

RGC Ref. No.:  
UGC/FDS16/B26/21  
(please insert ref. above)

**RESEARCH GRANTS COUNCIL  
COMPETITIVE RESEARCH FUNDING SCHEMES FOR  
THE LOCAL SELF-FINANCING DEGREE SECTOR**

**FACULTY DEVELOPMENT SCHEME (FDS)**

**Completion Report**  
(for completed projects only)

**Submission Deadlines:**

1. Auditor's report with unspent balance, if any: within **six** months of the approved project completion date.
2. Completion report: within **12** months of the approved project completion date.

**Part A: The Project and Investigator(s)**

**1. Project Title**

The wisdom to choose: Family CEO's birth order across institutional contexts

**2. Investigator(s) and Academic Department(s) / Unit(s) Involved**

Research Team	Name / Post	Unit / Department / Institution
Principal Investigator	Dr. CHEN Xing Kelly / Assistant Professor	Department of Marketing and International Business, Hong Kong Metropolitan University
Co-Investigator(s)	Prof. AU Kevin Yuk-fai / Associate Professor	Department of Management, The Chinese University of Hong Kong
Others		

**3. Project Duration**

	Original	Revised	Date of RGC / Institution Approval (must be quoted)
Project Start Date	1 January 2022		
Project Completion Date	31 December 2023		
Duration (in month)	24		
Deadline for Submission of Completion Report	31 December 2024		

4.4 Please attach photo(s) of acknowledgement of RGC-funded facilities / equipment.

## **Part B: The Final Report**

### **5. Project Objectives**

5.1 Objectives as per original application

1. *To explore how birth order—earlier-born versus later-born siblings—of family CEOs influence innovation in family firms.*
2. *To examine the effect of birth order on innovation in family business in different institutional contexts.*
3. *To enrich our understanding of how formal and informal institutions restrict or amplify managerial discretion of family CEOs in family firms.*
4. *To investigate how formal and informal institutions affect the choice of earlier-born or later-born CEO successors.*

5.2 Revised objectives

Date of approval from the RGC:

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Reasons for the change:

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- 1.
- 2.
3. ....

5.3 Realisation of the objectives

*(Maximum 1 page; please state how and to what extent the project objectives have been achieved; give reasons for under-achievements and outline attempts to overcome problems, if any)*

The first objective is to explore how birth order of family CEOs influence innovation in family firms. After reviewing the literature on birth order and innovation, we identified the mechanisms of why firms led by later-born family CEOs are more innovative. First, later-born children need to be

more innovative to fill family niche during sibling rivalry and competition for parents' attention. Such early life experiences have effect even till adulthood. The second mechanism is that family firms that break primogeniture can benefit from a larger talent pool. We expect that family firms led by later-born family CEOs are more likely to pay attention to innovation and achieve greater innovation performance. We test this baseline hypothesis using the data from the 2019 Global Family Business Survey designed and administered by the Successful Transgenerational Entrepreneurship Practices (STEP) Project Global Consortium. Using multilevel analysis of a cross-country sample of 1306 family firms, we find that there is a positive relationship between family CEOs and innovation outcome and that this relationship is partially mediated by attention to innovation.

The second objective is to examine the effect of birth order on innovation in family business in different institutional contexts. To achieve this goal, we have reviewed cross-cultural studies on birth order. Past literature has showed the importance of national cultures in shaping roles and responsibilities of siblings with different birth order. We also reviewed previous studies on CEOs' birth order and found that most studies show the positive effect between CEOs' birth order and firm innovation or performance. However, there are exceptional cases such as findings in Confucian culture. Empirically, in our cross-country sample, we do find that the birth order effect varies across institutional contexts. The literature review and empirical analysis support the importance to study how national institutions influence birth order effect.

The third objective is to enrich our understanding of how formal and informal institutions restrict or amplify managerial discretion of family CEOs in family firms. Inspired by cross-cultural studies of birth order, we expect that later-born family CEOs would face greater constraints and less discretion in countries with certain institutional characteristics. As for our first manuscript, we build on the framework of regulative, normative and cognitive pillars of institutions to identify three formal and informal national institutions that are closely related to family business and innovation. Specifically, we have explained and tested how rule of law, power distance, and family obligation moderate the relationship between family CEOs' birth order and firm innovation. According to the theory of managerial discretion, these national institutions can constrain CEOs' discretion. We tested the interactions between national institutions and family CEO's birth order and found that weak rule of law, high power distance and strong family obligation would put more constraints on later-born family CEOs. Since reviewers criticized our choice of moderators as being too distant from the effect of family CEOs' birth order, in the updated manuscript, we choose to focus on a family domain informal institution—family business legitimacy. This national institution is very comprehensive in terms of covering family domain institutions related to social orders, social relationship and cultural values. We find this informal institution, together with most of its subdimensions, strongly moderates the relationship between family CEOs' birth order and firm innovation outcome.

Our last objective is to investigate how formal and informal institutions affect the choice of earlier-born or later-born CEO successors. Instead of developing a separate paper for this research question, we addressed this question in the first stage of Heckman two stage model in our manuscript. As expected, we find that family firms are more likely to have later-born family CEOs in countries with lower family business legitimacy and when the family firm has less socioemotional wealth.

#### 5.4 Summary of objectives addressed to date

<b>Objectives</b> <i>(as per 5.1/5.2 above)</i>	<b>Addressed</b> <i>(please tick)</i>	<b>Percentage Achieved</b> <i>(please estimate)</i>
1. To explore how birth order—earlier-born versus later-born siblings—of family CEOs influence innovation in family firms.	✓	100%
2. To examine the effect of birth order on innovation in family business in different institutional contexts.	✓	100%
3. To enrich our understanding of how formal and informal institutions restrict or amplify managerial discretion of family CEOs in family firms.	✓	100%
4. To investigate how formal and informal institutions affect the choice of earlier-born or later-born CEO successors.	✓	100%

## 6. Research Outcome

### 6.1 Major findings and research outcome

*(Maximum 1 page; please make reference to Part C where necessary)*

We first summarize the key research findings. With a cross-country sample of family firms, we find that there is a positive relationship between family CEOs' birth order and innovation outcome and that this relationship is partially mediated by family firms' attention to innovation. Our main research focus is on the moderating effect of national institutions. In our first manuscript, we find that later-born family CEOs are less likely to be associated with better innovation performance under the conditions of weaker rule of law, higher power distance, and stronger family obligation. In our revised manuscript, we find that family business legitimacy, a newly developed national informal institution that is closely related to family business, strongly and negatively moderates the relationship between family CEOs' birth order and firm innovation outcome. As for the choice of first versus later born family CEOs, we find that family firms are more likely to have later-born family CEOs in countries with lower family business legitimacy and when the family firm has less socioemotional wealth.

As for the research outcome, we have two conference papers being accepted. A research proposal titled "Who Can Facilitate Innovation in Family Firms? Evidence across Institutional Contexts" based on the grant was presented at Strategic Management Society 42nd Annual Conference in London, 2022. A full conference paper titled "Family CEO's birth order and firm innovation: The moderating role of national institutions" was presented at STEP Project Global Consortium - Global Family Business Summit 2023 in Spain. We submitted the paper to Strategic Management Journal (ABS 4\*) in 2023. Although the paper was rejected, we have obtained lots of constructive feedback. We have undertaken substantive revisions. To deal with the criticism of choice of national institutions, we have selected a newly developed family domain national institution called family business legitimacy, which captures the extent to which kinship tie is the key conduit of social and economic exchange. It has subdimensions about social order, social relationships and values related to family, which enable us to unpack the mechanisms of how informal institutions influence birth order effect. And we have added a mediator to strengthen the mechanism underlying the relationship between family CEOs' birth order and innovation outcome. In addition, we have incorporated more family science literature, refined the empirical model, and strengthened the theoretical arguments. Now the manuscript is under R&R at a top tier journal.

### 6.2 Potential for further development of the research and the proposed course of action

*(Maximum half a page)*

According to reviewers' comments of our previous submission, one limitation of this project is the cross-sectional data. To further develop this research, it would be better to collect panel data cross countries. However, it is very difficult, if not impossible, to collect such type of data. Another direction for further development of this research is to conduct comparative case studies across countries to further unpack the influence of birth order. This project opens venues for future research. First, in addition to innovation, family CEOs' birth order can influence other corporate decisions. We have another related research paper on how family CEOs' birth order affects the choice of governance mechanisms. Second, this project demonstrates the importance of national institutions in understanding birth order effect in family firms. Future research can further investigate how different types of national institutions affect business family dynamics and relationships, which eventually influence family firms' strategies and performance.

**7. Layman's Summary**

*(Describe in layman's language the nature, significance and value of the research project, in no more than 200 words)*

The choice of successor is a challenging decision for family business. Recent research on family CEOs' birth order mostly suggests that family firms that take courage to break primogeniture and choose later-born siblings as family CEOs would be more innovative and perform better. However, choosing the first born has its advantages, such as avoiding disputes of who is more capable or suitable to lead a family business and ensuring the legitimacy of the successor. Our study contributes to this debate by highlighting that the benefits of breaking primogeniture depend on institutional contexts. Making use of a cross-country sample of family firms, our study provides evidence and explanations of why family firms led by later-born family CEOs may not always outperform those led by the earlier-born across countries. In countries where family relationships are more hierarchical and where kinship ties are the main conduit of social and economic exchange, later-born family CEOs, despite their openness to innovative ideas, would lack the legitimacy and social capital to commercialize the innovative ideas. Our study implies the importance of taking institutional factors into consideration when making suggestions to family firms in terms of succession decisions.

## Part C: Research Output

### 8. Peer-Reviewed Journal Publication(s) Arising Directly From This Research Project

(Please attach a copy of the publication and/or the letter of acceptance if not yet submitted in the previous progress report(s). All listed publications must acknowledge RGC's funding support by quoting the specific grant reference.)

The Latest Status of Publications				Author(s) (denote the corresponding author with an asterisk*)	Title and Journal / Book (with the volume, pages and other necessary publishing details specified)	Submitted to RGC (indicate the year ending of the relevant progress report)	Attached to this Report (Yes or No)	Acknowledged the Support of RGC (Yes or No)	Accessible from the Institutional Repository (Yes or No)
Year of Publication	Year of Acceptance (For paper accepted but not yet published)	Under Review	Under Preparation (optional)						
		Yes		Kelly Xing Chen*, Kevin Au, Jeremy Cheng, Frank W. Ng	The Wisdom to Choose: Informal institutions, family CEOs' birth order, and innovation performance (under review at <i>Journal of International Business Studies</i> )	Yes	Yes [Attachment 1]	Yes	Yes

### 9. Recognized International Conference(s) In Which Paper(s) Related To This Research Project Was / Were Delivered

(Please attach a copy of each conference abstract)

Month / Year / Place	Title	Conference Name	Submitted to RGC (indicate the year ending of the relevant progress report)	Attached to this Report (Yes or No)	Acknowledged the Support of RGC (Yes or No)	Accessible from the Institutional Repository (Yes or No)
09/2022 London, UK	Who Can Facilitate Innovation in Family Firms? Evidence across Institutional Contexts	Strategic Management Society 42nd Annual Conference	2022	No	Yes	Yes
04/2023 Valencia, Spain	Family CEO's birth order and firm innovation: The moderating role of national institutions	STEP Project Global Consortium - Global Family Business Summit 2023	No	Yes [Attachment 2]	Yes	Yes

**10. Whether Research Experience And New Knowledge Has Been Transferred / Has Contributed To Teaching And Learning**

*(Please elaborate)*

The PI has presented this paper in front of around 300 MBA students in Hong Kong

Metropolitan University in 2023. After the presentation, several MBA students expressed

their strong interest in this research topic. One MBA student, who manages his family

business, found this research quite relevant to his own experience.

As for transferring research experience, we include a former doctoral student from Chinese

University of Hong Kong in this research project. Experience in this project inspired him to

initiate other relevant research projects.

**11. Student(s) Trained**

*(Please attach a copy of the title page of the thesis)*

Name	Degree Registered for	Date of Registration	Date of Thesis Submission / Graduation

**12. Other Impact**

*(e.g. award of patents or prizes, collaboration with other research institutions, technology transfer, teaching enhancement, etc.)*

This is a collaborative project. PI has worked with faculty members and a former student

from Chinese University of Hong Kong. The same research team has another relevant paper

on family CEOs' birth order. The paper is titled "Born to govern? Birth order and family

governance adoption" won the Best Paper Award at Global Family Business Summit 2024,

STEP Project Global Consortium.

### 13. Statistics on Research Outputs

	Peer-reviewed Journal Publications	Conference Papers	Scholarly Books, Monographs and Chapters	Patents Awarded	Other Research Outputs (please specify)	
No. of outputs arising directly from this research project	1 (under 2nd round R&R)	2			Type	No.

### 14. Public Access Of Completion Report

*(Please specify the information, if any, that cannot be provided for public access and give the reasons.)*

Information that Cannot Be Provided for Public Access	Reasons
Information about the manuscript	The manuscript is under review at Journal of International Business Studies.