



# Comparative Analysis on Software Development Life Cycle (SDLC) Models

G A Monang Lumban Gaol, S.Kom

2111600371@student.budiluhur.ac.id

Magister Ilmu Komputer

Universitas Budi Luhur

There were 4 journals that were reviewed with the main theme being comparative comparative analysis of different SDLC models that discuss their benefits and their drawbacks. The purpose is to help software developers/designers to choose the right models for the software development project.

Selecting the correct life cycle model is most valuable process while developer has to complete within a given time deadline and estimated cost. Model selection depends on the type of project as per customer requirement. Though these models all have their benefits and drawbacks, the fusion of all these methodologies is incorporated in the existing commercial software development world.

Pradhan used Waterfall and ESD SDLC on their analysis, Aminu and Ogwueleka used popular approaches to SDLC. On the other hand, Chopra and Nautiyal made their comparison based on the reasoning of the researcher. And at last, Polishwala and Shastri used certain features as their analysis basis.

## REFERENCES

Aminu, Halima, & Ogwueleka, F. (2020). *A Comparative study of System Development Life Cycle Models*.

Pradhan, Debasis, Dalai, Sasank Sekhar, & Behera, Mandakini Priyadarsini (2020). *A Comparative Study on Evolutionary Model for Software Development*

Chopra, Mr. Sandeep, Sharma, M., & Nautiyal, Lata (2017). *Comparative Study of Different Models in Component Based Software Engineering*

Polishwala, Megha V., & Shastri, Dr. Amit kumar (2021). Comparative Analysis of Various Software Development Approaches. *International Journal of Advanced Research in Science, Communication and Technology*, 88-91, ISSN 2581-9429, Naksh Solutions, <https://doi.org/10.48175/ijarsct-v2-i3-315>

| Source Information             | (Aminu & Ogwueleka, 2020)  | (Pradhan et al., 2019)  | (Chopra & Nautiyal, 2017)  | (Polishwala & Shastri, 2021)   |
|--------------------------------|--|---|--|--|
| Research Topic / Question      | To make a comparative analysis of different SDLC models; we further discuss their benefits and their drawbacks, which help software developers/ designers to choose the right models for the software development project.   | Combined technique towards the event innovations of a brand new software package style Life cycle considering numerous existing model specifications, their constraints and limits.   | This paper tells the efficiency of various CBSE models which are useful for the software project.  | The aim of this paper is to analysis some methodologies that gives comparison on SDLC models by studied available, tools, techniques and methodologies of SDLC models.   |
| Methodology                    | Comparative analysis   | Combining technique   | Comparative analysis   | Comparison   |
| Findings                       | In conclusion, model selection depends on the type of project as per customer requirement. Though these models all have their benefits and drawbacks, the fusion of all these methodologies is incorporated in the existing commercial software development world. | The most salient and consistent edges of the ESD model are its ability to induce early, accurate well shaped feedback from users and therefore the ability to reply thereto feedback. | The Key factor was based on the reasoning of the researcher. On the basis of above analyzed Table 1 we can say that Knot Model is the best model for the software project. | Selecting the correct life cycle model is most valuable process while developer has to complete within a given time deadline and estimated cost. This study make SDLC selection process easy and effective for the system. |
| Limitations                    | Popular approaches to SDLC   | Waterfall & ESD SDLC  | The Key factor was based on the reasoning of the researcher.   | Basis of certain features  |
| Area For Future Research       | The fusion of methodologies  | Factors have to be compelled to be considered before seizing Evolutionary Software Development.   | Key factors to make comparative analysis.  | The basis to make comparison.  |
| Other Area for Future Research | The fusion methodologies by classifying customer types   | Combining other models of SDLC  | Match the right type of customer and CBSE model  | The fusion of methodologies  |



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