The successful outcome of software development projects is a crucial issue for the economy at large. Yet, a majority of the software development projects carried out today fail when it comes to finishing on time, within budget and with requirements intact. The often cited reasons contributing to failure include inappropriate methodology, complex development processes, ineffective project management, project managers’ incompetence, ineffective communication, uncoordinated stakeholders and the lack of automated tools. Due to these challenges and limitations, organizations are looking into agile software development which offers the advantage of having simple processes, involving active customers and project teams. Subsequently, past researchers attempted to define the determinant factors for agile success but there is still much ambiguity about these factors and how they can be determined. This study extends and builds on past research by focusing on one of the core factors, that is, cost management. Managing the cost of software development projects is a global phenomenon most frequently debated by software development communities since many projects suffer from budget overruns. Therefore, this study aims to develop a model for cost management in agile software development projects.
web application systems. Therefore, this study embarks on three objectives which are, to investigate CBSD and its influence based on dependability attributes, to design a model for developing a dependable system that mitigates the vulnerabilities in software components and to evaluate the proposed model. The model proposed in this study is referred as developing dependable component-based software (2DCBS). A systematic literature review was carried out to investigate related existing studies on CBSD and software security. For the 2DCBS model development, framing the CBSD architectural phases and processes, as well as embedding the six dependability attributes, was performed using the best practise method. Meanwhile, the expert opinion method was applied to evaluate the 2DCBS framing. In addition, an empirical study method was utilized to apply the 2DCBS model to the development of an information communication technology (ICT) portal. Vulnerability assessment tools (VATs) was employed in order to verify the dependability attributes of the developed ICT portal, whereas, semi-markov process (SMP) was considered as well to validate the dependable behaviour of the developed ICT portal. Results show that the 2DCBS model can be adopted to develop web application systems and mitigate the vulnerabilities in the developed systems. The results also show that the SMP can model the dependable behaviour of the developed system. This study contributes to CBSD, which allows the specification and evaluation of the dependability attributes throughout the model development. Furthermore, the reliability of the dependable model can increase the confidence of using CBSD in industries.

development projects to assist project managers in managing project costs with greater efficiency. This study began with the examination of cost management practices in agile software development projects. Next, determinants that contributed to the success of cost management in agile software development projects were assembled and analysed. To achieve the third objective, the competency of project managers in managing cost in agile software development was further analysed. Following this, the issues and challenges faced by these project managers in Agile cost management in agile software were also diagnosed and ascertained. Both quantitative and qualitative methods were used for data gathering. The survey results revealed that cost management in agile software development projects is commonly practiced. However, the level of practices differed in accordance to project managers’ experience with agile methods. Cost was also not managed effectively due to the continued use of manual processes. The interview results revealed that there are two main issues in managing cost of agile software development project which are the managers’ or personnel’s lack of knowledge on agile and the unavailability of computerized tools to help the project managers in managing costs. The findings of both methods are used as the basis for the development of a new cost management model that proposes simple steps in managing costs. A tool prototype was developed to verify the validity of the model. The tool was then validated through Software Measurement Usability Inventory (SUMI). Notably, results from the validation show that the model and tool enable managers to execute project costing in a more effective and efficient manner.

high-density lipoprotein (HDL) showed a significant increase (p<0.05) compared to the control group (G2). The study also showed a significant reduction in lipid peroxidation index indicated by a low TBARs-MDA level (p<0.05) in the groups treated with AV and AND compared to the control group (G2). The histopathology analysis of rabbits’ aorta presented with thick foam cell formation in the control group (G2). However, there were fewer foam cell formations in the group treated with AV and AND. The kidney and liver analyses showed a lesser infiltration of inflammatory cells in the groups treated with AV and AND. On the other hand, AND improved the enzymatic activity of (SOD, CAT, GPx and GSH) in the groups treated with AV and AND compared to the control group (G2) due to its potent antioxidant activity. Further, AND reduced TNFα, IL-1β, IL-6 and CRP levels in treated groups compared to the control group (G2). Pg 16S ribosomal DNA was used to detect Pg DNA in the rabbits’ aorta and the results showed that Pg DNA amplification was higher in the control group (G2), while mild DNA amplification was seen in the groups treated with AV and AND. Protein expression (α-SMA) of the aortas of the groups treated with AV and AND showed mild expression of α-SMA protein compared to the control group (G2). This was supported by immunohistochemical examination of α-SMA protein. In conclusion, the feeding of 10 or 20 mg/kg of AND was able to inhibit and reduce the progression of atherosclerotic plaque development induced by Pg. That could be due to two main mechanisms: first, the anti-inflammatory mechanism involved in the reduction of inflammatory cytokines: and second, the potent antioxidant properties of AND.