

# Analysing Yammer Usage Pattern in the Context of Social Collaborative Activity Performance by Knowledge Workers

Jordan Hall<sup>(✉)</sup> and Bee Bee Chua

University of Technology, Sydney, Australia  
Jordan.Hall@live.com.au, choicenol@mailcity.com

**Abstract.** This study investigates the impact and trend of the Yammer utilisation pattern by multi-generational knowledge workers employed in the risk service department of a multi-national enterprise. In contrast to the existing literature, our results highlight the experiences between the different levels of management in their adoption of a new technology. In our study, senior management used Yammer for post creation more frequently than did the junior management. Furthermore, the more senior the employee was, the higher the chance he or she would access Yammer. Senior management was less concerned about Yammer's usability and functionality compared to junior management. The Yammer usage rate may increase if the tool is well integrated with other in-house compatible tools. Finally, workers may benefit from high-quality coaching about Yammer's benefits and values.

## 1 Literature Review on Enterprise Social Networks

An Enterprise Social Network (ESN) called the Hub has reported benefits of reduced time taken to collaborate and communicate and improved access to expertise when Yammer was used [1–6]. In a study evaluating an ESN tool, the researchers concluded that Yammer generated an extremely high risk-adjusted return on investment of 365 % [7, 8]; however, as the study was commissioned by Yammer, it may have been biased. No data were collected showing Yammer use and suitability by knowledge workers.

Our paper is structured as follows: Sect. 1 provides an overview of the case study and background, while Sect. 2 describes the research methodologies that were employed. Section 3 presents the results of the data collection, which was accomplished by means of survey and interviews. Last but not least, Sect. 4 discusses the results and draws a conclusion.

## 2 The Case Study Background and Objectives

The study investigates the Yammer utilisation pattern is of a leading Australian based consulting firm. The company reported a profit of more than a billion dollars in 2013. The business activities include providing audit, tax, consulting, and financial advisory services to clients across numerous industry sectors. The firm prides itself as a leader in

the use of social media. In 2011 the firm won a Forrester Groundswell industry award for its business transformation with Yammer [8], which is an enterprise social network (ESN) that allows people to share knowledge, information and ideas with their co-workers. It was one of the first large companies to use Yammer; first as a trial by the innovation team, latter in specific projects, and is now available across the whole organisation [9, 10].

There is evidence to support the use of ESNs in business [1–5]. However, in order to maximise the efficiencies and benefits of Yammer, there needs to be maximum utilisation by employees. The study aims to identify trends in the employee utilisation of Yammer that are currently unknown. Our investigation includes three objectives:

1. To identify the utilisation rate of Yammer within the Risk Services department of the auditing firm.
2. To categorise employees by their utilisation of Yammer and determine any trends in the usage rates of Yammer.
3. To determine ways in which the usage rates of Yammer could be increased within the organisation.

### 3 Research Methodologies

In order to meet these objectives the study used a mixed research methodology [10–12]. Firstly, a survey (see Sect. 3.1) was conducted that included the collection of both qualitative and quantitative data. This data was then analysed and used to give the thematic direction to several follow-up semi-structured interviews (see Sect. 3.2) that collected qualitative data to enable a more thorough investigation of Yammer utilisation (see Table 1).

**Table 1.** Outlines how the objectives of the study were achieved using the data collected by the survey and interviews

Objective	Question type
To identify the utilisation rate of Yammer	Closed quantitative usage questions in survey
To determine any trends in the utilisation rates of Yammer	Analysis of closed demographic questions, closed quantitative usage questions and open qualitative usage questions in survey
	Analysis of qualitative interview responses
To determine ways in which utilisation rates of Yammer could be increased	Analysis of open qualitative questions in survey
	Analysis of qualitative interview responses

The analysis of the data generated by both the survey and interviews enabled the objectives to be met and conclusions formed in regard to the utilisation rates of Yammer. Relevant future research and recommendations for the firm in regard to Yammer use is also discussed. This knowledge will be beneficial to the consulting firm as it may then be possible to recommend ways in which Yammer's utilisation could be increased in order to realise its full business potential. The knowledge gained from this study could also be applied in a global context as the consulting firm operated more than 150 countries and has implemented Yammer across its entire organisation. In addition, ESNs are becoming increasingly common right across the global business environment.

### 3.1 Survey Structure

The survey was formulated with questions that accurately met each objective of the study. Three employees piloted the survey. The pilot survey found that a few of the questions were ambiguous and thus needed to be re-worded to clear any confusion. The department partner approved the final version of the survey and it was distributed via email with an introductory explanation to the entire Risk Services Department (approx. 200 employees).

Questions 1 to 3 in the survey were demographic questions to categorise employees. They determined the gender of the respondent, the seniority level of the respondent and the duration in which the respondent had been at the organisation. Demographics are extremely useful in identifying trends; for instance, the determination of a correlation between seniority level and Yammer usage. Question 4 asked whether the respondent was an employee at Deloitte when Yammer was first introduced. This aimed at identifying if this was a significant determination factor for Yammer usage.

In question 5 respondents evaluated a series of statements and placed them on a scale of usage. The statements included; 'I use Yammer', 'I go to the Yammer site', 'I make posts on Yammer' and 'I comment on Yammer posts'. The scale was expressed as; 'Never', 'Rarely', 'Sometimes', 'Often' or 'Very Frequently'. In analysis 'Never' was coded quantitatively as this section formed the foundation for the respondents Yammer usage. Question 6 was concerned with the functionality of Yammer and thus asked respondents their reasons for using Yammer. Options included a list of pre-set answers which were formulated from the functions identified in the studies by Riemer et al. [13] and Reimer and Tavakoli [14]. In addition the respondents had the opportunity to add additional uses in the 'other' section.

Question 7 was a follow-up to question 5 for respondents who had indicated that they do not use Yammer. This question aimed to identify the reason why some employees do not use Yammer and hence determine ways to improve usage. Respondents were given answer options based on the pilot questions feedback and similar to question 6, had the opportunity to personalise their response.

The survey was constructed to measure the usage component qualitatively, however, in analysis this measure is coded into a quantified scale where 0 represents 'never' used and 4 represents 'Very Frequently' used. This quantified measure allows trends and correlations to be observed.

In order to encourage a greater number of participants the length of the survey was deliberately constructed in a way so that it would not take long to be completed but at the same time collect the required data. A limitation of this approach, however, is the lack of detail in the open question responses. In order to compensate for this limitation and enhance the information that was generated from the surveys, interviews were conducted with some of the respondents as a follow-up to the survey. Five employees were interviewed that represented each of the employee levels. Section 4 provides an overview of respondents' feedback results of each question.

### 3.2 Interviews

The interviews were conducted in an informal setting with only the participant's position recorded to facilitate anonymity. The sessions were conducted in a short time frame so as to not be a hindrance for work productivity. In each interview the interviewee was asked:

- “What could be done to increase the usage of Yammer in this organisation?”
- “Is Yammer beneficial to the organisation?”
- “Are you encouraged by management to use Yammer?”

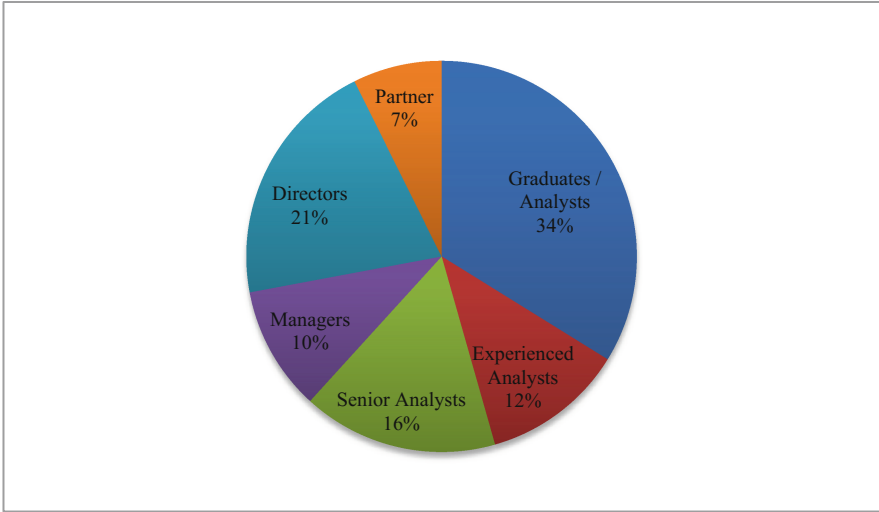
The interviews were semi-structured and were organized around the three pre-determined open questions, with other questions emerging from the dialogue. The face-to-face interview facilitated the opportunity to collect accurate, relevant and in-depth data. A total of five employees were interviewed that represented each of the employee levels within the Risk Services department of the firm.

The resulting data was organised into a readable format for analysis. Data analysis was conducted using simple descriptive statistics and by correlations to identify trends. Simple descriptive statistics include converting the data received into percentages. Percentages are useful to be able to categorise data [15]. From percentages graphical analysis was also created. Measures of central tendency assisted in identifying trends [15]. Details of interview is discussed in Sect. 4.

## 4 Survey and Interview Results

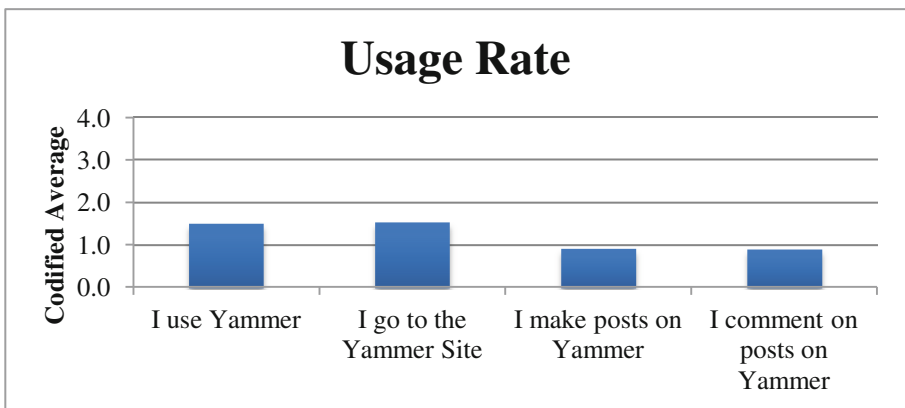
### 4.1 Part 1 – Survey Results

The survey was completed by 68 employees from the Risk Services Department in the firm. This represents a sample size of approximately 25 % of the unit. Of the 68 persons who responded, 28 respondents were female (41 %) and 40 were male (59 %). The survey had respondents from each employee level, with the graduate/analyst level having the highest number of participants (23 persons 34 %). Figure 1 below shows survey responses for employee type and demographic.



**Fig. 1.** Employee type and demographic

53 % of respondents indicated that they either rarely or never used Yammer. This equated to a codified average usage rate of 1.5 out of 4, with rarely being the most popular option selected. Usage decreased when respondents were asked if they make posts on Yammer. The average rating for making posts was 0.91 out of 4, with 75 % of respondents answering never or rarely. 53 respondents answered that they never or rarely comment on yammer posts (78 %), this is the lowest utilisation with a codified average rating of 0.90 out of 4 (see Figs. 2 and 3).



**Fig. 2.** Usage rate on each Yammer type used

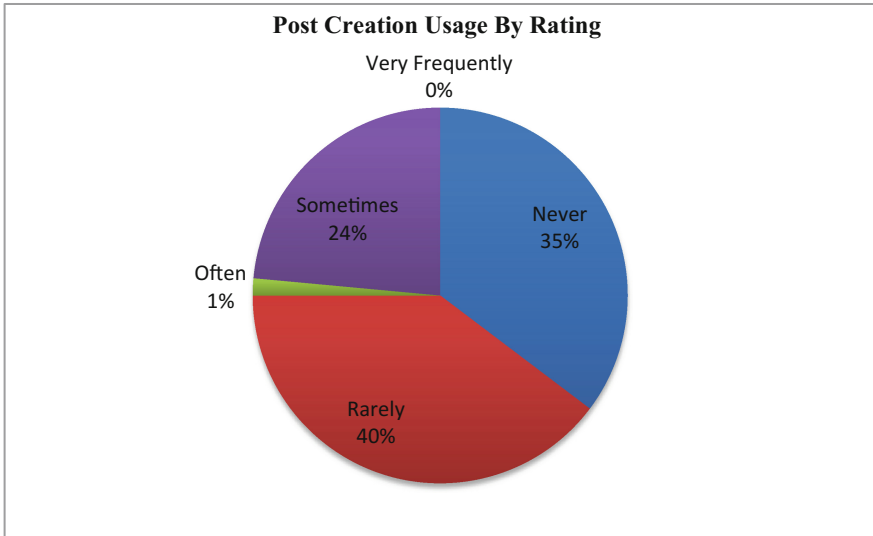


Fig. 3. Post creation usage by rating

The Yammer usage rate for post creation was recorded for each employee type. The majority of Graduates/Analysts of them indicated that they rarely or never make posts (85%). In comparison, 40% of Partners answered rarely or never. In general, the more senior the employee was, the higher the chance he or she would access Yammer (see Fig. 4).

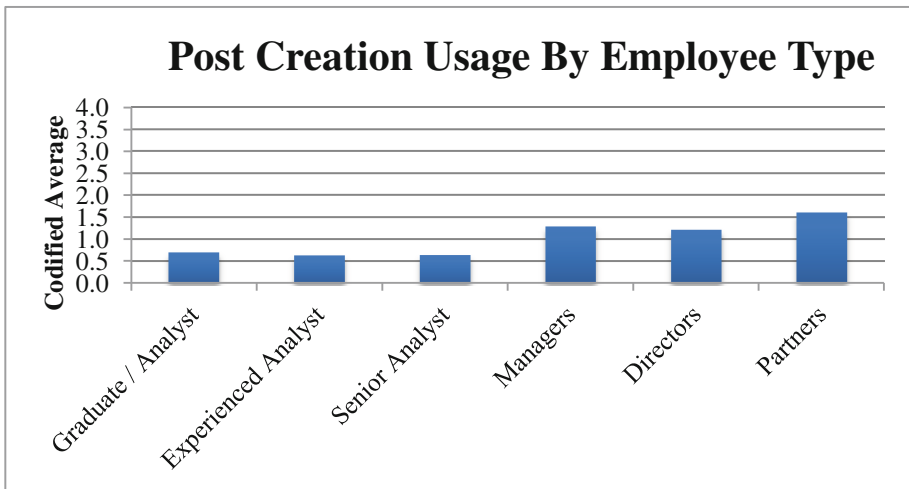
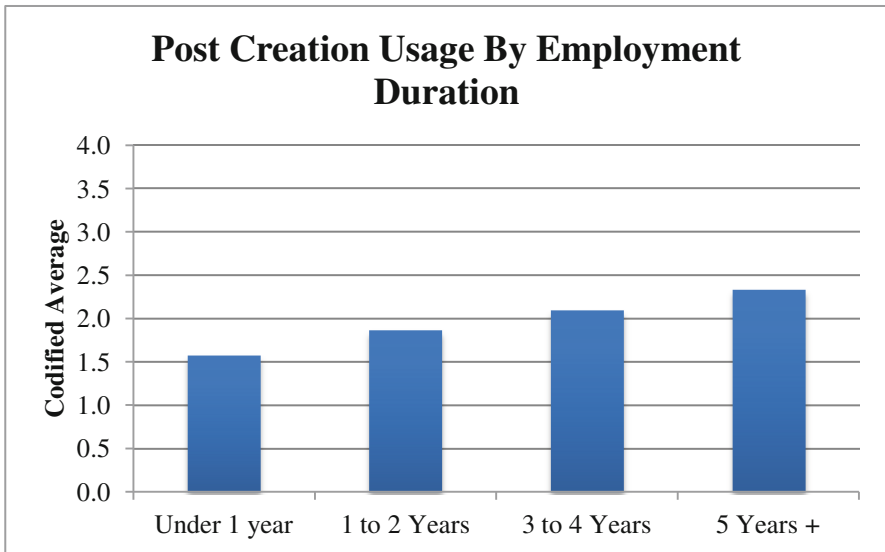


Fig. 4. Post creation usage by employee type



**Fig. 5.** Post creation usage by employment duration

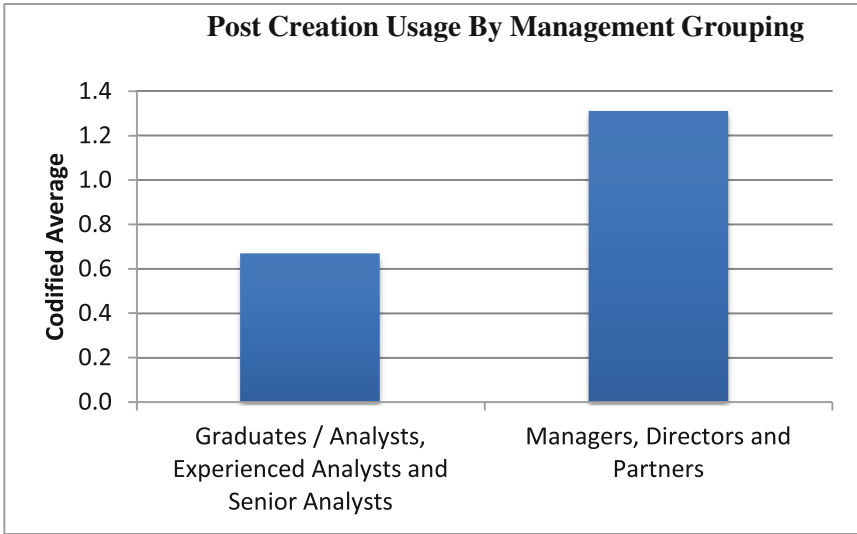
Yammer utilisation rate for post creation was also compared with duration of employment (see Fig. 5). Employees who had been working for under a year at the firm had an average usage of 1.57/4.00 for post creation. Employees working for 1 to 2 years had an average rating of 1.86/4.00 for post creation with 38 % answering never (see Fig. 3). Employees working for 3 to 4 years at the organisation had an average usage rating of 2.09/4.00 for post creation, with 18 % answering never. Employees who had been working for 5 years or above had the highest rating with an average utilisation rate of 2.33/4.00 for post creation, with 13 % of those respondents answering never.

A comparison between the creation of posts for graduates/analysts, experienced analysts and senior analysts have a combined utilisation rate of 0.67 out of 4. Managers, directors and partners, have a combined average utilisation of 1.31 out of 4. This is shown in Fig. 6 below. This 95 % increase in usage could be due to a number of factors, such as the different responsibilities of the positions or their familiarity of Yammer.

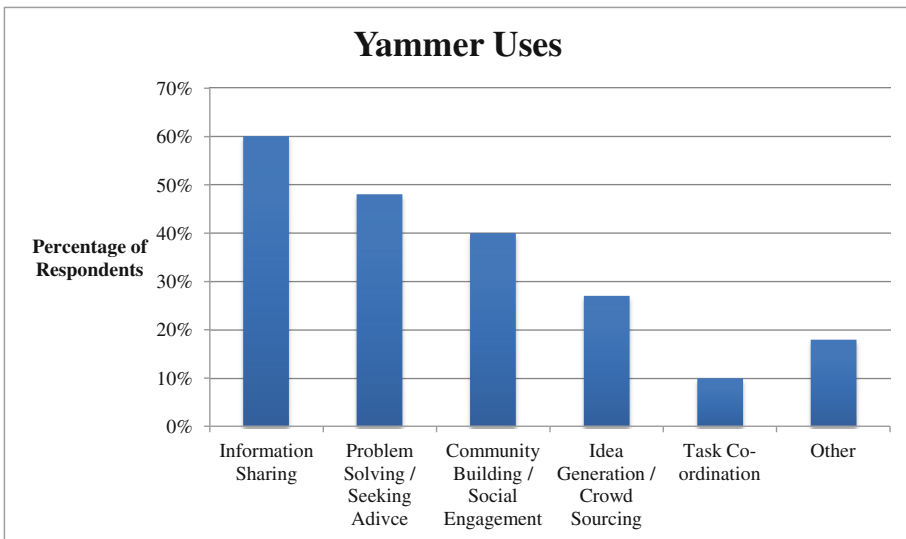
60 of the 68 respondents answered question 6, which asked what Yammer was used for. 60 % of those indicated that Yammer was used for information sharing, 48 % selected the problem solving/seeking advice option, 40 % selected the community Building/social Engagement option, 27 % selected idea generation/crowd sourcing, while 10 % selected task co-ordination and another 18 % selected the 'Other' option (see Fig. 7).

Other uses that were specified included, 'to tick the box', 'the partners tell us to', 'when we are told by the partners to use it', 'to nominate people for awards'. Two answers also suggested that they do not use Yammer in this other category.

44 respondents answered question 7 which asked why individuals don't use Yammer. 30 respondents answered "Not enough time" this represented 68.18 % of respondents or 44.12 % of the entire sample. A further 15 people answered that they "Don't see the benefit" which is 34.09 % of the people that answered the question or



**Fig. 6.** Post creation usage by management grouping



**Fig. 7.** How Yammer is used

22.06 % of the whole sample. No respondents answered that they did not know how to use Yammer. For the 14 people that selected 'Other', common themes were grouped. 4 respondents indicated that it was not easy to find information. 6 surveys also suggested that Yammer is not well integrated into the organisation or there are easier ways to



connect. The 6 answers indicating integration as an issue is 14 % of the people that answered the question or 9 % of the full 68 sample size. Refer to the results in Table 2.

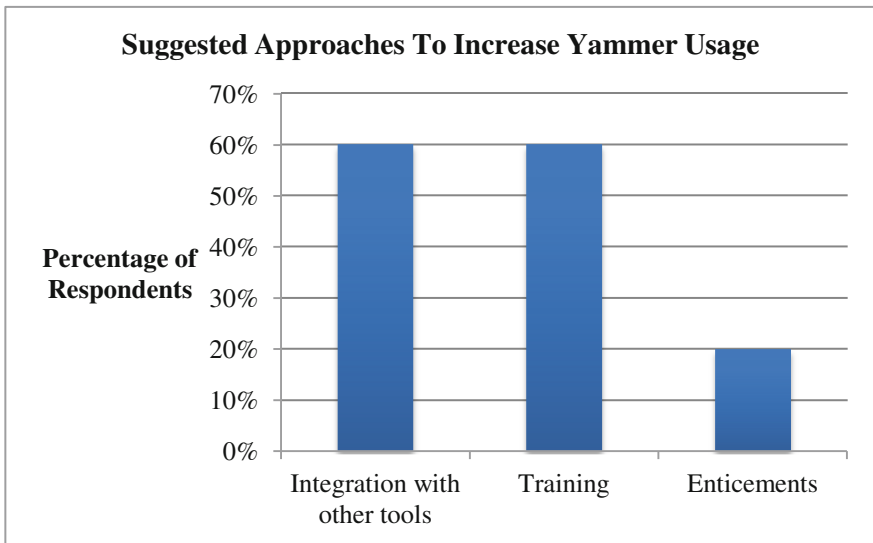
**Table 2.** Reasons for not using Yammer.

Reasons for not using Yammer	Number of people	Percentage
Not enough time	30	68 %
Don't see the benefit	15	34 %
Other (please specify)	14	32 %
I don't know how	0	0 %

**4.2 Part 2 – Interview Results**

**Increasing Yammer Usage.** 3 of the 5 people interviewed suggested that usage could be increased by integrating it more with other in-house communication tools. Some suggestions included a single sign on, integration with Lync and other communication tools. 3 out of the 5 interviewees also suggested that a way to improve usage would be more experience and training, such as a short course. One respondent suggested that enticements to get people actively engaged such as competitions. Refer to the Fig. 8.

**The Benefits of Using Yammer.** 3 out of 5 respondents indicated that there are benefits in using Yammer, while the remaining 2 indicated to the contrary. Of the two users who did not see the benefit, one stated that they preferred other communication tools, the other stated they did not use it use because they did not have enough time.



**Fig. 8.** Respondents suggested approaches to increase Yammer usage

**Encouragement by Management to Use Yammer.** All interviewees indicated that they had been encouraged by more senior employee to use Yammer. Of those, 4 of the respondents suggested that this was due to the importance of the firm being perceived as an innovative company that has a competitive edge in technology use.

## 5 Conclusions and Future Work

Our findings are limited by factors such as sample size and survey techniques utilised. While a significant number of people participated, all participants were from one division within the company. Analysis however, shows that approximately 25 % of the department and a wide range of respondents, including, employees from all different role levels, different genders and different times employed at the organisation completed the survey. The relatively large percentage of respondents with a variety of demographics assists to counter the limitation. An assumption of this study is that ESNs, such as Yammer, are beneficial to the workforce. The articles and documentation that are analysed as part of this study do substantiate this assumption, however more investigation should be conducted. It is also assumed that the responses provided by participants were accurate representations of usage.

Based on the above-mentioned results, we propose several recommendations. The first recommendation is that Yammer must be able to be incorporated into existing tools. This could be achieved, for instance, by implementing a single sign-on feature so that users don't have to log on individually. The second recommendation aimed at improving the usage rate of Yammer is to integrate Yammer's functionality with Lync, which is an instant messaging service. Yammer and Lync are both owned by Microsoft (Yammer 2014), so it is possible that the functions of the two ESNs will be integrated and/or combined to make them more user friendly and thus encourage increased usage of both applications. The third recommendation concerns any organisation that is planning or has already implemented an ESN: Providing an orientation course to junior and senior management not only instructs them on how to use the application but also communicates information about its many benefits. This will assist in ensuring a more productive business environment.

Our findings may also be useful for many other service-driven industries that rely on a client base to generate revenue. These industries include but are not limited to consulting, finance, hospitality, health care and entertainment. Many of these industries strive to be leaders of technological innovation, which may give them a competitive edge and therefore increase the probability of maximum utilisation by employees. Moreover, these industries may have multi-generational tiers that could face similar challenges in using Yammer.

Finally, this study is valuable for all businesses because it is a good example of how business professionals need to continually assess the functioning of their technology applications. Technology is constantly evolving, and improvements are very often possible. The integration of Yammer with other applications such as Lync, as indicated by this investigation, would be one such improvement.

## References

1. Hughes, C., Chapel, A.: Connect, communicate, collaborate and create: implementing an enterprise-wide social collaboration platform at KPMG - part two: realizing value. *Bus. Inf. Rev.* **30**(4), 191–195 (2013)
2. Leftheriotis, I., Giannakos, M.N.: Using social media for work: losing your time or improving your work. *Comput. Hum. Behav.* **31**(1), 134–142 (2014)
3. Razmerita, L., Kirchner, K., Nabeth, T.: Social media in organizations: leveraging personal and collective knowledge processes. *J. Organ. Comput. Electron. Commer.* **24**(1), 74–93 (2014)
4. Qian, L., Nagel, N., Sun, L.: Migrating to agility 2.0: how social computing creates strategic value. *Organ. Dyn.* **40**(2), 119–126 (2011)
5. Chui, M., Manyika, J., Bughin, J., Dobbs, R., Roxburgh, C., Sarrazin, H., Sands, G., Westergren, M.: *The Social Economy: Unlocking Value and Productivity Through Social Technologies*. McKinsey Global Institute, Washington (2012)
6. Howarth, B.: social tools tearing down the silos, *The Australian*, 20 November, viewed 12 April 2014. <http://www.theaustralian.com.au/technology/special-reports/social-tools-tearing-down-the-silos/story-fn8lu7wm-1226519807619#>
7. Forrester Consulting: *The Total Economic Impact of Yammer*, Forrester Research, Cambridge (2011)
8. Forrester Research, Deloitte Australia Yammer Network, viewed 3 April 2014. <http://groundswelldiscussion.com/groundswell/awards/detail.php?id=636>
9. Yammer 2014, What is Yammer, viewed 25 May 2014. <https://about.yammer.com>
10. Cameron, R., Molina-Azorin, J.: The acceptance of mixed methods in business and management research. *Int. J. Organ. Anal.* **19**(3), 256–271 (2011)
11. Creswell, J.: *Educational Research: Planning, Conducting and Evaluating Quantitative and Qualitative Research*, 3rd edn. Pearson Education, Boston (2008)
12. Creswell, J., Plano Clark, V.: *Designing and Conducting Mixed Methods Research*, 2nd edn. Thousand Oaks, California (2011)
13. Riemer, K., Tavakoli, A.: The role of groups as local context in large Enterprise Social Networks: A Case Study of Yammer at Deloitte Australia. *Business Information Systems Working Paper Series*, University of Sydney (2013)
14. Riemer, K., Scifleet, P., Reddig, R.: Powercrowd: Enterprise Social Networking in Professional Service Work: A Case Study of Yammer at Deloitte Australia. *Business Information Systems Working Paper Series*, University of Sydney (2012)
15. Polgar, S., Thomas, S.: *Introduction to Research in the Health Sciences*, 5th edn. Churchill Livingstone Elsevier, London (2008)