

Appendix

มหาวิทยาลัยราชภัฏธนบุรี

Appendix A

Questionnaire

มหาวิทยาลัยราชภัฏธนบุรี

Questionnaire

General Consumer Survey Questionnaire

Part 1 Background information

1. Age:

- | | |
|---|---|
| <input type="checkbox"/> 18-25 years old | <input type="checkbox"/> 26-35 years old, |
| <input type="checkbox"/> 36-45 years old | <input type="checkbox"/> 46-55 years old |
| <input type="checkbox"/> 55 years and older | |

2. Gender:

- | | |
|---|----------------------------------|
| <input type="checkbox"/> Male | <input type="checkbox"/> Female, |
| <input type="checkbox"/> Other (please specify) | |

3. Occupation:

- | | |
|---|--|
| <input type="checkbox"/> Student | <input type="checkbox"/> Worker/employee |
| <input type="checkbox"/> Freelancer | <input type="checkbox"/> Business owner |
| <input type="checkbox"/> Other (please specify) | |

Part 2 Consumer behavior smart door locks

4. Where do you purchase smart door locks?

- | | |
|--------------------------------------|-------------------------------------|
| <input type="checkbox"/> Residential | <input type="checkbox"/> Commercial |
| <input type="checkbox"/> Other | |

5. If you are considering purchasing a smart door lock product, which features are most important to you? (Multiple choices possible)

- | | |
|--|--|
| <input type="checkbox"/> Card unlocking | <input type="checkbox"/> Fingerprint unlocking |
| <input type="checkbox"/> Password unlocking | <input type="checkbox"/> Bluetooth unlocking |
| <input type="checkbox"/> Remote unlocking | <input type="checkbox"/> Anti-Pry Alarm |
| <input type="checkbox"/> Security level | |
| <input type="checkbox"/> Automatic locking for long periods of unoccupied access | |
| <input type="checkbox"/> Remote control and monitoring | |
| <input type="checkbox"/> Other (please specify) | |

6. What are the most important factors in your decision to purchase smart door locking products? (multiple choice possible)

- Functionality
- Brand recognition
- Customer service
- Other (please specify)
- Price point
- Product quality
- User experience

7. How often do you purchase smart door locks?

- Once a year or less
- One to three times in two years
- Once or twice a year
- Once in three years and more

8. What is the main reason for replacement?

- Aging product damage
- Want to use more advanced technology
- Other (please specify)

9. What are your considerations for smart door lock security factors?

- Necessity
- Ease of use only
- Security first

10. In your opinion, what is the most reasonable price range for smart door lock products? (Single choice)

- Less than 500 RMB
- 1000-2000 RMB
- 3000RMB or more
- 500-1000 RMB
- 2000-3000 RMB

11. Information sources and channels from which sources did you get the information about the smart door lock?

- Internet search
- Home improvement stores
- Trade shows or events
- Friend or family referral
- Other (please specify)
- Hardware stores
- E-commerce platform
- Social media

Questionnaire for smart door lock companies

Part 3 SCOR Model of smart door lock Supply Chain Questionnaire

Question	Opinion				
	5 (Strongly Agree)	4 (Agree)	3 (Neutral)	2 (Disagree)	1 (Strongly Disagree)
Planning					
1. Our company has clear production plans that effectively account for demand fluctuations and supply chain constraints.					
2. Our company always meets its delivery commitments in a timely manner.					
3. Our company has efficient and effective communication methods with customers to keep them informed of changes.					
Sourcing					
4. Our company has a rigorous supplier selection process based on quality, reliability and other meaningful criteria.					
5. Our company regularly reviews the performance of its suppliers to ensure ongoing supplier excellence.					
6. Our company has efficient communication methods with suppliers to foster a close working relationship.					
Make/Production					
7. Our company has efficient production processes that minimize waste and optimize resource utilization.					

Question	Opinion				
	5 (Strongly Agree)	4 (Agree)	3 (Neutral)	2 (Disagree)	1 (Strongly Disagree)
8. Our company regularly implements best practices within the production process.					
9. Our company has strong quality controls in place to minimize product defects.					
Deliver					
10. Our company has systematized processes for delivering products to customers.					
11. Our company has developed reliable inventory management systems for efficiently managing inventory levels.					
12. Our company has dependable communication methods with customers to keep them informed of changes to delivery schedules.					
Return					
13. Our company has an efficient and user-friendly return process for customers.					
14. Our company has clear policies and procedures for handling returns and after-sales service.					
15. Our company prioritizes customer satisfaction in our returns management processes.					

Part 4 Firm Performance Questionnaire

Question	Opinion				
	5 (Strongly Agree)	4 (Agree)	3 (Neutral)	2 (Disagree)	1 (Strongly Disagree)
Flexibility					
16. Our company has a clear production plan that effectively considers demand fluctuations and supply chain constraints.					
17. Our company is able to adjust and adapt to changes efficiently in our production processes.					
18. Our company demonstrates the ability to adapt to new challenges and changing market conditions.					
Responsiveness					
19. Our company consistently fulfills its delivery commitments in a timely manner.					
20. Our company has efficient and effective communication methods with customers to keep them informed of changes.					
21. Our company responds promptly to customer requests, changes, and inquiries.					
Cost					
22. Our company demonstrates efficiency in managing costs.					
23. Our company effectively controls costs and offers competitive pricing.					
24. Our company's cost structure is reasonable and supports achieving profitability goals.					
Trust					
25. Customers have a high level of trust in the reliability and					

integrity of our company.					
26. Our company has established strong trust-based relationships with customers, suppliers, and partners.					
27. Our company consistently delivers on its promises and builds long-term partnerships.					
Assets					
28. Our company possesses high-quality and valuable assets, including equipment, technology, and intellectual capital.					
29. Our company effectively manages and leverages its assets to support business growth and innovation.					
30. Our company has a clear asset planning and development strategy to ensure long-term competitive advantage.					

Please rate each statement by selecting the appropriate score.

Part 5 What do smart door lock supply chain management affecting firm performance?.

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Appendix B

Interviews Form

มหาวิทยาลัยราชภัฏธนบุรี

Interviews Form

1. History of the company, company size, company status, Company products and service competition Competitiveness and Market Share in Smart Door Lock Market
2. What do you think the needs and behaviors of current consumers are?
3. Relationship of upstream and downstream supply chain with strengths and weaknesses of the company in supply chain and logistics management capabilities.
4. Marketing strategy in product design market positioning distribution channel and marketing promotion of brand promotion, advertising, social media promotion, etc.
5. The future development trend of the smart door lock market and the company's research and development in terms of technological innovation.

Appendix C

IOC Test Results

มหาวิทยาลัยราชภัฏธนบุรี

IOC Test Results

Results Expert assessment form to check Questionnaire Research A Study of Smart Door Lock Supply Chain Management Affecting Firm Performance

Part 1 Background information

Question point	Comment			IOC	Interpret
	Person 1	Person 2	Person 3		
1. Age: <input type="checkbox"/> 18-25 years old <input type="checkbox"/> 26-35 years old <input type="checkbox"/> 36-45 years old <input type="checkbox"/> 46-55 years old <input type="checkbox"/> 55 years and older	1	1	1	1.00	OK
2. Gender: <input type="checkbox"/> male <input type="checkbox"/> female <input type="checkbox"/> Other (please specify)	1	1	1	1.00	OK
3. Occupation: <input type="checkbox"/> student <input type="checkbox"/> worker/ employee <input type="checkbox"/> freelancer <input type="checkbox"/> business owner <input type="checkbox"/> Other (please specify)	1	1	1	1.00	OK

Part 2 Consumer behavior smart door locks

Question point	Comment			IOC	Interpret
	Person 1	Person 2	Person 3		
4. Where do you purchase smart door locks? <input type="checkbox"/> Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Other	1	1	1	1.00	OK

Question point	Comment			IOC	Interpret
	Person 1	Person 2	Person 3		
5. If you are considering purchasing a smart door lock product, which features are most important to you? (Multiple choices possible) <input type="checkbox"/> Card unlocking <input type="checkbox"/> Fingerprint unlocking <input type="checkbox"/> Password unlocking <input type="checkbox"/> Bluetooth unlocking <input type="checkbox"/> Remote unlocking <input type="checkbox"/> Anti-Pry Alarm <input type="checkbox"/> Security level <input type="checkbox"/> Automatic locking for long periods of unoccupied access <input type="checkbox"/> Remote control and monitoring <input type="checkbox"/> Other (please specify)	1	1	1	1.00	OK
6. What are the most important factors in your decision to purchase smart door locking products? (multiple choice possible) <input type="checkbox"/> Functionality <input type="checkbox"/> Price point <input type="checkbox"/> Brand recognition <input type="checkbox"/> Product quality <input type="checkbox"/> Customer service <input type="checkbox"/> User experience <input type="checkbox"/> Other (please specify)	1	1	1	1.00	OK
7. How often do you purchase smart door locks? <input type="checkbox"/> Once a year or less <input type="checkbox"/> Once or twice a year <input type="checkbox"/> One to three times in two years <input type="checkbox"/> Once in three years and more	1	1	1	1.00	OK

Question point	Comment			IOC	Interpret
	Person 1	Person 2	Person 3		
8. What is the main reason for replacement? <input type="checkbox"/> Aging product damage <input type="checkbox"/> Want to use more advanced Technology <input type="checkbox"/> Other (please specify)	1	1	1	1.00	OK
9. What are your considerations for smart door lock security factors? <input type="checkbox"/> Necessity <input type="checkbox"/> Security first <input type="checkbox"/> Ease of use only	1	1	1	1.00	OK
10. In your opinion, what is the most reasonable price range for smart door lock products? (Single choice) <input type="checkbox"/> Less than 500 RMB <input type="checkbox"/> 500-1000 RMB <input type="checkbox"/> 1000-2000 RMB <input type="checkbox"/> 2000-3000 RMB <input type="checkbox"/> 3000RMB or more	1	1	1	1.00	OK
11. Information sources and channels From which sources did you get the information about the smart door lock? <input type="checkbox"/> Internet search <input type="checkbox"/> Hardware stores <input type="checkbox"/> Home improvement stores <input type="checkbox"/> E-commerce platform <input type="checkbox"/> Trade shows or events <input type="checkbox"/> Social media <input type="checkbox"/> Friend or family referral <input type="checkbox"/> Other (please specify)	1	1	1	1.00	OK

Part 3 SCOR Model Supply Chain Questionnaire

Question point	Comment			IOC	Interpret
	Person 1	Person 2	Person 3		
Planning					
1. Our company has clear production plans that effectively account for demand fluctuations and supply chain constraints.	1	1	1	1.00	OK
2. Our company always meets its delivery commitments in a timely manner.	1	1	1	1.00	OK
3. Our company has efficient and effective communication methods with customers to keep them informed of changes.	1	1	1	1.00	OK
Sourcing					
4. Our company has a rigorous supplier selection process based on quality, reliability and other meaningful criteria.	1	1	1	1.00	OK
5. Our company regularly reviews the performance of its suppliers to ensure ongoing supplier excellence.	1	1	1	1.00	OK
6. Our company has efficient communication methods with suppliers to foster a close working relationship.	1	1	1	1.00	OK
Make/Production					
7. Our company has efficient production processes that minimize waste and optimize resource utilization.	1	1	1	1.00	OK
8. Our company regularly implements best practices within the production process.	1	1	1	1.00	OK
9. Our company has strong quality controls in place to minimize product defects.	1	1	1	1.00	OK
Deliver					
10. Our company has systematized processes for delivering products to customers.	1	1	1	1.00	OK
11. Our company has developed reliable inventory management systems for efficiently managing inventory levels.	1	1	1	1.00	OK

Question point	Comment			IOC	Interpret
	Person 1	Person 2	Person 3		
12. Our company has dependable communication methods with customers to keep them informed of changes to delivery schedules.	1	1	1	1.00	OK
Return					
13. Our company has an efficient and user-friendly return process for customers.	1	1	1	1.00	OK
14. Our company has clear policies and procedures for handling returns and after-sales service.	1	1	1	1.00	OK
15. Our company prioritizes customer satisfaction in our returns management processes.	1	1	1	1.00	OK

Part 4 Firm Performance Questionnaire

Question point	Comment			IOC	Interpret
	Person 1	Person 2	Person 3		
Flexibility					
16. Our company has a clear production plan that effectively considers demand fluctuations and supply chain constraints.	1	1	1	1.00	OK
17. Our company is able to adjust and adapt to Changes efficiently in our production processes.	1	1	1	1.00	OK
18. Our company demonstrates the ability to adapt to new challenges and changing market conditions.	1	1	1	1.00	OK
Responsiveness					
19. Our company consistently fulfills its delivery commitments in a timely manner.	1	1	1	1.00	OK

Question point	Comment			IOC	Interpret
	Person 1	Person 2	Person 3		
20. Our company has efficient and effective communication methods with customers to keep them informed of changes.	1	1	1	1.00	OK
21. Our company responds promptly to customer requests, changes, and inquiries.	1	1	1	1.00	OK
Cost					
22. Our company demonstrates efficiency in managing costs.	1	1	1	1.00	OK
23. Our company effectively controls costs and offers competitive pricing.	1	1	1	1.00	OK
24. Our company's cost structure is reasonable and supports achieving profitability goals.	1	1	1	1.00	OK
Trust					
25. Customers have a high level of trust in the reliability and integrity of our company.	1	1	1	1.00	OK
26. Our company has established strong trust-based relationships with customers, suppliers, and partners.	1	1	1	1.00	OK
27. Our company consistently delivers on its promises and builds long-term partnerships.	1	1	1	1.00	OK
Assets					
28. Our company possesses high-quality and valuable assets, including equipment, technology, and intellectual capital.	1	1	1	1.00	OK
29. Our company effectively manages and leverages its assets to support business growth and innovation.	1	1	1	1.00	OK
30. Our company has a clear asset planning and development strategy to ensure long-term competitive advantage.	1	1	1	1.00	OK

Part 5 Interviews Form

Question point	Comment			IOC	Interpret
	Person 1	Person 2	Person 3		
1. History of the company ,company size company Status, Company products and service competition Competitiveness and Market Share in Smart Door Lock Market	1	1	1	1.00	OK
2. What do you think the needs and behaviors of current consumers are?	1	1	1	1.00	OK
3. Supply chain management system and logistics capabilities of the company	1	1	1	1.00	OK
4. Relationship of upstream and downstream supply chain with strengths and weaknesses of the company in supply chain and logistics management capabilities;	1	1	1	1.00	OK
5. Marketing strategy in product design, market positioning, distribution channel and marketing promotion of brand promotion, advertising, social media promotion, etc.	1	1	1	1.00	OK
6. The future development trend of the smart door lock market and the company's research and development in terms of technological innovation.	1	1	1	1.00	OK

Results IOC

Part 1 = 3.00

Part 2 = 7.00

Part 3 = 30.00

Part 4= 6.00

Total = 46÷46 = 1.00

concluded that: Yes, because the content validity is higher than the threshold value. which can be used for further research

Reliability Statistics

Reliability Statistics	
Cronbach's Alpha	N of Items
.883	30

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Appendix D

Letter Expert Invitation

มหาวิทยาลัยราชภัฏธนบุรี

Letter Expert Invitation

No. 0642.09 (4)/142



Graduate Study Program
Dhonburi Rajabhat University
172 Itsaraphap Rd., Thonburi
Bangkok 10600

September 4, 2023

Subject Invitation Letter for Expert to Validate Research Instruments

Dear Mr. Pharunyu Thanaruedee

Mrs. Liu Xin, a graduate student in MBA (Master in Business Administration Program) of Dhonburi Rajabhat University, is currently working on her independent study entitled "Service Quality of Cold Chain Logistics Based on Customer Relationship Management: A Case Study of Shun Feng Express Co., Ltd.", having Dr.Sittichai Farlangthong as her principal advisor.

In lieu with this, the Graduate Study Program would like to request your expertise to validate the research tools used. Details will be informed by the researcher onwards.

We hopefully could have your assistance on this matter as to further academic benefits and would hereby like to express our thanks to you.

Best regards,

Sirikun

(Lect. Sirikun Buakeaw)
Director of Graduate Study Program

Graduate Study Program
Tel. 0-2890-1801 ext. 5
E-mail graduate@dru.ac.th
Website <https://grad.dru.ac.th>

I hereby approve the research instrument validity.

P. Thanaruedee

(Mr. Pharunyu Thanaruedee)

Date 7 Sep. 2023

*Remark: This letter would be failed for reference use with the absence of expert's signature.

No. 0642.09 (4)/144



Graduate Study Program
Dhonburi Rajabhat University
172 Itsaraphap Rd., Thonburi
Bangkok 10600

September 4, 2023

Subject Invitation Letter for Expert to Validate Research Instruments

Dear Mr. Pairat Tongvijit

Mrs. Liu Xin, a graduate student in MBA (Master in Business Administration Program) of Dhonburi Rajabhat University, is currently working on her independent study entitled "Service Quality of Cold Chain Logistics Based on Customer Relationship Management: A Case Study of Shun Feng Express Co., Ltd.", having Dr.Sittichai Farlangthong as her principal advisor.

In lieu with this, the Graduate Study Program would like to request your expertise to validate the research tools used. Details will be informed by the researcher onwards.

We hopefully could have your assistance on this matter as to further academic benefits and would hereby like to express our thanks to you.

Best regards,

Sirikun

(Lect. Sirikun Buakeaw)
Director of Graduate Study Program

Graduate Study Program
Tel. 0-2890-1801 ext. 5
E-mail graduate@dru.ac.th
Website <https://grad.dru.ac.th>

I hereby approve the research instrument validity.

P. Tongvijit
(Mr. Pairat Tongvijit)

Date 5 Sept. 2023

*Remark: This letter would be failed for reference use with the absence of expert's signature.

No. 0642.09 (4)/143



Graduate Study Program
Dhonburi Rajabhat University
172 Itsaraphap Rd., Thonburi
Bangkok 10600

September 4, 2023

Subject Invitation Letter for Expert to Validate Research Instruments

Dear Lect. Gronravit Taykatuk

Mrs. Liu Xin, a graduate student in MBA (Master in Business Administration Program) of Dhonburi Rajabhat University, is currently working on her independent study entitled "Service Quality of Cold Chain Logistics Based on Customer Relationship Management: A Case Study of Shun Feng Express Co., Ltd.", having Dr.Sittichai Farlangthong as her principal advisor.

In lieu with this, the Graduate Study Program would like to request your expertise to validate the research tools used. Details will be informed by the researcher onwards.

We hopefully could have your assistance on this matter as to further academic benefits and would hereby like to express our thanks to you.

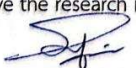
Best regards,

Sirikun

(Lect. Sirikun Buakeaw)
Director of Graduate Study Program

Graduate Study Program
Tel. 0-2890-1801 ext. 5
E-mail graduate@dru.ac.th
Website <https://grad.dru.ac.th>

I hereby approve the research instrument validity.


(Lect. Gronravit Taykatuk)

Date 13 Sep 2023

*Remark: This letter would be failed for reference use with the absence of expert's signature.



คณะกรรมการจริยธรรมการวิจัยในมนุษย์ มหาวิทยาลัยราชภัฏธนบุรี
172 ถนนอิสรภาพ เขตธนบุรี กรุงเทพมหานคร 10600 เบอร์โทรศัพท์ 02 890 0001
Dhonburi Rajabhat University Institutional Review Board
172 Itsaraparb Rd., Thonburi, Bangkok 10600 Tel No. 662 890 0001

เอกสารรับรองการพิจารณาโครงการจริยธรรมการวิจัยในมนุษย์แบบยกเว้น
Certificate of Exemption from Human Research Ethics Review

หมายเลขเอกสารรับรอง (COE NO.) 053/2566

หมายเลขคณะกรรมการจริยธรรมการวิจัยในมนุษย์ (RB NO.) DRUIRB-GOV-66-00015

ชื่อโครงการ (Research title) :

(ภาษาไทย) -

(English) Service Quality of Cold Chain Logistics based on Customer Relationship Management-A Case study of Shun Feng Express Co., Ltd

เลขที่โครงการวิจัย (Research number) : 059/2566

ผู้วิจัยหลัก (Principal investigator) : (ภาษาไทย) -

(English) - Mrs. Liu Xu

หน่วยงานที่สังกัด (Institutional affiliation) : Master of Business Administration Program, Faculty of Management
Science, Dhonburi Rajabhat University

ผู้วิจัยร่วม (Co-investigators) : (ภาษาไทย) -

(English) -

หน่วยงานที่สังกัด (Institutional affiliation) -

โครงการวิจัยนี้ ได้รับการรับรองจากคณะกรรมการจริยธรรมการวิจัยในมนุษย์ มหาวิทยาลัยราชภัฏธนบุรี

This research project is approved by Dhonburi Rajabhat University Institutional Review Board.

วันที่รับรอง (Certified date) : 14 กันยายน 2566 (September 14th, 2023)

(ดร. ผ่องศรี เวสราธิช/ Dr. Phongsri Waysarach)

ประธานคณะกรรมการจริยธรรมการวิจัยในมนุษย์ มหาวิทยาลัยราชภัฏธนบุรี
Chairperson of Dhonburi Rajabhat University Institutional Review Board

หมายเหตุ :

1. ไม่ต้องส่งรายงานความก้าวหน้า
2. ส่งรายงานการวิจัยฉบับสมบูรณ์ พร้อมแบบฟอร์มรายงานผลสรุปการวิจัย (DRU - IRB Form 14-01/2.0) เมื่องานวิจัยแล้วเสร็จ

Remarks:

1. No requirement for progress report.
2. When complete the research, please submit a full research report and the research report form (DRU - IRB Form14-01/2.0).

Biography

Name Luo Qin
Day Month Year of Birth 10 December 1980
Domicile No. 1 Jinjia Village, Fengtai District, Beijing, China

Academic Background

2018-2021 Beijing Great Wall Research College
Business Administration Bachelor's Degree
2021-2023 Master of Business Administration
Dhonburi Rajabhat University

Place of Work

Wenzhou Xinxing Information Technology Research Institute Beijing Branch,
Beijing, China