**Software Process Modeling**

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Imagine how agile process methodologies can better address current challenges for software development. I will describe exactly that and what the limitations of a traditional methodology. Since I have no experience in this it should be an interesting topic to explore. Learning these process can help me with future projects such as the final paper for this class.

Evidently there is process’s that can address current challenges for software development. According to Tsui & Berbal (2018), have provided some advantages to adopting agile processes. There is the instance of *low process complexity*, the process is made easy to understand and implement. *Low cost and overhead*, it authorizes few activities that does not affect software production. *Efficient handling of changes*, used for when if requirements will change, the methodology is prepared for these changes. *Fast results*, made for continuous integrations, produces quick progress. *Usable systems*, the process needs to make the customers specs and what they want. Additionally, by Keita (2022), the main challenges faced during implementation were problems with communication and the changing of day-to-day ops. Trying to gain the support of management and team members. Struggling to get customers to provide critical feedback with each iteration. Fighting to get a change in culture and current mindset and learning from past experiences. But once agile method is agreed upon, it can give an organization a boost and get ahead of its competitors. There are also a few disadvantages as described by GeeksForGeeks (2020), there is less documentation with the agile methodology. Sometimes the requirement is not clear at all, and the predicted result is tricky. It is difficult to estimate the effort needed at the beginning of a SDLC. And for complex projects, it is hard to estimate resource and effort requirements. It seems to me that there are more pros to using an agile method hence the name for it.

Whereas the limitations of using a traditional methodology can affect an organization by these factors. According to Wadic (2022), it can be a slow development process. That’s if the client is not clear about there requirements. The customer doesn’t have a focal point. This is saying there is not much room for the customer’s opinion in every development phase. Time management must be considered. Also, the absences of a central authority. To many bosses not a lot of workers. Other factors to consider are lack of insight, a lack of expertise, and to make everyone agree on the change.

Lastly, I described how different agile process methodologies can better suite current challenges for software development. They included ways to make development more streamlined. And finally, explained the limitations of a traditional methodology and how it can negatively impact an organization if not used right.

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