or summarizing one’s thoughts in the notebooks can be found at the same time as the process of the establishment of individuality.

The typical conflict between the previous CEO and previous executives is a different perspective toward business expansion. An example of a conflict with the pre-CEO case is as follows:

“When changing the company name (from Family-name to the new brand name), I felt the process to be quite difficult because of my predecessor. He told me, ‘I have been this name since I was born … On the contrary, I am not that name when I was born (for the successor is the son-in-law). The impact of changing the company’s name to a general brand had a great impact on the market. Even when opposed, I have challenged various things.” (Interviewee A).

Another case is that of a conflict with the executive who supported the previous CEO:

“There was a person who was the executive supporting my father. He worked with me for two or three years after previous CEO passing away. However, we had to part ways, as there was a difference in opinion. I wanted to expand the business proactively, but he stated that our business should move steadily and gain money from customers as a result. Aggressive business style made eventual deficit. I was worried about such a different perspective for business.” (Interviewee D).
From the examples of conflict mentioned above, it is clear that the successors tended to acquire business expansion in the first stage. At the same time, they deepened the confidence of management via the accumulated business experience and having the confidence to manage their companies. Successors sometimes successfully overcome the hardship or limitations confronted by the predecessors, and these experiences help the successors build their confidence. The preparation for debt guarantee is also seen as the determination of being prepared for succession.

Experience and acceptance of crises: experience phase
For the successors who gained certain confidence by overcoming the difficulty of the company, which was difficult for the predecessor, it will be inevitable for them to face new crises that are represented by external factors such as economic recession or internal factors such as strategic failure, one of the turning points for the successors.

The typical occurrence of crisis for successors is the demise of the previous CEO, and the successors recognize that they possess a weak social status and a heavy responsibility. There are external crises (stalemate in new market) caused by market changes, economic fluctuations, and technological shortages in the new markets. Or, the successors may face unjustified treatment from customers, such as unreasonable price reduction requests from customers, which can be seen as bullying. The successors can be overwhelmed by the harsh reality.

“My predecessor suddenly disappeared in 1991 when he was 67 years old. I was 45 years old at that time. Overall, this period was severe. The previous president suddenly disappeared, and the bubble economy had burst and sales fell steadily, resulting in about half of the sales.” (Interviewee A).

When they entered the new market, the effort to improve the quality of products is a countermeasure to tackle the crisis in the market. This is because the requirement from the customer is unexpectedly higher than the conventional customers. However, these experiences lead to an improvement in the company’s technological strength. However, in some cases, withdrawal from market is unavoidable because of the sudden decline in the market. In addition to such a market struggle, they also face difficulty in securing funds. Their assets should be collateral, or they face the challenge of the funding support being denied by their relatives. Another case of trouble is the difficulty in building good relationships with employees, such as letting go a trusted employee when the company is going through a difficult phase. These are the processes of response to crisis and accepting its effect.

After overcoming the crisis this way, they have an opportunity to reconsider customers and markets as a reviewing corporate strategy, such as reviewing the position in the market or focusing on profitability than sales. In addition, they use the experience of the crisis as an opportunity to learn about the reconfirmation of strengths of the company:

“Do not produce products and services that are totally different from the conventional one. After all, our greatest strength is in (a certain domain). Even if we already have cutting-edge IT, even if we can use AI, I allow them to give the green light when this technology is related to our domain business.” (Interviewee C).

In the above example, the successor coined original phrases to redefine their business domain again after the succession. Thus, having a crisis experience confirms their original or strongest business domain.

Building uniqueness
After reviewing the strategy through the experience of the crises, the successors try to scaffold the existing resources to make future preparations for handling a crisis during a normal or peaceful occasion. They conduct institutional approaches such as establishing HR development policy or preparing long-term working environment, as well as share common values with employees about business ethics. The following example is the sharing of important values with employees as a company policy:

“In fact, there are some occasions when the customers ask us to do a strange or unreasonable business activity, but every employee is expected to say we can not do that activity in order to set ethical boundaries. If we do something wrong, the company will collapse in the future.” (Interviewee C).

The successors expand new resources through the business network and enhance conventional in-house resources. Typical examples are acquiring new resources by merger and acquisition (M&A), utilization of external brains pertaining to financial support or improvement of the productivity in daily routine, and application of digital technology and internet, such as in-house digitization and utilization of e-commerce. Additionally, there are cases where collaborative market development with another group is undertaken with public institutions such as universities or large branded companies.
While some are successful, the others are only a trial. However, these activities are derived from the successors’ interests and uniqueness toward the process of acquiring new resources.

After preparing the resource-based matters, the successors challenge to enter the new market by investing in the new market or going to the market as top management. Further, they emphasize direct communication with customers to increase the opportunities to hear the customers’ voices directly, even if they had utilized the internet and e-commerce channels. One example is that of the successor often making unannounced visits to the potential customers:

“The employees hesitate to do sales activity for a new customer without an appointment because it’s usual to be refused. However, in my case, there is a possibility of not being refused by the potential customer because I am the president. Even if I am refused, I think it is a poor story for this customer to lose a good opportunity and I do not have so much pride. Direct visits are also a good opportunity for finding the reality of the customer who has a good reputation, but I can sometimes notice that doing business with this customer is risky.” (Interviewee C).

Experience and acceptance of crises: acceptance phase

However, the challenges posed by the new markets do not always go well, the sales do not grow as expected, and there are ups and downs because of the business cycle. The term of the presidency is around four or six years in general; however, the management of family-owned businesses continues their role a rather long time, around a couple of decades. This is because they seem to have an acceptance of repetitive crisis, such as economic or natural disaster, and even have strategic failures as the preconditions of business cycles.

“My father, my grandfather, as well as me, made many mistakes. And I have prepared myself assuming that these kinds of incidents would happen repeatedly, and manage to continue the business today.” (Interviewee C).

After accepting the possibility of making failures or facing the market difficulties repeatedly, the successors not only respond to the crisis but also try utilizing the crisis so that their response aligns with the employees in the crisis to facilitate new market entry or improvement in the execution of daily activities.

For example, the successor experienced employees’ alignment for a new strategy after experiencing a couple of repetitive economic crises.

“The bubble-economy burst and sales had fallen considerably. Then, when sales recovered slightly, another depression, the “Lehman shock” occurred. Therefore, I wanted to recover from this sales decline by entering a new field. When I decided to enter it, the employees did not show much resistance; on the contrary, everyone aligned with my idea.” (Interviewee A).

Another successor appreciated the crisis time because a period of crisis can clarify the weakness of a company:

“I am very grateful for this kind of crisis because I can see that our weaknesses were exposed and clarified, the weakness, which had been recognized as a strength.” (Interviewee C).

Through the experience of the crisis, the successor will redefine the domain of the business and provide clarification on the company’s uniqueness to focus on the points of differentiation with the competitors. Besides, as a small and medium-sized enterprise with limited resources, the focus will be on a specific field, such as reviewing the variety of product and service lineups and limiting the sales’ geographical region. These are a part of the clarification of corporate characteristics, which is carried out during the last stage of tackling the crises.

Acquiring a higher perspective (core category)

As shown in Figure 2, the process of experience and acceptance of crises consists of two branches, which explains the reason why the recognition of crisis changed from the first stage to the experienced stage. Based on the scenarios of facing and recovering from the crisis, they acquired the viewpoint that the occurrence of the crisis is regarded as a “precondition” of management. It is a change of perspective from a passive to proactive handling of the crisis. This is the most unique point of successors who are aware of their predecessors’ past hardships and their own difficult experiences. Therefore, this process was determined as the core category in this research.

Perspective changes through human interactions

In Figure 2, the large loop between experience and acceptance of crisis and building uniqueness is shown. Between these processes, the successors experience human interactions inside or outside the company. This human interaction affects the mindset of the successors.
While overcoming such a crisis, they experienced conflicts with employees. However, at the same time, the remaining employees and long-term customers supported the critical situation. As a result, support from employee and customers lead to the supported experience in crises, or they may experience an unexpected approval from customers amidst a deadlock in the new market. Such an unexpected emotional experience might have a considerable influence on the feelings of the successors. One interviewee recalled the appreciation of the customers and employees who supported the company during the crisis:

“Two factors made us survive. One is help from the customers. Perhaps there was a rumor among the customers that we would collapse. However, customers continued to trade, support, and purchase from our company. The other factor is employees. Of course, some employees quit when we were in a difficult situation. Still, we had 20 employees who had stayed back and done their best.” (Interviewee C).

The successor may also be affected by the encounter with the master or influence from another businessperson in management. For example, the successor reflects on the employees’ perspectives by meeting an honorable business person who cares about their employees. Another successor who inherited the family business was also inspired by the encountered businessperson who started the business in his favorite field and applied a unique perspective in developing a new business. It is often found that such social interactions with people inside and outside the company lead to the experience of being enlightened by human interaction. In one case, the successor was inspired by a certain founder of the business based on his interest or hobby, which is opposite to doing the business seriously:

“The businessperson who influenced me was Mr. A, who forced me to buy a motorcycle. When he participated in motorcycle racing, he asked me to come to an event in the U.S. At the same time, Mr. B joined an exhibition in the U.S. The teacher of the Toyota style may get angry, but that is not the world I am used to living in. Japanese tend to be serious, but that is a different world; it is a kind of an extension of their hobbies.” (Interviewee E).

Transformation of the management viewpoint

In the early stages of succession, the successors’ values were created in relationship with the preceding CEO. However, due to the experience of the crisis and the interaction with employees and customers via the business network, the successors’ new perspective on creations has come to be observed. As a typical example, the successors turned out to have long-term perspectives, have the intention to protect employees with the willingness to maintain employment, and uphold the element of pursuit of fun in business in the succeeded work or new business development to motivate themselves and employees. A successor did try to include enjoyment at the workplace even under the current crisis:

“I’ve been saying lately that we’ve been in the job for at least eight hours, and I don’t even see my partner’s face for eight hours. Working hours is the longest time in daily life and we cannot stay for eight hours in the workplace. If we feel sad at the workplace, then why do we all not create it that makes us happy and excited? I have been saying this since the pandemic started.” (Interviewee D).

Other successors emphasized that the important factors for family business are unity and a long-term viewpoint:

“For a major company, the term of the presidency is generally four or five years. However, since I have been the president for 20 years, I can look after the business for a long time, and I do not have to worry about the stock price.” (Interviewee E).

As a long-existing company, preparing for the next generation is also an important theme. To stabilize the management as an owner company, training provided to the CEO’s successor or consolidation of shares in the owner-family are important preparations to have sustainable management. One interviewee shared with their successor the grave reality to help him/her understand the company’s total financial responsibility:

“It is not special that the company may collapse and our own house may disappear. I realized that it is also natural that everything will disappear and I always keep such possibilities in mind, and I am telling the same thing to my son (who is the next successor). I also said to my son that there is no meaning in possessing the house, for such an asset will be taken away when the company will bankrupt.” (Interviewee C).

On the other hand, the successors have been considering future markets by being sensitive to social change. Furthermore, they prepare business succession to the next generation by having a perspective based on corporate social responsibility such as local contribution and social action. Finally, they reconsider the inheritance of basic values from the predecessor again, and such basic values are passed on to the next generation.
Discussion

In the early stages of the succession process, the dilemma of the successors, which is described by Ochiai (2016b), is observed by the concepts "following the instruction of the founder/predecessor" and "conflicting with the previous CEO." However, strict frameworks such as the "Autonomy Under Guardianship" model (Ochiai, 2016a), which is defined as "autonomy with intergenerational conflict, restraint, and discipline acting as constraints and guardianship from the preceding CEO" have not been clearly observed in this study. One reason might be that the research subject of Ochiai’s study was large companies, in contrast to the companies in this research, which assign several divisions to the successors periodically. Some successors in this study joined the company to help the predecessors overcome hardship when the market was shrinking or the economy was declining; thus, there was little room to prepare for a gradual succession process. The early stage of the succession process is not simple in order to bring out the successors’ proactive behavior. However, the dilemma might be the inevitable process for overcoming the conflict and creating their axis and confidence as businesspersons, as well as accumulating legitimacy as successors.

In traditional crisis management theory, the next crisis is averted by elemental preparations through a single feedback loop (Pearson & Mitroff, 1993). However, on real occasions, such preparations do not work well because the crisis has a dynamic framework that ensures that the static and elemental reduction analysis of crisis does not clarify the mechanism of the occasion and address the crisis; thus, the approach of double-loop learning is required (Maenaka et al., 2006).

In the initial stage of formulating the analysis result diagram in this study, the crises were modeled as repeating cycles. However, as the analysis progressed, the successors seemed to change their premise of crisis, that is, the occurrence of crises and failures is a common issue for experienced successors. This can be interpreted as higher-order learning represented by double-loop learning (Argyris & Schon, 1974). Namely, the single loop learning in this study is the preparation of countermeasures for the crisis. However, the successors change their assumption from preparing the crisis to accepting and utilizing the crisis. This can be interpreted as double-loop learning.

This means that preparing the countermeasures learned from the crisis is a part of the preparation. For a potential crisis, however, building a firm relationship that is supported by both the customers and employees might be supplemental, but an essential preparation to make a sustainable organization.

The part of the crisis that is caused by the limitation of the resources of the company such as technology or organization capability, which is functioning as the "constraint in the market," and the process of building uniqueness is recognized as "business autonomy." From this interpretation, the dilemma between "constraint" and "autonomy" does not conclude in the early stage of the succession process but continues throughout the entire business practice. It might be said that the dilemma of family business successors with regard to their predecessors is the preparation for the dilemma in their entire business lifecycle. These arguments are presented in Figure 3.

Figure 3. Interpretation of the analysis result diagram.
As mentioned in the section Theory and literature, the 4Cs theory is a collection of four priorities in strategies, organizational, and leadership priorities in family-owned companies derived from qualitative research on successful family businesses carried out by Miller and Le Breton-Miller (2005). The corresponding concepts in this study for these 4Cs elements are the following: continuity is a long-term perspective; community is the fostering of informal interaction with employees, sharing common values with employees, or having a sense of unity with employees; connection is corporative market development with another organization or local contribution and social action; and command is investing in a new market or going to the market as top management. The relationship between the 4Cs in the family business and the experience of crises have not been clearly described in previous research. However, the results of this study suggest that the repetitive crisis experience might affect the creation of such unique initiatives in family business.

Limitations of the study
Our model is created based on the interviews with six persons, which is the methodological limitation of M-GTA. As a result, one should be cautious of making generalizations. Another limitation is the lack of comparison with other categories such as the manager of startups and the successor in service sectors, or another country case to clarify the uniqueness of the long-lived small and medium-sized manufacturing family businesses. This is also a limitation of M-GTA, which is focused on a specific group as an analytically focused person.

Conclusions
The dilemma of the successors can be observed in long-existing family-owned companies, as previously described in the literature. However, this dilemma is considered to decrease as soon as successors have acquired legitimacy. In this study, the successors continue to experience dilemmas, even after taking over the presidency from the predecessors, by facing market constraints such as crises, and having autonomy in business creation. During business practice, the process of building perspective, right from tackling crises to accepting crises, is one development process of successors. Through these experiences, they formulate the principle of management, such as a long-term perspective or a sense of unity with employees. These perspective changes are also affected by the double-loop learning during crises and human interaction both inside and outside the company.

Data availability
Underlying data
The interviews were conducted under the agreement of keeping the participants anonymous and their interviews private. Therefore, the raw transcript data are not openly available. Quotes in the manuscript provide intermediate data. Transcripts will be reserved for at least five years; any interested readers can contact the corresponding author (suzuki.hiroo.s3@nifty.com) to facilitate data access. Data will be shared under the following conditions: bona fide researchers with a proposal for how they wish to use the data.

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The Nikkei: Why are so many companies celebrating their 100th anniversary this year? The Nikkei plus-one 9th June. 2012. (in Japanese).


Open Peer Review

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Yi Zhu
International Teaching Fellow, Lancaster University, Lancashire, UK

I am happy with the revision. Good work.

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: Organizational management

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard.

Version 1

Reviewer Report 04 May 2021

https://doi.org/10.5256/f1000research.55472.r83250

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Chika Yoshida
Faculty of Information and Communications, Bunkyo University, Shonan, Japan

Comments for each section:

Abstract:
- The purpose of this study is "to explore the process of the transition in successors' behavior
and mindset,” but it would be better to describe what you studied them for.

○ As for the Conclusion, it is difficult to see not only what the common trends from the survey are, but also what they mean and how the results can be used.

Introduction:
○ The data source in the third paragraph is a survey conducted in Japan, and it should be clearly stated as such.

○ The second paragraph included examples from overseas, but the data source in the third paragraph is a survey conducted in Japan, and it should be clearly stated as such.

○ The fifth paragraph describes the succession problem of family businesses. It would be better to indicate the direction of the study, such as whether this study can be used for that problem, or whether the data can be used to determine mergers and acquisitions like those of large companies, or succession outside the family.

Theory and Literature:
○ In "Theory and literature," it is unclear whether the sections in that section are divided by model or category." For "Three-circle model" and "The 4Cs model," it would be better to title the section with what the research model is, so that it is consistent with other sections (such as "Empirical studies on family business").

○ It is not clear the difference between this research and Ochiai (2016a).

○ In the Discussion section, it is written that Ochiai (2016a) focuses on large corporations. That should be clarified in this chapter too.

Study Purpose:
○ In the Abstract, you mentioned “The purpose of this study is to explore the process of the transition in successors' behavior and mindset while managing long-lived small and medium-sized manufacturing enterprises throughout the lifecycle of succession.” In the Introduction, you describe that “This study attempts to explore the process of successors’ progress in long-lived SMEs to help the current CEOs and potential successors handle succession smoothly, which is the most important issue for SMEs.”

As with my comment for the Introduction, It would be better to indicate the direction of the study, such as whether this study can be used for that problem.

Discussion:
○ There are some continuous descriptions for the previous studies, so it would be better to shift part of the discussion to the previous studies and summarize the discussion here.

Conclusion:
○ There is a tendency to state all the issues of the study as limitations of the M-GTA method here. It is better to state how the issues of the M-GTA method will be resolved and studied in the future.
**General comments:**
- I have confirmed that this paper is of an acceptable scientific standard, but I would like the authors to revise the above comments and present the fundamental purpose of this research paper, how it can contribute to academia and what suggestions it can provide in practice.

**Is the work clearly and accurately presented and does it cite the current literature?**
Partly

**Is the study design appropriate and is the work technically sound?**
Yes

**Are sufficient details of methods and analysis provided to allow replication by others?**
Partly

**If applicable, is the statistical analysis and its interpretation appropriate?**
Not applicable

**Are all the source data underlying the results available to ensure full reproducibility?**
Partly

**Are the conclusions drawn adequately supported by the results?**
Partly

**Competing Interests:** No competing interests were disclosed.

**Reviewer Expertise:** Software Engineering, Requirement Engineering, Project Management

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard, however I have significant reservations, as outlined above.

---

Author Response 01 Aug 2021

**Hiroo Suzuki, University of Tsukuba, Tokyo, Japan**

We appreciate the comment by Prof. Yoshida and the following are the responses to each comment, which will be modified in Version 3.

**Abstract:**
The purpose of this study is "to explore the process of the transition in successors' behavior and mindset," but it would be better to describe what you studied them for.

→Owing to the ambiguity of "behaviors and mindset", the research object described in the title and research purpose was changed to "exploring the growth process of successors."

As for the Conclusion, it is difficult to see not only what the common trends from the survey are, but also what they mean and how the results can be used.
In the discussion section, the academic and practical implication has been added.

Introduction:
The data source in the third paragraph is a survey conducted in Japan, and it should be clearly stated as such.
→Stated.

The second paragraph included examples from overseas, but the data source in the third paragraph is a survey conducted in Japan, and it should be clearly stated as such.
→Stated as the Japanese case in the third.

The fifth paragraph describes the succession problem of family businesses. It would be better to indicate the direction of the study, such as whether this study can be used for that problem, or whether the data can be used to determine mergers and acquisitions like those of large companies, or succession outside the family.
→The purpose and benefits of the study were described from the perspectives of both the successors and the professionals who support them, along with the background of the problem of the business succession of SMEs in Japan and the government's measures to deal with it.

Theory and Literature:
In "Theory and literature," it is unclear whether the sections in that section are divided by model or category. For "Three-circle model" and "The 4Cs model," it would be better to title the section with what the research model is, so that it is consistent with other sections (such as "Empirical studies on family business").
→The 4Cs model is categorized as "case studies" with another Japanese one.

It is not clear the difference between this research and Ochiai (2016a).
→Ochiai(2016a) is covering the period when the predecessors are in the top management, This study is following after the successors become the top. and different types of the dilemma is observed in early-stage and top management period, which are stated in the literature section and discussion.

In the Discussion section, it is written that Ochiai (2016a) focuses on large corporations. That should be clarified in this chapter too.
→Reconsidering Ochiai(2016a), the main finding was the successors' transfer between several departments as the preparation of succession and does not clearly state the large company cases. And the uniqueness of Ochiai's study was interviewing both predecessors and successors in the same company so that the explanation of the context of his study has been amended.

Study Purpose:
In the Abstract, you mentioned “The purpose of this study is to explore the process of the transition in successors' behavior and mindset while managing long-lived small and medium-sized manufacturing enterprises throughout the lifecycle of succession.” In the Introduction, you describe that “This study attempts to explore the process of successors' progress in long-lived SMEs to help the current CEOs and potential successors handle succession smoothly, which is the
most important issue for SMEs.”
→The study purpose is unified as exploring the growth process of successors in long-lived small and medium-sized manufacturing companies both

As with my comment for the Introduction, It would be better to indicate the direction of the study, such as whether this study can be used for that problem.
→Adding the benefit of the study in the study purpose section.

Discussion:
There are some continuous descriptions for the previous studies, so it would be better to shift part of the discussion to the previous studies and summarize the discussion here.
→Description of previous studies such as single and double-loop learning and crisis-management has shifted in the theory and literature part.

Conclusion:
There is a tendency to state all the issues of the study as limitations of the M-GTA method here. It is better to state how the issues of the M-GTA method will be resolved and studied in the future.
→The necessity of further study based on a quantitative study in the part of the limitation of the study has been stated.

General comments:
I have confirmed that this paper is of an acceptable scientific standard, but I would like the authors to revise the above comments and present the fundamental purpose of this research paper, how it can contribute to academia and what suggestions it can provide in practice.
→Study purpose with practical benefit has stated in the study purpose and implications.

Competing Interests: No competing interests were disclosed.

Yi Zhu
International Teaching Fellow, Lancaster University, Lancashire, UK

This paper uses modified GTA to explore the transition of successors at SMEs in Japan. It gives insights into the behavioral and mindset changes of the successor from a relatively long time span.

My comments for each section as below:
Abstract:
- You may want to state the reason why the behavior and mindset of successors matter (the value of your research).
- Consider revising the title as it could be slightly long.
- To avoid misunderstanding, GTA may need a full name.
- Clarify what is the uniqueness of your research (some of the descriptions could be moved to the Conclusions).
- Need to explain further what type of crisis you refer to.

Introduction:
- Second paragraph: Isn't a Japanese company well known for having a successor from outside the family (i.e. 'mukoyoushi')?
- Third paragraph: you may want to specify which country/region you are referring to.
- Need discussion on the importance of SMEs in Japan (e.g. size of the economic loss).
- Unclear how the successor is an issue for the failing SMEs.
- 5th paragraph: the flow was unclear (how is short research life relates to the overlapping of ownership and management, could explore more on the latter topic).

Theory and literature:
- It seems too sudden to start this section: need introduction to the section.
- Need to clarify the relationship among these theories (e.g. how could 4Cs model relevant to the research by Asba?).
- Succession of family businesses: Which five factors that Kamiya is talking about?
- Study purpose: Could emphasize more on the uniqueness of this study which is to bring out the discussion on complete lifecycles of successors in Introduction and Abstract.
- Figure 2 is difficult to comprehend: could have two types of figures, one with a simpler contents; need clarification on the changes of the successors' behaviors and mindsets.
- Clarify how your research is different from Ochiai 2016a.
- Some codes are difficult to understand (e.g. what do you mean by 'Acquiring a higher perspective'?).
- More clarity on the transformation of the management viewpoint: discuss in early-stage in this section what kind of transformation you are referring to.
Discussion:
  o Some early studies were only mentioned in this section, not in the literature review section, which may confuse the reader (e.g. single/double loop learning; crisis management).

Conclusions:
  o Add the implications of the study.

Is the work clearly and accurately presented and does it cite the current literature?
Partly

Is the study design appropriate and is the work technically sound?
Yes

Are sufficient details of methods and analysis provided to allow replication by others?
Yes

If applicable, is the statistical analysis and its interpretation appropriate?
Not applicable

Are all the source data underlying the results available to ensure full reproducibility?
Partly

Are the conclusions drawn adequately supported by the results?
Partly

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: Organizational management

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard, however I have significant reservations, as outlined above.

Author Response 01 Aug 2021

Hiroo Suzuki, University of Tsukuba, Tokyo, Japan

We appreciate the fruitful comment by Dr.Zoe, and the following are the responses to each comment.

You may want to state the reason why the behavior and mindset of successors matter (the value of your research).
→Definition of "mindset and behavior" is vague so that changed the title to "growth process".

Consider revising the title as it could be slightly long.
→Changed the title to the shorter one.
To avoid misunderstanding, GTA may need a full name.
→Used full name instead of the abbreviation.

**Clarify what is the uniqueness of your research (some of the descriptions could be moved to the Conclusions).**
→Described the difference and uniqueness of this study in literature review and conclusions.

Need to explain further what type of crisis you refer to.
→Market and customers issues have been described.

**Introduction:**
Second paragraph: Isn't a Japanese company well known for having a successor from outside the family (i.e. 'mukoyoushi')?
→Described "mukoyoshi" or succession by sons-in-law, which is considered as the expansion of continuation of family-ownership in Japan.

Third paragraph: you may want to specify which country/region you are referring to.
→Stated this is a Japanese case.

**Need discussion on the importance of SMEs in Japan (e.g. size of the economic loss).**
→Stated the economic impact of the SMEs succession issue

**Unclear how the successor is an issue for the failing SMEs.**
→Stated the economic impact of the SMEs succession issue

5th paragraph: the flow was unclear (how is short research life relates to the overlapping of ownership and management, could explore more on the latter topic).
→The paragraph has replaced the explanation of the current government approach to tackle the succession issues as the background requires information and standardization of the succession process.

**Theory and literature:**
It seems too sudden to start this section: need introduction to the section.
→The introduction part has been added.

Need to clarify the relationship among these theories (e.g. how could 4Cs model relevant to the research by Asba?)
→Divided case studies part and other studies including Asaba's study.

Succession of family businesses: Which five factors that Kamiya is talking about?
→Elaborated Kamiya's studies with five factors

Study purpose: Could emphasize more on the uniqueness of this study which is to bring out the discussion on complete lifecycles of successors in Introduction and Abstract.
→Changed the study object to the “exploring the growth process of successors” and stated study purpose related to the object.
Figure 2 is difficult to comprehend: could have two types of figures, one with a simpler contents; need clarification on the changes of the successors' behaviors and mindsets. →Figure 3 was modified as the simpler version of Figure 2.

Clarify how your research is different from Ochiai 2016a. →Described the difference with Ochai2016a from the timeframe of the study.

Some codes are difficult to understand (e.g. what do you mean by 'Acquiring a higher perspective'?). →"Acquiring higher perspective" has changed to "Changing Perspective on crisis" "Transformation of management viewpoint" has changed to "Establishing management principles".

More clarity on the transformation of the management viewpoint: discuss in early-stage in this section what kind of transformation you are referring to. →The concept name has changed and recognized as the process of "establishing management principles".

Discussion:
Some early studies were only mentioned in this section, not in the literature review section, which may confuse the reader (e.g. single/double loop learning; crisis management). →Double-loop learning and Crisis management have been explained in the literature section with previous studies.

Conclusions:
Add the implications of the study. →Academic and practical implications were added.

Competing Interests: No competing interests were disclosed.
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