

How Can a Cloud Infrastructure Improve Organizations?

A RESEARCH PROPOSAL

BY CALLUM EVANS - 2116012



Introduction & Project Context

- Traditional IT Limitations: On-premise systems are costly, difficult to scale, and less efficient, requiring high upfront capital and ongoing maintenance.
- Cloud Adoption Trend: More businesses are moving to the cloud to reduce costs, enhance scalability, and improve operational flexibility.
- Optimizing Business Processes: Cloud infrastructure enables faster innovation, streamlines workflows, and supports advanced technologies like AI and big data analytics.
- Rationale: This research provides insights and a strategic framework to help businesses improve efficiency and competitiveness through cloud adoption.



Research Aim & Objectives

- Aim: To explore how cloud infrastructure can improve organizational performance in cost efficiency, scalability, and innovation.
- Objectives:
 - Analyse cost-efficiency benefits of cloud infrastructure.
 - Investigate scalability and flexibility gains.
 - Explore how cloud fosters innovation using AI, ML, and big data.
 - Develop a strategic framework for organizations to adopt cloud successfully.
 - Identify risks and limitations of cloud implementation.



Literature Review Summary

- Cost Optimization:
 - Cloud reduces CapEx and OpEx, but without careful planning, cloud costs may rise due to unmanaged services.
- Scalability:
 - Cloud offers quick and flexible scalability, but organizations must address security and compliance risks as they scale.
- Innovation:
 - Cloud enables advanced tech (AI, ML, big data), fostering innovation, but continuous upgrades can be challenging.
- Research Gaps:
 - Lack of industry-specific long-term cost-saving data and comparison studies.



Research Methodology

- Data Collection:
- Surveys: Targeting IT professionals for quantitative data on cloud impacts.
- Interviews: Semi-structured interviews with key stakeholders (CIOs, CTOs) for in-depth insights.
- Case Studies: Analyse businesses that have successfully transitioned to cloud infrastructure.
- Document Analysis: Pre- and post-cloud adoption financial and operational data.
- Data Analysis:
- Use statistical tools for survey results.
- Thematic analysis for qualitative interviews.
- Cross-referencing case studies to identify trends and best practices.



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Project Planning and Resources

- **Project Planning:**
- **Phase 1: Planning (1 Month)**
 - Finalize research design
 - Identify data sources
 - Set up timelines and milestones
- **Phase 2: Data Collection (2 Months)**
 - Conduct surveys and interviews
 - Gather case study and document analysis data
- **Phase 3: Data Analysis (2 Months)**
 - Analyze survey results (using tools like SPSS)
 - Thematic analysis for interviews
 - Cross-reference case studies
- **Phase 4: Writing & Reporting (1 Month)**
 - Draft report and strategic framework
 - Final review and presentation preparation
- **Resources:**
- **Hardware:**
 - Personal computer (for data analysis and writing)
- **Software:**
 - Data analysis tools (SPSS, NVivo)
 - Cloud server access (for testing, if needed)



Impact & Limitations

- Content:
- Impact:
 - Provide actionable insights for organizations on cloud implementation.
 - Help businesses become more competitive by leveraging cloud technology.
 - Strategic framework can guide industries on effective cloud adoption.
- Limitations:
 - Difficulty in accessing comprehensive organizational data for case studies.
 - Cloud adoption may vary in effectiveness across different industries.
 - Possible bias in interview data from stakeholders involved in cloud deployment.
- Mitigation Strategies:
 - Triangulate data sources for balanced insights.
 - Use industry-specific case studies to address variability.



Conclusion

- Restate the goal: Investigating how cloud infrastructure can improve organizational performance.

Importance of Cloud:

- **Cost Efficiency:** Reduces capital and operational expenses.
- **Scalability:** Offers flexible and quick resource adjustments.
- **Innovation:** Enables advanced technologies for competitive advantage.
- Encourage further research on industry-specific impacts and long-term cloud benefits.



THANKS FOR LISTENING!



REFERENCES

[1] E. J. Logue, "In today's rapidly evolving digital landscape, the term 'cloud computing' is often thrown around, leaving many non-technical professionals wondering what it actually means and how it impacts their businesses and daily lives. In this article, let's explore the complexities of cloud computing and expl," *Linkedin.com*, Sep. 26, 2023. <https://www.linkedin.com/pulse/demystifying-cloud-computing-overview-non-technical-emma-j-logue->.

[2] P. Bauer, "Pulse surveys: a quickfire guide for HR professionals," Cezanne HR, May 24, 2022. <https://cezannehr.com/hr-blog/2022/05/what-are-pulse-surveys/>

[3] "Improve performance with a planning tool. - Wimi," *www.wimi-teamwork.com*. <https://www.wimi-teamwork.com/blog/improve-performance-with-a-planning-tool/>





Link to the Presentation:

<https://youtu.be/YUvfEzKFE>