**Some of the challenges that makes software projects fail.**

The 2004 CHAOS report from The Standish Group which researches the reasons for software project failure in an organisation, indicated that project success rates were only 34 percent, with the rest of projects being either “challenged” in some way or failing outright.

Software projects fail when they do not meet the following criteria for success:

* Project delivered on time.
* Project completed on or under budget.
* The delivered solution works as required by business stakeholders.

A number of factors are involved in any particular project failure. The most often quoted factors are explained below:

Poor project management: According to statistics, a greater percentage of project failure relies on the project management. A good project manager can steer a project towards success by planning properly, selecting the right technologies, advocating accurate time and budget estimates, handling the scope creep, managing all communications and assigning the right people to the job.

Project managers should have the skills to balance several aspects of a project and don’t get trapped in technicalities alone. Without these skills within the manager, the project is doomed to fail.

Unrealistic or unarticulated goals: Often, project managers develop overly optimistic schedules to meet random deadlines. An overly optimistic schedule is followed by immense pressure on the team and is loathed by the team members. The team members might put in extra efforts to complete their deliverables on time, but a delay in any single deliverable badly affects the others. Hence, such a schedule propels the project towards project monitoring and controlling challenges.

Software that fails to meet the real business needs: There should be a clear link between the project and the organizations key strategic practices. The project plan needs also to cover the planned delivery, the business change required and the means of benefits realization otherwise the project will be automatically a failure.

Badly defined system requirements, user requirements and requirements specification: Not going through a complete planning exercise and not understanding exactly what the user’s needs will lead to disappointment because the outcome will not meet his expectations and this will affect both the project process and business goals.

Inaccurate estimates of needed resources: Many projects have a lowest price most successful candidate policy, or an unrealistically low budget, not based on the actual requirements. When this happens, everything slows down. Resources are slow to arrive, or never arrive; corners get cut and quality suffers.

Poor communication among customers, developers and users: Poor communication is yet another common reason of failure for software projects. This problem can also be linked to the lack of project management. Effective and efficient communication with stakeholders, management and the project team is vital for success of a project. It is the responsibility of the project manager to communicate the updated approved requirements and decisions to the team members.

A project manager can handle all those required communications, but intra-team communication remains a challenge. Common communication mistakes in the software projects occur when some team member is not kept in the communication loop. It might happen that you are close to deadline and senior team members communicate more often. When a team member does not feel as an important part of team, he might lose motivation which eventually affects his performance thereby increasing the chances of or causing project to fail.

Inability to handle project complexity: As the project progress so does the complexity of the project, If the project management and team members failed to cope with the complexity will result in the failure of the project.

Personality conflicts: The potential for conflict in software projects is usually high because it involves individuals from different backgrounds and orientations working together to complete a complex task. The cause of conflict in team projects can be related to differences in values, attitudes, needs, expectations, perceptions, resources, and personalities. These conflicts if not handled will cause the failure of the project

**Stakeholders and their Interest in the GZU mobile app development project.**

A “stakeholder” is any person or organization that is actively involved in a project, or whose interests may be affected positively or negatively by execution of a project. When starting a software project, it is important to identify all the stakeholders, their areas of convergence and areas of difference between them and to manage individuals whose expectations are unlikely to be met because they may not all have the same objectives.

In the stated project of developing a Great Zimbabwe University mobile application which will be equivalent to the e-learning platform, there are three categories of stakeholders who are, Internal to the organisation and Internal to the project team (Internal), Internal to the organisation and External to the project team (In between) and External to the organisation (External).

**Internal:**

Project manager: The project manager is the person who is responsible for ensuring that the project team completes the project. The project manager develops the project plan with the team and monitors the team’s performance of project activities. It is also the responsibility of the project manager to secure acceptance and approval of deliverables from the project sponsor and stakeholders.

UI/UX Designer: User Interface and User Experience is the main concern on mobile application development, UI/UX designers design the system and the relationship between components. Their main interest is to come up with a product that will flow seamlessly.

Developer/Programmer: They take the design from the UI designer and implement it using code, they construct and deploy the system from specifications and requirements. Their interest is to develop a system with all the required functionality, in this case, all functionality found on GZU e-learning platform.

Project Analyst:

Tester: Refers to an individual or group of people who are responsible for testing the system to ensure that it is suitable for use, if it’s a group it usually consist of: Test Manager whose role is to define the direction of the project and to manage the testing cases. Tester whose role is to build up test cases, generate test suites and execute tests, log results and report back defects. Developer in testing who creates program to test code created by project developers if there is any need.

Maintainers: This type of stakeholder manages the evolution of the system once it is operational.

**In Between:**

Administration: These stakeholders approve important decision needed in the project, supply the hardware, software, or infrastructure on which the system will run and all the finances needed for the project to be completed. Their interest is to make sure that the developed system completed within budget, college vision, strategy and mission and with required functionality.

Library Personnel: Uploading of resources and managing of the system will be done by the librarians. If the system will be able to save the time of arranging the books, giving out and managing will be more useful to this type of stakeholder. However, if they are not happy then it is unlikely that the project will get the benefits.

Lecturer: These influence the usage of the system by referring students to use the system, so if it doesn’t have the

Students: These are the main stakeholders from which the functional requirements of the project collected, therefore they heavily influence the stated project objectives. They define the system’s functionality and ultimately make use of it.

**External:**

Government: Decisions and actions taken on state universities should be regulated and approved by the government and approved and sometimes government sponsor other resources needed so it qualifies as the stakeholder on the e-learning mobile application.

Society/Local community: Guardians and parents are also stakeholders to this project and they are interested in knowing if the application is ethical, improves the quality of learning and if it reduces the cost like that of travelling to the library, repaying the costs of lost or damaged hard copy books etc.

Other Tertiary Institutions: Competitors and all those within the same industry are part of the stakeholders since they influence the market, on this project other universities are part of the stakeholders and their interest is to be ahead in technology so that they can get more students.