CHAPTER V

CONCLUSION AND SUGGESTIONS

Conclusion

The initial purpose of this research is to create an ontology framework as a guidance developing a satisfactory BIM model for construction cost management. This is because a alone BIM model wouldn't be enough to provide information requirements for ruction cost management.

In the ontology development phase, the main purpose of ontology framework is mined. Later, the required informations could be determined according to the NRM ards. This framework covers how a building component is broken down into its composing items and how it should be quantified. The ontology framework is used as an approach to lop and analyze BIM model for cost management purpose. Moving to the development and rsis phase of BIM model, a case study of actual project is carried out to simulate the lopment process of BIM model according to the ontology framework. According to the ogy framework, a BIM model that able to satisfy every information required for cost agement is developed. Finally, a complete and structured data for construction cost agement purpose could be retrieved from the BIM model.

This research has a big chance to be developed further for BIM based project delivery. A prehensive approach upon developing BIM model and managing the informations retrieved definitely help engineers to fully utilized BIM model as a baseline for project cost agement. Subjectivity and ambiguity upon assessing a project could be reduced when a solid ine for BIM based cost management is established.

Suggestions

Due to the time and manpower limitation, the author could only carry this research up to oncrete frame superstructure of the building. So far, the BIM model has been able to provide factory information required for this building section however a further research analyzing roader scope of the building should be validated in the future.

Future Research

This research is a preliminary research for master thesis research. A further development arding to the ontology framework created in Protégé software and BIM model in Autodesk vit could be expanded further.

As the current research analysis is done in manual method, an automation to directly ieve the information data from BIM model is expected to be done. The ontology framework Protégé is created under "OWL" format in a Semantic Web Language (SWRL), this format vides the capability of cross platform integration between softwares to create an automated ormation retrieval in this particular field.

In the future, a more comprehensive method to automate information retrieval from BIM del and directly integrate it into the ontology framework could be done. A programming dule specifically developed to analyze BIM model called Dynamo can be used to avoid the esome effort upon managing the amount of informations retrieved. Semantic Web Language VRL) are able to be integrated directly with BIM model through Dynamo with some Python gramming language improvisation. All of this integration in the future will be able to create nteractive method in utilizing BIM model as construction cost management baseline.

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Informations Retrieved From BIM Model According to Ontology Framework

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