

Understanding IT Infrastructure Flexibility (ITIF) from the Construction Industry Perspective.

A Semi-structured Interview Questions

Prepared by Nurshuhada Zainon

zshuhada@gmail.com

Dept. of Quantity Surveying, Faculty of Built Environment, University of Malaya, Kuala Lumpur.

Supervised by Dr. Hafez Salleh & Dr. Faizul Azli Rahim

Dept. of Quantity Surveying, Faculty of Built Environment, University of Malaya, Kuala Lumpur.

About the company – to know the significance of choosing this company.

1. When was your company established?

Year?
 Ask more about history – first office, started with how many staff etc.

2. Generally, in what market segment does this company operate in?

Public sector
 Developer
 Consultancy (Arch / QS / Project Management / etc:
 _____)
 Contractor (Class: _____)
 Supplier (Product: - _____)
 IT Experts in Construction

 Other than mentioned above, please leave a comment:

3. What this company specialize at?

Residential
 Commercial
 Health
 Government-pushed project
 Others, please comment.

 Comment:

4. What is your annual turnover?

Up to....
 Between RM_____ to RM_____
 Average...

 Comments:

4. What is the value of your construction projects involved? (*Please reply in any convenient answer for you*).

Up to....
 Between RM_____ to RM_____

 Comments:

5. May I know the total number of staffs in this company?

6. Could you please provide the organization structure or annual report?

<input type="checkbox"/> Yes <input type="checkbox"/> No: (Reason: _____)
--

About the IT Department

7. How about your IT Department, how many staff does your company put under IT department?

--

8. Do they all hold qualification in IT, for example degree or diploma? (IT professionals)

--

9. Since when the IT Department has been established in this company?

--

About the IT Budget Distribution

10. May I ask about the allocation rate (in %) from the company's total budget for IT?

In percentage -

11. Does the IT investment increase or decrease from year to year?

Please comment:

12. Can I know what is the investment for?

<input type="checkbox"/> Buying hardware/software <input type="checkbox"/> Developing software for internal/extended use <input type="checkbox"/> Maintenance <input type="checkbox"/> Staff development in IT Could you please explain more:

13. What is the value of IT project does your company uptake? (*Please reply in any convenient answer for you*).

<input type="checkbox"/> Up to... <input type="checkbox"/> Between RM_____ to RM_____ <input type="checkbox"/> Average...? Comments:

14. *IT management*
Does the department do the IT planning, investment and monitoring, IT project management, and do negotiations with suppliers and outsourcers.

<input type="checkbox"/> Yes <input type="checkbox"/> No Comments:
--

15. *IT standards*
Does your company specify and enforce any standards for technologies, communications, data, applications, and work?

<input type="checkbox"/> Yes <input type="checkbox"/> No Comments:
--

16. *IT training*
Are your staffs provided with training or education in the use of IT and/or its management?

Yes
 No
Comments:

17. *IT R&D (Pr)*
Do your company do R&D in identifying and testing new technologies?

Yes
 No
Comments:

IT project experience

18. May I know what type of IT projects that your company has undertaken? (*Please tick any applicable*).

Software
 Web application
 Websites
 Document management system
 Knowledge portal
 E-tendering
 E-procurement
Please comment more:

19. Could your please briefly the history of **one** of the most significant example of your IT project?

What is it (name, type of project) –

What is the function –

Why (the motivation, the reason why the IT project is implemented) –

When it started to develop –

How long it took –

20. Is there any problem occurred during the development process, or post-development? (*Please comment any applicable*).

Compatibility problem –

Connection –

IT staffs are lacking of understanding in the nature of construction –

Problems with end user –

Problems in suiting with new technologies –

Security issues (firewall, disaster planning) –

Please add more, is there another problems occurred?

21. How did your company handle these problems?

Please explain:

22. How do you think the problems can be prevented?

Please explain:

23. Did you make any improvement to the first version?

Easily upgraded from the older version
 Re-develop again from scratch
 Develop new version, and connect it with the older version.

Do you have something to add? Please comment:

The understanding in ITIF in Malaysian construction industry – the body of the interview!

24. We know in today's IT environment, IT changes rapidly – very fast. Statistic shows that in the construction industry itself, 6 new technologies are invented every month. Nowadays, people are moving to flexible infrastructure. Meaning that, infrastructure that could adapt and cope with the technology changes. So, my first question regarding to this, have you ever heard about IT infrastructure flexibility before?

No
 Yes

If yes, what do you understand about it?

If no, how do you think we could cope with the technological change?

25. Do you think that your company is actually implementing this concept in your IT development?

No
 Yes

If no, how do you think your company copes with this situation?

Other comment?

Yes
 If yes, do you believe that by having flexible IT infrastructure, your company will save cost and time? And what other benefits can you see from ITIF?

Factors in achieving IT infrastructure flexibility

26. *Connectivity*
To have flexible IT infrastructure, do you agree that IT should be able to communicate with any other component

Yes
 No

Comments:

- inside/outside the company, anytime and anywhere?
27. *Compatibility*
How about the information sharing? Do you agree that IT should be able to share any information across any technology component?
28. *Modularity*
In the future, do you agree that IT should be easily reconfigured without a need to re-invent from scratch?
29. *IT knowledge*
In handling infrastructure, what do you think about having skilled IT officer with IT-related qualification, as well as, good in managing IT.
30. *Business knowledge*
Do you think that having IT officer who understands construction-business nature is very important?
31. *Management skills*
What other criteria do you think is important in term of IT staff issue? Do you think their management skills contribute developing flexible infrastructure that can cope with technological change?
32. *Channel management*
In developing an IT project, do you believe that the company needs to provide good channel management system? For example like call-centers and websites? So that the company could get feedback from end-users as well.
33. *Security & risk management*
Does your IT projects come with security policies, disaster planning, and firewalls?
34. *Communication*
Is it important for your company to provide a wide range of communication services, for example broadband, external services, and network services?
35. *Data management*

 Yes
 No
 Comments:

 Yes
 No
 Comments:

 Please comments:

 Yes
 No
 Comments:

 Yes
 No
 Comments:
 Suggestion of other criteria that an IT officer should have:
 1.
 2.
 3.

 Yes
 No
 Comments:

 Yes
 No
 Comments:

 Yes
 No
 Do you have any comment on this matter?

 Yes

Does your company practice data management system, for example like centralized data warehouse, knowledge management, or any other system?

No
Could you please explain more, why?

36. *Application infrastructure (Pr)*
Do you agree by providing a wide range of application infrastructure would help in developing flexible IT infrastructure? For example, wireless application and middleware.

Yes
 No
Notes:

Others

37. Do you have something to add about what criteria/factor an IT project should have in order to achieve a flexible IT infrastructure that could cope with technological change?

Comments:

Thank you very much for you cooperation and support.