

## APPENDIX E

Date

### TO WHOM IT MAY CONCERN

Dear Sir/Madam,

#### **IMPLEMENTING E-PURCHASING IN CONSTRUCTION ORGANIZATION: ESTABLISHING ORGANIZATIONAL CRITICAL SUCCESS FACTORS**

Refer the above mentioned, I am writing to request your kindness and co-operation to conduct a survey in your organization on aforesaid study. We believe your company will provide great input to the research.

2. The research will be guided by my PhD degree candidate, **RAFIKULLAH DERAMAN** (BHA090004). The objective of this research is to investigate the organizational critical success factors towards successful implementation of e-purchasing in construction organizations. We need the contribution from your senior management level or executives to involve in the questionnaire survey as part of the research process.

3. The enclosed questionnaire survey of “**Implementing E-Purchasing in Construction Organization: Establishing Organizational Critical Success Factors**” is part of our research in our continuing commitment to enhance construction industry in the country. By taking a few minutes to fill out this questionnaire, you will help us in developing e-Purchasing Implementation Success Framework that will be very beneficial for construction companies in this country.

4. We would appreciate it if you would complete the questionnaire and return it in the enclosed postage-paid envelope within two (2) weeks from the date of receiving the letter. You can also access the online survey form at <https://www.surveymonkey.com/s/9YZ6FL6>

5. The findings generated from this study will remain **strictly confidential** and will be available for you to review upon completion.

6. We greatly appreciate that you are taking the time to help us. If you have any enquiry, please do not hesitate to contact us at this number 03-79677603 or e-mail to **rafik.deraman@gmail.com**.

Thank you.

Yours Sincerely,

**(Dr Faizul Azli Rahim)**  
**Supervisor/Senior Lecturer**  
Faculty of Built Environment  
University of Malaya

**SECTION A: PERSONAL INFORMATION**

(Please tick or state the appropriate answer)

Q1. Education level

- Certificate/Diploma
- Bachelor Degree
- Master Degree
- PhD
- Professional qualification/Others  
(Please indicate)

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Q4. Years of involvement in using e-procurement/  
e-purchasing within the construction industry  
environment?

- Less than 1 year
- Between 1-5 years
- Between 6-10 years
- Between 11-15 years
- More than 15 years
- Not involved in e-procurement/  
e-purchasing at all

Q2. Years of experience in the construction industry

- Less than 5 years
- Between 6-10 years
- Between 11-15 years
- Between 16-20 years
- Between 21-25 years
- More than 25 years

Q5. Job title

- Managing Director (MD)
- General Manager
- Project Manager
- IT Manager
- Contract Manager
- Purchasing Manager
- Senior Officer
- Others (Please indicate) .....

Q3. Years of involvement in using e-procurement/  
e-purchasing, in general

- Less than 1 year
- Between 1-5 years
- Between 6-10 years
- Between 11-15 years
- More than 15 years
- Not involved in e-procurement/  
e-purchasing at all

**SECTION B: BUSINESS INFORMATION**

Q6. Number of employees

- 1 - 50
- 51 - 100
- 101 - 150
- 151 - 200
- 201 - 250
- 251- 300
- More than 300

Q8. Approximate ratio of the IT spending to your  
organization's annual turnover

- Less than 3 %
- Between 3 - 5%
- Between 6 - 8%
- Between 9 - 11%
- Between 12 - 14%
- More than 15%

Q7. Organization's turnover per year (RM Millions)

- Less than 5
- 5 - 15
- 16 - 50
- 51 - 100
- 101 - 150
- 151 - 200
- More than 200

Q9. Quality of internet connectivity in organization

- Very good
- Good
- Fair
- Moderate
- Poor

Q10. Category(ies) that best describe your organization's activities.

(You can select as many as applicable)

- Residential buildings
- Commercial & Office Buildings
- Industrial Buildings
- Infrastructure and Utilities construction
- Building Materials Supplier and Trading
- Manufacturer
- Others  
(Please indicate).....

Q11. Organization's status

- Bumiputra
- Non-bumiputra

### SECTION C: ELECTRONIC PURCHASING PROCESS ADOPTION

Q12. Please indicate your materials purchasing activities that are conducted electronically

- None
- Less than 10%
- 10 – 30%
- 31 – 50%
- 51 – 80%
- More than 80%

Q15. Have your organization consider to implement e-purchasing in future

- No
- Yes
- Others (Please specify).....

Q13. Please indicate one or more of the following technology applications that are heavily used in your work for procurement of purchasing materials

- Phone/Fax-machines
- E-mail
- Productivity software  
(such as word processing and spreadsheet)
- Purchasing Software
- ERP (Enterprise Resource Planning)
- Suppliers Website/ Portal
- Others (please specify).....

Q16. How long has e-purchasing system being implemented in your organization?

- 1-2 years
- 3-4 years
- More than 5 years

Q14. Have your organization adopted an e-purchasing system in materials purchasing activities to purchase direct materials?

- No (Please proceed to Q15)
- Yes (Please proceed to Q16)

Q17. Which party your e-purchasing system is linked with? (You can indicate one or more of the following)

- Internally (within/inter-department)
- Suppliers
- Manufacturers
- Government Agencies
- Others (please specify).....

Q18. Which activities are currently conducted electronically using specific system? (You can select as many as applicable)

- Material requisition
- Purchasing order
- Purchasing approval
- Supplier's acknowledge order
- Material (Purchase) delivery note

Q19. How you acquire the e-purchasing system in your organization? (You can select as many as applicable)

- Off-the-shelf (Bespoke) software
- Customize software developed by Vendor
- Developed in-house
- Provided by Service Providers
- Others (Please specify).....

Q18 .....(Continued)

- Invoices
- Payment
- Others (Please specify).....

Q20. Your e-purchasing system initiative is rated by you as;

- Successful  
(met timescales, budget, performance and user satisfaction)
- Partially successful  
(met a few of its intended objectives)
- Failure  
(fail to meet expectations and terminated)
- Never implemented or used

Q21. Briefly, what is/are the main reason(s) for your response to the above question?

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**SECTION D: LEVEL OF COMPUTER LITERACY**

Q22. On scale of 1 to 5, please indicate your level of computer literacy

1= Basic user; 2 = Moderate user; 3 = Frequent user ; 4 = Expert user; 5= Extremely expert

1	2	3	4	5
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Q23. On scale of 1 to 5, please indicate the perceived level of complexity of your routine computer-based tasks

1= Not complex ; 2 = Slightly complex ; 3 = Moderately complex ; 4 = Very complex;  
5= Extremely complex

1	2	3	4	5
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Q24. On scale of 1 to 5, please indicate your confidence level in using an uncommon computer system literacy

1= No confident ; 2 = Slightly confident ; 3 = Moderately confident; 4 = Very confident;  
5= Extremely confident

1	2	3	4	5
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**SECTION E: IDENTIFY CRITICAL SUCCESS FACTORS (CSFs) FOR E-PURCHASING IMPLEMENTATION**

1. This questionnaire measures a number of factors that are possibly critical to successful implementation of e-purchasing system in construction organizations.
2. Please select the number in the box, which best represents your opinion for the Organizational Critical Success Factors (CSFs) that contribute to the successful implementation of e-purchasing system in the Construction Organizations, on a scale of 1 to 5.

		Scale				
Please read the following statements and tick (✓) in appropriate box to express your degree of agreement or disagreement regarding your views about <b>Organizational Critical Success Factors (CSFs)</b>		<b>1 = Strongly Disagree</b> <b>2 = Disagree</b> <b>3 = Neutral</b> <b>4 = Agree</b> <b>5 = Strongly Agree</b>				
<b>Q25</b>	<b>Organizational Policy and Strategic Plan</b>					
a	Existence of clear mission, vision, strategies, objectives and direction	1	2	3	4	5
b	Incorporation of e-purchasing policy into existing procurement policy	1	2	3	4	5
c	Availability of a strategy plan which sets deadlines, responsibilities and financing	1	2	3	4	5
d	Alignment of e-purchasing strategy with IT strategy	1	2	3	4	5
e	Decision on an appropriate e-purchasing business model	1	2	3	4	5
<b>Q26</b>	<b>Project Planning</b>					
a	Project plans are consistent with information system plan	1	2	3	4	5
b	Availability of detail project (time schedule, milestones and resources requirement)	1	2	3	4	5
c	Clear definition of project scope	1	2	3	4	5
d	Project activities are properly coordinated and monitored	1	2	3	4	5
<b>Q27</b>	<b>Project Team (PT)</b>					
a	Have strong domain knowledge of business process and technical aspect	1	2	3	4	5
b	Roles and responsibilities are properly defined and delegated	1	2	3	4	5
c	Various cross-functional team members were selected	1	2	3	4	5
d	An experienced and reputable PM	1	2	3	4	5
e	Use of effective project management techniques to control implementation process	1	2	3	4	5
<b>Q28</b>	<b>Top Management Support and Commitment</b>					
a	Steering committee provides directions and guidance of implementation process	1	2	3	4	5
b	Reinforces the commitment of the employees to the implementation of e-purchasing initiatives	1	2	3	4	5
c	Willingness to spend time and resources on the system implementation	1	2	3	4	5
d	Offers leadership in organization's e-purchasing efforts	1	2	3	4	5
e	Provides adequate training and education programs for employees	1	2	3	4	5
f	Provides an appropriate organizational structure to support the implementation	1	2	3	4	5
g	Provides pro-active communication channel (i.e: e-mail, sms, facebook, and etc)	1	2	3	4	5
h	Promotes the implementation of the system	1	2	3	4	5
i	Implements reward system to encourage ideas and innovation	1	2	3	4	5
<b>Q29</b>	<b>Stakeholder Involvement (i.e: representative of top management, key person of department, end-users and suppliers)</b>					
a	Stakeholder early involvement	1	2	3	4	5

(Continued)

b	Defines the level each stakeholder can get involved	1	2	3	4	5
c	Provide information and set requirements	1	2	3	4	5
<b>Q30</b>	<b>Employee Commitment</b>					
a	Commitment to the organization's objectives	1	2	3	4	5
b	Loyalty to the organization	1	2	3	4	5
c	Employee cooperation	1	2	3	4	5
d	Good quality of work outcomes	1	2	3	4	5
e	Positive attitude towards e-purchasing implementation process	1	2	3	4	5
<b>Q31</b>	<b>Experience with New Technology</b>					
a	Organization's experiences with technology application	1	2	3	4	5
b	Organization's experience become a base of knowledge for guiding current initiatives	1	2	3	4	5
c	Organization's experience enables effective implementation of IT systems	1	2	3	4	5
<b>Q32</b>	<b>Change Management</b>					
a	Have a change management programs	1	2	3	4	5
b	Willingness of the organization to change	1	2	3	4	5
c	Well managed process of change	1	2	3	4	5
<b>Q33</b>	<b>Close Collaboration with Trading Partners</b>					
a	Encourages organization to build long term relationship with trading partners	1	2	3	4	5
b	Mutual understanding of needs and capabilities	1	2	3	4	5
c	Partnership agreement	1	2	3	4	5
d	Readiness of trading partners to involved in terms of infrastructure and business	1	2	3	4	5
e	Relationship of trust with trading partners	1	2	3	4	5
f	Communication with trading partners	1	2	3	4	5
<b>Q34</b>	<b>User Adoption</b>					
a	Users' knowledge and skills	1	2	3	4	5
b	Appropriate training sessions	1	2	3	4	5
c	Previous experience in using IT application	1	2	3	4	5
<b>Q35</b>	<b>Organizational Culture</b>					
a	Encourages innovation and learning processes	1	2	3	4	5
b	Encourages sharing of knowledge and information	1	2	3	4	5
c	Allows work cultural transformation towards a new initiatives implementation	1	2	3	4	5
<b>Q36</b>	<b>Business Process Reengineering</b>					
a	Designs and documents important business processes	1	2	3	4	5
b	Changes the process according organizational needs	1	2	3	4	5
c	Simplifies processes and eliminates redundant of activities	1	2	3	4	5
<b>Q37</b>	<b>Vendor/Consultant IT Support</b>					
a	Own business and technical knowledge	1	2	3	4	5
b	Recommends appropriate e-purchasing system	1	2	3	4	5
c	Supports during the implementation process	1	2	3	4	5
<b>Q38</b>	<b>Performance Measurement</b>					
a	Creates performance measures for new system initiatives	1	2	3	4	5
b	Establishes appropriate /milestones (i.e., what to achieve by what date)	1	2	3	4	5
c	Conducts post-implementation review	1	2	3	4	5

**SECTION F: IDENTIFY E-PURCHASING IMPLEMENTATION SUCCESS**

Please select the number in the box, which best represents your opinion about the successful e-Purchasing implementation in construction organization, on a scale of 1 to 5.

		<b>Scale</b>				
Please read the following statements and tick (✓) in appropriate box to express your degree of agreement or disagreement regarding your views about <b>implementation success of E-Purchasing in construction organization</b>		<b>1 = Strongly Disagree</b> <b>2 = Disagree</b> <b>3 = Neutral</b> <b>4 = Agree</b> <b>5 = Strongly Agree</b>				
<b>Q39</b>	<b>Project Management Success</b>					
a	The e-purchasing implementation project was completed on time	1	2	3	4	5
b	The e-purchasing implementation project was completed within allocated budget	1	2	3	4	5
c	The scope of e-purchasing system is well matched with organization's need	1	2	3	4	5
d	The e-purchasing system is accepted by users	1	2	3	4	5
<b>Q40</b>	<b>User Satisfaction</b>					
a	User satisfied with information quality of the e-purchasing system	1	2	3	4	5
b	The e-purchasing system provides sufficient information	1	2	3	4	5
c	The e-purchasing system is user-friendly	1	2	3	4	5
d	The e-purchasing system is beneficial for tasks of users and improves employee work efficiency	1	2	3	4	5

If you would like to receive the summarized version of results, please specify the mode of receiving the information.

- Hard copy by regular mailing services
- E-mail with attachment
- Others (please specify).....

**-THANK YOU FOR YOUR COOPERATION-  
-YOUR RESPONSE WILL BE TREATED  
AS FULL CONFIDENTIAL-**

Please complete the following details or attach your business card:

Your name (not compulsory):

Position:

Company name and address:

Telephone:

E-mail:

