Planning Development Management System Information in Improving Quality Services : Systematic Literature Review

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Abstract

Study This aim For explore strategies and steps in planning development management system information To use increase quality service in A organization . In today's digital era this , system efficient and effective information become key success for Lots company in increase satisfaction customers and efficiency operational . The research methods used by Systematic Literature Review include identification, screening, eligibility, and inclusion. Research result show that comprehensive and structured planning in development management system information can in a way significant increase quality service . Identification exact needs , selection appropriate technology , as well management effective change become factors critical in success implementation system information . In addition , evaluation and maintenance sustainable ensure system still relevant and possible adapt with change need business . Conclusions of study This confirm importance careful planning in development management system information . With Thus , organization can reach enhancement quality expected service , as well give mark plus for customers and stakeholders interest other .

Keyword: Systematic Literature Review Information System Management , Planning , Development .

1. Introduction

Information moment This become very important need For agencies and individuals . With increasing need agency or individual about information so system information is very much needed all field development system information in field knowledge knowledge , education, business , administration offices , communications, government, and activity other . The internet is one of them means supporter for public For look for or know all the information needed , including the current website This is currently popular among look for information.development system information moment This need For renewed or developed For fulfil need user moment This .

SDLC is the one that is used For information system development . There are various methodology that SLDC developed during a number of decade final For increase quality device soft , with various level success . But arrived moment This Still There is . There is n't any methodology that can prevent failures and advantages project device soft in all case . In the field , projects device big soft and not specified with OK , still experience difficulty in anticipate possible problems appears at the moment development .

the process of collecting , processing , analyzing as well as spread information For objective particular involving people , Devices hard , device soft and databases are stages of the information system that must be carried out For give accurate information moment This . With system information can help network communication, transactions important , helpful activity managerial , up to can help taking the right decision by someone nor organization particular own Website is gathering page containing information in video form , etc. , which can be accessed wherever , whenever and by anyone with help internet technology . System information website- based has Lots benefits and can make it easier Work human , so development system information Still Keep going done . Development the Of course just must using model or method certain in accordance with each developer's needs . Therefore that , on research This done collecting data from study previous (esp 2015) related system information website based use SDLC method .

2. Meta surveys

In stages This journal that discusses management system information in increase quality services.Related research with system information help network communication, transaction important and possible help taking the right decision by the organization For That SDLC method is very precise used For development system information moment This . System information many website based benefits and can make it easier Work man so that development system information continues to be carried out, developments are carried out in accordance with each developer's needs in accordance with models and methods certain .

Study This identify application methods and tools thinking design in development system information . The design process is very decisive influence an information system moment this.research This focus and answer various question about design For help level innovation in development something system information with SDLC method . Apart from designing SDLC also for designing and and develop system information .

3. Survey Methodology
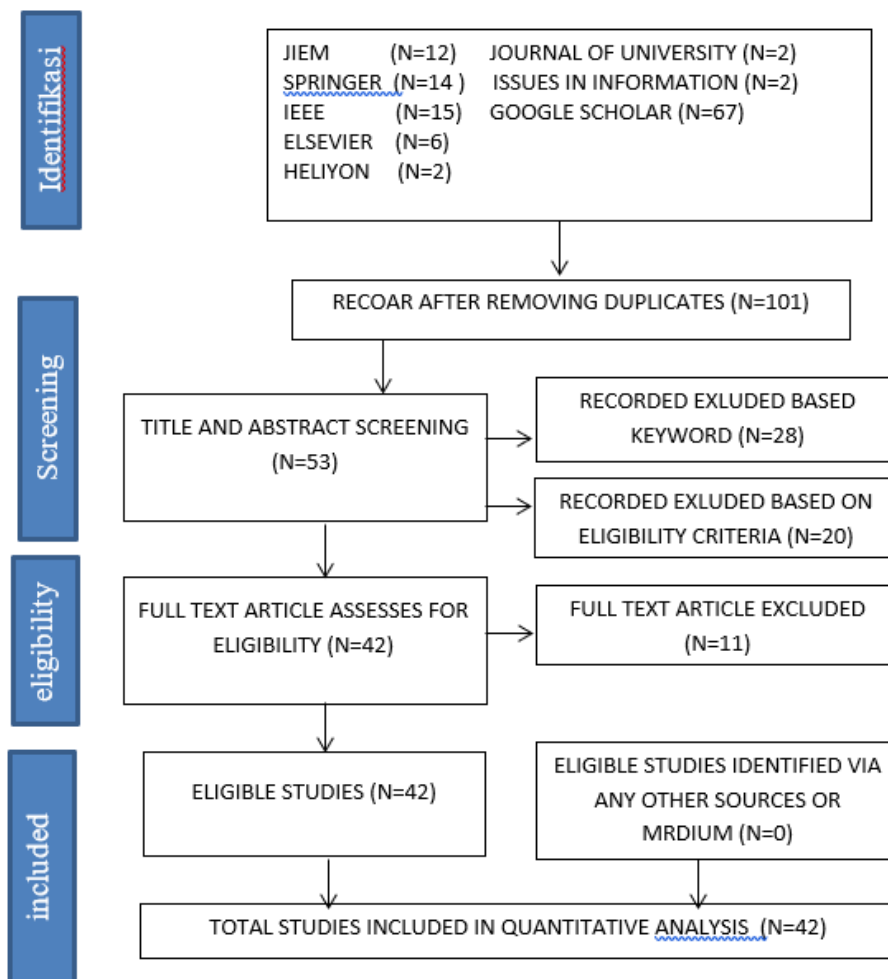
1. Question study

Research Questions on Stages *Research Question* (RQ), created question research that adapts the topic , namely :

RQ1 why system information is very much needed For increase quality contemporary service ?

RQ2 how system information give solution about existing problems ?

RQ3 how much big impact system information on services ?

2. Source information

For produce relevant studies , search data source from various existing databases computerized.for reach objective the so researcher look for ase database of Sources

indexed by Scopus include : JIEM, SPRINGER, IEEE, JOURNAL OF UNIVERSITY OF SHANGHAI and ISSUES IN INFORMATION.

3. Criteria appropriateness

Literature used from various will be done election based on the year it started from From 2015 to 2024 , journals below 2015 are used as literature and prioritize those that discuss it system information .

4. Data extraction

Data used researcher include : author, year published, source journal, performance and methods used .

4. Results

In stages this is what we explain presentation of data in an orderly manner quantitative from We obtained various literature including : year rise document the , author , source journal , performance and methods used

4.1 Characteristics of Selected Studies

Case studies used from 2015 to 2024 will be made refer.from chart showing down rising use SDLC method and in 2023 it will increase .
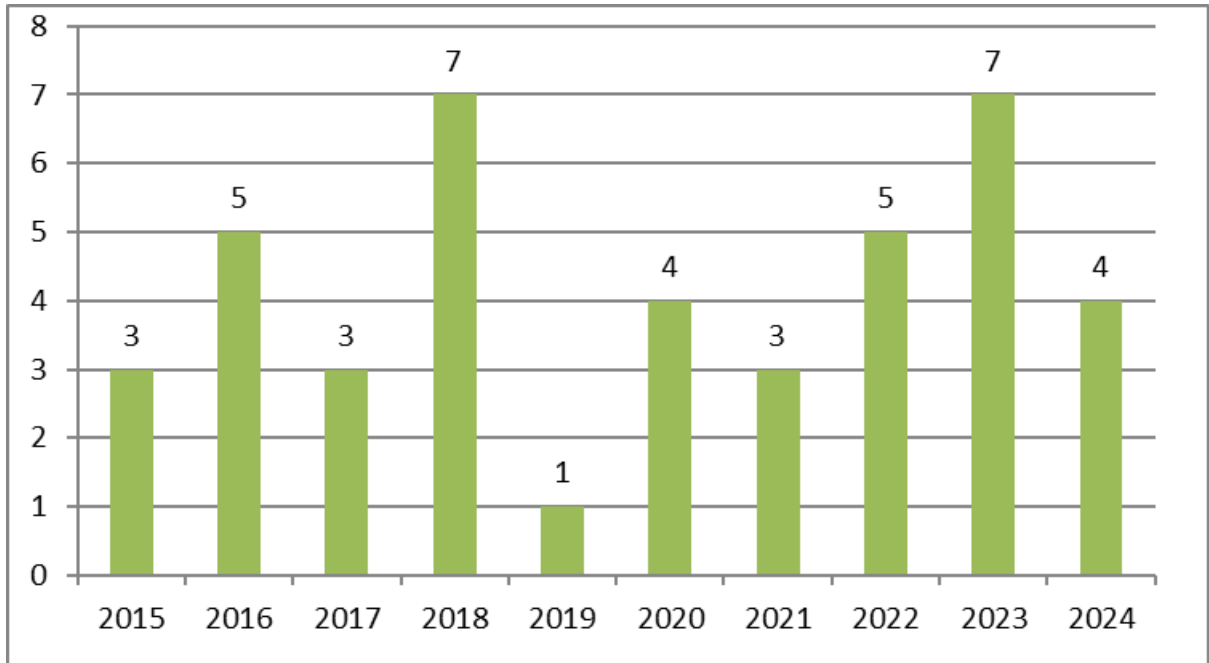
Figure 1 distribution literature based on year rise

Figure 2 shows results search from source journal that we made as literature include IEEE, SPRINGER, JIEM, ELSEVIER, HELIYON, Issues in information systems and journal of university of shanghai for science technology. From source journal show study This obtain source famous journal .
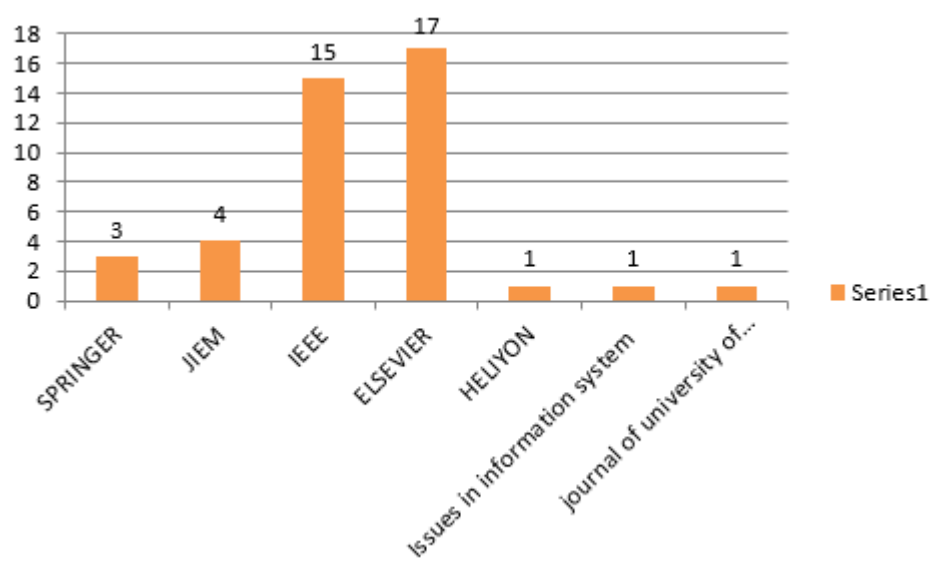

Figure 2 results from source journal

5. Major Findings Based on the Research Questions

5.1. RQ1: Why system information is very much needed For increase quality services today ?

For capable offset give the best service in A agency , yes a number of strong reason Why system information is very important , as mentioned (Legner & Eymann, 2017) . every individual Good he as user , provider nor consumer naturally expect advanced digital services and products , with so will create great opportunity for agency . Not only that , (Rehan, et al., 2023) mentions about importance A agency or the Company owns access to information that can be accessed through device soft To use make it easier the user .

With a designed program like that appearance so that make its users dependency on this system , no Few also compare information systems as system work (Shah & Khanzode , 2018). Based on (Legner & Eymann, 2017) management system architecture is very helpful do calculation and determination point strategic location .

Information system progress even Already combined with the Internet of Things (IoT) (Rehman, et al., 2023) cloud storage (Yan, et al., 2020).

Information system besides only applied For displays information , information systems are also utilized as manager projects and decision making as well For improve management processes in a way comprehensive with accounting and openness management (Sundram, et al., 2018).

5.2. RQ2: How system information provide solutions to existing problems ?

The solutions offered by the system information in various fields are very diverse . For example, in the fashion sector , make it online shop or frequently We know with e-commerce, on its search describe How user adapt self with view system Work from system highly automated information (Shah & Khanzode , 2018), When users look for the desired item , when that's what the system will do displays suitable product desire user .

For problems in the field architecture (Jallow, 2017) information systems provide management information condition electronic as a Solution. (Rehman, et al., 2023) HEMS (Homes Energy Management Systems) used For integrating management systems energy House clever .

(Rehan, et al., 2023) in improve the management industry projects , information systems designed special for BIM , namely the system used For modeling information building .

(Handriani & Mahendrawathi , 2023) BPM is something concept addressed For create mark for organization , incl mark economics , even capable identify the process, discovery , analysis and implementation of the actions to be taken taken . (Sundram, et al., 2018) .

About problem storage is a concern No fit in internal storage , user No never mind worry again , because system information provides a cloud storage system for its users (Yan, et al., 2020).

5.3. RQ3: How much big impact system information on services ?

System information is something system processed and created work only For process information , good That input , transmit , edit , retrieve and distribute information (Shah & Khanzode , 2018), as well as Can use system storage online (cloud) (Handriani & Mahendrawathi , 2023).

Not until there , system information Already Can used in various ways field like field architecture (Jallow, 2017), government (Taghavi & Patel, 2015), house sick (service medical) (Dridi, et al., 2015), banking , even Can applied For digital companies (Azarov, et al., 2018). At the moment development system information is very message and used in everything field .

Not only as a medium of information , when This system information have impact and capability influence decision making in various companies and agencies (Sundram, et al., 2018).

Information system No only impact For user course , but maker or the program Alone caught impact as in (Uspensky & Smirnov, 2019) allows designers to get creative with various programming languages .

6. Artificial Intelligence Roadmap

1. Planning (Planning)

- Goal: Identify need business , organize source power , and determination timetable project .
- Activity :
  - Set objective project
  - Determine room scope project
  - Analysis feasibility (financial , technical , and operational)
  - Putting together a team project
  - Make schedule and budget

2. Analysis Needs (Requirements Analysis)

- Purpose: Collect and analyze need user and system .
- Activity :
  - Stage interviews , surveys , and observations
  - Documenting requirements (business requirements document, functional requirements document)
  - Analyze needs and arrange specification need

3. System Design (System Design)

- Goal: Design architecture and interface system based on needs .
- Activity :
  - Architectural design system (high-level design)
  - Detailed design (low-level design)
  - Database design
  - Interface design
  - prototype If required

4. Development (Development)

- Goal: Building system in accordance with design that has been made .
- Activity :
  - Coding /Programming
  - Development modules and components device soft
  - System integration
  - Management configuration

5. Testing

- Goal: Ensure that system Work in accordance with need and freedom from bugs.
- Activity :

- checking
- Integration testing
- system test
- User acceptance testing (UAT)
- Regression testing

6. Implementation

- Goal: Implement system to environment production .
- Activity :
    - Preparation environment production
    - Installation device soft
    - Data migration
    - Training user
    - Launching system (Go-live)

7. Maintenance (Maintenance)

- Goal: Ensure system still walk with good and doing repair If required .
- Activity :
    - Monitoring system
    - Bug and issue fixes
    - Update system (upgrades)
    - Development feature addition
    - Support user

7. Discussion

In a systematic literature review on research this , we got it conclude a number of application about management and information systems from research previously .

Writer	Year	Title	Type
Christine, et al (Legner & Eymann, 2017)	2017	Digitalization: Opportunities and Challenges for the Business and Information Systems Engineering Community	Information systems

Ashok, et al (Rehan, et al., 2023)	2023	Project manager's leadership behavioral practices e A systematic literature review	Management
Ubaid, et al (Rehman, et al., 2023)	2023	Future of energy management systems in smart cities: A systematic literature review	Manag ement systems
Zhang Yan , et al (Yan, et al., 2020)	2020	University Research Project Management System Based on Cloud Platform	Management systems
Teslia , et al (Teslia , et al., 2016)	2016	Enterprise Information Planning – A New Class Of Systems In Information Technologies Of Higher Educational Institutions Of Ukraine	INFORMATION TECHNOLOGIES
Jallow, et al (Jallow, 2017)	2017	An Enterprise Architecture Framework for Electronic Requirements Information Management	Information Management
Veera, et al (Sudram , et al., 2018)	2018	The effect of supply chain information management and information system infrastructure: The mediating role of supply chain integration towards manufacturing performance in Malaysia	Management and information systems

Table State of the Art

Author	Year	Techniques	Methodology	Pros	Cons

Nageswara, et al (Moparthi & Geethanjali, 2016)	2016	ANN, SVM, NB, RF	An iterative multi-project based cross defect prediction was implemented by using a hybrid ensemble classifier to test the quality of the associated projects	- Hybrid - New ensemble	Interpretation of results needs enhancement
Maheswari, et al (Maheswari & Prasanna, 2016)	2016	Microsoft SDL, TAM (Threat Analysis Modeling)	To introduce an integration of risk management and threat analysis and modeling for applications	Detect or mitigate an attack.	Specific security controls are identified.
Azzahra, et al (Kamila & Sutikno , 2016)	2016	Fishbone diagram	The methodology addresses risk by using fishbone diagram to determine casuality relationship among SDLC	To identify risks and prevent them from being materialized	Not been considered at SPASI

			risks		
Rachna, et al . (Lekh & Pooja, 2015)	2015	CDP	To a software quality and customer satisfaction.	The best combination of sub-practices	Still using Microsoft Excel to calculate function points.
Swe zin, et al (Hlaing & Ochimizu , 2018)	2018	FRAM (Functional Resonance Analysis Method)	To the integrating security engineering process and quantifying risk assessment	To integrate the whole SDLC model	High computational power

| Fahad, et al (Alahmari & Anandhavalli , 2018) | 2018 | DT (Design Thinking) | - For the development of information systems
- Can be combined with existing popular SDLC models for developing information systems | Finding tools for designing and developing their information system prototypes | High training time |

8. Limitations of the Study

In our systematic literature review research we took article from reputable journal good , start from springer, elsevier , JEIM and IEEE. For the article we refer to only language articles English , as for outside articles Language our english is not put here . Whereas limitation For year its publication ourselves , we take it start from 2015-2024 .

After did it analysis from various referenced article , we found that system information has utilized maximum Possible in various field life , start from education , business , government , home sick , company , and still Lots Again . With various facilities provided like storage online (cloud). But beside that is , the capacity provided For every individual Still spelled out limited , even Lots service offer for storage media just .

9. Recommendations for Future Investigations

Based on discussion above , we recommend For study in the future That so more notice needs and requirements from the target or target user system . That's because so many finished systems after publishing, the system A little fans .

Example Our recommendation system for study in the future in the field of education , especially in universities high , of course in every college tall has provide various type system that can make it easier students and relieve work from his employees . The system we mean is A capable system provide solutions for student problems face , a directing system user For Can finish the problem without intermediary employee or party third . Face to face system with users , so When students typing problem or The problem is , the system will give answer from problem the .

We hope a system like This No only developed in the field of education only , however Can widespread to various field other . Especially with combining information systems and the Internet of Things (IoT), of course That it will make it very easy and save money time .

10. Conclusion

Through review systematic literature , research This reveal diverse application management and systems information in various context . From the results analysis to a number articles published in journals famous such as Springer, Elsevier, JEIM, and IEEE among others 2015 to 2024 , found that system information has become an integral part of various aspect life , includes education , business , government , health , and industry . Articles the illustrate role important system information in overcome challenge and exploit opportunity digitalization . Apart from that , research also shows various techniques and methodologies used , such as predictions cross disabled project , integration management risk with modeling threats , and implementation design think For development system information . Although Thus , research this also highlights limitations , such as limitations capacity online storage for individual and low interest to a number of system after published . Therefore that's a recommendation For study coming including focus on needs users and development more system direct overcome problem without intermediaries , esp in context education . Additionally , research more further is also recommended For integrate system information with the Internet of Things (IoT) for use optimizing efficiency and availability information in various field . With Thus , research This give valuable insight about possible developments and directions taken in field management and systems future information .

References

Alahmari , F. & Anandhavalli , 2018. Using Design Thinking in Information System Development: A Survey. *IEEE.*

Azarov, VN, Mayboroda , VP & Lokbin , YL, 2018. Quality Design Approach Integrated System Management for Digital Companies. *IEEE.*

Dridi, A., Tissaoui , A. & Sassi, S., 2015. Systems Management Project Medical (MPM) Semantic Middleware For Representation Record Medical Integrated . *IEEE.*

Handriani , I. & Mahendrawathi , 2023. Investigating Cost and Business Process Management: A Systematic Literature Review (SLR). *Elsevier.*

Hlaing, SZ & Ochimizu , K., 2018. An Integrated Cost-effective Security Requirement Engineering Process in SDLC using FRAM. *IEEE.*

Jallow, 2017. An Enterprise Architecture Framework for Electronic Requirements Information Management. *JEIM.*

Kamila, AR & Sutikno , S., 2016. Analysis of Cause and Effect Relationship Risk using Fishbone Diagram in SDLC SPASI v. 4.0 Business Processes. *IEEE.*

Legner, C. & Eymann, T., 2017. Digitalization opportunities and challenges for the business and information systems engineering community. *Springer.*

Lekh, R. & Pooja, 2015. Exhaustive study of SDLC Phases and their Best Practices to create CDP Model for Process Improvement. *IEEE.*

Maheswari & Prasanna, 2016. Integrating Risk assessment and Threat modeling within SDLC process. *IEEE.*

Moparthi , ANR & Geethanjali, 2016. Design and Implementation of Ensemble Techniques Hybrid Phase Based for Defect Discovery Using Metric SDLC Software . *IEEE.*

Rehan, A., Thorpe, D. & Heravi, A., 2023. Project manager's leadership behavioral practices - A systematic literature review. *Elsevier.*

Rehman, U. u., Faria, PGL & Vale, Z., 2023. Future of energy management systems in smart cities: A systematic literature review. *Elsevier.*

Shah, B. & Khanzode , V., 2018. Designing lean storage allocation policy for non-uniform unit loads in forward-reserve model: An enterprise information management with e-decision support system. *JEIM.*

Sudram , VPKBAS, Munir, ZBA & Zolait , AH, 2018. The effect of supply chain information management and information system infrastructure: The mediating role of supply chain integration towards manufacturing performance in Malaysia. *JEIM.*

Taghavi, M. & Patel, ATH, 2015. Web Base Project Management System for Development of ICT Project Outsourced by Iranian Government. *IEEE.*

Teslia , I., Yehorchenkova , N., Kataieva , Y. & Legorchenkov , O., 2016. Enterprise Information Planning – A New Class Of Systems In Information Technologies Of Higher Educational Institutions Of Ukraine. *JEIM.*

Uspenskiy , MB & Smirnov, SV, 2019. Modeling System Management Project Complex in the Field Technology Information . *IEEE.*

Yan, Z. et al., 2020. University Research Project Management System Based on Cloud Platform. *IEEE.*