Managing the risks and uncertainties of businesses that operate in a volatile and complex market environment has attracted considerable attention among market participants. Such concerns are particularly related to how businesses deal with the occurrence of increased risks in their business operations. However, the concept of corporate risk reporting has never been the main focus of the Malaysian Code of Corporate Governance (MCCG) when the Code was first introduced in 2000. Even though, there were several efforts of economic crisis in 2007 on to the public listed companies (PLC), risk reporting remains a voluntary exercise. One of the prominent characteristics of Malaysian PLCs relates to the highly concentrated ownership structure where companies are mostly owned either by family members and the government. It is expected that these PLCs may face some forms of governance conflicts from the perspectives of agency and signalling theories. Thus, this study aims to review and examine risk reporting while there is also a tendency of “agency-signalling” conflict when reporting the risk and how it would influence the firm value creation. Specifically, this study adopts a quantitative investigation to capture the voluntary risk information in the annual reports of 233 PLCs, where the final sample involved a total of 656 firm-year observations over a four-year period. This study finds that the most fitting theory that could explain the variation in the choice of voluntary disclosure would be the Agency Theory. The voluntary risk disclosure indicates improvement during the post-financial crisis period (i.e. 2008-2009) due to the efforts of the regulators in promoting corporate transparency and governance. The study also finds that outsider ownership (i.e. government and foreign), board independence (i.e. INED) and board competency (i.e. leaders’ commitment and support) indicate significant influences on management decisions pertaining to voluntary risk disclosure. This study confirms that insider ownership (i.e. family and management) has an insignificant influence on the voluntary risk disclosure, which indicates they are not willing to change for the betterment of the firms in achieving the highest level of transparent corporate reporting. However, their resistance to insider ownership could be weakened when there is an influential dominant decision by the CEO or top management in the firms. In addition, voluntary risk disclosure, specifically the information regarding the Operations Risk and Integrity Risk, has been shown to influence the creation of firm valuation. With further mediation tests, the study also corroborates that the voluntary risk disclosure can be used to persuade firms to engage in decisions to maximise the value of shareholders, which becomes a signal for better value creation through the eyes of other stakeholders. Overall, the results affirm that comprehensive as well as quality of voluntary risk disclosure is useful as a medium to support corporate transparency and enhance firm valuation. This study makes a contribution to the extant literature by incorporating the theory of signalling into the model to provide new insights whether it could exert pressure on management decisions despite the effective exertion of governance mechanisms among Malaysian PLCs. Finally, it is hoped that the findings of this study provide valuable insights to regulators, practitioners, investors as well as other stakeholders for the betterment of corporate transparency initiatives. The results are also expected to address concerns regarding new aspects of firm valuation assessment that could offer a competitive valuation on business decisions.