Appendix

Anonymous

Anonymous

Interview Participants

Table 1 provides an overview of the 15 participants of both organizations, highlighting their roles and contributions to SDLC.

Table 1: Overview of the Study Participants

ID	Organization	Participant Role	Experience (years)	SDLC Phase
P1	Bank	Scrum Master	5	All phases
P2	Bank	UI/UX Designer	11	Design
P3	Bank	Test Manager/Quality Engineer	10	Testing and Maintenance
P4	Bank	Solution Architect	27	Analysis and Design
P5	Bank	Software Developer/ DevOps Engineer	17	Implementation, Deployment and Maintenance
P6	Bank	Business Analyst/Product Owner	3	Analysis and Design
P7	Bank	Business Analyst/Deveops Engineer	12	All phases
P8	Bank	DevOps Engineer	14	All phases
P9	IT company	Product Manager	11	Requirement and Implementation
P10	IT company	Quality Engineer	13	Analysis, Testing and Maintenance
P11	IT company	Software Engineer/ DevOps Engineer	3.5	Implementation and Deployment
P12	IT company	Solution Architect	7	Requirement, Design
P13	IT company	Product Manager	16	Requirement
P14	IT company	Team Lead/Product Manager	7	Analysis and Design
P15	IT company	UI/UX Designer	1.5	Design

Threats To Validity

In this section, we discuss the potential threats to validity and the applied mitigation strategies, following the classification of Wohin et al. [1].

Internal Validity. To minimize personal bias in study design and data analysis, the first author's work was consistently evaluated by co-authors. Data analysis was conducted jointly with the second author and cross-checked by others for accuracy. A structured approach was used for data gathering and analysis to reduce bias. Interviewer bias was addressed by using predefined questions and recording sessions for accurate transcription, with multiple reviews ensuring an unbiased representation of interviewee perspectives.

External Validity. Although the study focuses on only two organizations, the insights are broadly applicable, as SDLC phases are generally consistent across organizations. The findings offer guidelines that can be adapted to other organizations with similar structures.

Construct Validity. Unclear interview questions could lead to misunderstandings and inaccurate responses. To address this, a pilot test was conducted to refine the questions, ensuring they effectively gathered accurate data during the actual interviews.

Conclusion Validity. A potential threat to conclusion validity is the risk of misinterpreting or inadequately analyzing qualitative data, which could undermine the study's conclusions. To mitigate this, thorough coding and thematic analysis were employed, with careful documentation for transparency. The data was revisited, biases were reflected upon, and co-author feedback was sought to ensure interpretations were data-driven and not influenced by assumptions, enhancing the validity of the results.

Interview Questions

This appendix presents the set of interview questions used to gather qualitative data from stakeholders:

Background Questions:
Purpose: To get the profiles of the interviewees

- Can you please introduce yourself, including your current role?
- How long have you been working in your current position, and what is your level of experience?
- Can you identify where your role falls in the SDLC stage?

Relevant Questions: Purpose: To understand their view on sustainability practices and if they think it is feasible to incorporate.

- Do you believe sustainability practices matter for your role?
- Can you provide examples of sustainability practices that you think would be most beneficial in your role (within the SDLC)?
- How do you think it feasible to incorporate sustainability considerations into [your specific phase/role] of the SDLC? Why or why not?

Challenges: Purpose: To understand the possible challenges hindering stakeholders from accepting and implementing sustainability practices within the organization.

– What are the problems you think you might face when trying to integrate sustainability practices into your role? OR What potential challenges do you foresee in implementing these sustainability practices within your day-to-day tasks or projects?
– Can you identify any organizational factors, such as lack of support or competing priorities, that may hinder the adoption of sustainability practices?
– Is there a culture of the organization promoting the acceptance and implementation of sustainability practices?

Suggestions/Recommendations: Purpose: To get insights as regards the possible suggestions that can help overcome these challenges.

– What suggestions do you have for overcoming challenges related to integrating sustainability into [your specific phase/role] of the SDLC?
– How do you think management/leaders of organizations can better support the implementation of sustainability practices within the SDLC?
– In your opinion, what steps can the organization take to foster a culture that values sustainability and encourages its integration into software development processes among stakeholders?

Benefits: Purpose: To get insights on how stakeholders perceive the alignment with their role and the benefits too.

– From your perspective, how well do these practices align/fit with your responsibilities?
– What potential benefits do you see in implementing these practices in your role?

References

1. Wohlin, C., Runeson, P., Höst, M., Ohlsson, M., Regnell, B., Wesslén, A.: Experimentation in Software Engineering - An Introduction (2012)