

{tag} International Journal of Computer Applications
Foundation of Computer Science (FCS), NY, USA

[Volume 181](#)

-
[Number 28](#)

Year of Publication: 2018

Authors:

Tariq Aziz Rao, Ehsan-ul-Haq, Sadia Tariq, Humera Batool Gill

10.5120/ijca2018918132

{bibtex}2018918132.bib{/bibtex}

Abstract

In the modern era, Global Software Development (GSD) has become a widespread trend in modern as well as in developing countries. Whereas, the failure velocity of GSD projects transpires that the project management in this context is not a straightforward process due to geological, socio-cultural, temporal and organizational problems. Requirement Engineering (RE) is of utmost importance being the first action of SDLC, failure of which is the complete failure of the project. Global Software Development makes the Requirement Engineering more challenging due to cultural and geographical differences. This study explores the worth of project management in the RE process for Global Software Development. A two-phase framework is proposed for requirement engineering and then conducted a web as well as manual analysis and interviews of field experts to find out the validity of this proposed framework. Finally, the collected data is evaluated by utilizing the statistical gadget. Obtained outcomes show the noteworthy impact of the proposed framework in GSD environment. This paper can be helpful for practitioners and researchers for future exploration in the GSD field.

References

1. Jain, R. and Suman, U. 2018. A Project Management Framework for Global Software Development. ACM SIGSOFT Software Engineering Notes, vol. 43, no.1, pp. 1-10.
2. Shafiq, M., Zhang, Q., Akbar, M. A., Khan, A. A., Hussain, S., Amin, F., Khan, A. and Soofi, A. A., May, 2018. Effect of Project Management in Requirements Engineering and Requirement Change Management Processes for Global Software Development, IEEE Access, vol.6, pp. 25747-25763.
3. Niazi, M., Mahmood, S., Alshayeb, M., Qureshi, A. M., Faisal, K. and Cepre N. August, 2016. Towards successful project management in global software development. International Journal of Project Management, vol.34, no.8, pp. 1553-1566.
4. Riaz, M. Q., Rehman, F., Maqbool, B. and Butt, W. H. 2018. Customization of Requirement Engineering Best Practices for Pakistan Software Industry. In IEEE International Conference on Computing, Mathematics and Engineering Technologies - iCoMET, pp. 1553-1567.
5. Javed, B. and Minhas, S. S. 2010. Process support for Requirement Engineering activities in Global Software Development: A literature based evaluation. In IEEE International Conference on Computational Intelligence and Software Engineering.
6. Bormane, Grzibovska, J., Berzisa, S. and Grabis, J. December, 2016. Impact of Requirement Elicitation Processes on Success of Information Systems Development Projects. Information Technology and Management Science, vol.19, pp. 57-64.
7. Curcio, K., Navarro, T., Maluelli, A. and Reinehr, S. 2018. Requirements Engineering: A systematic mapping study in agile software development. The Journal of Systems and Software, vol.139, pp. 32-50.
8. Kumar, S. A. and Kumar, T. A. October, 2011. Study the impact of Requirement Management Characteristics in Global Software Development Projects: A Ontology based approach. International Journal of Software Engineering & Applications (IJSEA), vol.2, no.4, pp. 107-125.
9. Shameem, M., Kumar, C. and Chandra, B. 2017. Challenges of Management in the Operation of Virtual Software Development Teams: A Systematic Literature Review. In IEEE 4th International Conference on Advance Computing and Communication Systems (ICACCS), pp. 1-8.
10. Akbar, M. A., Sang, J., Khan, A. A., Amin, F., Nasrullah, Hussain, S., Sohail, M. K. Xiang, H. and Cai, A. B. March, 2018. Statistical Analysis of the Effect of Heavyweight and Lightweight Methodologies on the Six-Pointed Star Model. IEEE Access, vol. 6, pp. 8066-6079.
11. Vijayasathy, L. R. and Butler, C. W. October, 2016. Choice of Software Development Methodologies – Do Project, Team and Organizational Characteristics Matter. IEEE Software, vol. 33, no. 5.
12. Britto, R., Freitas, V., Mendes, E. and Usman, M. 2014. Efforts Estimation in Global Software Development: A Systematic Literature Review. In IEEE 9th International Conference on Global Software Engineering, pp. 18-21.

Index Terms

Computer Science

Software Engineering

Keywords

Global software development, requirements engineering, requirements engineering process