Transferring knowledge to digital natives in a South African organization

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ABSTRACT

Knowledge transfer of both tacit and explicit knowledge within an organization forms a crucial component of organizational continuity. In the age of technology, the manner in which knowledge is transferred from one employee to the other has also been affected by the introduction of technology and social media platforms. This study aims to understand the knowledge transfer process between younger generation and older generation employees classified in this study as baby boomers and millennials in an Information Technology (IT) department of a financial institution in Cape Town, considering the young population of South Africa. With the expected retirements of baby boomers from the workforce [1], the tacit knowledge transfer process is thus investigated. The study investigates tacit and explicit knowledge transfer mediums and approaches and how they are moving from face-to-face to usage of social web tools. Through a quantitative methodology using descriptive statistics, data was gathered through a survey of 55 responses of IT professionals in a financial institution. The sampling data included participants from all generations in a multi-generational workforce providing perspectives across participants. The results from the study found that the use of explicit knowledge in training and the preference of explicit knowledge tools such as process documents, training documentation and books are higher in the Baby Boomers generation preferences. The study also found that millennials have a great aptitude for the use of technology platforms such as social media in the knowledge transfer process. The study further found that trust formed an important aspect in the knowledge transfer process across the participating generations.

Keywords

knowledge management; South Africa; social media; knowledge transfer; baby boomers; millennial's

1. INTRODUCTION

A younger generational workforce dominates the South African population and Africa at large. It thus becomes imperative to understand the importance of knowledge transfer to ensure functional business continuity in an organization [2; 16]. The role of knowledge transfer within an organization cannot be considered without contextualising the variances in organizational human resources [13]. In this study, we embark on an exploratory study that evaluates transfer of knowledge between the current human resource skill to the next generation of employees looking at younger and older generations of employees in a technology organization. Reference will be made to age grouping, clustering baby boomers who are staff members born between 1946 and 1964 [3]. We further classify the millennials as employees born between 1986 and 2005 [14] who are also known as digital natives having being born into a technology era [20; 9].

Due to the foreseen loss of intellectual capital as a result of the upcoming retirement of baby boomers expecting to retire around the year 2020 [1], tacit knowledge should be transferred to younger generations to ensure the continuation of organizations [16]. This paper will investigate how knowledge sharing initiatives, attitudes, values and the social connection of the multi-generational workforce influence the tacit knowledge transfer [27] within a digital era with the influence of social media platforms.

2. DEFINING KNOWLEDGE MANAGEMENT

[7] refer to knowledge management as the formalization of, and access to experience, knowledge and expertise that create new capabilities. Knowledge management is thus a way that organizations gather, organize, share and analyze their knowledge (documents, resources and people) [6; 7].

In categorizing knowledge management, tacit knowledge is often the knowledge made up of mental models, beliefs, values, perceptions, insights and assumptions. It is often referred to as "we know more than we can tell" knowledge [18]. On the other hand, explicit knowledge is easily communicated between stakeholders and can be stored in various storage platforms such as databases [24], technical documents, textbooks, training manuals, etc. Knowledge management systems can be applied as a basis for individual decisions [8] while the sharing of knowledge on best practices, proven methods and industry standards can contribute to better decision making.

Succession planning for the multi-generational workforce therefore includes managing intellectual and human capital as an organizational asset and ensuring a smooth transfer of knowledge between workforces through strategies and approaches which appeal to both generations [5]. The barrier of codifying tacit knowledge in the knowledge transfer process between baby boomers and younger generations i.e. the millennials, will therefore be researched in this paper.

2.1 Defining Knowledge Transfer

In defining the knowledge dichotomy, two main components stand out. These are explicit knowledge and tacit knowledge [19]. Explicit knowledge is knowledge that can be easily coded, documented and communicated between stakeholders. It is

information commonly stored in platforms such as technical documents, textbooks, training manuals, etc.

Tacit knowledge is an understanding embedded in a person who has the experience and skill on the subject matter [4]. Interpersonal relationships between co-workers have been considered to influence the sharing and use of tacit knowledge [22]. Trust in the relationship between co-workers is therefore helpful in the success of the transfer and exchange of tacit knowledge amongst co-workers. According to [16] the two forms of trust that influences the knowledge transfer process are:

• Affect-based trust (the mutual care and social connection between workers) and;

• Cognition based trust (trust that is based on the co-worker's competency and reliability).

Knowledge transfer and knowledge retention strategies for succession management in the workplace traditionally include process documentation, mentoring programs and job shadowing [21]. These are explicit knowledge processes that capture the information. Trust thus forms a fundamental role in the tacit knowledge transfer process.

3. TECHNOLOGY AND ITS EFFECTS ON KNOWLEDGE TRANSFER

In considering the variances in an organizational work force and their use of technology in knowledge management, millennials are also regarded as the digital natives, and are more collaborative and interactive with technology such as instant messaging, website searching and sending emails in knowledge sharing initiatives [9]. The expected departure of Baby Boomers due to retirement [1] shifts the focus to knowledge transfer and knowledge retention in order to minimize the organization's loss in intellectual capital and knowledge assets.

The image below in figure 1 illustrates the general stereotyped differences in the workplace which are factors often considered hindering the knowledge transfer process between baby boomers and generation X and Y often known as the digital natives. Based on figure 1 [5], values and attitudes further have an influence in effective knowledge transfer methods.

	Veteran/Traditionalist	Baby Boomer	Generation X	Generation Y
Dominant Values	- Benevolence - Loyalty - Conformity - Custom	- Tolerance - Power/authority - Achievement - Stimulation	- Stimulation - Self-direction - Achievement - Hedonism	- Stimulation - Self-Direction - Hedonism
Sterotypes	- Old-fashioned/rigid - Autocratic - Do not want to learn new ways of working	- Workaholic - Political - Self-Centered	- Cynical - Lazy - Selfish	- Spoiled - Technology-dependent - Scatterbrained
Work Ethic	- Disciplined - Duty before play - Adhere to the rules	- Efficient - Logical - Do what it takes	- Task-oriented - Self-reliant - Independent	- Multitasking - Group-oriented - Explain why
Communication	- Formal - Written - Chain-of-Command	- Face time - One-on-One - In-person	- Direct - As needed	- E-mail/voice-mail - Instant Messaging - Lots of cc's
Feedback	- Avoid conflict - No news is good news	- "Show me the money" - Promotion/Title	- Direct—"Tell me how I am doing"	- Instantaneous - Seek approval/praise
Leadership	- Command and control - Take charge - Authoritative	- Collaborative - Team player	- Entrepreneurial - Participative - Wants to know why	N/A[63]

Authority	- Follow authority figure - Hierarchical - Chain-of-command	- Question authority	- Skeptical of authority	- Lines are blurred - Why must I follow?
Family and Work	- Family and work are always separate	- Work takes priority over all else	- Work-Life balance	- Work-Life balance - If must choose, will select family and friends
Rewards	- Appreciate recognition for a job well done - Opportunity to mentor	- Appreciate promotion, title, money - Opportunity to build consensus	- Appreciate autonomy and flexibility	- Appreciate the opportunity to provide input - Technical wiz

Figure 1. Generational Workplace Values and Attitudes (Crumpacker and Crumpacker, 2007; p35)

4. METHODS

The main research question of the study was to investigate: *What is the role of technology and social media in knowledge transfer process?*

Through an interpretive research paradigm this study sought to understand the transfer of explicit and tacit knowledge by use of social web tools and the social influence on the knowledge transfer processes between co-workers from the baby boomers and the millennial workforce generation. Through a questionnaire study, survey results provide information which we discuss through a thematic analysis based on common themes identified from the data set.

4.1 Collecting Data

The data used in this research was collected by means of a self-administrated survey as a data collection technique. The survey used a Likert scale Metrix. A bipolar Likert scale is used measuring different qualities, i.e. from 1 -5 marked as "1=Not likely at all,2= Least Likely,3= Likely, 4=Most likely,5= Highly Likely"

The sample population of the survey was an information technology department within a financial institution in South Africa with varying information technology skills. A random sampling technique was used where a link was sent out to the whole sample population. The survey was sent to one hundred participants of which fifty-seven responses were returned. Two of the fifty-seven responses were invalid as the survey was incomplete or invalid selections were forced onto the system and are therefore not included in the feedback.

Representation per generation group based on percentages for the responses of the survey are as follow:

- 20.7% - Baby Boomers

- 48.3% - Millennials

The remainder of the participants did not identify in any of the above age groups. The objective of the study was to include respondents in specialised Information Technology fields. The behaviour and knowledge transfer methods in sharing and transfer of knowledge and best practices by specialists is the research that this paper investigates. The preferred methods of knowledge transfer and the social connection in the knowledge transfer process are under discussion in this paper.

5. FINDINGS

In collecting data, the participants were required to choose the age category which they felt they belonged to. This assisted in considering their age category when answering questions related to the knowledge transfer process.

5.1 Biographical Information

The participants of the study reflecting a varying age group with the results of the study reflecting that the organization had a multigenerational workforce with employees born between 1977 and 1995 dominating the organizational workforce who were employees aged 40 years and younger.

There were very few traditionalists (born before 1945) who participated in the study and the response rate from this group was therefore relatively low.

5.2 Trust in the knowledge transfer process

In this theme we considered [16] multiple perspectives where trust forms a fundamental role in the knowledge transfer process. In establishing the role of trust in transferring knowledge, we asked the participants "how likely do you have to share technical knowledge or process information regarding your job?"

The questions related to theme and aimed to identify the respondent's possibility of sharing process information. The survey response provided a summary of both individual as well as responses grouped per age group. This enabled a comparative analysis on the likeliness to share knowledge per generational group for millennials and baby boomers.
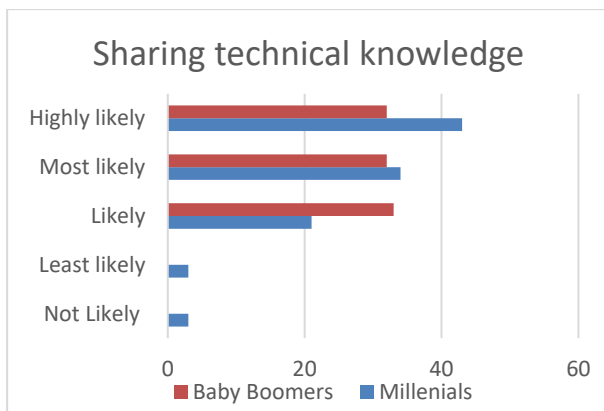
Figure 2: Likelihood of transferring job information according to age in percentages.

We further classified these responses according to age. Figure 2 reflects that the millennials are more comfortable to share role information mainly choosing highly likely options to share technical information compared to the baby boomers. While the difference was not significant, the results do reflect that most of the participating baby booms (33%) chose the most likely option in comparison to the millennials mostly choosing highly likely to share information. The participants were further asked if they would be willing to train and share all details related to the role and the profession in order to ensure knowledge transfer.
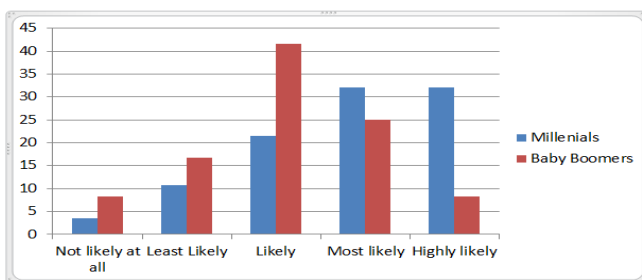
Figure 3: Likelihood to train and transfer professional knowledge in percentages.

Figure 3 presents information reflecting consistency with figure 3, millennials were still more likely to train others and transfer knowledge related to their profession. Participants were further asked on the likelihood of being able to share this information with someone who they considered to have the same values as them. The question explored the values of respondents and whether personal values influenced the knowledge sharing process. Figure 4 below reflects that millennials are more likely to positively relate to someone sharing the same values. Baby boomers are not likely to be influenced on whether a person has the same value system as them.
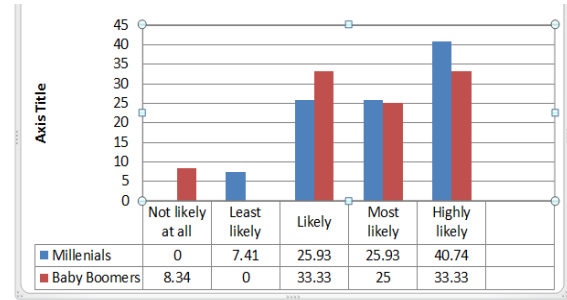
Figure 4: Likelihood to share knowledge with a person who has similar value in percentages

Technology and traditional knowledge transfer

(i)   Platforms

Various studies have reflected that employees across various age groups hold a variation of outlooks on the type of platforms in which they use to share and transfer information. In this study, we sought to establish if participants were likely to use traditional forms of platforms such as training documents, books and process documentation to share information. Figure 5 below illustrates the results of the individual responses per generational group on the question in the use of explicit knowledge sharing tools.
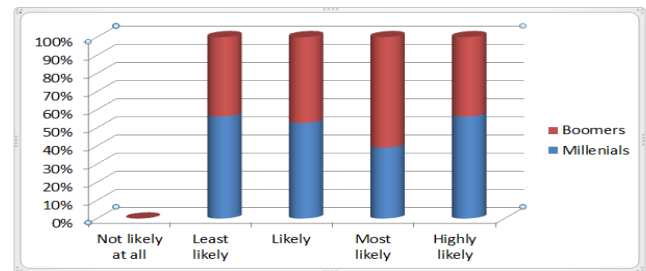
Figure 5: Likelihood of using traditional knowledge sharing platforms in percentages.

Figure 5, reflected that baby boomers were the most likely to prefer explicit knowledge tools such as process documents, training documentation and books. In further understanding the preferences of platforms across generations, process documents followed by training documents were prevalent choices amongst participants. The results in figure 6 below reflect the percentage distribution of platform preferences. Participants were able to choose more than one platform.
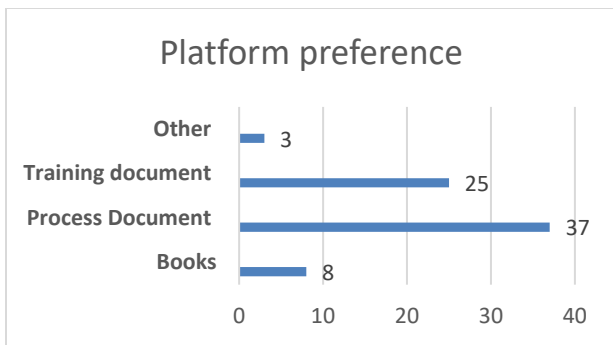
Figure 6: Traditional platform preferences

In understanding further why the respondents would use these platforms to transfer knowledge, the following responses were provided from various participants:

- *"It can be used as reference when new people come on board."*
- *"For record purposes."*
- *"Because you will see different views"*
- *"Easily understood with the steps and flows"*
- *"Process document can be available to whoever wants it and whenever."*
- *"This way it will be structured and easy to understand."*
- *"Diagrams and images in .svg format is easily portable to other publications."*
- *"Use diagrammatic tools for context."*

In continuing to understand the various platformswhich participants would prefer, we further asked the participant their likelihood of using technology platforms in the transfer of knowledge. In this question aimed to establish the preference of participants in using social web tools to share this information (e.g. instant messaging, wiki updates, video-conferencing) in transferring and sharing knowledge.
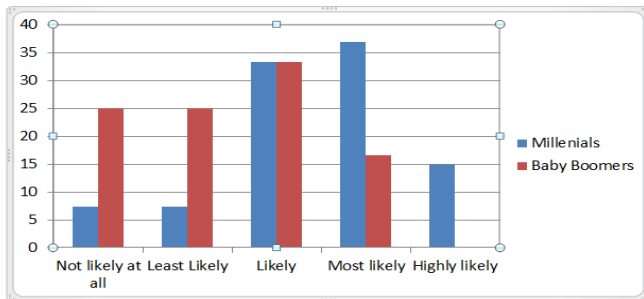

Figure 7: The likelihood of using social media tools to sharing information and knowledge in percentages.

The results from this question in figure 7 reflected that as seen in figure 8 below, millennials are highly likely to use social web tools and the use of instant messaging, wiki updates and video conferencing as preferred tools. Baby Boomers mostly chose the least likely perspective to use social web tools. A clear indication is set on preference per generation group. Figure 8 reflects on the specific social media platforms that the participants had preference

on using across the generations of participants. Instant messaging followed by wiki updates and video-based platforms were prevalent choices amongst participants.
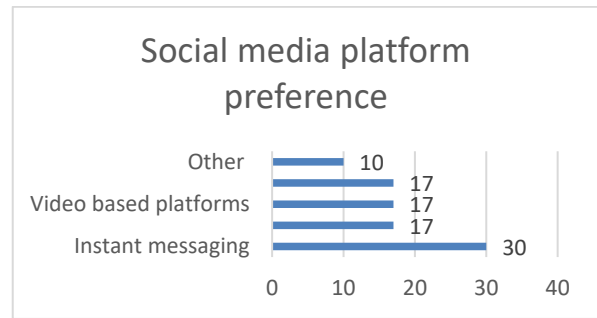

Figure 8: Social Media platform preferences for knowledge transfer process

(ii)   **Methods**

The aim of this section was to identify the approaches that each generation would best prefer to transfer knowledge. This particular question sought to test the likelihood of the transfer of tacit knowledge by means of discussions and walk-throughs.
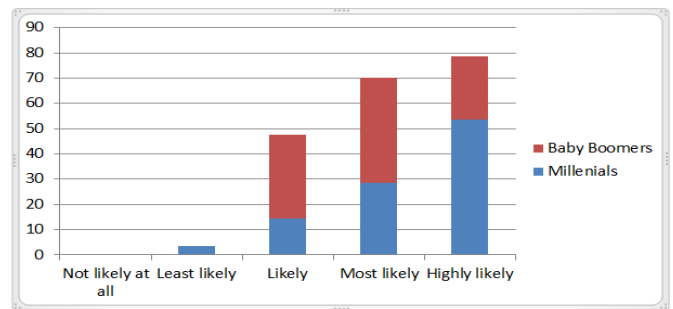

Figure 9: Likelihood of using discussions and walkthroughs to transfer knowledge in percentages.

The results reflected in figure 9, reflected that the millennials are highly likely to prefer tacit knowledge methods for sharing of process and technical knowledge such as discussions and walkthroughs.

In figure 10 below we further examined, the various approaches in depth and the participants reflected that they prefer largely one on one sessions for to enable knowledge transfer, followed by social meetups and training sessions.
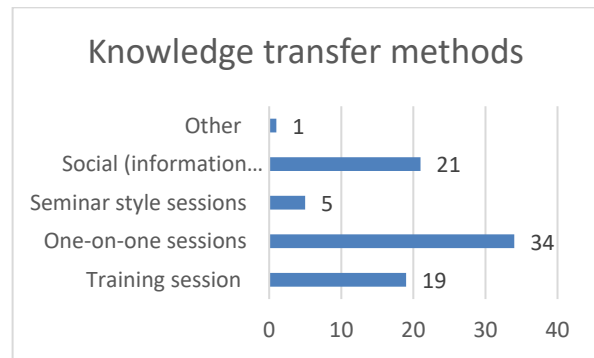

Figure 10: Methods of Transferring Knowledge

Trust in the Knowledge transfer process

The knowledge transfer process within an organization can be affected by the type of knowledge being transferred, the source of the knowledge, the recipient, as well the context of the transfer process. In all aspects of the processes, trust forms an important role within each characteristic.

Figure 11. Characteristics of the knowledge transfer process (Szulanski, 1996)

While the study aimed to identify the knowledge transfer process amongst varying generations in South Africa considering the impact of technology and social media, according to literature, trust has a great influence in the knowledge transfer process. The requirement of the trust element is thus visible in all stages of the knowledge transfer process. The source of information from which the knowledge is being transferred thus needed to have a certain level of trust or reputation for the knowledge to be well received [25; 26]. In understanding the likelihood of participants to transfer knowledge on their role within an organization and further considering trust and the preferences of knowledge transfer across generations, the results from the study reflected that both baby boomers and the millenniums value trust in the transfer process. Millennials were however reflected as being highly likely to be able to share everything that they know about their profession in comparison to baby boomers. Thus, the element of trust in the source of information was not of great focus to millennials. Several studies have reflected on the ability of millennials to use platforms such as social media platforms such as blog posts and other related platforms to communicate ([23]; [10]). Constant interactions with these mediums to gain and disseminate information further affects their trust in social media platforms reflecting the generational differences on which source could best be trusted. Contrary to this, baby boomers have a great preference for platforms such as books, documents and related sources of information. This reflected the level of trust of baby boomers on traditional platforms of acquiring knowledge.

Technology and the traditional knowledge transfer process

The study further found that, in comparison with explicit knowledge, tacit knowledge was often considered difficult to document, quantify and equally transfer. The study also examined the platform preferences for knowledge transfer across generations. Millennials were shown to be highly likely to use social web tools as well as instant messaging, wiki updates, and video conferencing. Baby boomers were least likely to use social web tools. Millennials were thus often considered to be more likely to prefer graphic stimulation and succeed in technology intervened information interaction as oppose to face to face interactions [10]. This phenomenon is also observed in higher learning institutions where millennials are more likely to use online platforms such as Wikipedia as a trusted source of knowledge [11]. Furthermore, such sources have been used as a means of simplifying complex knowledge to ensure a seamless knowledge transfer process [15].

Contrary to baby boomers, millennials reflected a preference of technology intervention in the form of social media platforms in supporting the knowledge transfer process.

While the variances within the participant's responses did not present stark differences in views, the study provides a lens into understanding the generational paradigm shift in which knowledge within an organization can be both stored and transferred between generations.

6. CONCLUSION

In this study we aimed to establish the approaches in which knowledge could be transferred from one generation to another using a South African financial institution as a case study. The study established the key role that trust plays in the knowledge transfer process and the influence of technology on younger generations of employees within an organization. The definitive preference for baby boomers to use explicit knowledge methods (like training and process documentation) and millennials to use tacit knowledge tools (like instant messaging) can influence how organizations structure their training and development interventions. The methods applied in the succession planning and individual development plans should take into account the workforce generations and apply the knowledge sharing methods accordingly. Further studies will be conducted to establish how mobile platforms can be developed to support a multigenerational knowledge transfer process to support succession planning within an organization.

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