

THE LEVEL OF BIM INFORMATION MODELLING (BIM) IMPLEMENTATION IN MALAYSIA

The aim of this article is to draw attention of the level of BIM implementation and its issues, in Malaysia which is a country in Southeast Asia. The article shows the level of BIM implementation in the international world and evaluated the level of BIM in the Malaysian construction industry. As a tools to support this study are used charts, the bulk of which are from McGraw Hill Construction 2014 reports on BIM that evaluate BIM implementation in the international context and identify variables for evaluating BIM level based on BIM usage and frequency of using BIM.

Construction industry in Malaysia plays an important role to the Malaysian economy, contributing approximately 3 to 5 percent of the Gross Domestic Product (GDP) annually.

We will analyse some charts that allows us to evaluate the level of implementation of BIM in Malaysia.

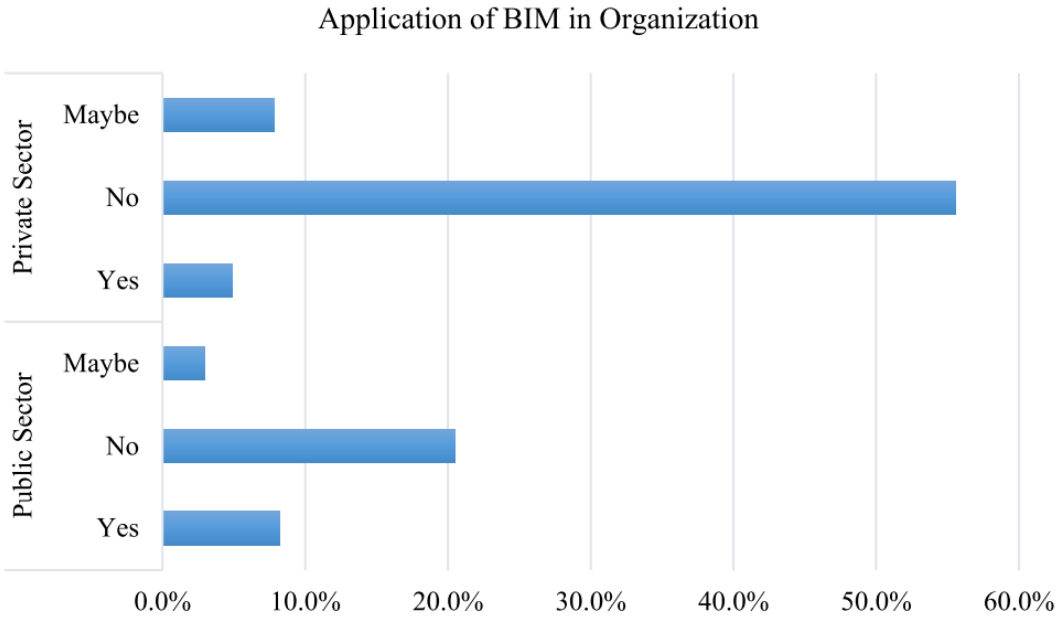


Fig. 4. Number of Participants Representing Organizations Using BIM in Malaysia.

The bar chart above shows the number of organizations which have adopted Bim Information Modelling (BIM) in their construction projects in Malaysia by 2020. As can be seen, the Private Sector has six out of ten people who have not adopted BIM in their organizations, but the Public Sector is far below this implementation rate having two out of ten people using BIM. Perhaps more remarkably, there are a tiny percentage of organizations using BIM technology as only 8,2% from the Public Sector and only 4,8% from the Private Sector are BIM users, which is unsurprising given that previous reports have also shown that the level of BIM adoption and implementation is very low in Malaysia due to various reasons, such as poor knowledge, cost, lack of awareness and difficulties to shift from traditional practices.

Period of BIM Implementation to Comapny Establishment

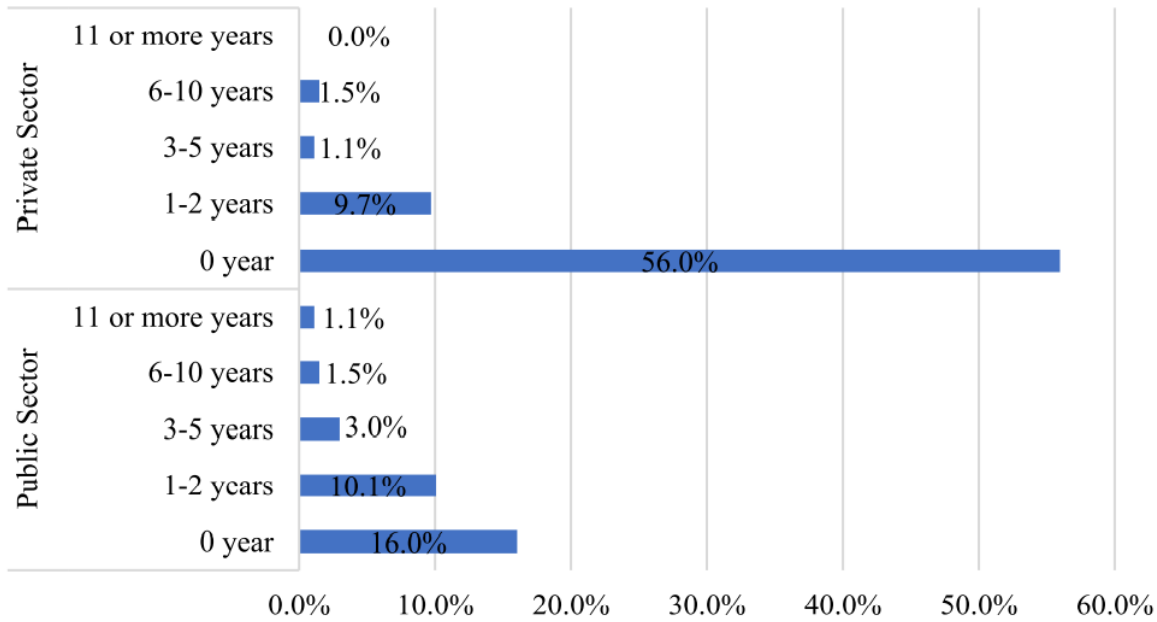


Fig. 5. Period of BIM Implementation to Company Establishment.

This bar chart above, by McGraw Hill Construction, illustrates the period of using BIM by different time lengths from 1–2 year, 3–5 years, 6–10 years, to more than 11 years. 0 years for non-BIM users' companies. As can be seen,

the 0-year time length has the highest period of BIM implementation in both private and public sector.

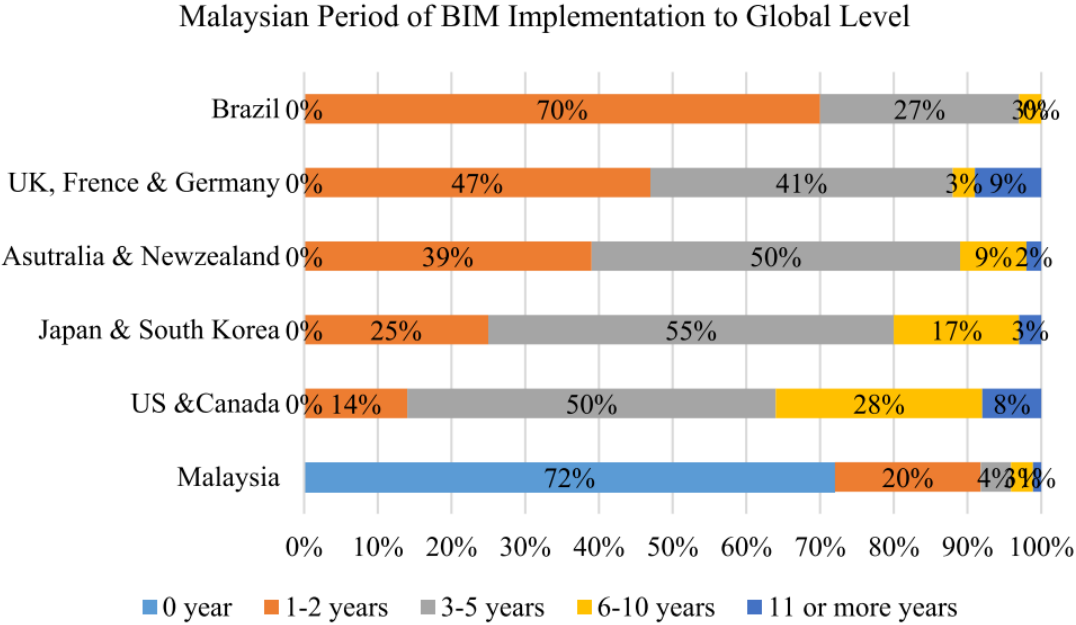


Fig. 6. Period of Malaysian BIM Implementation Compared to Global Level of BIM Implementation.

This bar chart above, by McGraw Hill Construction, shows the period of Malaysian BIM implementation compared to global level of BIM implementation in different countries around the world. As we can see, Brazil has the highest number of companies that have a time's period of BIM implementation between one and two years, reflecting that BIM has a high level of impact in this country being a reality the transition towards BIM technology, although they are not companies with period of BIM use of 11 or more years. On the other hand, as although all the chart's countries have started the BIM use, Malaysia has the poorest level of implementation as a significant majority of Malaysian companies has no started the implementation of BIM, which is unsurprising given the bar chart number 5. Perhaps more remarkably, Japan and South Korea as well as Australia, US and Canada have more than a half of companies which a period of BIM implementation between three and five years. It is also interesting to note that

UK, France and Germany have the highest level of companies that are using BIM more than eleven years, reflecting the maturity of BIM implementation in these countries.

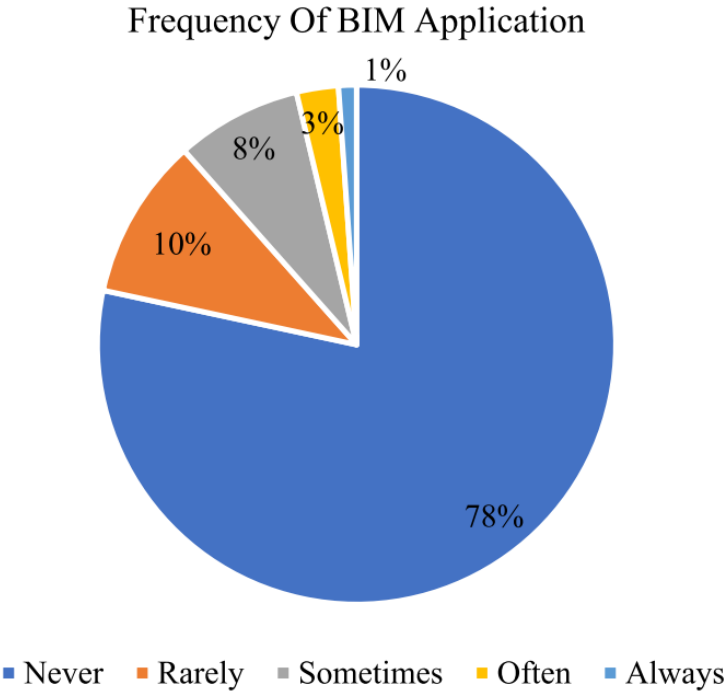


Fig. 7. Frequency of Time Professionals Interfere With the BIM.

This pie chart above shows the frequency of time that professionals interfere with BIM in Malaysia. As can be seen, the vast majority of the Malaysian professionals never had used BIM technology, which is unsurprising given the fact that as we have seen in previous charts BIM is not implanted in Malaysia. Perhaps more remarkably, there are a tiny percentage of construction people who had always used BIM, being a use rate of the 1%. Moreover, a fifth of the professionals have worked with BIM rarely, sometimes or often. All this rates give a drawback indicator of the level of implementation of BIM technology in Malaysian construction industry. To overcome the implementation challenge, BIM should to be used in the work of the Malaysian construction companies to understand how, when and where use this technology. Perhaps BIM project is not used because not reduce cost,

time and the productivity is still low as they are working in modelling but not in the management and collaboration platform.

In conclusion, the most significant finding of this study is that BIM implementation in Malaysia, in both private and public construction sectors are still in a very low level. Indeed, the construction players have difficulties to understand how BIM could be executed in their projects. Because of that, it is suggested that a case study, which shows the whole process and its usefulness to improve work environment, should to be share with the Malaysian construction players to build confidence for adoption.

The charts of the article have been obtained from: Ain Shams Engineering Journal. The level of Building Information Modelling (BIM) Implementation in Malaysia. Idris Othman, Yasser Yahya Al-Ashmori, Yani Rahmawati, Y.H. Mugahed Amran, Mohammed Ali Mohammed Al-Bared.



@Yolanda Muriel [Attribution-NonCommercial-NoDerivs 3.0 Unported \(CC BY-NC-ND 3.0\)](https://creativecommons.org/licenses/by-nc-nd/3.0/)