

**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

To Give or Not to Give? Investigating the Effects of Trust on Time Banking Participation:

A Longitudinal Study in Hong Kong Aging Population

(給予還是不給予?調查信任對時間銀行參與的影響：香港人口老齡化的縱向研究)

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

Research Team	Name / Post	Unit / Department / Institution
Principal Investigator	Dr LEUNG Wilson Ka-Shing / Senior Lecturer	Division of Science, Engineering and Health Studies / School of Professional Education and Executive Development, The Hong Kong Polytechnic University (PolyU)
Co-Investigator 1	Dr FONG Ben Yuk-Fai / Senior Lecturer	Division of Science, Engineering and Health Studies / PolyU SPEED

Research Team	Name / Post	Unit / Department / Institution
Co-Investigator 2	Dr CHEUNG Man-Lai / Senior Lecturer	Department of Marketing, International Business and Tourism / Manchester Metropolitan University, UK
Co-Investigator 3	Dr CHANG Ludwig Man-Kit / Assistant Professor	Department of Management, Marketing and Information Systems / Hong Kong Baptist University
Co-Investigator 4	Dr SI Shi / Professor	Department of Tourism Management / Southwestern University of Finance and Economics, PR China
Others	Ms CHEUNG Tsz Nok / Research Assistant	General Office / PolyU SPEED

3. Project Duration

	Original	Revised	Date of RGC / Institution Approval (must be quoted)
Project Start Date	01/01/2021	N/A	N/A
Project Completion Date	31/12/2022	31/10/2023	02/05/2023
Duration (<i>in month</i>)	24 months	34 months	02/05/2023
Deadline for Submission of Completion Report	31/12/2023	31/08/2024	02/05/2023

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

N/A

Part B: The Final Report

5. Project Objectives

5.1 Objectives as per original application

Combining a longitudinal online survey and a qualitative focus group investigation, our research objectives are:

Theoretical contributions:

1. Building on trust literature, this research examines two trust building processes by using a three-wave longitudinal survey. We aim to explain how (swift) trust towards a NGO develops in a short time and how (knowledge-based) trust will be sustained in the long run when the interaction between trustors (i.e., individuals) and trustees (i.e., NGOs) is accumulated.
2. At Time 0 (prior to interaction with a NGO), we will explain how individuals' swift trust towards a NGO (i.e., Sik Sik Yuen) can be quickly transferred from three bases of trust through the theoretical lens of trust transfer theory. In addition, social support theory is used to explain individuals' trust building process in the context of social media.
3. At Time 1 and Time 2 (after interacting with a NGO), we will examine the effect of the fairness of time banking participation on individuals' overall trust towards a NGO based on organizational justice theory.
4. We will test the relationship between trust towards NGOs and trusting intention in our proposed model and we will quantify trusting intention and behaviors based on time banking participation, time credit donation to other participants in the NGO, and word-of-mouth participation.

Managerial contributions:

1. Focus group study: an additional qualitative study will be conducted to explore the motivations and difficulties of participating time banking activities by recruiting the participants and NGO staff. This allows us to further address specific motivational and behavioral barriers of time banking participation. Thereby, NGOs can improve participation rates and lower dropout rates in their time banking programs.
2. Policy design: our research findings can contribute to the government and NGOs. We can identify the key factors of driving individuals' trusting beliefs and behaviors at different stages, including before (T0) and after (T1 & T2) participating in the time banking program. Policymakers and the top management can design better policies and adjust the procedure of the program according to different periods of time.
3. Input to teaching: the research findings will be applied to our teaching, for instance, we will cover time banking in our courses for case study discussions, resource management, and service learning. We expect the following course will be benefited, including, Sociology for Health Studies, Professional Ethics and Social Responsibilities, Legal and Ethical Considerations in Health Care, and Health Care Systems and Resources Management.
4. Social impact: We will offer practical and educational guidelines by making brochures and videos and holding seminars and workshops for the general public. Ultimately, we aim to enhance public awareness of time banking practice in the society.

5.2 Revised objectives

Date of approval from the RGC: N/A

Reasons for the change: N/A

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)

Regarding the theoretical contributions, there are four objectives. Theoretical objective 1 was accomplished by establishing a three-wave longitudinal research model to examine how (swift) trust towards a time banking program organizer develops in a short time and how (knowledge-based) trust is sustained in the long run (Appendix 1). In addition, we developed surveys for three different stages (Appendices 2–4). Theoretical objectives 2 and 3 were met by collecting data from students involved in time banking with the local NGO, namely Sik Sik Yuen, yielding 440 valid samples at the initial stage (Time 0 – Apr 2021), followed by 290 valid samples at the first follow-up (Time 1 – Jan 2022), and 152 valid samples at the second follow-up (Time 2 – Jun 2023).

Theoretical objective 4 was met by testing our proposed research models. As demonstrated in Table 1, the results from the data collected at Time 0 indicate that, during the initial stage of interaction, all bases of swift trust, except for personality-based trust, significantly influence trusting beliefs toward the NGO. Additionally, both informational and emotional support provided through social media significantly impact trusting beliefs. Tables 2 and 3 present the results from the data collected at Time 1 and Time 2 (Appendix 1). In these later stages of interaction, the bases of swift trust lose their significance, while emotional support via social media continues to exert a substantial effect on trusting beliefs. Furthermore, procedural justice and distributive justice emerge as new sources of trusting beliefs during these stages. The findings suggest that trusting beliefs significantly affect intentions to participate in time banking activities, donate to other participants, and provide word-of-mouth endorsements. Moreover, as depicted in Table 3, which analyzes data from 152 participants available at both Time 1 and Time 2, intentions at Time 1 are predictive of actual behaviors at Time 2.

Regarding the managerial contributions, there are four objectives. Managerial objective 1 was met by conducting a qualitative study. We interviewed 8 time banking program participants in Oct 2023, which allowed us to further address specific motivational and behavioral barriers to time banking participation (Appendix 5).

Managerial objective 2 was met by providing suggestions to the government and NGOs. We identified the key factors driving individuals' trusting beliefs and behaviors from T0 to T2 in the time banking program. Our suggestions were presented in journals, books, and conferences (Appendices 6–9).

Managerial objective 3 was met by covering time banking in our courses for case study discussions, resource management, and service learning. Teaching materials based on findings from T0, T1, and T2 were delivered to students in Nov 2021 and Oct 2023 (Appendices 10–11).

Managerial objective 4 was met by offering practical and educational guidelines through promotional materials. The materials, including brochures and videos, were made in Aug 2021 (Appendices 10–11) and in Oct 2023 (Appendices 12–13) respectively.

5.4 Summary of objectives addressed to date

Objectives (as per 5.1/5.2 above)	Addressed (please tick)	Percentage Achieved (please estimate)
<p>Theoretical contributions:</p> <p>1. Building on trust literature, this research examines two trust building processes by using a three-wave longitudinal survey. We aim to explain how (swift) trust towards a NGO develops in a short time and how (knowledge-based) trust will be sustained in the long run when the interaction between trustors (i.e., individuals) and trustees (i.e., NGOs) is accumulated.</p>	<p>Research model development ✓ (Jan 2021) (Appendix 1: Theoretical Framework and Model Results)</p> <p>Survey (Time 0) ✓ (Jan - Mar 2021) (Appendix 2 -Time Banking Research – Time 0)</p> <p>Data Collection(Time 0) ✓ (Mar - Apr 2021)</p> <p>Data analysis (Time 0) ✓ (Jul 2021)</p> <p>Survey (Time 1) ✓ (Jul - Sep 2021) (Appendix 3 - Time Banking Research – Time 1)</p> <p>Data Collection(Time 1) ✓ (Oct 2021 – Jan 2022)</p> <p>Data analysis (Time 1) ✓ (Feb 2022)</p> <p>Survey (Time 2) ✓ (Mar – May 2022) (Appendix 4 -Time Banking Research – Time 2)</p> <p>Data Collection(Time 2) ✓ (Dec 2022 - Jun 2023)</p> <p>Data analysis (Time 2) ✓ (Oct 2023)</p>	<p>Achieved 100%</p>

Objectives (as per 5.1/5.2 above)	Addressed (please tick)	Percentage Achieved (please estimate)
<p>2. At Time 0 (prior to interaction with a NGO), we will explain how individuals' swift trust towards a NGO (i.e., Sik Sik Yuen) can be quickly transferred from three bases of trust through the theoretical lens of trust transfer theory. In addition, social support theory is used to explain individuals' trust building process in the context of social media.</p>	<p>Survey (Time 0) ✓ (Jan - Mar 2021)</p> <p>(Appendix 2 -Time Banking Research – Time 0)</p> <p>Data Collection(Time 0) ✓ (Mar - Apr 2021)</p> <p>Data analysis (Time 0) ✓ (Jul 2021)</p>	Achieved 100%
<p>3. At Time 1 and Time 2 (after interacting with a NGO), we will examine the effect of the fairness of time banking participation on individuals' overall trust towards a NGO based on organizational justice theory.</p>	<p>Survey (Time 1) ✓ (Jul - Sep 2021)</p> <p>(Appendix 3 - Time Banking Research – Time 1)</p> <p>Data Collection(Time 1) ✓ (Oct 2021 – Jan 2022)</p> <p>Data analysis (Time 1) ✓ (Feb 2022)</p>	Achieved 100%
<p>4. We will test the relationship between trust towards NGOs and trusting intention in our proposed model and we will quantify trusting intention and behaviors based on time banking participation, time credit donation to other participants in the NGO, and word-of-mouth participation.</p>	<p>Survey (Time 2) ✓ (Mar – May 2022)</p> <p>(Appendix 4 -Time Banking Research – Time 2)</p> <p>Data Collection(Time 2) ✓ (Dec 2022 - Jun 2023)</p> <p>Data analysis (Time 2) ✓ (Oct 2023)</p>	Achieved 100%

Objectives (as per 5.1/5.2 above)	Addressed (please tick)	Percentage Achieved (please estimate)
<p><u>Managerial contributions:</u></p> <p>1. Focus group study: an additional qualitative study will be conducted to explore the motivations and difficulties of participating time banking activities by recruiting the participants and NGO staff. This allows us to further address specific motivational and behavioral barriers of time banking participation. Thereby, NGOs can improve participation rates and lower dropout rates in their time banking programs.</p>	<p>Focus group interview ✓ (Oct 2023)</p> <p>Focus group summary report ✓ (Oct 2023)</p> <p>(Appendix 5 – Qualitative interview about time banking activity participation motivations and barriers)</p>	<p>Achieved 100%</p>

Objectives (as per 5.1/5.2 above)	Addressed (please tick)	Percentage Achieved (please estimate)
<p>2. Policy design: our research findings can contribute to the government and NGOs. We can identify the key factors of driving individuals' trusting beliefs and behaviors at different stages, including before (T0) and after (T1 & T2) participating in the time banking program. Policymakers and the top management can design better policies and adjust the procedure of the program according to different periods of time.</p>	<p>Policy design (Time 0) ✓ (Aug 2021)</p> <p>We made practical suggestions for the government and NGOs based on the results at Time 0 (Appendix 6 – peer-reviewed journal 1, Appendix 7 – Presentation in SASEM 2021 Conference, Appendix 8 – Presentation in ANZMAC 2021 Conference, Appendix 9 – book chapter 1, Appendix 10 – Input to Teaching Notes – 1)</p> <p>Policy design (Time 1 and 2) ✓ (Oct 2023)</p> <p>We made practical suggestions for the government and NGOs based on the results at Time 1 and 2 (Appendix 11 – Input to Teaching Notes – 2)</p>	<p>Achieved 100%</p>

Objectives (as per 5.1/5.2 above)	Addressed (please tick)	Percentage Achieved (please estimate)
<p>3. Input to teaching: the research findings will be applied to our teaching, for instance, we will cover time banking in our courses for case study discussions, resource management, and service learning. We expect the following course will be benefited, including, Sociology for Health Studies, Professional Ethics and Social Responsibilities, Legal and Ethical Considerations in Health Care, and Health Care Systems and Resources Management.</p>	<p>Input to Teaching (Time 0) ✓ (Sep - Nov, 2021)</p> <p>Input to Teaching (Time 0, 1 and 2) ✓ (Sep - Oct, 2023) (Appendix 10 – Input to Teaching Notes – 1 and Appendix 11 – Input to Teaching Notes – 2)</p>	<p>Achieved 100%</p>
<p>4. Social impact: We will offer practical and educational guidelines by making brochures and videos and holding seminars and workshops for the general public. Ultimately, we aim to enhance public awareness of time banking practice in the society.</p>	<p>Educational guidelines (Time 0) ✓ (Aug 2021) (Appendix 10 – Input to Teaching Notes – 1 and Appendix 11 – Input to Teaching Notes – 2)</p> <p>Practical guidelines (leaflet and video) (Time 1 and 2) ✓ (Oct 2023) (Appendix 12 – leaflet and Appendix 13 – Video)</p>	<p>Achieved 100%</p>

6. Research Outcome

6.1 Major findings and research outcome

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

This study investigated the mechanisms by how participants in time banking build trust in a non-governmental organisation (NGO) through a three-wave longitudinal survey. It explored the evolution of swift trust in the short term and the sustainability of knowledge-based trust over time as interactions between individuals and NGOs accumulate. We collected three-wave longitudinal data from students involved in time banking with the local NGO Sik Sik Yuen, our collaborator. The data collection occurred at various colleges and universities, yielding 440 valid samples at the initial stage (Time 0), followed by 290 valid samples at the first follow-up (Time 1), and 152 valid samples at the second follow-up (Time 2).

Through the analysis of our collected data, we found that the bases of swift trust formation—personality-based, category-based, and structural assurance—are important in the initial stages of interaction between participants and the NGO. Additionally, social support factors, such as informational and emotional support through social media, are crucial in forming trust toward the NGO during these initial interactions. As illustrated in Table 1 (Appendix 1), which presents the results from the data collected at Time 0—the initial stage of interaction—except for personality-based trust, the other two bases of swift trust significantly influence trusting beliefs toward the NGO. Furthermore, both informational and emotional support through social media have a significant effect on trusting beliefs. Tables 2 and 3 show the results from the data collected at Time 1 and Time 2 (Appendix 1). Here, the bases of swift trust become insignificant in the later stages of interaction, while emotional support in social media continues to significantly affect trusting beliefs. Procedural justice and distributive justice emerge as sources of trusting beliefs in these later stages. The findings indicate that trusting beliefs significantly influence intentions to participate in time banking activities, donate to other participants, and provide word-of-mouth endorsements. Moreover, as depicted in Table 3 (Appendix 1), which analyzes data from 152 participants available at both Time 1 and Time 2, intentions in Time 1 do predict actual behaviors in Time 2.

We extend our gratitude for the funding support provided. With regards to our research outcomes, we have successfully published one peer-reviewed article in the Q1 journal "Computers in Human Behavior," which boasts an impact factor of 9.0 (see Appendix 6). Additionally, we presented two papers at international conferences, one of which was honored with a best paper award (see Appendix 7, Appendix 8, and Appendix 14), and authored one book chapter (see Appendix 9). We have duly acknowledged the funding support from the RGC in all our publications. In terms of managerial objectives, we have executed several qualitative studies exploring the motivations and challenges associated with participating in time banking activities (see Appendix 5). These studies, combined with our quantitative findings, have informed the recommendations we have provided to the NGO and policymakers through our publications, as well as through a leaflet and a video (see Appendix 12 and 13). Furthermore, we have mentioned the concept of time banking into our course curricula and shared our findings with students (see Appendix 10 and Appendix 11). We are pleased to report that we have met all the stipulated objectives for theoretical and managerial contributions.

6.2 Potential for further development of the research and the proposed course of action (*Maximum half a page*)

Based on the insights gleaned from our research findings, we propose two potential avenues for future investigation. Firstly, we observed that members of the time banking program tend to accumulate time credits with the intent of future use, yet they demonstrate less willingness to spend these accumulated credits. A preliminary hypothesis suggests that young people may not feel an immediate need to utilize their time credits compared to older individuals. This observation has spurred our interest in examining the differences in the willingness to exchange time credits between younger and older age groups.

Secondly, our research into time banking has thus far been confined to offline interactions. However, in other nations, the exchange of time banking services is often facilitated through online platforms, including websites and mobile applications. This contrast presents an opportunity for us to explore the process of time banking exchanges in an online context.

Furthermore, we intend to draft a manuscript that delves into the evolution of knowledge-based trust from an initial state of swift trust, utilizing our longitudinal dataset. Our goal is to submit this manuscript to esteemed journals within the Information Systems field, such as "Information Technology & People" or "Internet Research".

7. Layman's Summary

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

This project investigates strategies to enhance participation in Time Banking programs, which allow individuals to exchange services using accrued time credits. The study emphasizes the importance of trust in attracting new participants to Time Banking programs, which are held by a local elderly service organization. Our findings suggest that collaboration with established NGOs and adherence to governmental regulations could significantly bolster the perceived trustworthiness of Time Banking organizers.

Furthermore, this research highlights the pivotal role of social media communities of Time Banking organizers in rapidly building trust through the provision of emotional support, information sharing among their social media community members, and the implementation of reward systems and face-to-face events. Our qualitative findings suggest that this community-centric approach not only facilitates service exchange but also fosters intergenerational support and companionship for the elderly, contributing to their psychological well-being.

This study advocates for the promotion of Time Banking's societal benefits, particularly to young volunteers, by demonstrating the alignment of the program's values with personal and community growth. It suggests that partnerships with educational institutions may increase program credibility and encourage youth involvement. Through these measures, Time Banking programs can be positioned as valuable and trustworthy, thereby motivating greater community engagement and support.

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)						
2022	2021	2021	N/A	Dr. LEUNG Wilson Ka-Shi ng Dr. CHANG Ludwig Man-Kit Dr. Cheung Man-Lai Dr. Si Shi*	Leung, W. K. S., Chang, M. K., Cheung, M. L., & Shi, S. (2022). Swift trust development and prosocial behavior in time banking: A trust transfer and social support theory perspective . <i>Computers in Human Behavior</i> , 129, 107137. https://doi.org/10.1016/j.chb.2021.107137	2021	Yes (Appendix 6)	Yes	Yes

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)						
2022	2021	N/A		Mr. NG, Tommy *	Ng, T.K.C., Fong, B.Y.F., Leung, W.K.S. (2022). Enhancing Social Capital for Elderly Services with Time Banking. In: Law, V.T.S., Fong, B.Y.F. (eds) Ageing with Dignity in Hong Kong and Asia. Quality of Life in Asia, vol 16. Springer, Singapore. https://doi.org/10.1007/978-981-19-3061-4_26	N/A	Yes (Appendix 9)	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)
07/2021/ Malaysia/ Virtual	Individual swift trust development in the NGO's Time banking Program: The case of the Hong Kong aging society	3rd International Symposium on Applied Structural Equation Modelling and Methodological Matters (SASEM) 2021	Yes	Yes (Appendix 7)	Yes	No
12/2021 / Australia/ Virtual	Understanding Individual Participation in NGOs' Time Banking	Australian and New Zealand Marketing Academy Conference (ANZMAC 2021)	No	Yes (Appendix 8)	Yes	No

10. Whether Research Experience And New Knowledge Has Been Transferred / Has Contributed To Teaching And Learning
(Please elaborate)

We have mentioned the concept of time banking into our course curricula and shared our findings with students (see Appendix 10 – Input to Teaching Notes – 1 and Appendix 11 – Input to Teaching Notes – 2).

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
N/A			

12. Other Impact

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

The paper submitted and presented in SASEM 2021 has been awarded as the Best Paper

Award (Appendix 14).

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	2	1	0	Type N/A	No. N/A

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