

APPENDICES

APPENDIX A. RESEARCH QUESTIONNAIRE



Cloud ERP Decision-Making Process Survey

Dear participant:

My name is Marlene Marinho and I am a graduate student at the **University of Liverpool** where I am studying for a Master of Science in Information Systems Management. For the final project, I am researching the **Cloud ERP decision making process in the Consumer Goods Industry**. You were selected to participate on this survey because you are working on the Consumer Goods Industry and part of the decision making process. The results of the survey will be of benefit to all companies that wish to implement Cloud ERP. We are sure you'll understand the benefit of us collecting this data, and we thank you in advance for your help with this, if you can.

Your responses will remain completely anonymous and will only be used collectively; there are no right or wrong answers on this survey. There is also no compensation for responding to this survey.

Participation in this survey is entirely voluntary and if you do not wish to take part then please ignore the survey. If at any point you do not want to continue, you can close the window, which will disregard any of your answers you have already provided to be used in the project. If you are completing the survey, please ensure that you click on the Submit button at the very end of it. If you prefer to complete the survey in multiple iterations, you can save the survey partially and complete it later.

It is estimated that the **38** questions will take approximately **15** minutes to complete.

Any concerns about the ethical aspects of this research can be addressed to the University's Research Participant Advocate at liverpoolethics@ohcampus.com. Any other questions or comments regarding the survey, please contact me at marlene.marinho@online.liverpool.ac.uk.

You may keep a copy of this Participant Information Sheet for your records.

1. By clicking on the Yes option, you will accept to participate on this survey. *

☐ Yes

☐ No

Next

0%

2. Do you work in the Consumer Goods Industry? *

☐ Yes

☐ No

3. Does your company work with an Enterprise Resource Planning (ERP) System? *

☐ Yes

☐ No

4. Which of the following most closely matches your job title? *

☐ Top Level Executive

☐ Senior Vice President

☐ Vice President

☐ Director

☐ Manager

☐ Professional

☐ Owner

☐ Other - Write In (Required)

*

Next

9%

Cloud ERP adoption factors

The goal of this study is to understand the factors that influence the adoption of Cloud ERP under technology, organisational and environment angles.

Please indicate the degree to which you agree/disagree with each of the following statements based on the following scale:

Strongly disagree; Disagree; Neutral; Agree; Strongly Agree

5. RA1. Cloud ERP adoption brings cost savings to our organization. *

Strongly disagree Disagree Neutral Agree Strongly agree

☐ ☐ ☐ ☐ ☐

6. RA2. Adopting Cloud ERP improves our operations in terms of business continuity and disaster recovery plans. *

Strongly disagree Disagree Neutral Agree Strongly agree

☐ ☐ ☐ ☐ ☐

7. RA3. Cloud ERP adoption increases the ability to perform tasks quicker. *

Strongly disagree Disagree Neutral Agree Strongly agree

☐ ☐ ☐ ☐ ☐

8. RA4. Cloud ERP adoption contributes to scalability and flexibility of resources. *

Strongly disagree Disagree Neutral Agree Strongly agree

☐ ☐ ☐ ☐ ☐

Next

18%

9. C1. Current infrastructure in terms of hardware and software is compatible with Cloud ERP. *

Strongly disagree Disagree Neutral Agree Strongly agree

☐ ☐ ☐ ☐ ☐

10. C2. Adopting Cloud ERP is in line with the mission and values from our organization. *

Strongly disagree Disagree Neutral Agree Strongly agree

☐ ☐ ☐ ☐ ☐

11. C3. The Cloud ERP adoption is compatible with the operations from the organization. *

Strongly disagree Disagree Neutral Agree Strongly agree

☐ ☐ ☐ ☐ ☐

Next

27%

12. TR1. A mature ICT infrastructure is an incentive to Cloud ERP adoption. *

Strongly disagree

☐

Disagree

☐

Neutral

☐

Agree

☐

Strongly agree

☐

13. TR2. The organization has the needed managerial and technical skills to adopt Cloud ERP. *

Strongly disagree

☐

Disagree

☐

Neutral

☐

Agree

☐

Strongly agree

☐

Next

36%

14. CX1. The migration of the existing ERP system to Cloud ERP is too complex. *

Strongly disagree

☐

Disagree

☐

Neutral

☐

Agree

☐

Strongly agree

☐

15. CX2. The skills needed to adopt Cloud ERP are too complex for the staff. *

Strongly disagree

☐

Disagree

☐

Neutral

☐

Agree

☐

Strongly agree

☐

16. CX3. The complexity of Cloud ERP is frustrating the users when using the system. *

Strongly disagree

☐

Disagree

☐

Neutral

☐

Agree

☐

Strongly agree

☐

17. CX4. Data security and confidentiality are concerns when adopting Cloud ERP. *

Strongly disagree

☐

Disagree

☐

Neutral

☐

Agree

☐

Strongly agree

☐

Next

45%

18. OC1. Cloud ERP adoption is influenced by the cloud ERP knowledge available in the organization. *

Strongly disagree Disagree Neutral Agree Strongly agree

☐ ☐ ☐ ☐ ☐

19. OC2. The culture of the company is pro-innovation and supports Cloud ERP adoption. *

Strongly disagree Disagree Neutral Agree Strongly agree

☐ ☐ ☐ ☐ ☐

20. TMS1. The organization's management supports Cloud ERP implementation. *

Strongly disagree Disagree Neutral Agree Strongly agree

☐ ☐ ☐ ☐ ☐

21. TMS2. Strong leadership is provided by Top Management who enlists the necessary resources for Cloud ERP adoption. *

Strongly disagree Disagree Neutral Agree Strongly agree

☐ ☐ ☐ ☐ ☐

22. TMS3. Top management is willing to accept financial and operational risks involved in the Cloud ERP adoption. *

Strongly disagree Disagree Neutral Agree Strongly agree

☐ ☐ ☐ ☐ ☐

Next

55%

23. OS1. The larger the organization is, the higher is Cloud ERP adoption. *

Strongly disagree Disagree Neutral Agree Strongly agree

☐ ☐ ☐ ☐ ☐

24. OS2. Larger organizations are more likely to make financial investments in Cloud ERP adoption. *

Strongly disagree Disagree Neutral Agree Strongly agree

☐ ☐ ☐ ☐ ☐

25. RC1. Government policy provide incentives for your organization to adopt Cloud ERP. *

Strongly disagree Disagree Neutral Agree Strongly agree

☐ ☐ ☐ ☐ ☐

26. RC2. Current law and regulations are sufficient to protect the adoption of Cloud ERP. *

Strongly disagree Disagree Neutral Agree Strongly agree

☐ ☐ ☐ ☐ ☐

Next

64%



27. CP1. Our organization believes that the price competition pressure to reduce operating and maintenance costs is an incentive to adopt cloud ERP. *

Strongly disagree Disagree Neutral Agree Strongly agree

☐ ☐ ☐ ☐ ☐

28. CP2. Quality competition in terms of delivered better products and services are an incentive to adopt Cloud ERP. *

Strongly disagree Disagree Neutral Agree Strongly agree

☐ ☐ ☐ ☐ ☐

29. CP3. The competition in our sector has already adopted Cloud ERP. *

Strongly disagree Disagree Neutral Agree Strongly agree

☐ ☐ ☐ ☐ ☐

Next

73%



30. VS1. Our vendors provide the technical support needed to adopt Cloud ERP. *

Strongly disagree Disagree Neutral Agree Strongly agree

☐ ☐ ☐ ☐ ☐

31. VS2. Our vendors contribute with skilled professionals to adopt Cloud ERP. *

Strongly disagree Disagree Neutral Agree Strongly agree

☐ ☐ ☐ ☐ ☐

32. VS3. Our vendors provide skilled training to our staff to support Cloud ERP adoption. *

Strongly disagree Disagree Neutral Agree Strongly agree

☐ ☐ ☐ ☐ ☐

Thank you for answering and you are almost finished. The next section is related to a couple of questions about your organization and yourself.

Next

82%

Organization Profile

33. What is the classification of your company in the consumer goods industry? *

-- Please Select --

34. What is the geographic footprint of your organization?

*Please select one or more options when applicable. **

- ☐ Global (All Continents)
- ☐ Africa
- ☐ Asia
- ☐ Europe
- ☐ Middle East
- ☐ North America
- ☐ South America
- ☐ Oceania

35. How many employees does your organization have? *

- ☐ 1-100 (Small Company)
- ☐ 101-999 (Medium Company)
- ☐ More than 1000 (Large Company)

36. What is the annual revenue of your company? *

- ☐ Less than 50 million dollars
- ☐ Between 50 million and 1 billion dollars
- ☐ More than 1 billion dollars

37. Which Cloud Services have you already adopted for your ERP or plan to adopt in the next two years ?

*Please select one or more options when applicable. **

- ☐ Infrastructure as a Service (IaaS)
 - ☐ Platform as a Service (PaaS)
 - ☐ Software as a Service (SaaS)
 - ☐ None of the above
-

38. Which Cloud service model deployment(s) have you already adopted for the ERP or plan to adopt in the next two years?

*Please select one or more options when applicable. **

- ☐ Private
 - ☐ Public
 - ☐ Hybrid
 - ☐ Community
 - ☐ None of the above
-

Submit

91% 

APPENDIX B. IT ARTEFACT

Introduction page with a short instruction on how to use the DSS:

Decision Support System for Cloud ERP

Cloud Computing has changed the way organizations source their needs in terms of computing.

The program provides you with a decision system based on both the relevance of the factors selected by you and on the answers of 110 key user decision makers that defined which Cloud Model and Cloud Service to select .

When clicking on button Start on this page , the factor's priorities based on your business needs will need to be entered in every column "Which is more relevant? A or B?" and "Scale (1-9)".

Finally, when completing the factor's relevance, click on "View Reports" button to open the Reports worksheet where you will see what Cloud Model and Cloud Service to adopt for your organization.

You can find more details and instructions on the READ.ME page.

Start



<	>	Welcome	Define Factors Priorities	Decision Model Survey RS	Reports	READ.ME	+
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Define factors Priorities page where the user selects based on a pairwise comparison which factor is more important and what the weight of that importance is:

Define your Company's priorities

Fill both columns on every table below: "Which is more relevant? A or B?" and "Scale (1-9)"

Define which item is more important and by how much on "Scale (1-9)"

Use the following scale:

Scale	Definition
1	Equal importance of both variables
2	Weak importance of one variable over the other
3	Moderate importance of one variable over the other
4	Moderate plus importance of one variable over the other
5	Strong importance of one variable over the other
6	Strong plus importance of one variable over the other
7	Very Strong importance one variable over the other
8	Very, very strong importance of one variable over the other
9	Extreme importance of one variable over the other

Relative Advantage (RA)					
A	B	Which is more relevant? A or B?	Scale (1-9)	Optimized Change Sequence	Optimized Choice and Scale
Cost Savings	Quality of Operations				
	Time to Market				
	Efficiency on Resources Utilization				
Quality of Operations	Time to Market				
	Efficiency on Resources Utilization				
Time to Market	Efficiency on Resources Utilization				

Compatibility (C)					
A	B	Which is more relevant? A or B?	Scale (1-9)	Optimized Change Sequence	Optimized Choice and Scale
IT Infrastructure Compatibility	Company Mission				
	Operations compatibility				
Company Mission	Operations compatibility				

Complexity (CX)					
A	B	Which is more relevant? A or B?	Scale (1-9)	Optimized Change Sequence	Optimized Choice and Scale
Migration Complexity	Skills Complexity				
	User Satisfaction Level				
	Data Security				
Skills Complexity	User Satisfaction Level				
	Data Security				
User Satisfaction Level	Data Security				
Technology Readiness (TR)					
A	B	Which is more relevant? A or B?	Scale (1-9)		
IT Infrastructure Maturity	Managerial and Technical skills				
Organization Size (OS)					
A	B	Which is more relevant? A or B?	Scale (1-9)		
Number of Employees	Financial Investments				
Organization Competency (OC)					
A	B	Which is more relevant? A or B?	Scale (1-9)		
Available Cloud ERP Knowledge	Company Culture				
Top Management Support (TMS)					
A	B	Which is more relevant? A or B?	Scale (1-9)	Optimized Change Sequence	Optimized Choice and Scale
Middle management Support	Top Management Leadership				
	Top Management Risk Acceptance				
Top Management Leadership	Top Management Risk Acceptance				
Competitive Pressure (CP)					
A	B	Which is more relevant? A or B?	Scale (1-9)	Optimized Change Sequence	Optimized Choice and Scale
Price Competition	Quality Competition				
	Competitors Status				
Quality Competition	Competitors Status				
Regulatory Compliance (RC)					
A	B	Which is more relevant? A or B?	Scale (1-9)		
Government Incentives	Current Law Protection				
Vendor Support (VS)					
A	B	Which is more relevant? A or B?	Scale (1-9)	Optimized Change Sequence	Optimized Choice and Scale
Vendor Technical Support	Vendor Skilled Resources				
	Vendor Cloud ERP Training Skills				
Vendor Skilled Resources	Vendor Cloud ERP Training Skills				

View Reports

Decision Model page based on the survey results for every sub-attribute:


[illegible]


Top Management Risk Acceptance					Consistency Ratio (CR): ✔ 10%	The selection is spot on!
A	B	Which is more relevant? A or B?	Scale (1-9)	Optimized Change Sequence	Optimized Choice and Scale	Logic check
Public	Private	B	7			For Top Management Risk Acceptance purpose, Private has a very strong importance when compared to Public.
	Hybrid	B	5			For Top Management Risk Acceptance purpose, Hybrid has a stronger importance when compared to Public.
	Community	A	3			For Top Management Risk Acceptance purpose, Public has a moderate importance when compared to Community.
	On Premises	A	4			For Top Management Risk Acceptance purpose, Public has a moderate plus importance when compared to On Premises.
Private	Hybrid	A	3			For Top Management Risk Acceptance purpose, Private has a moderate importance when compared to Hybrid.
	Community	A	9			For Top Management Risk Acceptance purpose, Private has an extreme importance when compared to Community.
	On Premises	A	9			For Top Management Risk Acceptance purpose, Private has an extreme importance when compared to On Premises.
Hybrid	Community	A	7			For Top Management Risk Acceptance purpose, Hybrid has a very strong importance when compared to Community.
	On Premises	A	9			For Top Management Risk Acceptance purpose, Hybrid has an extreme importance when compared to On Premises.
Community	On Premises	A	9			For Top Management Risk Acceptance purpose, Community has an extreme importance when compared to On Premises.
	On Premises	A	4			For Top Management Risk Acceptance purpose, Community has a moderate plus importance when compared to On Premises.


Quality Competition						Consistency Ratio (CR): <div><div></div><div>10%</div></div>	The selection is spot on!
A	B	Which is more relevant? A or B?	Scale (1-9)	Optimized Change Sequence	Optimized Choice and Scale	Logic check	
Public	Private	B	7			For Quality Competition purpose, Private has a very strong importance when compared to Public.	
	Hybrid	B	5			For Quality Competition purpose, Hybrid has a stronger importance when compared to Public.	
	Community	A	3			For Quality Competition purpose, Public has a moderate importance when compared to Community.	
	On Premises	A	4			For Quality Competition purpose, Public has a moderate plus importance when compared to On Premises.	
Private	Hybrid	A	3			For Quality Competition purpose, Private has a moderate importance when compared to Hybrid.	
	Community	A	9			For Quality Competition purpose, Private has an extreme importance when compared to Community.	
	On Premises	A	9			For Quality Competition purpose, Private has an extreme importance when compared to On Premises.	
Hybrid	Community	A	7			For Quality Competition purpose, Hybrid has a very strong importance when compared to Community.	
	On Premises	A	9			For Quality Competition purpose, Hybrid has an extreme importance when compared to On Premises.	
Community	On Premises	A	4			For Quality Competition purpose, Community has a moderate plus importance when compared to On Premises.	


Competitors Status					Consistency Ratio (CR): ✔ 10%	The selection is spot on!
A	B	Which is more relevant? A or B?	Scale [1-9]	Optimized Change Sequence	Optimized Choice and Scale	Logic check
Public	Private	B	7			For Competitors Status purpose, Private has a very strong importance when compared to Public.
	Hybrid	B	5			For Competitors Status purpose, Hybrid has a stronger importance when compared to Public.
	Community	A	3			For Competitors Status purpose, Public has a moderate importance when compared to Community.
	On Premises	A	4			For Competitors Status purpose, Public has a moderate plus importance when compared to On Premises.
Private	Hybrid	A	3			For Competitors Status purpose, Private has a moderate importance when compared to Hybrid.
	Community	A	9			For Competitors Status purpose, Private has an extreme importance when compared to Community.
Hybrid	On Premises	A	9			For Competitors Status purpose, Private has an extreme importance when compared to On Premises.
	Community	A	7			For Competitors Status purpose, Hybrid has a very strong importance when compared to Community.
Community	On Premises	A	9			For Competitors Status purpose, Hybrid has an extreme importance when compared to On Premises.
	On Premises	A	4			For Competitors Status purpose, Community has a moderate plus importance when compared to On Premises.


Company Mission					Consistency Ratio (CR):	<div><div></div><div>✔ 4%</div></div>	The selection is spot on!
A	B	Which is more relevant? A or B?	Scale (1-9)	Optimized Change Sequence	Optimized Choice and Scale	Logic check	
IaaS	PaaS	B	2			For Company Mission purpose, PaaS has a weaker importance when compared to IaaS.	
	SaaS	B	2			For Company Mission purpose, SaaS has a weaker importance when compared to IaaS.	
	Traditional ERP	A	9			For Company Mission purpose, IaaS has an extreme importance when compared to Traditional ERP.	
PaaS	SaaS	A	1			For Company Mission purpose, PaaS has an equal important when compared to SaaS.	
	Traditional ERP	A	7			For Company Mission purpose, PaaS has a very strong importance when compared to Traditional ERP.	
SaaS	Traditional ERP	A	7			For Company Mission purpose, SaaS has a very strong importance when compared to Traditional ERP.	
Operations compatibility					Consistency Ratio (CR):	<div><div></div><div>✔ 4%</div></div>	The selection is spot on!
A	B	Which is more relevant? A or B?	Scale (1-9)	Optimized Change Sequence	Optimized Choice and Scale	Logic check	
IaaS	PaaS	B	2			For Operations compatibility purpose, PaaS has a weaker importance when compared to IaaS.	
	SaaS	B	2			For Operations compatibility purpose, SaaS has a weaker importance when compared to IaaS.	
	Traditional ERP	A	9			For Operations compatibility purpose, IaaS has an extreme importance when compared to Traditional ERP.	
PaaS	SaaS	A	1			For Operations compatibility purpose, PaaS has an equal important when compared to SaaS.	
	Traditional ERP	A	7			For Operations compatibility purpose, PaaS has a very strong importance when compared to Traditional ERP.	
SaaS	Traditional ERP	A	7			For Operations compatibility purpose, SaaS has a very strong importance when compared to Traditional ERP.	
Migration Complexity					Consistency Ratio (CR):	<div><div></div><div>✔ 4%</div></div>	The selection is spot on!
A	B	Which is more relevant? A or B?	Scale (1-9)	Optimized Change Sequence	Optimized Choice and Scale	Logic check	
IaaS	PaaS	B	2			For Migration Complexity purpose, PaaS has a weaker importance when compared to IaaS.	
	SaaS	B	2			For Migration Complexity purpose, SaaS has a weaker importance when compared to IaaS.	
	Traditional ERP	A	9			For Migration Complexity purpose, IaaS has an extreme importance when compared to Traditional ERP.	
PaaS	SaaS	A	1			For Migration Complexity purpose, PaaS has an equal important when compared to SaaS.	
	Traditional ERP	A	7			For Migration Complexity purpose, PaaS has a very strong importance when compared to Traditional ERP.	
SaaS	Traditional ERP	A	7			For Migration Complexity purpose, SaaS has a very strong importance when compared to Traditional ERP.	
Skills Complexity					Consistency Ratio (CR):	<div><div></div><div>✔ 4%</div></div>	The selection is spot on!
A	B	Which is more relevant? A or B?	Scale (1-9)	Optimized Change Sequence	Optimized Choice and Scale	Logic check	
IaaS	PaaS	B	2			For Skills Complexity purpose, PaaS has a weaker importance when compared to IaaS.	
	SaaS	B	2			For Skills Complexity purpose, SaaS has a weaker importance when compared to IaaS.	
	Traditional ERP	A	9			For Skills Complexity purpose, IaaS has an extreme importance when compared to Traditional ERP.	
PaaS	SaaS	A	1			For Skills Complexity purpose, PaaS has an equal important when compared to SaaS.	
	Traditional ERP	A	7			For Skills Complexity purpose, PaaS has a very strong importance when compared to Traditional ERP.	
SaaS	Traditional ERP	A	7			For Skills Complexity purpose, SaaS has a very strong importance when compared to Traditional ERP.	
User Satisfaction Level					Consistency Ratio (CR):	<div><div></div><div>✔ 4%</div></div>	The selection is spot on!
A	B	Which is more relevant? A or B?	Scale (1-9)	Optimized Change Sequence	Optimized Choice and Scale	Logic check	
IaaS	PaaS	B	2			For User Satisfaction Level purpose, PaaS has a weaker importance when compared to IaaS.	
	SaaS	B	2			For User Satisfaction Level purpose, SaaS has a weaker importance when compared to IaaS.	
	Traditional ERP	A	9			For User Satisfaction Level purpose, IaaS has an extreme importance when compared to Traditional ERP.	
PaaS	SaaS	A	1			For User Satisfaction Level purpose, PaaS has an equal important when compared to SaaS.	
	Traditional ERP	A	7			For User Satisfaction Level purpose, PaaS has a very strong importance when compared to Traditional ERP.	
SaaS	Traditional ERP	A	7			For User Satisfaction Level purpose, SaaS has a very strong importance when compared to Traditional ERP.	
Data Security					Consistency Ratio (CR):	<div><div></div><div>✔ 4%</div></div>	The selection is spot on!
A	B	Which is more relevant? A or B?	Scale (1-9)	Optimized Change Sequence	Optimized Choice and Scale	Logic check	
IaaS	PaaS	B	2			For Data Security purpose, PaaS has a weaker importance when compared to IaaS.	
	SaaS	B	2			For Data Security purpose, SaaS has a weaker importance when compared to IaaS.	
	Traditional ERP	A	9			For Data Security purpose, IaaS has an extreme importance when compared to Traditional ERP.	
PaaS	SaaS	A	1			For Data Security purpose, PaaS has an equal important when compared to SaaS.	
	Traditional ERP	A	7			For Data Security purpose, PaaS has a very strong importance when compared to Traditional ERP.	
SaaS	Traditional ERP	A	7			For Data Security purpose, SaaS has a very strong importance when compared to Traditional ERP.	
IT Infrastructure Maturity					Consistency Ratio (CR):	<div><div></div><div>✔ 4%</div></div>	The selection is spot on!
A	B	Which is more relevant? A or B?	Scale (1-9)	Optimized Ranking	Optimized Choice and Scale	Logic check	
IaaS	PaaS	B	2			For IT Infrastructure Maturity purpose, PaaS has a weaker importance when compared to IaaS.	
	SaaS	B	2			For IT Infrastructure Maturity purpose, SaaS has a weaker importance when compared to IaaS.	
	Traditional ERP	A	9			For IT Infrastructure Maturity purpose, IaaS has an extreme importance when compared to Traditional ERP.	
PaaS	SaaS	A	1			For IT Infrastructure Maturity purpose, PaaS has an equal important when compared to SaaS.	
	Traditional ERP	A	7			For IT Infrastructure Maturity purpose, PaaS has a very strong importance when compared to Traditional ERP.	
SaaS	Traditional ERP	A	7			For IT Infrastructure Maturity purpose, SaaS has a very strong importance when compared to Traditional ERP.	
Managerial & Technical skills					Consistency Ratio (CR):	<div><div></div><div>✔ 4%</div></div>	The selection is spot on!
A	B	Which is more relevant? A or B?	Scale (1-9)	Optimized Change Sequence	Optimized Choice and Scale	Logic check	
IaaS	PaaS	B	2			For Managerial & Technical skills purpose, PaaS has a weaker importance when compared to IaaS.	
	SaaS	B	2			For Managerial & Technical skills purpose, SaaS has a weaker importance when compared to IaaS.	
	Traditional ERP	A	9			For Managerial & Technical skills purpose, IaaS has an extreme importance when compared to Traditional ERP.	
PaaS	SaaS	A	1			For Managerial & Technical skills purpose, PaaS has an equal important when compared to SaaS.	
	Traditional ERP	A	7			For Managerial & Technical skills purpose, PaaS has a very strong importance when compared to Traditional ERP.	
SaaS	Traditional ERP	A	7			For Managerial & Technical skills purpose, SaaS has a very strong importance when compared to Traditional ERP.	


Number of Employees						Consistency Ratio (CR):  4%	The selection is spot on!
A	B	Which is more relevant? A or B?	Scale [1-9]	Optimized Change Sequence	Optimized Choice and Scale	Logic check	
IaaS	PaaS	B	2			For Number of Employees purpose, PaaS has a weaker importance when compared to IaaS.	
	SaaS	B	2			For Number of Employees purpose, SaaS has a weaker importance when compared to IaaS.	
	Traditional ERP	A	9			For Number of Employees purpose, IaaS has an extreme importance when compared to Traditional ERP.	
PaaS	SaaS	A	1			For Number of Employees purpose, PaaS has an equal important when compared to SaaS.	
	Traditional ERP	A	7			For Number of Employees purpose, PaaS has a very strong importance when compared to Traditional ERP.	
SaaS	Traditional ERP	A	7			For Number of Employees purpose, SaaS has a very strong importance when compared to Traditional ERP.	


Financial Investments						Consistency Ratio (CR):  4%	The selection is spot on!
A	B	Which is more relevant? A or B?	Scale [1-9]	Optimized Change Sequence	Optimized Choice and Scale	Logic check	
IaaS	PaaS	B	2			For Financial Investments purpose, PaaS has a weaker importance when compared to IaaS.	
	SaaS	B	2			For Financial Investments purpose, SaaS has a weaker importance when compared to IaaS.	
	Traditional ERP	A	9			For Financial Investments purpose, IaaS has an extreme importance when compared to Traditional ERP.	
PaaS	SaaS	A	1			For Financial Investments purpose, PaaS has an equal important when compared to SaaS.	
	Traditional ERP	A	7			For Financial Investments purpose, PaaS has a very strong importance when compared to Traditional ERP.	
SaaS	Traditional ERP	A	7			For Financial Investments purpose, SaaS has a very strong importance when compared to Traditional ERP.	


Available Cloud ERP Knowledge						Consistency Ratio (CR):  4%	The selection is spot on!
A	B	Which is more relevant? A or B?	Scale [1-9]	Optimized Change Sequence	Optimized Choice and Scale	Logic check	
IaaS	PaaS	B	2			For Available Cloud ERP Knowledge purpose, PaaS has a weaker importance when compared to IaaS.	
	SaaS	B	2			For Available Cloud ERP Knowledge purpose, SaaS has a weaker importance when compared to IaaS.	
	Traditional ERP	A	9			For Available Cloud ERP Knowledge purpose, IaaS has an extreme importance when compared to Traditional ERP.	
PaaS	SaaS	A	1			For Available Cloud ERP Knowledge purpose, PaaS has an equal important when compared to SaaS.	
	Traditional ERP	A	7			For Available Cloud ERP Knowledge purpose, PaaS has a very strong importance when compared to Traditional ERP.	
SaaS	Traditional ERP	A	7			For Available Cloud ERP Knowledge purpose, SaaS has a very strong importance when compared to Traditional ERP.	

Company Culture						Consistency Ratio (CR):  4%	The selection is spot on!
A	B	Which is more relevant? A or B?	Scale [1-9]	Optimized Change Sequence	Optimized Choice and Scale	Logic check	
IaaS	PaaS	B	2			For Company Culture purpose, PaaS has a weaker importance when compared to IaaS.	
	SaaS	B	2			For Company Culture purpose, SaaS has a weaker importance when compared to IaaS.	
	Traditional ERP	A	9			For Company Culture purpose, IaaS has an extreme importance when compared to Traditional ERP.	
PaaS	SaaS	A	1			For Company Culture purpose, PaaS has an equal important when compared to SaaS.	
	Traditional ERP	A	7			For Company Culture purpose, PaaS has a very strong importance when compared to Traditional ERP.	
SaaS	Traditional ERP	A	7			For Company Culture purpose, SaaS has a very strong importance when compared to Traditional ERP.	

Middle management Support						Consistency Ratio (CR):  4%	The selection is spot on!
A	B	Which is more relevant? A or B?	Scale [1-9]	Optimized Ranking	Optimized Choice and Scale	Logic check	
IaaS	PaaS	B	2			For Middle management Support purpose, PaaS has a weaker importance when compared to IaaS.	
	SaaS	B	2			For Middle management Support purpose, SaaS has a weaker importance when compared to IaaS.	
	Traditional ERP	A	9			For Middle management Support purpose, IaaS has an extreme importance when compared to Traditional ERP.	
PaaS	SaaS	A	1			For Middle management Support purpose, PaaS has an equal important when compared to SaaS.	
	Traditional ERP	A	7			For Middle management Support purpose, PaaS has a very strong importance when compared to Traditional ERP.	
SaaS	Traditional ERP	A	7			For Middle management Support purpose, SaaS has a very strong importance when compared to Traditional ERP.	

Top Management Leadership						Consistency Ratio (CR):  4%	The selection is spot on!
A	B	Which is more relevant? A or B?	Scale [1-9]	Optimized Change Sequence	Optimized Choice and Scale	Logic check	
IaaS	PaaS	B	2			For Top Management Leadership purpose, PaaS has a weaker importance when compared to IaaS.	
	SaaS	B	2			For Top Management Leadership purpose, SaaS has a weaker importance when compared to IaaS.	
	Traditional ERP	A	9			For Top Management Leadership purpose, IaaS has an extreme importance when compared to Traditional ERP.	
PaaS	SaaS	A	1			For Top Management Leadership purpose, PaaS has an equal important when compared to SaaS.	
	Traditional ERP	A	7			For Top Management Leadership purpose, PaaS has a very strong importance when compared to Traditional ERP.	
SaaS	Traditional ERP	A	7			For Top Management Leadership purpose, SaaS has a very strong importance when compared to Traditional ERP.	

Top Management Risk Acceptance						Consistency Ratio (CR):  4%	The selection is spot on!
A	B	Which is more relevant? A or B?	Scale [1-9]	Optimized Change Sequence	Optimized Choice and Scale	Logic check	
IaaS	PaaS	B	2			For Top Management Risk Acceptance purpose, PaaS has a weaker importance when compared to IaaS.	
	SaaS	B	2			For Top Management Risk Acceptance purpose, SaaS has a weaker importance when compared to IaaS.	
	Traditional ERP	A	9			For Top Management Risk Acceptance purpose, IaaS has an extreme importance when compared to Traditional ERP.	
PaaS	SaaS	A	1			For Top Management Risk Acceptance purpose, PaaS has an equal important when compared to SaaS.	
	Traditional ERP	A	7			For Top Management Risk Acceptance purpose, PaaS has a very strong importance when compared to Traditional ERP.	
SaaS	Traditional ERP	A	7			For Top Management Risk Acceptance purpose, SaaS has a very strong importance when compared to Traditional ERP.	

Price Competition						Consistency Ratio (CR):  4%	The selection is spot on!
A	B	Which is more relevant? A or B?	Scale [1-9]	Optimized Change Sequence	Optimized Choice and Scale	Logic check	
IaaS	PaaS	B	2			For Price Competition purpose, PaaS has a weaker importance when compared to IaaS.	
	SaaS	B	2			For Price Competition purpose, SaaS has a weaker importance when compared to IaaS.	
	Traditional ERP	A	9			For Price Competition purpose, IaaS has an extreme importance when compared to Traditional ERP.	
PaaS	SaaS	A	1			For Price Competition purpose, PaaS has an equal important when compared to SaaS.	
	Traditional ERP	A	7			For Price Competition purpose, PaaS has a very strong importance when compared to Traditional ERP.	
SaaS	Traditional ERP	A	7			For Price Competition purpose, SaaS has a very strong importance when compared to Traditional ERP.	

Quality Competition					Consistency Ratio (CR): <input checked="" type="checkbox"/> 4% <input type="checkbox"/> The selection is spot on!
A	B	Which is more relevant? A or B?	Scale (1-9)	Optimized Change Sequence	Optimized Choice and Scale
IaaS	PaaS	B	2		Logic check For Quality Competition purpose, PaaS has a weaker importance when compared to IaaS. For Quality Competition purpose, SaaS has a weaker importance when compared to IaaS. For Quality Competition purpose, IaaS has an extreme importance when compared to Traditional ERP. For Quality Competition purpose, PaaS has an equal important when compared to SaaS. For Quality Competition purpose, PaaS has a very strong importance when compared to Traditional ERP. For Quality Competition purpose, SaaS has a very strong importance when compared to Traditional ERP.
	SaaS	B	2		
	Traditional ERP	A	9		
PaaS	SaaS	A	1		
	Traditional ERP	A	7		
SaaS	Traditional ERP	A	7		
Competitors Status					Consistency Ratio (CR): <input checked="" type="checkbox"/> 4% <input type="checkbox"/> The selection is spot on!
A	B	Which is more relevant? A or B?	Scale (1-9)	Optimized Change Sequence	Optimized Choice and Scale
IaaS	PaaS	B	2		Logic check For Competitors Status purpose, PaaS has a weaker importance when compared to IaaS. For Competitors Status purpose, SaaS has a weaker importance when compared to IaaS. For Competitors Status purpose, IaaS has an extreme importance when compared to Traditional ERP. For Competitors Status purpose, PaaS has an equal important when compared to SaaS. For Competitors Status purpose, PaaS has a very strong importance when compared to Traditional ERP. For Competitors Status purpose, SaaS has a very strong importance when compared to Traditional ERP.
	SaaS	B	2		
	Traditional ERP	A	9		
PaaS	SaaS	A	1		
	Traditional ERP	A	7		
SaaS	Traditional ERP	A	7		
Government Incentives					Consistency Ratio (CR): <input checked="" type="checkbox"/> 4% <input type="checkbox"/> The selection is spot on!
A	B	Which is more relevant? A or B?	Scale (1-9)	Optimized Change Sequence	Optimized Choice and Scale
IaaS	PaaS	B	2		Logic check For Government Incentives purpose, PaaS has a weaker importance when compared to IaaS. For Government Incentives purpose, SaaS has a weaker importance when compared to IaaS. For Government Incentives purpose, IaaS has an extreme importance when compared to Traditional ERP. For Government Incentives purpose, PaaS has an equal important when compared to SaaS. For Government Incentives purpose, PaaS has a very strong importance when compared to Traditional ERP. For Government Incentives purpose, SaaS has a very strong importance when compared to Traditional ERP.
	SaaS	B	2		
	Traditional ERP	A	9		
PaaS	SaaS	A	1		
	Traditional ERP	A	7		
SaaS	Traditional ERP	A	7		
Current Law Protection					Consistency Ratio (CR): <input checked="" type="checkbox"/> 4% <input type="checkbox"/> The selection is spot on!
A	B	Which is more relevant? A or B?	Scale (1-9)	Optimized Change Sequence	Optimized Choice and Scale
IaaS	PaaS	B	2		Logic check For Current Law Protection purpose, PaaS has a weaker importance when compared to IaaS. For Current Law Protection purpose, SaaS has a weaker importance when compared to IaaS. For Current Law Protection purpose, IaaS has an extreme importance when compared to Traditional ERP. For Current Law Protection purpose, PaaS has an equal important when compared to SaaS. For Current Law Protection purpose, PaaS has a very strong importance when compared to Traditional ERP. For Current Law Protection purpose, SaaS has a very strong importance when compared to Traditional ERP.
	SaaS	B	2		
	Traditional ERP	A	9		
PaaS	SaaS	A	1		
	Traditional ERP	A	7		
SaaS	Traditional ERP	A	7		
Vendor Technical Support					Consistency Ratio (CR): <input checked="" type="checkbox"/> 4% <input type="checkbox"/> The selection is spot on!
A	B	Which is more relevant? A or B?	Scale (1-9)	Optimized Change Sequence	Optimized Choice and Scale
IaaS	PaaS	B	2		Logic check For Vendor Technical Support purpose, PaaS has a weaker importance when compared to IaaS. For Vendor Technical Support purpose, SaaS has a weaker importance when compared to IaaS. For Vendor Technical Support purpose, IaaS has an extreme importance when compared to Traditional ERP. For Vendor Technical Support purpose, PaaS has an equal important when compared to SaaS. For Vendor Technical Support purpose, PaaS has a very strong importance when compared to Traditional ERP. For Vendor Technical Support purpose, SaaS has a very strong importance when compared to Traditional ERP.
	SaaS	B	2		
	Traditional ERP	A	9		
PaaS	SaaS	A	1		
	Traditional ERP	A	7		
SaaS	Traditional ERP	A	7		
Vendor Skilled Resources					Consistency Ratio (CR): <input checked="" type="checkbox"/> 4% <input type="checkbox"/> The selection is spot on!
A	B	Which is more relevant? A or B?	Scale (1-9)	Optimized Change Sequence	Optimized Choice and Scale
IaaS	PaaS	B	2		Logic check For Vendor Skilled Resources purpose, PaaS has a weaker importance when compared to IaaS. For Vendor Skilled Resources purpose, SaaS has a weaker importance when compared to IaaS. For Vendor Skilled Resources purpose, IaaS has an extreme importance when compared to Traditional ERP. For Vendor Skilled Resources purpose, PaaS has an equal important when compared to SaaS. For Vendor Skilled Resources purpose, PaaS has a very strong importance when compared to Traditional ERP. For Vendor Skilled Resources purpose, SaaS has a very strong importance when compared to Traditional ERP.
	SaaS	B	2		
	Traditional ERP	A	9		
PaaS	SaaS	A	1		
	Traditional ERP	A	7		
SaaS	Traditional ERP	A	7		
Vendor Cloud ERP Training Skills					Consistency Ratio (CR): <input checked="" type="checkbox"/> 4% <input type="checkbox"/> The selection is spot on!
A	B	Which is more relevant? A or B?	Scale (1-9)	Optimized Change Sequence	Optimized Choice and Scale
IaaS	PaaS	B	2		Logic check For Vendor Cloud ERP Training Skills purpose, PaaS has a weaker importance when compared to IaaS. For Vendor Cloud ERP Training Skills purpose, SaaS has a weaker importance when compared to IaaS. For Vendor Cloud ERP Training Skills purpose, IaaS has an extreme importance when compared to Traditional ERP. For Vendor Cloud ERP Training Skills purpose, PaaS has an equal important when compared to SaaS. For Vendor Cloud ERP Training Skills purpose, PaaS has a very strong importance when compared to Traditional ERP. For Vendor Cloud ERP Training Skills purpose, SaaS has a very strong importance when compared to Traditional ERP.
	SaaS	B	2		
	Traditional ERP	A	9		
PaaS	SaaS	A	1		
	Traditional ERP	A	7		
SaaS	Traditional ERP	A	7		

Reports page with details on the weight and priority of the factors selected by the user and the results for both Cloud Model and Cloud Service through multiple graphics based on the used model: Technology, Organisation and Environment.

Decision Model based on Factors Selection

[Return to Factors Priorities](#)

Relative Advantage (RA)	Weights	Ranking
Cost Savings	25.00%	1
Quality of Operations	25.00%	1
Time to Market	25.00%	1
Efficiency on Resources Utilization	25.00%	1

Competitive Pressure (CP)	Weights	Ranking
Price Competition	33.33%	1
Quality Competition	33.33%	1
Competitors Status	33.33%	1

Compatibility (C)	Weights	Ranking
IT Infrastructure Compatibility	33.33%	1
Company Mission	33.33%	1
Operations compatibility	33.33%	1

Regulatory Compliance (RC)	Weights	Ranking
Government Incentives	50.00%	1
Current Law Protection	50.00%	1

Complexity (CX)	Weights	Ranking
Migration Complexity	25.00%	1
Skills Complexity	25.00%	1
User Satisfaction Level	25.00%	1
Data Security	25.00%	1

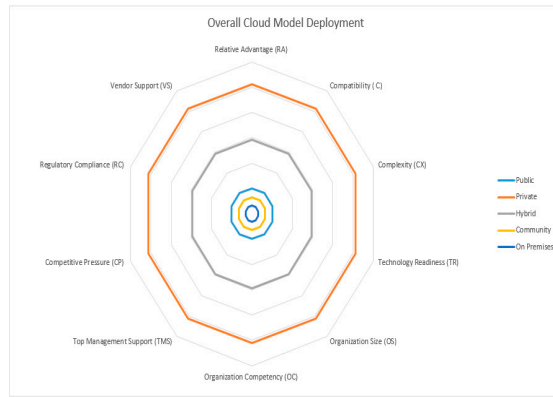
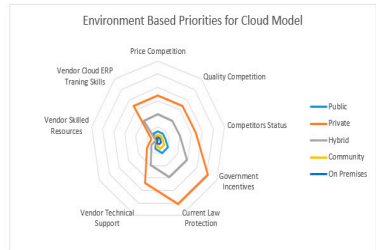
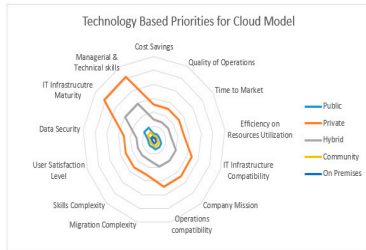
Vendor Support (VS)	Weights	Ranking
Vendor Technical Support	33.33%	1
Vendor Skilled Resources	33.33%	1
Vendor Cloud ERP Training Skills	33.33%	1

Technology Readiness (TR)	Weights	Ranking
IT Infrastructure Maturity	50.00%	1
Managerial & Technical Skills	50.00%	1

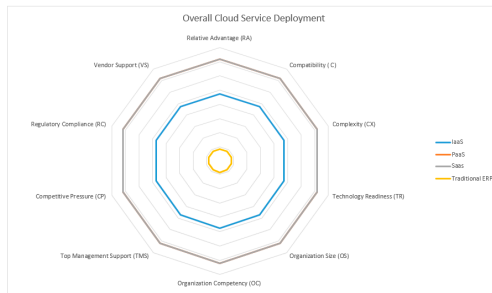
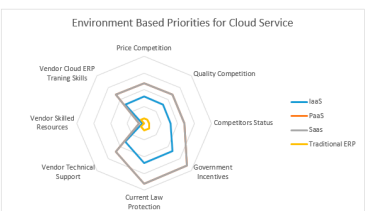
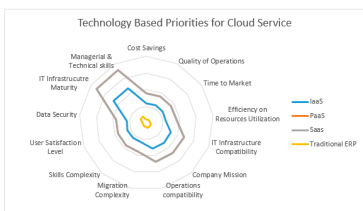
Organisation Size (OS)	Weights	Ranking
Number of Employees	50.00%	1
Financial Investments	50.00%	1

Organisation Competency (OC)	Weights	Ranking
Available Cloud ERP Knowledge	50.00%	1
Company Culture	50.00%	1

Results based on Decision Model for which Cloud Model to Select



Results based on Decision Model for which Cloud Service to Select



Read Me page with Instructions on how to use the DSS and the used Model to build it:

APPENDIX C. EVALUATION



Evaluation Cloud ERP Decision Support Tool

Dear participant:

My name is Marlene Marinho and I am a graduate student at the **University of Liverpool** where I am studying for a Master of Science in Information Systems Management. For the final project, I am researching the Cloud ERP decision making process. You were selected to test and evaluate a Decision Support System which will help you decide to adopt Cloud ERP in your organization.

The evaluation results will be implemented in the final Decision Support System which will be of benefit to all companies that wish to implement Cloud ERP applications. Your evaluation responses will remain completely anonymous and will only be used collectively. There is also no compensation for responding to this test and evaluation.

Your evaluation of the Decision Support System will be provided through a short questionnaire which will take approximately **10** minutes to complete the 10 questions after you have used and tested the Decision Support System.

Participation in this project is entirely voluntary and if you do not wish to take part then please just let me know. If at any point you do not want to continue, you can close the window(s). If you are completing the evaluation, please ensure that you click on the Submit button at the very end of it.

Any concerns about the ethical aspects of this research can be addressed to the University's Research Participant Advocate at liverpoolethics@ohecampus.com. Any other questions or comments regarding the evaluation or the tool, please contact me at marlene.marinho@online.liverpool.ac.uk. You may want to keep a copy of this Participant Information Sheet for your records.

1. By clicking on the Yes option, you will accept to participate on this evaluation.

- ☐ Yes
- ☐ No

Next

0%



Cloud ERP adoption is part of an IT strategy to reduce operational costs as it allows organizations to focus on core competencies.

In the research taken, Cloud ERP can take the Service Model of IaaS, PaaS or SaaS as anything deployed into the Cloud becomes Cloud.

To support organizations in the decision-making process to adopt Cloud ERP, an analysis of the factors that influence Cloud ERP has been conducted with a comprehensive literature review on Technology, Organization, Environment (TOE) and Diffusion of Innovation (DOI) frameworks.

Next, to that, a survey questionnaire was sent to decision-makers to understand the predictors of the decision regarding Service and deployment.

With this input, the decision support tool was built and sent for your review.

2. Which of the following most closely matches your job title? *

3. The decision support tool provides a framework to support a knowledge-based decision on Cloud ERP adoption.

4. Using the decision support tool, it would save time, cost, effort involved in the decision-making process of the migration towards Cloud ERP.

5. The proposed decision support tool provides comprehensive coverage of the factors that are involved in the cloud deployment models selection (Example: Hybrid, Public, Private, Community).

6. The proposed decision support tool provides a useful tool to support the decisions on Service Models for ERP.

(Infrastructure as a Service, Platform as a Service, Software as a Service)

*

	1	2	3	4	5	
Strongly disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly agree

7. The output reports based on the input inserted provide accurate results. *

	1	2	3	4	5	
Strongly disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly agree

8. The performance of the reports displayed in the decision support tool is acceptable from user point of view (less than 8 seconds). *

	1	2	3	4	5	
Strongly disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly agree

9. Are there any factors that you would like to see added to the decision Tool? The factors are cost savings, time to market, data security, etc. *

10. Do you have any suggestions on how to improve the Decision Support Tool? *

Back

Submit

50% 