Titulo: Driving Academic Spin-off by Software Development Process: A Case Study in Federal Institute of Rio Grande do Norte - Brazil

Contexto: Educação empreendedora em TICs (10 anos de Experiência no IFRN TDS/TADS)

Motivação: Formação para Estimular novos negócios de base tecnológica, empreendedorismo jovem – enfrentamento da crise econômica

Problema: Dificuldade para efetuar a transição de requisitos acadêmicos (foco na formação) para requisitos de mercado (foco na qualidade do produto e no mercado)

Solução: Processo de desenvolvimento de software que mapeia requisitos acadêmicos (conhecimento e boa técnica) em requisitos de mercado (proposta de valor) para transformação gradativa de produto em negócio.

Trabalhos relacionados: Modelos de Academic Spin-off

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ABSTRACT

1. Introduction – Claudia

Problem Statement

Research Objectives

2. Related Work

Context (Spin-off Models and Software Development Processes)

Earlier studies

Theory

3. Case Study Design

Research questions (PAA Family (inputs, tasks, outputs) – Marilia

Case and subjects selection

Data collection procedures

Analysis procedure

Validity procedure

4. Results (Usage Scenario – DIATINF/TADS and Ecossystem for Innovation - todos)

Case and subjects description, covering execution, analysis and interpretation issues

Subsections may be structured linkink observations to conclusions

Evaluation of validity

5. Conclusions and Future Work (Claudia)

Summary of conclusions

Relation to existing evidence

Impact/implications

Limitations

Future work

Validation (by 3-years Experience (collected Metrics) – Marilia e alunos

REFERENCES

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Figures

Ecossystem for innovation - Fellipe

Environment Map - Claudia

Academic Canvas Map - Fellipe

Business Model Canvas - ok

Phases:

Pre (Ideation) - product

PDS1 (Web Development) product

PDS2 (Distribution/integration) - product

PDS3 (Corporative) product-business

Mentoring Programme (Business Model) business - product

Incubator (Market) – business – product

**Table - Researcher’s checklist**

**Case study design**

1. What is the case and its units of analysis?

2. Are clear objectives, preliminary research questions, hypotheses (if any) defined in advance?

3. Is the theoretical basis—relation to existing literature or other cases—defined?

4. Are the authors’ intentions with the research made clear?

5. Is the case adequately defined (size, domain, process, subjects…)?

6. Is a cause–effect relation under study? If yes, is it possible to distinguish the cause from other factors

using the proposed design?

7. Does the design involve data from multiple sources (data triangulation), using multiple methods (method

triangulation)?

8. Is there a rationale behind the selection of subjects, roles, artifacts, viewpoints, etc.?

9. Is the specified case relevant to validly address the research questions (construct validity)?

10. Is the integrity of individuals/organizations taken into account?

**Preparation for data collection**

11. Is a case study protocol for data collection and analysis derived (what, why, how, when)? Are

procedures for its update defined?

12. Are multiple data sources and collection methods planned (triangulation)?

13. Are measurement instruments and procedures well defined (measurement definitions, interview questions)?

14. Are the planned methods and measurements sufficient to fulfill the objective of the study?

15. Is the study design approved by a review board, and has informed consent obtained from individuals

and organizations?

**Collecting Evidence**

16. Is data collected according to the case study protocol?

17. Is the observed phenomenon correctly implemented (e.g. to what extent is a design method under study

actually used)?

18. Is data recorded to enable further analysis?

19. Are sensitive results identified (for individuals, the organization or the project)?

20. Are the data collection procedures well traceable?

21. Does the collected data provide ability to address the research question?

**Analysis of collected data**

22. Is the analysis methodology defined, including roles and review procedures?

23. Is a chain of evidence shown with traceable inferences from data to research questions and existing

theory?

24. Are alternative perspectives and explanations used in the analysis?

25. Is a cause–effect relation under study? If yes, is it possible to distinguish the cause from other factors in

the analysis?

26. Are there clear conclusions from the analysis, including recommendations for practice/further research?

27. Are threats to the validity analyzed in a systematic way and countermeasures taken? (Construct,

internal, external, reliability)

**Reporting**

28. Are the case and its units of analysis adequately presented?

29. Are the objective, the research questions and corresponding answers reported?

30. Are related theory and hypotheses clearly reported?

31. Are the data collection procedures presented, with relevant motivation?

32. Is sufficient raw data presented (e.g. real life examples, quotations)?

33. Are the analysis procedures clearly reported?

34. Are threats to validity analyses reported along with countermeasures taken to reduce threats?

35. Are ethical issues reported openly (personal intentions, integrity issues, confidentiality)

36. Does the report contain conclusions, implications for practice and future research?

37. Does the report give a realistic and credible impression?

38. Is the report suitable for its audience, easy to read and well structured?

**Table - Reader’s checklist**

39. Are the objective, research questions, and hypotheses (if applicable) clear and relevant? 1, 2, 5, 29, 30

40. Are the case and its units of analysis well defined? 1, 5, 28

41. Is the suitability of the case to address the research questions clearly motivated? 8, 9, 14

42. Is the case study based on theory or linked to existing literature? 3

43. Are the data collection procedures sufficient for the purpose of the case study (data sources, collection,

validation)? 11, 13, 16, 18, 21, 31

44. Is sufficient raw data presented to provide understanding of the case and the analysis? 32

45. Are the analysis procedures sufficient for the purpose of the case study (repeatable, transparent)? 22, 33

46. Is a clear chain of evidence established from observations to conclusions? 6, 17, 20, 23, 25

47. Are threats to validity analyses conducted in a systematic way and are countermeasures taken to reduce

threats? 27, 34, 37

48. Is triangulation applied (multiple collection and analysis methods, multiple authors, multiple theories)? 7,

12, 22, 24

49. Are ethical issues properly addressed (personal intentions, integrity, confidentiality, consent, review

board approval)? 4, 10, 15, 19, 35

50. Are conclusions, implications for practice and future research, suitably reported for its audience? 26, 29,

36, 37, 38