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The Adoption of *Twitter* for Financial Reporting – The Company Size and Industry Sector Effect

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ABSTRACT

This study uses the adoption of *Twitter* for financial reporting as an example to investigate how company size and industry sector may affect companies' adoption of new innovation. The sample comprises 880 financial reporting related tweets from 82 Australian Securities Exchange (ASX) companies' *Twitter* accounts. The results show that financial reporting on *Twitter* is gaining momentum in Australia and ASX companies with larger market capital sizes are more likely to adopt *Twitter* for financial reporting. While Information System and Telecommunication Services companies are early adopters of *Twitter* for financial reporting, they disclose fewer types of financial reporting information on *Twitter* than early adopters from other industry sectors. This shows that the access to resources may be more important than knowledge of innovation, for companies that want to fully adopt new technology.

Keywords: Technology adoption, *Twitter*, corporate disclosure.

SUMMARY OF RESEARCH

Technology adoption is an essential topic in modern business practice. With the influence of internet and other information technology, an efficient application of new technology, including internet and social media, is key to managing business communication. Financial reporting is an important aspect of today's business activity, as financial reporting notifies current and potential investors about the companies' financial performance [4]. Recent empirical studies [2, 12] have shown that corporate disclosure on *Twitter* is significantly related to the reduction of information asymmetry in the stock market. At the same time, there is anecdotal evidence that stock markets respond to corporate rumours [3, 10] and leakage of information [5] on *Twitter*, with unexpected stock price movement. These challenges of using *Twitter* for financial reporting have raised concerns from regulators [1, 11] and industry professionals [6, 8]. This study investigates the adoption of *Twitter* for financial reporting by ASX companies to contribute further understanding of how companies' market capital sizes (a proxy for companies' size) and industry sector may affect companies' adoption of new technology.

This study applies the technology adoption argument from Rogers [9] diffusion of innovation theory. In his diffusion of innovation theory, Rogers [9] argues that access to resources and knowledge of innovation are key factors that affect companies' adoption of a new technology. In this study, the 'new technology' is represented by the sample companies' adoption of *Twitter* for financial reporting. Prior literature [2,7] is consistent with Rogers [9] diffusion of innovation theory. For example, Blankespoor, Miller & White [2] argue that IT firms tend to be early adopters of technology, which is in line with Rogers [9] discussion that the knowledge of innovation is one key factor that affects companies' adoption of a new technology. In the study of financial reporting by ASX companies by Prokofieva [7], nearly half of the sampled ASX announcement events are from Mining companies. Despite the lower recording of companies' adoption for financial reporting from different industry sectors [7], it is reasonable to argue that Mining companies may be the early adopters of *Twitter* for financial reporting, since they disclose relatively large amounts of financial reporting tweets. A brief observation of the ASX companies' market capital sizes shows that Mining companies have comparably large market capital size. This finding from Prokofieva [7] and observation of ASX companies' market capital sizes are in line with Rogers [9] diffusion of innovation theory, who argues that the access to resource is one key factor that affects companies' adoption of a new technology.

Based on the above discussion, this study develops the following hypotheses:

H1: There is a positive association between ASX companies' market capital sizes and the adoption of *Twitter* for financial reporting.

H2: ASX companies from certain industry sectors that are close to technology are more likely to adopt *Twitter* for financial reporting.

Targeting ASX top companies as the initial sample, this study identifies 191 corporate *Twitter* accounts and collects 64,933 tweets that are disclosed prior to 30th November 2013. Through filtering and thematic analysis, 880 financial reporting tweets from 82 corporate *Twitter* accounts are confirmed for further investigation. An articulation of the posting times from the first financial reporting tweets in these 82 sampling *Twitter* accounts shows that the adoption of *Twitter* for financial reporting has been increasing (see Figure 1). This indicates that the use of *Twitter* for financial reporting is gaining momentum in Australia.

Regression analyses on the listed companies' market capital size present that listed companies with larger market capital sizes are more likely to adopt *Twitter* for financial reporting, regardless of whether these listed companies have already adopted *Twitter* for other business information disclosure. Further, ASX companies from various industry sectors present different *Twitter* adoption patterns for financial reporting. For example, while Information System and Telecommunication Services companies are more likely to adopt *Twitter* for financial reporting, Health Care and Consumer companies are less likely to do

so even they have already adopted *Twitter* for other business uses. From the aspect of financial reporting content on *Twitter*, a large proportion of the financial reporting information is related to 'Earnings', 'Income/Expenditure' and 'Issue New Capital'.

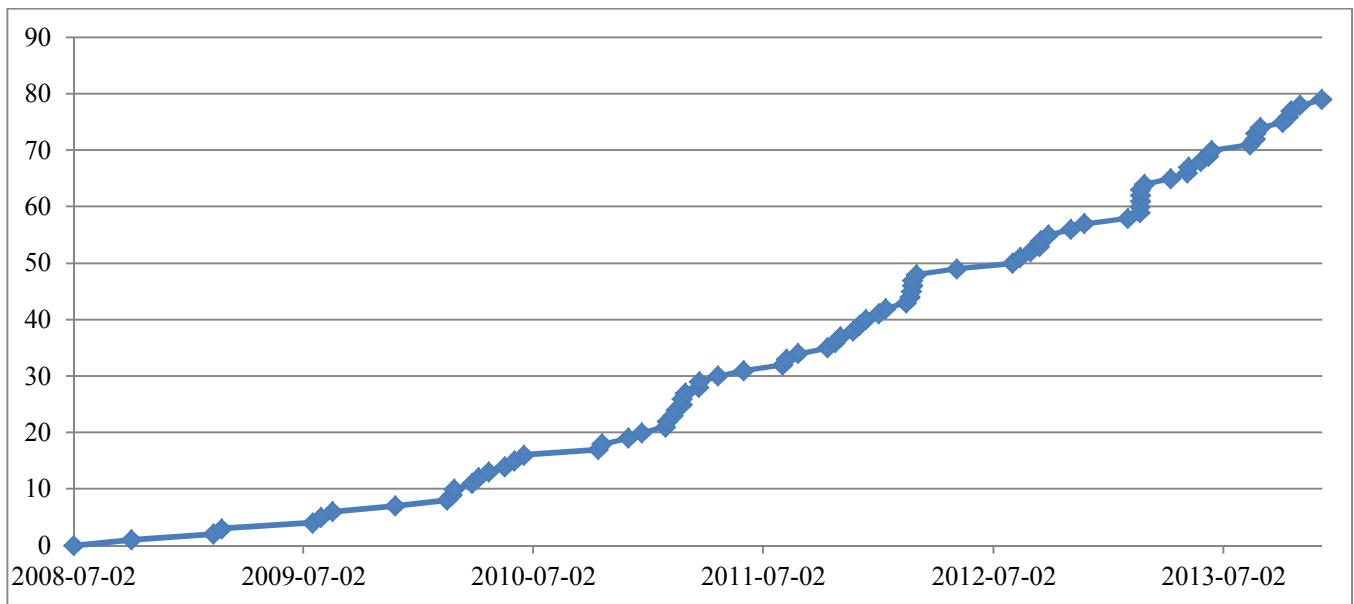


Figure 1: The Development of Financial Reporting *Twitter* Accounts over Time

This study concludes with a comparison between *Twitter* adoption for financial reporting and the contents of financial reporting information. Figure 2 shows the coverage of financial keywords by each individual industry sector. For example, companies from the Materials industry sector discuss 21 out of 23 financial keywords at least once in their tweets. At the same time, nearly 30% of Materials sector companies discuss at least one financial keyword. The results of *Twitter* adoption for financial reporting are incorporated in Figure 4. As illustrated in Figure 4, ASX companies that belong to the industry sectors that have high adoption rates of *Twitter* for financial reporting, such as Materials and Energy, cover more financial keywords and have higher percentages of companies that discuss at least one of the financial keywords. This indicates that as companies in these industry sectors are more likely to adopt *Twitter* for financial reporting, they also tend to disclose more types of financial reporting information. In contrast, Information Technology and Telecommunication Services companies show different patterns of *Twitter* adoption for financial reporting and the contents of financial reporting information. Although the adoption rates of *Twitter* for financial reporting are relatively high for companies in these two industry sectors, and the results of previous binary regression analyses show that companies in these two industry sectors are more likely to adopt *Twitter* for financial reporting, the numbers of financial keywords that are covered by companies in these two industry sectors are not so large as other industry sectors. This indicates that while Information Technology and Telecommunication Services companies have high adoption rates of *Twitter* for financial reporting, they tend to only disclose certain types of financial information. This finding presents that the access of resources may be more important than the knowledge of innovation, if a company want to fully adopt a new innovation. It also provides a potential explanation for why Information Technology and Telecommunication Services companies disclose fewer type of financial reporting information, even though they are more likely adopt *Twitter* for financial reporting.

The results and discussions of this study provide several contributions to the current literature and the business world. First, this study outlines the current use status of *Twitter* as a financial reporting channel, which has been developing continuously. Second, this study presents that ASX companies with larger market capital sizes and from industry sectors that are close to technology, such as Information Technology and Telecommunication Services, are more likely to adopt *Twitter* for financial reporting. These findings are consistent with Rogers diffusion of innovation theory [9], who argues that access to resources and knowledge of innovation are key factors that affect companies' adoption of new innovation. Third, this study explores the content of financial reporting on *Twitter*, and reveals that the access to resources may be more important than the knowledge of innovation, if a company wants to fully adopt a new innovation. This finding provides new evidence to Rogers diffusion of innovation [9], in the discussion of how access to resources and knowledge of innovation may play different roles in affecting companies' adoption of new innovation.

As recent studies suggest the increasing use of *Twitter* by ASX companies during corporate announcement periods could reduce the level of information asymmetry in the stock market [2, 7], an understanding of the development of *Twitter* for financial reporting and its current status is warranted. Therefore, this study contributes to the current literature of financial reporting on *Twitter* in the Australian context. The results confirm that the use of *Twitter* for financial reporting has been increasing, which indicates the importance of research in this area and calls for further studies.

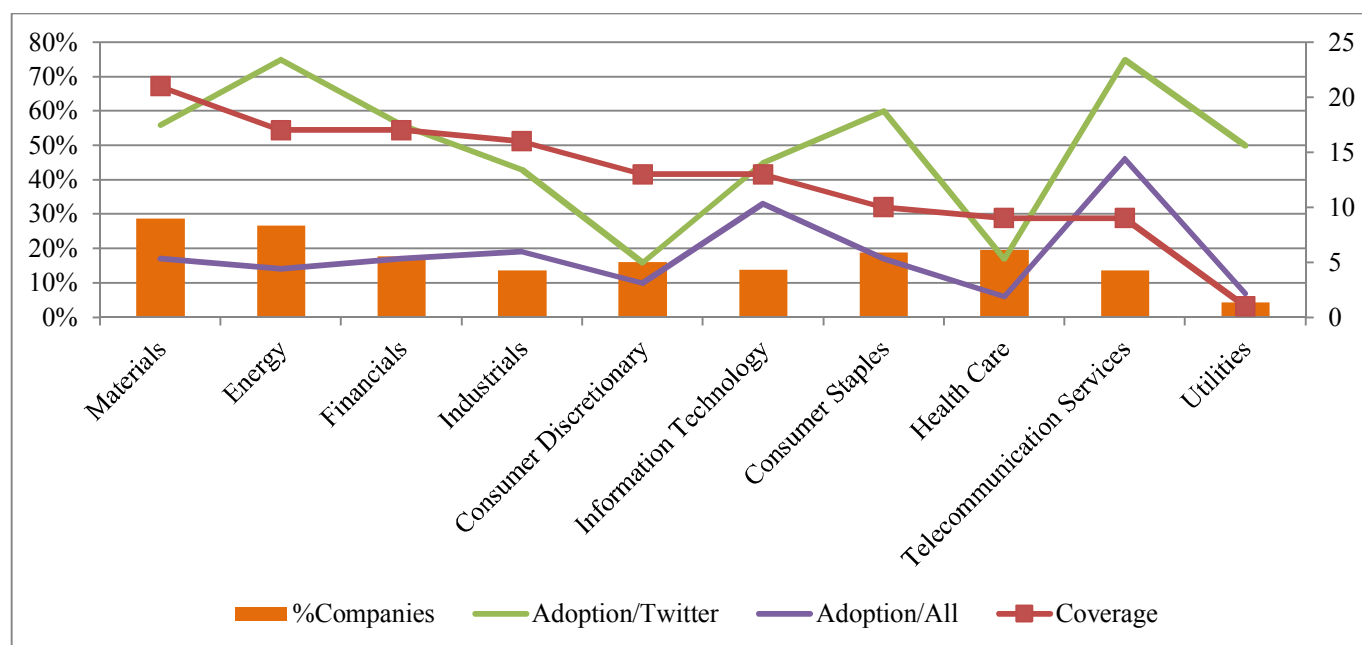


Figure 2: Comparison of Financial Keywords Appearance and Twitter Adoption across Industry Sectors

This study investigates companies' adoption behaviours of *Twitter* for financial reporting. Although *Twitter* is widely recognised as a low cost and high speed communication channel, the results of this study show that the adoption of *Twitter* for financial reporting is more popular for listed companies with larger market capital sizes and the ones from certain industry sectors. However, previous studies [2, 7] recognise that listed companies with relatively smaller market capital sizes could benefit more from increased disclosure on *Twitter*, when compared to companies with larger market capital sizes. This study identifies a potential lack of understanding among listed companies with smaller market capital sizes, regarding the benefits of using *Twitter* for financial reporting. The results indicate this lack of understanding. For industry practitioners, it is important to review the potential concerns or obstacles from small listed companies. At the same time, it is essential to investigate an effective approach that promotes the use of *Twitter* for financial reporting. For literature development, the identification of this lack of understanding calls for further research, such as interviews with managers from listed companies with small market capital sizes to review their concerns and obstacles regarding adopting *Twitter* for financial reporting.

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