CIO AND FUNCTIONAL REPRESENTATION ON THE TMT: A MARKET BASKET ANALYSIS

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ABSTRACT

Chief Information Officer (CIO) plays a critical role in a company's overall IT strategy formulation and execution. At the same time, it is also widely recognized that a company's IT strategy is not set by the CIO alone. The CEO and other functional representatives on the Top Management Team (TMT) are important partners of the CIO in setting strategic IT directions for the company. The views and attitudes of TMT members about IT can be equally significant in shaping up the IT investment and asset deployment decisions. Research has shown that the effectiveness of a company's IT strategy is dependent upon the alignment, mutual understanding, and communication between the CIO and other TMT members.

However, most IS research have focused on the relationship between CIO and CEO. Only a few studies have examined how CIO can influence other TMT members. The upper echelons theory suggests that a company's strategic decisions are influenced by the cognitions, values, and perceptions of all TMT members. The power dependence theory suggests that the presence of functional executives on the TMT reflect the power and importance of that function in the company. In order to gain support and commitment from TMT members, CIOs need to tailor their efforts of influence to individual TMT members as TMT members represent different functional areas and have different experiences, personalities, and interests. To that end, it is important to understand who CIOs are working with on the TMT and why the CIOs are teamed up with these members.

The purpose of this study is to empirically examine what functional executives are more likely to be present with the CIO on the TMT. We employ the market basket analysis methodology to discover the associations and co-occurrence of CIO and other functional executives on the TMT. Market basket analysis is a data mining technique often used to uncover customer purchasing patterns in retail stores as well as various data patterns in other domains. Using a panel data of close to 3000 companies over 18 year period, we identify all TMTs with CIOs and extract useful association rules from the data set about what functional executives are most likely to appear on a TMT. The association rules are then applied to identify relevant firm and industry characteristics. The results of the study can help us understand who the most important partners for CIO are.