

Borders and Barriers: Knowledge Transfer and Management Challenges when making Visa Application Decisions

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by

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"The best thing for being sad," replied Merlin, beginning to puff and blow, "is to learn something. That's the only thing that never fails. You may grow old and trembling in your anatomies, you may lie awake at night listening to the disorder of your veins, you may miss your only love, you may see the world about you devastated by evil lunatics, or know your honour trampled in the sewers of baser minds. There is only one thing for it then — to learn. Learn why the world wags and what wags it. That is the only thing which the mind can never exhaust, never alienate, never be tortured by, never fear or distrust, and never dream of regretting. Learning is the only thing for you. Look what a lot of things there are to learn."

The Once and Future King, T.H. White

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Abstract

As governments move to increase value, deliver efficiencies and provide transparent and consistent services, the ability to manage and transfer knowledge across the organisation is playing an increasingly important part given the volume of change currently underway. This case study looks at the operational area responsible for the processing of visa applications within Immigration NZ to understand the challenges associated with managing knowledge including barriers to knowledge transfer. Through using an online survey and semi-structured interviews, we find that three main barriers exist, namely the time available, the complexity of the system as a whole and the current systems that are available and that these barriers may change depending on an individual's role within the organisation.

A separate finding was that communication channels are misaligned between preferred and actual and are via one directional channels with little opportunity for feedback to enable better decision-making.

Management can mitigate these barriers through putting in place a number of activities and initiatives, including dedicated time for knowledge transfer and aligning commination channels, including the use of feedback loops across processes and systems.

Through the awareness of knowledge management activities, transfer barriers, and preferred communication channels, public sector organisations can become more effective and consistent in their decision-making, delivering a better outcome for their customers.

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Executive Summary

Visa processing is a people and process driven activity reliant on both information and knowledge. The core objective is not about strategic advantage or competitiveness per se, but it is about applying judgement in a consistent manner to ensure decisions regarding visa applications are efficient and effective and deliver a high level of customer service, all while supporting the strategic objectives of government.

The challenge is that policy and processes never stand still for long, with change initiated through projects, government policy and process improvements, occurring on a regular basis. These changes need to be communicated and implemented across a global network of service delivery staff and in order for consistent visa decisions to be made, knowledge about the implications of the changes needs to be effectively transferred. Currently Immigration NZ (INZ) does not fully understand how this knowledge is transferred and what barriers may be present across the organisation.

This case study uses an anonymous online survey to capture data regarding knowledge management within Visa Services. Semi-structured interviews were also used to investigate the key themes gained from the survey. Results were analysed using frameworks covering the components required for effective knowledge transfer and a communication model to explore knowledge sharing between individuals within an organisation.

The findings showed that staff were aware of the benefits that effective knowledge transfer could bring to multiple stakeholders including themselves, customers, INZ and the government as a whole and were open to sharing and receiving new knowledge in general. Several key barriers to knowledge transfer where identified that included time, complexity and systems, and that these barriers did alter by role type. Time remained the dominant barrier across all role types, including the time available to learn new knowledge, share new knowledge, transfer new knowledge and time to "un-learn" previous knowledge to ensure consistent decisions could be made.

Numerous channels are available and used for communicating new "know-how" information, but there are often discrepancies between the channels used and the channels preferred by staff, highlighting how different individuals prefer explicit knowledge over tacit knowledge when receiving new "know-how" knowledge. Finally, staff understood where to find new knowledge, including using strong personal networks, but didn't always know who was the source of this knowledge and how to give feedback regarding this new knowledge, which created a gap in the knowledge transfer process.

From the findings of the case study, we recommend that management use a number of levers to improve knowledge transfer, while eliminating potential barriers. Creating an environment to share knowledge as a core activity will require creating dedicated time to enable the sharing and transfer of knowledge to take place. Using HR practices such as improved KPIs, job descriptions and competencies that support knowledge management objectives will be beneficial. The ability to use reward and recognition, best practice sessions and recognition of an individual's knowledge contribution can all be used to promote staff engagement for knowledge management activities.

By creating a formal knowledge management role within the branch, there is the ability to create a knowledge sharing community, promoting job rotations across sites, best practice sessions, and the sharing of learnings from current initiatives. In order to reduce the complexity, change needs to be bundled into smaller chunks of easily digestible change to ensure not only new information can be absorbed, but also that old knowledge can be unlearned.

Systems can be enhanced through combining search capabilities across multiple systems, while allowing for feedback functionality in the form of comments, blogs and published results regarding new knowledge. The ability to "tag" individuals in the corporate directory with specific knowledge tags will enable staff to extend their internal knowledge networks.

The creation of a communications strategy will enable existing channels to be reviewed and aligned to staff preferences, including multi-channel solutions that promote feedback avenues to discuss new knowledge.

Finally, by creating an overarching knowledge management strategy, INZ can bring together the key activities in one place, providing governance and focus to ensure that knowledge management can deliver know-how knowledge to support consistent decision making across the organisation during times of change.

Case Description

The Problem Being Investigated

As Kathy Kerr¹ sat at her desk prior to her leadership team meeting, she was thinking about the new challenges ahead. The General Manager within INZ was reflecting on the changing dynamics of the business since joining the organisation several years earlier. A large transformational project had been approved and was under development, although the delivery and benefits would be some time away. The nature of the project focus was also starting to shift from that of a technology dominant project to more of a business process project as the benefit profile became clearer.

The organisation itself was also feeling the pressure from year on year increased demand for its services. Some markets had seen volume increases of up to 400%, and for other markets, the previous year's peak application volumes were becoming the normal off-peak volumes. The need for additional staff, recruitment and training across the global service delivery teams was becoming a monthly talking point.

These new challenges were on top of an already complex operating system that had multiple stakeholders including Government Ministers, vocal industry providers and customers with invested interests in the outcome of their immigration applications. Dealing with these challenges successfully would enable INZ to contribute to the Governments vision of growing New Zealand for all and the increasingly strategic role that Government was placing on the immigration system.

Kathy was also concerned about the volume of change to be delivered over the

¹ Not the General Managers real name.

coming months, not only through the project deliverables, but also just the volume of change required through business as usual. The ability to embed this change as new knowledge across the global processing network would be required to ensure consistency of application processing, which was a key objective for Kathy's leadership team.

The front line would require knowledge of new processes and the associated policy changes which was not a new activity for the team, as they had regularly communicated updates regarding process and policy changes in the past, but Kathy wanted to know more about how these activities currently happened and what the potential barriers may be for this knowledge to be transferred effectively. It was critical that the process of knowledge transfer was well understood because of the level of change, implementation of new processes and ever increasing requirement for additional staff. Kathy believed that understanding the knowledge management process, how knowledge was communicated and any potential barriers, would be key to ensuring a successful outcome for the organisation.

Armed with this thought, Kathy made her way to her leadership team meeting knowing what the main agenda item would be for the day ahead. How do we respond to the challenges associated with managing knowledge and transferring this knowledge with all the upcoming process and policy changes?

Setting the Context

INZ is a global business guided by legislation, policy and standard operating procedures. The ability for employees to make consistent decisions is paramount to ensure a high standard of trust is established for both government and users of the system. It is through knowledge that employees will be able to meet this challenge. Knowledge is referred to as a fluid of framed experience, values, contextual information, and expert insight that provides a framework for evaluating and incorporating new experiences and information. It originates from and is applied in the minds of the knowers. In organisations, it often becomes embedded not only in the documents or repositories, but also in organisational procedures, processes, practices, and norms. (Davenport & Prusak, 1998 p.5). The ability to transfer knowledge from individuals, teams, procedures and processes to another individual or team will contribute to the successful processing of applications.

Problems arise when employees are empowered to make judgement-based decisions where staff knowledge and experience begin to play a crucial role in ensuring consistent decisions are made around the globe, especially when processes and policies are in a constant state of change.

As a team member observed "currently we **assume** policy change in particular, is absorbed in a standard format across the business...This, I think is a false assumption because interpretation is inevitably subjective"

This assumption was observed during a recent operational team meeting, whereby a manager had received the weekly change update and proceeded to communicate those changes to his team. The manager simply read through all the recent changes, pausing to see if there was a nod of agreement from these present, prior to continuing. At the end of the session, it was simply stated "well, we all now know the recent changes, please ensure these are now followed by your team from today". It was assumed that any change that was received by the manager through the act of communicating to staff, had been transferred. Knowledge transfer had taken place in the mind of the manager.

It is this assumption that can lead to inconsistency and different outcomes across the immigration system, which includes multiple stakeholders, each playing a part in the process. New employees are often overwhelmed with the extent of the knowledge required and making a wrong decision has far reaching implications on the dreams and goals of applicants, often meaning they need to uproot their families and leave New Zealand, or face deportation. In a complex environment, making a wrong decision will lead to complaints, rework, adverse tribunal rulings, court challenges, media involvement, dis-satisfied customers and a general lack of faith from industry professionals (lawyers and immigration advisers). Employees know the problems that can be present when incorrect decisions are made by commenting that "mistakes made through lack of poor knowledge transfer" and "....misunderstandings obviously. The incomplete decision-making for customers based on incomplete knowledge." are all recent examples.

The ability to share and transfer knowledge throughout the organisation, particularly in a complex and rapidly changing environment is challenging. Everyday issues such as "employee turn-over often means that highly experienced staff who could impart and transfer knowledge are often lost and the institutional reservoir of

knowledge is lost" and "process changes are cumbersome and overly complex" and "information on the new policy changes and process often occurs simultaneously with the new implementation date therefore not allowing sufficient time for training and understanding of its practical application and potential impacts to current systems and operating models" where highlighted by employees.

As workers become more "knowledge" orientated, it is clear that the sharing of knowledge across an organisation can deliver value both for competitive advantage and improving organisational performance (Argote & Ingram, 2000). This competitive advantage is used to win customers and drive efficiencies, ensuring profitability and sustainability. The benefits of knowledge transfer would help minimise mistakes, allowing for a greater understanding and even improved productivity through not having to stop and ask questions or seek clarity on issues, with an employee advising that knowledge transfer would allow;

"...more effective decision-making, increased efficiency and security and assurance" while another employee focused on productivity improvements through "..minimising mistakes, greater understanding, and I'd say greater productivity as well, due to not having to stop all the time and ask questions or seek clarity on issues" and "consistency and improving our outputs and processes".

However, in a public sector organisation like INZ, competitive advantage isn't the key driver, especially given that consumers of the service have no choice. Legislative obligations mandate the operating environment and the non-competitive driven market operates on a cost recovery, fee for service basis.

The key driver for public sector organisations are that their services are efficient, effective and well managed. Users of the service want to be served by staff with the expertise, skills and knowledge required to navigate the complexities involved.

The issue for INZ is that the pace of change generated by policy, processes and projects is continuing to increase and in order for consistent and well managed decisions to be made, "know-how" knowledge about the implications of these changes on visa decisions needs to be effectively transferred across the global workforce. INZ currently does not have a full understanding of how this knowledge is transferred and the potential barriers that may exist. By understanding the knowledge transfer environment INZ will be better equipped to implement a strategy to support effective knowledge transfer during periods of significant change.

Organisational Setting

INZ is a government department that sits under the Ministry of Business, Innovation and Employment (MBIE) and is responsible for bringing the best people to New Zealand, which New Zealand needs to prosper.

INZ aims to contribute to the economic and social framework of New Zealand by;

- facilitating residence and temporary entry into New Zealand, and
- ensuring that those who cross New Zealand's borders observe the provisions of New Zealand's immigration instructions and legislation.

INZ not only ensures that New Zealand attracts the best people that New Zealand needs to prosper from a skills perspective, but immigration is also a key enabler for tourism, education and migrant investment, contributing \$14.2b each year to the NZ economy (INZ, 2015). Government have focused on moving INZ from a simple transaction processing operation, to hold a more strategic role, focusing on the delivery of economic benefit. Recent labour shortages in the Queenstown district that have threatened our tourist markets and business growth have been addressed recently with policy changes implemented at short notice. Student visa policy changes reviewed the English language requirements to protect NZ as an international educational destination while ensuring the integrity of the immigration system was maintained.

These critical changes where implemented at short notice due to government announcements and pressure from stakeholders, and the rate of change continues to increase. Having a poorly operating immigration system without knowledgeable staff who are up to date with recent policy or process changes, risks damaging our brand as a country, forcing potential migrants to look elsewhere and damaging NZ's economic prosperity.

Accountability for the immigration system rests with the Minister of Immigration (MOI), but immigration impacts on other ministerial portfolios such as tourism, education, economic development, health, and welfare. This creates natural tension across the system that requires engagement at all levels to ensure immigration settings continue to provide a net benefit to New Zealand. Where these are challenged by stakeholders, further policy and changes are likely to be requested.

Communication and stakeholder engagement are particularly important at the policy development stage, as multiple views (including political) need to be accommodated when developing policy which means complexity and influencing factors are often introduced at short notice within the implementation stage.

Immigration in New Zealand is covered under the Immigration Act 2009 and Immigration Regulations 2010, which are approved by Cabinet under the leadership of the Minister of Immigration, and provide delegation for INZ staff to perform their day-to-day duties.

INZ's operational work is focused on deciding residence, temporary entry and transit visa applications, but INZ is also responsible for working with people who are in breach of immigration law, the resettlement of refugees, joint intelligence exercises with other enforcement agencies and providing settlement, attraction and support services to New Zealand based employers requiring migrant workers to fill labour and skill gaps.

The operational work is split amongst four key business units and each General Manager leading these functional areas makes up the Immigration Leadership Team (ILT).

Functional Area	Key Responsibilities
Visa Services – (VS)	Global workforce responsible for processing visa
	applications, provision of contact centre services,
	operational support teams
Compliance, Risk and	Controlling access at the border, intelligence
Intelligence Services – (CRIS)	gathering, deportations and investigations
Settlement, Protection and	Refugee processing, settlement support,
Attraction – (SPA)	marketing and attractions activities, industry
	relationship management
Service Design & Performance	Systems and process support, policy writing and
– (SD & P)	implementation, change management

INZ is user funded, meaning the fees charged for services are used to cover the operating costs of the organisation. It also means that customers who are paying for

the service expect a high level of professionalism and that if an application meets the required policy, the application will be approved. The cost of getting a decision wrong are not just measured in terms of financial impacts, but also in the livelihoods of individuals wishing to bring their skills and knowledge to NZ. The stress and anxiety when dealing with declined visa applications are significant.

For the nine months to 31 March 2015, 1.265m people travelling to New Zealand required a visa to be issued prior to their arrival, placing huge demands on processing resources for timely and correct decisions and demand continues to increase year on year across all application types, especially visitor and student categories.

INZ is a global business currently employing approximately 1200 staff across 31 locations worldwide. The bulk of these staff (900) are involved in the processing of visa applications in both onshore and offshore locations using publically available instructions that forms the framework which immigration officers use to assess applications. Some branches specialise in specific visa types, while other branches process generic application types.

INZ is also currently undergoing a transformation project entitled "Vision 2015" which is due for completion in June 2016, involving a number of technology and process related changes. The program is expected to deliver a better customer experience, greater efficiency and importantly, more consistency in decision making.

This adds further change to the environment, as not only will technology driven change require implementation, but the transformational project is also about process driven change. This will see the implementation of 28 individual projects across the organisation and excludes any business as usual change that the MOI may require in the interim.

Justification of the Significance of the Issues

The immigration system is complex, with multiple inputs, stakeholders and outcomes that are in natural tension. Policy settings that set the threshold too high will see a potential reduction in volume, as applicants seek easier pathways through other countries that New Zealand competes with for talent. Policy settings that are difficult and complex also create processing complexities and inconsistent decisions. If policy

settings are set too low, applicants of lower quality will be accepted, potentially driving up volumes to unmanageable levels.

Employees responsible for decision making must have a clear understanding of the process and policy that must be followed. This ensures that applications are assessed fairly and consistently, following the process and using standard operating procedures.

Volume of Change

Policies are regularly updated, amended or new policies are introduced through change or project implementation. This requires change to be communicated to individuals across a global network to ensure they are aware of the most recent updates.

One manager commented "we get quite a lot of regular updated information coming out from the support team" And later explained, "you have this huge amount of information and only really small amounts of it are actually relevant. I have to troll through, or the TA [technical adviser] has to troll through, and summarise the information down and then decide what we need the officers to know".

Policies and processes are constantly getting updated due to legislative updates, policy reviews, internal best practice, client feedback and an external appeals process, not to mention updates as a result of project implementations. It is difficult to ensure that the global workforce has the most up to date knowledge and more importantly that they are using this knowledge in their decision making process.

The amount of updated knowledge that needs to be created, shared and understood becomes a constant challenge and this is highlighted below in Table 1, which shows a subset of knowledge material that is published to staff as business as usual and includes internal administration circulars (IAC) and advice to immigration staff (ATIS).

Table 1: Example of volume of new knowledge published to staff

New knowledge published to staff (IAC & ATIS)										
Year	2008	2009	2010	2011	2012	2013	2014	2015 YTD*		
Number of Publications	16	12	21	11	8	24	28	19		

*2015 YTD consists of 6 months

Judgement & Consistency

Decision makers are expected to review individual applications and must be satisfied that criteria and policy have been met. A framework exists in the form of a standard operating procedures and immigration instructions. Employees must use individual judgment, which is based on knowledge, past learning's and experience, which are passed on through the process of knowledge transfer.

Immigration instructions listed in Table 2 are publically available, although not all applicants would be aware of this fact and even if applicants are aware of the instructions, their understanding and interpretation will be based on their own individual circumstances and perspectives. Employees receive training on the instructions, but just like applicants, employees and branches will have differing views and perspectives on the meaning of instructions. Instructions are also updated on a regular basis due to policy announcements and regular quarterly updates. Instructions were updated ten times in the last twelve months, leading to the requirement to transfer more knowledge amongst the global workforce.

Table 2: Current volume of Immigration Instructions

Immigration Instructions - Manual Name	Page Count
Administration	98
Temporary Entry – Part 1	91
Temporary Entry – Part 2	170
Boarder Entry	29
Compliance	56
Transit	10
Refugee & Protection	46
Residence	233
Appendixes	275

Existing Knowledge Transfer Processes

The vast majority is created centrally by policy and operational support teams and then "pushed" to the end users through email, VisaPak or the publication of new instructions. This closed communication method raises issues, as the ability to question the new instructions and provide feedback are limited.

The creation and flow of knowledge required for a decision is summarised in Figure 1, which highlights the quantity of knowledge required before an employee can make a decision.

The requirements when processing visa applications are reliant on vast amounts of information and as stated by Davenport & Prusak (1998), "information is meant to change the way the receiver perceives something, to have an impact on his judgement and behaviour. In order to turn information into knowledge it needs to undergo a transformation process relying on comparison to similar situations, understanding the consequences when used in decisions, how the information connects to others and what do people think about the information within a conversation.

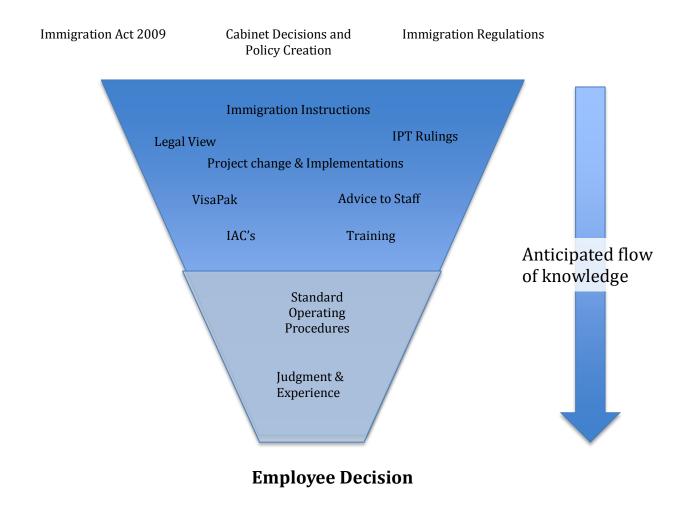


Figure 1: Representation of knowledge flow for decision making

The key use of knowledge by INZ employees creates the notion of the "knowledge" worker" and by creating this environment employees can solve ever increasing problems that are both complex and ambiguous, leading to significant performance implications and the creation of dynamic capabilities. (Cross et al., 2001; Prieto & Easterby-Smith, 2006)

When process or policy changes are implemented, it is important that this new knowledge is "updated" across the workforce in a consistent manner. It is this transfer of knowledge that can form the basis for competitive advantage (Argote & Ingram, 2000) and for INZ this means better outcomes, enhanced customer experience and consistent decision making.

Alavi & Leidner (2001) state that knowledge transfer occurs at multiple levels, including between individuals, from individuals to explicit sources, from individuals to groups, between groups, across groups and from the group to the organisation. The catalyst for the above knowledge transfers are through process and policy changes and this case study will explore the barriers that may impact this knowledge transfer from both a "sender" or "receiver" perspective. As process changes are generally "pushed" to end users, we will explore the knowledge transfer process, specifically relating to process and policy changes and how this transfer currently takes place in an operational setting.

Understanding the factors impacting knowledge transfer in a process or policy change scenario, will enable INZ management to better manage the flow of information, leading to enhanced knowledge and providing assurance that process changes are embedded for consistent decision making, while understanding what feedback mechanisms are in place for front line users.

Introduction to Analysis

Methodology

The case study involved the collection of data from two main sources. An anonymous voluntary online survey was used prior to conducting five semi-structured interviews. The survey consisted of two parts, the first part asked for participant consent and offered the opportunity to receive a copy of the summary results via email. Where an email address was provided, this was stored separate to the main survey results, ensuring results could not be connected back to individual respondents.

The anonymous online survey enabled a global perspective to be gained and meant possible participants could complete the survey out of work time if required, minimising the demands on their day to day workloads. The survey was designed to be simple and quick to complete, with most surveys completed within 10 minutes and enabled respondents openly to share their views and insights knowing the survey was anonymous. The survey allowed for the collection of data involving knowledge management, sharing and transfer of knowledge, types of knowledge, communication channels, barriers and benefits, which could all be explored as broad themes in subsequent interviews.

Potential online survey participants were notified about the survey using existing company distribution lists covering 16 operational sites across the globe and covered approximately 800 employees in various roles including processing, technical, support and management to ensure a broad cross section of views. Appendix 1 provides a breakdown of demographics including role type and tenure in current roles. 120 people commenced the consent survey with 83.3% (106) providing their consent to proceed. 17% of participants (18) requested copies of the summary results by providing a contact address.

The main survey received 106 responses with only 2 incomplete surveys that were deleted from the final results leading to a 98% conversion rate. 31 (30%) survey respondents also answered the generic survey question by providing verbatim comments relating to knowledge management and barriers, which added to the richness of the survey and insights to key themes.

Five semi-structured interviews were completed with participants selected by approaching the researchers own personal network within the organisation. Interviewees consisted of various roles, but were all conducted onshore to ensure face to face interviews could be conducted with staff. The first part of the semistructured survey was used to capture simple demographics prior to asking semistructured questions based on themes from the anonymous online survey and probing for further information as required. Interviews were recorded for transcribing later and were each completed within 30 minutes. Using internal candidates enabled in-depth conversations to take place with a shared understanding of terminology and processes while also allowing probing questions. Care was taken by the interviewer not to "put words" into respondent's answers and to minimise any potential bias by

ensuring answers would be treated as confidential and would have no influence on performance ratings or remuneration of the employee completing the interview. All survey results were stored within the survey tool but were exported to a CSV format for further analysis in excel and for creating graphs for presentation of results.

Analytical Frameworks to Guide the Analysis

The components, views and perspectives of Knowledge Management are many and varied (Appendix 2 & 3 for more information) and Drucker (1993) suggests that knowledge has evolved through three distinct stages. The first consisted of the pursuit of knowledge for the sake of enlightenment and wisdom, the second stage was technology led with knowledge defined around organised, systematic and purposeful uses and finally the third stage was when management attempted to formalise worker experience and skills into objective knowledge.

The notion of learning organisations meant that originations could start to use this human capital for competiveness, problem solving and strategic advantage supported by changing organisational structures and rapid technology changes (Nonaka, 1991; Nonaka & Takeuchi, 1995; Davenport & Prusak, 1998; Quinn, Anderson & Finteishen, 1998).

When we consider the meaning of knowledge we immediately think about data and information and how this is used for knowledge however Davenport & Prusak (1998, p. 5) define it as;

"a fluid of framed experience, values, contextual information, and expert insight that provides a framework for evaluating and incorporating new experiences and information. It originates and is applied in the minds of the knowers. In organisations, it often becomes embedded not only in the documents or repositories but also in organisational procedures, processes, practices, and norms."

Knowledge management includes the processes necessary to generate, capture, codify and transfer knowledge across the organisation to create value and competitive advantage. Knowledge rests with individuals and organisations can only benefit when this knowledge is shared or transferred from one individual to another individual or group. (Pearlson & Saunders, 2013).

The process of knowledge transfer, which involves transmitting knowledge from one person or group to another needs to be understood in order to identify any barriers and without absorption of knowledge, a transfer will not have taken place. (Pearlson & Saunders, 2013). As process and policy changes are made across INZ, there is a need to transfer this knowledge to decision makers. By using a framework that provides for the effective transfer of knowledge, we can understand the flow and the potential for barriers. The integrative framework from Goh (2002) detailed in Figure 2 provides for a system wide approach to knowledge transfer and details a number of factors that can contribute to effective knowledge transfer. The framework also supports the notion of a learning organisation and was specifically designed to be used for effective knowledge transfer within an organisation so aligns well with the INZ case study. By using these factors as the basis of our survey and interviews, we will be able to understand knowledge transfer and any potential barriers.

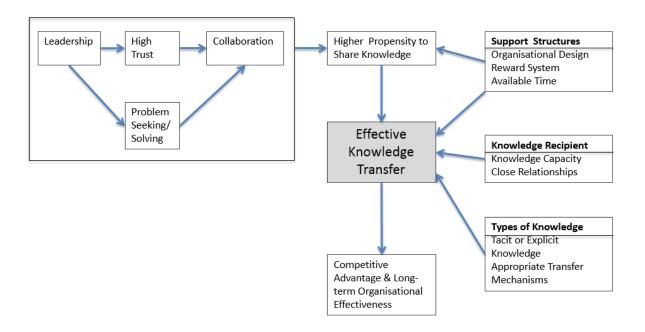


Figure 2: An integrative framework showing factors influencing effective knowledge transfer (Goh, 2002)

Organisational communication also plays a key part in the ability to transfer knowledge, as key messages and changes to process and policy need to be communicated across the organisation. Using a communication model will enable the identification of any activities that may contribute or detract from the knowledge management process considering communication plays an important part in

knowledge transfer (Szulanski, 2003). The model referred to in Figure 3 is based on the original work of Shannon & Weaver (1949) prior to adaptation by Jacobson (2006) to represent knowledge sharing between individuals.

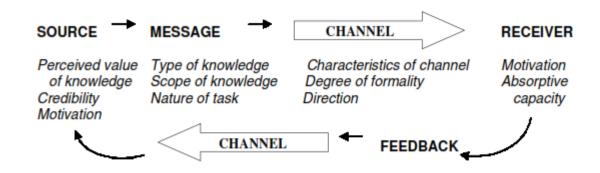


Figure 3: A model of knowledge sharing between individuals in an organisational context

The model shows the flow of knowledge from source to receiver through a variety of communication channels and includes a feedback loop. This is important in the context of INZ as updated process and policy information is initiated at the source and transmitted as a message through a variety of channels to a the front line staff (the receiver). Process and policy change has always been communicated to staff via various channels and using the above model will allow for exploration during the analysis of our survey and interview data as the model is based on the idea that the message is transmitted and there is an assumption that it is understood and absorbed.

Literature Review

Knowledge Transfer

The term knowledge transfer (KT) is not well defined and has been used in multiple contexts and perspectives within the existing literature (Paulin & Suneson, 2012; Badaracco, 1991; Hansen, 1999) and KT is sometimes used interchangeably with the term knowledge sharing (KS) which creates blurriness between the two concepts (Jonsson, 2008) and new terms such as "knowledge acquisition", "knowledge assimilation" and "knowledge emission" all add to the confusion (Holsapple & Jones (2004).

Liyanage et al. (2009, pg. 122) defines knowledge transfer as the conveyance of knowledge from one place, person or ownership to another and Riege (2007) describe KT as the application of prior knowledge to new learning situations and Argote & Ingram (2000) describe KT as the process through which one unit is affected by the experience of another. Davenport & Prusak (1998) perceive KT as the process of involving two specific actions in order for KT to take place. The first consists of transmission and the second relates to absorption and if knowledge is not absorbed, knowledge has not been transferred. The fact that knowledge is available, accessible and is shared, does not automatically enable the transfer to take place. In fact Szulanski (2000) highlights that the mere possession of potentially valuable knowledge somewhere within an organisation does not necessarily mean that other parts of the organisations will benefit from that knowledge, as they don't necessarily know all that they know.

KT is seen as a process in which an organisation recreates and maintains complex, causally ambiguous sets of routines in a new setting and the term "stickiness" is used by Szulanski (2000) to describe the difficulties experienced in completing the process of KT. Jensen & Meckling (1996) also state that KT involves the use of storage and processing capacity as well as input and output channels of the human brain and that the recipient of knowledge is assumed to understand the message well enough to act on it.

Although similarities exist with personal KT which focuses on how knowledge acquired in one situation applies to another, (Singley & Anderson, 1989, p1) KT in organisations not only happens at individual levels, but can take place at all levels. To further complicate matters, knowledge can exist in multiple locations across the organisation including with individuals, within roles and structures, within standard operating procedures and practices, within its culture and in the physical structure of the workplace (Walsh & Ungson, 1991; Levitt & March, 1988; Starbuck, 1992).

KT in organisations happens often, but when it does happen it is often incomplete (Argote & Ingram, 2000) leading to inconsistent uptake and inconsistencies and will happen as part of everyday organisational life whether managed or not (Davenport & Prusak, 1998). Szulanski (2000) acknowledges that intrafirm KT is often laborious, time consuming and difficult and that KT happens as a process as opposed to an act that is modelled.

According to Wiig (1995) organisational knowledge can be transferred in the following ways, one on one, person to person; one-to-many, real time, person to person; one-to many, media based, and computer based; and through management, infrastructure, culture and other embedded changes whereas Oliva (2014) proposed that KT is established through four processes consisting of static virtual processes. dynamic virtual processes, canonical face to face processes and finally noncanonical face to face processes.

Firms need to shift focus to more human aspects from access to attention and from documents to discussions "stop talking and get to work" needs to change to "start talking and get to work" - Davenport & Prusak (1998, p. 91).

Nonaka & Takeuchi (1995) say that KS is a critical stage in KT while Wang & Noe (2010) advise that KS refers to the provision of task information and know-how to help others and to collaborate with others to solve problems, develop new ideas, or implement policies or procedures. Appleyard (1996) define KS as the transfer of useful know-how or information across company lines and McDermott (1999) went as far as saying the act of sharing knowledge involves a person guiding someone else though their thinking or using their insights to help others see their own situation better.

Some authors argue that KT and KS are in fact the same activities viewed from a different perspective and that KT is about having a clear objective, focused transfer in a unidirectional way, while KS is about unintentional objectives that are shared multi directional. King (2006, p538) simply states that the best way to conceptualise KT & KS is simply to view them at opposite ends of the spectrum.

During this case study we define KS as the activity or intention to share know-how information from one party to another to assist in decision making and KT as the framework that facilitates KS through various channels and activities.

Knowledge Barriers

The previous section explored KT & KS and their definitions, and in this section we discuss some of the barriers that may inhabit the transfer to take place. If KT & KS can promote benefits such as improving organisational performance, competitiveness and strategic advantage, it is important that we identify and manage potential obstacles to help organisations meet their objectives.

The act of transferring information and knowledge from one entity to another takes place as a transaction involving communication. One party becomes the transmitter, the other party the receiver and the message passed through the communication is the knowledge.

These levels of learning where KT takes place are defined by Crossman, Lane & White (1999) advise that learning takes place at the individual, team, organisational and inter-organisational levels and that information (i.e. the message) flows between these levels.

Szulanski (2000) found that the characteristics of the source of knowledge, the recipient, the context, and the knowledge itself affected the transfer of knowledge and that these factors varied over the stages of the transfer process. Argote (1999) found that an individual's ability and motivation affects the transfer process and further studies have found that the characteristics, non-redundant links and the nature of the social ties within a social network can all influence on the KT process (Argote & Ingram, 2000; McEvily & Zaheer, 1999).

Where technology or tools are complex Galbraith (1999) advises that KT is negatively impacted, causing the receiver of the knowledge to have lower productivity than the source of the knowledge and the characteristics of the task have found to affect KT at both organisational and individual levels, with the more similar the task the greater likelihood of transfer. (Argote & Ingram, 2000; Singley & Anderson, 1989, Darr & Kurtzberg, 2000).

Davenport & Prusak (1998) state that values, norms, and behaviours that make up a company's culture are the principal determinants of how successfully important knowledge is transferred, but also that the degree of transfer depends on other factors such as:

- How tacit or how structured the knowledge is
- How much time workers have to transfer what they know
- And what kind of mechanisms have been set up to support the learning

Research by Fang et al. (2013) suggests that uncertainty and equivocality act as two main barriers to KT in inter-organisational settings while Riege (2005, 2007) and Oliva (2014) categorise barriers into technology, organisational and people barriers following the social-technical systems view. Finally several studies have reviewed barriers relating to knowledge sharing in detail, with Riege (2005) identifying over 36 individual barriers and Sharma et al. (2012) listed 22 barriers in their research.

Analysis

This section is used to explore the results of the data collection to help understand the current environment within INZ and to compare against our analysis frameworks. The act of KT can assist INZ in obtaining its objectives through the purposeful sharing of knowledge and this translates into accelerated learning (Riege, 2005).

Respondents to the survey were predominately represented from NZ based staff with only 15.4% (16) of responses received from staff that identified their role to be based offshore which slightly under represents offshore based staff when compared with actual roles based offshore. Experience in current role averaged 4.6 years as 67% of all respondents identified themselves as having less than 5 years' experience. 20 respondents identified their experience as over 10 years which showed overall staff experience totalling 600 years, signalling a vast pool of experience and knowledge that is available across the organisation. Demographics are listed in Appendix 1.

Knowledge Sharing and Networks

Our framework included activities that covered collaboration and propensity to share knowledge. Participants answered the question "INZ has a culture of knowledge sharing" with 68% either agreeing or strongly agreeing with this question and this cultural behaviour was reinforced with 94% of respondents advising, "I openly share my knowledge with others" and 100% advising, "I am happy to receive knowledge from others". This reflects the willingness of employees to share knowledge and to

collaborate when given the opportunity, however 18.2% disagreed that INZ has a culture of sharing which is at odds with the large percentage of participants that openly share their knowledge or are happy to receive knowledge. This may be explained though a misalignment of individual and organisational behaviours.

We know that strong social bonds can help with the ability to share knowledge, but if these social bonds are limited within the immediate team, individuals will only ever share between themselves. Verbatim comments from the data supported this view.

"Technical Support officers have been a well received addition to the team format and have been very valuable in transferring knowledge" - Survey "Technical Adviser provided an overview and followed [up with email..." - Survey

"I'm pretty open with sharing my ideas, especially around the branch" - Interview
2

"Very open. I guess I'm probably happy to make mistakes and to help people find the right information" - Interview 2

Our model allows for both tacit and explicit knowledge types to be used for effective KT. Explicit knowledge relates to written and procedural knowledge that can be easily reused, while tacit involves using past experiences and intuition to solve problems. Table 3 provides additional examples of the differences. In terms of INZ, the type of knowledge made little difference to participant's preferences with an even split between explicit and tacit. The survey provided participants with the option to choose to obtain explicit knowledge from written sources and documentation (45% agreed or strongly agreed) or from tacit sources comprising of individuals or groups (52% agreed or strongly agreed).

Table 3: Tacit and explicit knowledge

Tacit Knowledge	Explicit Knowledge
Knowing how to identify the key issues necessary	Procedures listed in a manual
to solve a problem	
Applying similar experiences from past situations	News reports and financial statements
Estimating work required based on intuition and	Information left over from past projects
experience	
Deciding on a appropriate course of action	Books and articles

Source: Pearlson & Saunders (2013)

Both questions also had high neutral responses with 51% and 47% respectively, indicating an even split between explicit and tacit preferences and were support in the verbatim comments.

- "Visapak is a great tool for keeping us up to date on changes" Survey
- "Some changes are well supported, and the documentation resources available are excellent." **Survey**
- ".. I ask questions and make better quality decisions.." Survey

rephrase it.." - Interview 2

"I like emails because I like to be able to file them away to certain areas" – Interview 2

"Probably QC [quality circle meetings], so it's basically face-to-face, you can ask questions there and clarify the wordy bits we don't understand, so we can

Employees are able to seek knowledge from a number of places including online resources, peers, managers and national office, and most INZ branches also have a TA (Technical Advisor) role who would be considered to be the subject matter expert, but only 63% agreed or strongly agreed with the question "My branch has a key person that people seek out to ask questions from, even if it is not their normal role" with 17% disagreeing with this statement and 20% remaining neutral.

From a branch perspective this could be seen as a positive in that knowledge is spread evenly around the branch and no one person is the holder of branch knowledge. Although the TA role wasn't fully utilised by participants, we should note that 25% of respondents identified themselves as managers who should already have good knowledge sources and technical understanding and may even double as the "go to" person if the TA is unavailable.

Employees are also able to utilise their strong social ties within INZ, even if only limited to immediate teams with 71% of respondents either agreeing or strongly agreeing with the statement "I have strong networks or relationships that I can use to find information" reinforcing the KS behaviours mentioned above.

Knowing where information is stored or who to approach is a challenge when exploring knowledge topics but within INZ 87% of respondents agreed or strongly agreed with the statement "I know where to go to find an answer to my questions

regarding policy or process". This highlights that individuals know the key knowledge sources available and can access these sources.

This does disadvantage new employees who may not have strong networks and will be unfamiliar with knowledge sources. The ability to make strong connections across the organisations will ensure knowledge sources can be created. One participant commented:

"I made some connections with other managers and have regular catch-ups with them about what's going on...." - Interview 1

"..where we dealt with offshore branches quite often, and they would be quite a key part and we had quite strong relationships...that can make your job a lot harder if you don't have a connection with another branch." - Interview 5 "What do I do? Who do I contact?, I know that, but there's no system in this branch that is setup to help people interact with other branches of Visa Services, which I think is quite interesting." - Interview 5

Benefits of Knowledge Sharing

Survey participants acknowledged the benefit that knowledge sharing could bring to a multitude of stakeholders. Survey participants agreed or strongly agreed with the benefits that knowledge sharing could bring to staff (99%), customers (96%), INZ (97%), agents or lawyers (89%), Government (86%) and NZ (89%) resulting in a variance spread of just 0.28 (0.25 – 0.52) and no single question receiving a response of "strongly disagree".

"..we have noticed and would want to know from an operational perspective where improvements could be made so as to achieve the objective of policy more effectively." - Survey

"Outcomes will be improved with confident and valued staff". - Survey

"It will encourage our work to benefit the business" - Survey

The high level of support from participants for the benefits of knowledge sharing will assist in any activities that support or promote knowledge sharing, potentially making engagement easier.

Knowledge Channels vs. Preferred Channels

Survey participants were asked "When thinking about policy or process changes, which channel do you currently receive this knowledge through" and were presented with a number of options relevant to the organisation covering tacit and explicit channels and could choose multiple options. Table 4 provides a description of current communication channels.

The top four options consisted of VisaPak (83.65%), team meeting (76.92%), email advice (68.27%) and immigration instructions (58.65%) with only the team meeting option providing the ability for face-to-face interactions.

At the opposite end video (22.12%), coaching (8.65%), other (1.92%) and contact centre (0%) were the least used channels for the delivery of knowledge. The contact centre makes sense given that it is internally focused and internal staff can access the same resources used by the contact centre.

The number of channels selected by participants highlights that there is not one preferred channel and that preferences will vary between individuals as a result of learning styles, situations, role types and even culture aspects. It is also possible for the same piece of information to be communicated through multiple channels, repeating the message using a blended approach. A recent change to processing was communicated originally through email advice, which required managers to present material provided by the Vision 2015 project to staff. Supporting training was provided to specific staff prior to go live, and post implementation support was provided via daily conference calls. Finally, key messages were reinforced by Senior Management in a staff video along with insights and learnings from staff impacted by the change. This was supported by comments in the survey and interview.

"Onsite training has improved 100% over the past 6 months, especially for the [project name removed] project" - Survey

"There's been some really good work around the Vision 2015 projects. I've been much more impressed with those. The [project name removed] that's rolling out in [removed] now, and the pre work to that [project] was really good. We got guite a lot of regular updated information coming out, but also having it come through a range of resources." - Interview 1

Table 4: Current Communication Channels for New Knowledge

Communication	Description	Knowledge
Channels		Туре
Team Meeting	Face to face meeting with flexible agenda and open discussion	Tacit
QC Meeting	Quality Circle meeting held at team level to discuss individual cases that may be problematic, seeking guidance from the team	Tacit
VisaPak	A weekly email containing processing changes and generic information including reinforcing old changes and best practice. May also link to other change	Explicit
Specific Training Session	Training session held to discuss a specific change. May include support material and personal views	Tacit
Immigration Instructions	Published policy regarding how applications will be accessed	Explicit
Email Advice	Email reminders sent to staff. Could originate from a manager, technical adviser or national office	Explicit
Contact centre	Externally focussed contact centre to answer specific questions using Immigration instructions as source of truth.	Explicit
Staff tool kit	A collection of documents covering processing requirements covered under standard operating procedures	Explicit
Team Members	Ability to approach team members for views, opinions and problem solving	Tacit
Video	Monthly video production that may highlight key operational and process changes. Used to promote awareness and provide context.	Explicit
Learn@MBIE	Learning Management System that hosts modules relating to processes and is used to facilitate online training	Explicit
Technical Adviser (TA)	Specific role responsible for technical knowledge regarding policy interpretations and best practice. Often used to check that decisions are consistent with policy and staff will use TA to discuss difficult cases.	Tacit
Direct Manager	Source to raise issues with or to discuss an approach to a specific case. Often relies on past knowledge and experience of the manager.	Tacit
Coaching	The ability to work with and individual to assist them to discover the answers to their own questions.	Tacit

The same categories were then used to ask survey participants "When thinking about policy or process changes, which channel do you prefer this new knowledge to come through". Three of the four options were identical starting with team meeting (62.50%), VisaPak (49.04%) and email advice (42.31%) with specific training session (49.04%) added as an additional selection.

The majority of channel options listed under the "preferred" channel were always lower than the "current" channel by an average of 18%. Two exceptions were "specific training sessions" (-14%) and coaching (-6%). This again highlights individual preferences across a range of channels, reinforcing that no single channels is preferred and that a blended approach is clearly warranted.

Figure 4 shows the difference between the current channel and the preferred channel and in the first example, 80 participants currently receive process or policy change through the team meeting channel, but only 65 choose this as their preferred channel leading to a difference of 15. Table 5 provides a detailed breakdown.

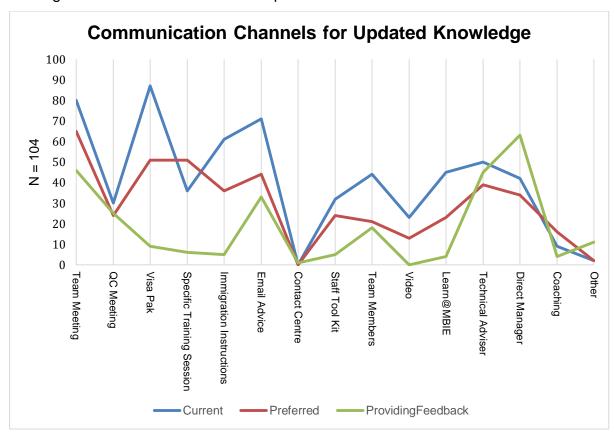


Figure 4: Communication Channels - Current vs Preferred

Table 5: Detailed breakdown of communication channels

	Team Meeting	QC Meeting	VisaPak	Specific Training Session	Immigration Instructions	Email Advice	Contact Centre	Staff Tool Kit	Team Members	Video	Learn@MBIE	Technical Adviser	Direct Manager	Coaching	Other
Current	80	30	87	36	61	71	0	32	44	23	45	50	42	9	2
Preferred	65	24	51	51	36	44	0	24	21	13	23	39	34	16	2
Diff	15	6	36	-15	25	27	0	8	23	10	22	11	8	-7	0
Providing Feedback	46	25	9	6	5	33	1	5	18	0	4	45	63	4	11

The highest preferred channel (team meeting) allows for tacit knowledge to be transferred due to the face to face nature and ability to ask clarifying questions, with the next highest preferred channel split between tacit (specific training session) and explicit (VisaPak). Figure 5 provides the individual differences for each communication channel and highlights two anomalies where demand is higher than actual through the negative values. Specific training sessions and coaching both had higher demand highlighting that staff preferred these two channels, but the organisation was not meeting this demand highlighting opportunities that can be investigated further.

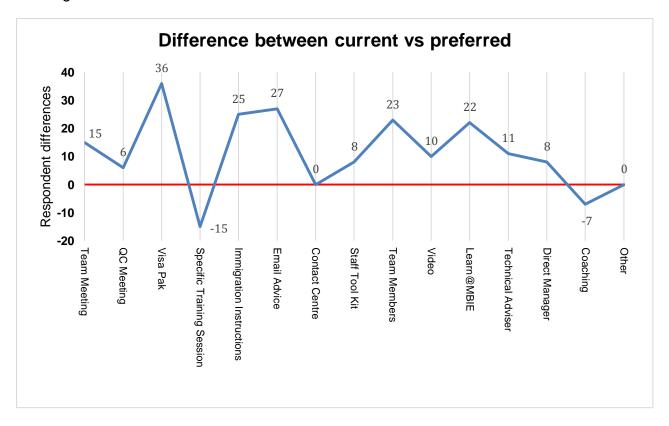


Figure 5: Difference between current vs preferred channels

On analysing preferred channels closer, survey participants that agreed or strongly agreed that they preferred tacit knowledge for learning, had a preference for channels that were tacit, including training sessions (89%), team meetings (78%), team members (67%) and direct manager (67%). This was less dominant with participants who agreed or strongly agreed that they preferred explicit knowledge for learning choosing the channel of email advice (75%) jointly with specific training sessions (75%). Table 6 provides us with a breakdown of preferred channels by role type and clearly shows role specific preferences. Support officers and immigrations officers are usually directly impacted by changes, needing to "un-learn" previous knowledge and learn new knowledge. Both preferred channels support tacit knowledge, with the ability to ask questions, clarify positions and learn best practices from other team members. Managers and technical advisers both preferred an explicit channel as their first preference, highlighting potential time pressures and the requirement to filter large volumes of new knowledge quickly. This misalignment could lead to managers and technical advisers presenting new knowledge to Support officers and immigration officers through a channel that that is not preferred by those receiving the knowledge.

Table 6: Preferred Channel by Role

Role	1 st Preferred Channel	2 nd Preferred Channel				
Manager	VisaPak (65%) Specific Training session (629					
Support Officer	Team Meeting (79%)	Technical Adviser (58%)				
Immigration Officer	Team Meeting (69%)	Technical Adviser (52%)				
Technical Adviser	VisaPak (86%)	Team Meeting (71%)				

Barriers to Knowledge Transfer

Based on Goh's (2002) framework, participants were asked to rank on a scale of 1 to 5 how each of 15 factors were a barrier to knowledge transfer. The top three averages were available time (3.83), current systems (3.54) and complexity (3.32). Available time was also consistent across all five roles types, remaining the most prominent factor as a barrier to knowledge transfer. Different role types did disagree on what made up their second and third barrier, which highlights the different perspectives and role activities but commonality was between systems, complexity,

team structure, rewards systems and willingness of others to share their knowledge. Figure 6 details key barriers by role type.

Role	Manager (n=26)	Technical Advisor (n=7)	(Head Office Staff (n=4)
1	Time (4.0)	Time (3.43)	Time (3.85)	Time (3.68)	Complexity (4.0)
2	Systems (3.81)	Complexity (3.14)	Systems (3.67)	Complexity (3.26)	Time (3.75)
3	Complexity (3.54)	Willingness of others to share their knowledge (3.14)	Reward Systems (3.25)	Team Structure (3.21)	Systems (3.75)

Figure 6: Key barriers to knowledge transfer by role

Participants were then asked to rank from 1 to 3 "The top 3 reasons that you believe are barriers to knowledge transfer" and time was again the top ranked reason with 31 (30%) selecting "not enough available time" as their main reason, followed by complexity (11%) and current systems (10%).

Verbatim comments also supported the main barriers with the following comments made

"There is not enough time to not only learn new processes changes or policy amendments but also not enough time given to allow TA to create decent training modules for new/existing staff" - Survey

'We do not have enough time to understand the changes in policy and/or processes as IO's are overloaded...." - Survey

"Quantity not quality is valued so that often means there is not sufficient time to fully understand, absorb and put into practice the appropriate knowledge" -

Survey

"...but another barrier, as such is time. It's about that. The frequency of it and the time it takes to really get through the information. You will know having to come into it twice a week and wads of information and all this other work going on at the same time" - Interview 2

"The fact [that] knowledge can come from so many outlets, it is hard to then find this knowledge at a later date if it is not in a centralised location" - Interview 3

"Difficulty finding things in knowledge base.....and complexity and extent of knowledge resources without really good word search facilities" - Interview 4

Barriers differed by role type with reward systems featuring only for the immigration officer but should be considered significant given that 46% of all respondents identified themselves as immigration officers. Immigration officers are measured on their outputs in terms of decision numbers, meaning that there is no incentive to share knowledge or assist with knowledge sharing activities outside current channels. Current workloads need to be monitored including active case management, and with limited time to share knowledge, incentives will be required to change behaviours.

On the other hand, the role of technical adviser is to absorb and transfer knowledge. With no active case load and no measures on decision outputs, they are free to share knowledge but have highlighted an unwillingness of other to share knowledge, as a key barrier.

Support officers also highlighted team structures as a key barrier. These roles are often isolated in mail rooms or in the lodgement area away from the general processing area. Their ability to interact with immigration officers and technical advisers is limited, often reporting to an immigration manager who is not involved in application processing, adding to the isolation and the ability to share knowledge across the branch.

A question about time was also specifically included in the online survey that asked participants about the time available for learning about process and policy changes with only 23 (22%) believing the time available was about right. Other respondents believed that it was almost enough (33%) or not enough (45%).

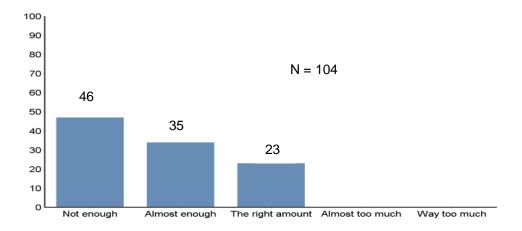


Figure 7: Breakdown of time available for KT

Time has a number of perspectives and although a number of comments made reference to the amount of available time to learn about new knowledge, there also needs to be the time available to embedded this new knowledge and "un-learn" previous knowledge. This is more prevalent in experienced staff members with long tenures as the more institutionalised pre-existing knowledge is, the higher the effort to dismantle and unlearn this knowledge and this the efforts to forget prior knowledge and know-how are not likely to begin until new knowledge is put to use (Szulanski, 2000)

The barriers of systems, lack of available time and lack of rewards systems can be considered as driver barriers as highlighted by Sharma et al. (2012) work. This study found that knowledge barriers categorised as "drivers" need to be addressed in order to promote successful knowledge sharing activities and have little dependence on other knowledge lower dependent barriers. This provides management with the incentive to focus on these barriers in the first instance.

Providing Feedback on Knowledge Transfer

The final two questions asked participants what channel they could provide feedback or highlight issues or exceptions within a process or policy and the level of confidence in understanding and reusing knowledge.

For consistency, the same channels were presented to participants to choose from with the top choice for providing feedback listed as direct manager (61%), team meeting (44%) and technical advisor (43%) detailed in Table 7. Only 11% choose to respond back to the policy team or the originator of the change to provide feedback.

Table 7: Feedback Channels

	Team Meeting	QC Meeting	VisaPak	Specific Training Session	Immigration Instructions	Email Advice	Contact Centre	Staff Tool Kit	Team Members	Video	Learn@MBIE	Technical Adviser	Direct Manager	Coaching	Other
Providing Feedback	46	25	9	6	5	33	1	5	18	0	4	45	63	4	11

The preferred channel for feedback was to a participant's direct manager highlighting a potential bottle neck for feedback, as a manager would never be the creator of the

new knowledge. A project or policy team change would be passed to a manager to deliver and lead the change, but feedback would then always have to go back via this channel and masks the creator of the new knowledge.

Finally participants were asked, "When you are advised of a new process or policy change, on a scale of 1 to 5, how confident are you"

- that you understand the new process or policy (3.63 average)
- could transfer this new knowledge to others (3.46 average)
- could find and reuse this current knowledge within a knowledge system (3.35 average)
- to find the source of who created this new knowledge (2.86 average)
- providing feedback regarding the process or policy (2.89 average)

These questions were asked to understand the full process for knowledge sharing, the ability to absorb new knowledge and an individual's motivation as per our communications framework.

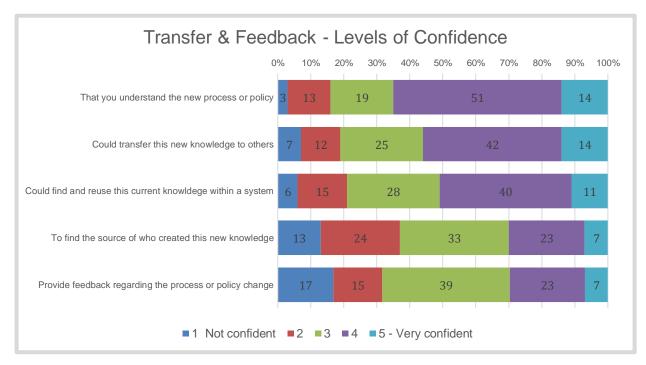


Figure 8: KT & feedback - Levels of confidence

Results are highlighted in Figure 8 and the two lowest scores highlight that the source of the information and the ability to provide feedback are limited and that a communication feedback loop is not present. Participants are comfortable in that they

understand the new processes and could transfer to others and can locate current knowledge when required. What respondents were less confident about was their ability to identify who created the knowledge and how to provide feedback regarding this new knowledge.

One survey participant highlighted this by commenting "When new knowledge is provided to me it appears to be one directional, almost telling. There is the assumption that any new changes are fully understood and then it will be how everyone completes it going forward", with another commenting "We seem to have an organisation which is structured in such a way where the people who enforce the policy tend to have little or no direct interaction with those who write and maintain the policy. We are only ever offered feedback when either something goes wrong or they introduce a new policy"

Feedback may be required to understand the practical application of the change or to highlight gaps. On occasion changes create the situation of "unintended consequences" which goes against the objective of a policy, effectively creating a loophole or a policy may remain "silent" on a specific topic.

The ability to provide feedback, either to the source of new knowledge or through current systems would enhance the learning process. The effectiveness of existing communication channels can be measured to ensure that know-why, know-what and know-how knowledge can be understood and transferred. To this end we have proposed a simplified framework in Figure 9, incorporating a feedback loop, communication strategy and role specific barriers to create an effective knowledge transfer environment.

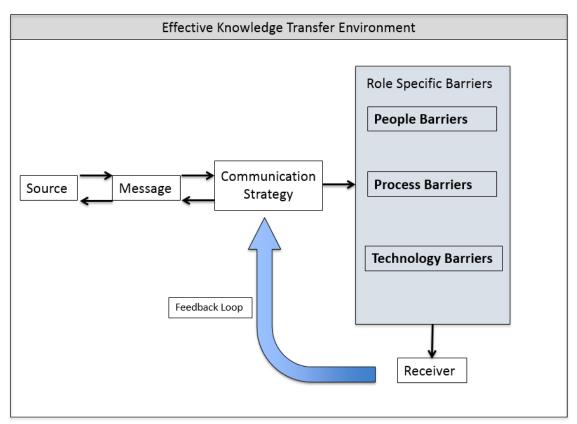


Figure 9: Proposed simplified framework

Recommendations and Conclusion

In this section, we provide a number of recommendations that will enable INZ to better meet the challenges associated with the volume of change, consistency of decision making and the one directional flow of communications, through reflecting on the barriers to knowledge transfer as highlighted by our research. We have themed our recommendations under the managerial levers of control, organisation and culture.

Control Levers

Planning

Time was the number one barrier to knowledge transfer and 78% of all respondents wanted more time to share knowledge. INZ management need to be able to balance the time available for knowledge sharing and decision making through a planning process. Although managers hold team meetings and quality meetings, these should be formalised to include knowledge sharing as a key agenda item. Management should see the task of sharing knowledge as one of adding value, by improving efficiency and consistency of decisions. The sharing of knowledge should not only be viewed internally within a single branch, but across other branches through a structured engagement process.

Time available for sharing may also manifest itself due to a perceived lack of time, apprehension towards sharing, low awareness regarding the value and benefit of sharing, intrusive and extra work, existing information overload or volume of explicit knowledge already circulated (Riege, 2007).

Management must be disciplined to address these manifestations by creating time to hold knowledge sharing meetings and highlight time saving activities as a result of best practice, while also acknowledging that time is required for "unlearning" previous knowledge, especially for team members with long tenures.

Organisation Levers

Formal and Informal Networks

Consistency of decision making can be enhanced through aligning like for like processes within the same structure and supporting the connections of these

structures. Argote & Ingram (2000) found that knowledge transfer could be enhanced by moving tools and technology to different locations. A consistent approach to these tools and technology would be supported with the moving of people as a knowledge transfer mechanism, due to their ability to transfer both tacit and explicit knowledge. The ability to move like processes into centralised sites and the ability to have staff rotate between sites, even on a virtual basis using IT, would enhance the ability to transfer knowledge. Work by Darr & Kurtzberg (2000) also supported the similarity of tasks positively affecting knowledge transfer, more so than customer or location, supporting the organisations aim to have applications digitised and processed centrally in hubs. This enables the volume of change to be isolated to a smaller group, as only individuals directly impacted by the change would need to learn new knowledge. The sharing of knowledge across hubs can be facilitated with staff swaps, joint information sharing and training sessions and case studies using best practice.

The TA role exists to provide knowledge across the branch they are located in, but respondents didn't see this role as the "key" role for seeking knowledge, preferring to rely on their own social networks. The ability to formalise the roles of "knowledge carriers" and "knowledge requestors" (Hoffmann, 2008) will ensure that individuals can not only use their personal networks to locate new knowledge but also look across the organisation for new connections. This would be achieved by tagging individual experts with knowledge attributes either through the corporate directory or using other knowledge management tools such as blogs, wikis or formalising a community of practice sub team. This allows policy specific knowledge to be built and maintained, that can be accessed across the organisation, therefore promoting sharing and learning of best practice and ensuring consistency. The TA role can then be used to extend these social networks further and connect new participants through the facilitation of tacit knowledge back into explicit knowledge.

Business Processes

Formalising the role of the TA as more of a knowledge or process champion, can assist management by reinforcing knowledge sharing behaviours, including the ability to create explicit knowledge material while delivering the face to face tacit knowledge. The TA role then becomes part of the knowledge sharing process that

can facilitate feedback, identify knowledge creators and promote communities of practice.

The ability for support officers to identify potential problems early and add value to the decision making process would be enhanced if they could also identify "knowledge carriers" and be involved as "knowledge receivers". Support officers felt that team structures did not support knowledge transfer and by including this role in any knowledge activities, will enhance the end to end process.

A number of discrepancies exist between the current channels used for receiving updated knowledge and participants preferred channel. This highlights that not all organisational communication channels are meeting employee expectations with the two largest variances relating to VisaPak and email messages. A review of all communication channels for communicating change should be undertaken to ensure alignment with key messages required for process and policy change. This will not be a one size fits all approach, as employees all had different preferences, however two areas that were highlighted were more "change specific training sessions" and the ability to be coached which all had negative gaps between "preferred" channels and "actual" channels. Breaking down change into easily digestible activities, also ensures that complexity is minimised and change can then be built upon existing embedded change.

The ability to create and implement feedback loops across the various channels will promote connections and networks between the knowledge creator and the knowledge receiver, ensuring knowledge transfer has taken place and increasing value for the organisation. (Jacobson, 2006).

We mentioned that feedback loops are important and these can be implemented at a technology level. Many of the current organisational systems create static knowledge with feedback channels limited to generic email addresses. The creation of blog and collaboration capability allows users to raise questions and have these answered across the global processing network. The ability to provide practical examples as comments within the immigration instructions will help with judgement based decisions and organisational learning.

Integration is required across a number of knowledge sources to ensure that it supports employees working processes. The simple ability to comment or link from

one source of knowledge to another would add value and reduce complexity, including the ability to search for information and knowledge across multiple sources.

The ability to amend individual profiles within organisational systems to include areas of knowledge expertise and experience will help promote networks and ensure knowledge creators can be identified through badges or accomplishments.

The creation of a knowledge sharing strategy to combine control and organisation actions will bring all activities together and provide a level of governance to ensure organisational goals and objectives are met.

Culture Levers

Incentives and Rewards

The ability to reward individuals through sharing knowledge via a structured process should be included in KPI documents with behaviours reinforced through the inclusion of knowledge competencies within job descriptions.

Reward and recognition schemes will allow management to share best practice, while rewarding individuals for sharing their knowledge across the organisation and will support a culture of knowledge management.

Management would be well supported in implementing any formal knowledge sharing reward schemes with staff, as 94% of participants were happy to share their knowledge openly and 100% of participants were happy to receive knowledge. Participants also highlighted the benefits of knowledge sharing to stakeholders, including staff (99%), customers (96%) and INZ as an organisation (97%) and any activities would go some way to creating a stronger knowledge sharing culture within INZ that values knowledge.

The ability to use technology to support KT is also highly visible and accessible across the global network, further promoting recognition in an easy to use mechanism, reinforcing the desired knowledge sharing behaviours.

Conclusion

This case study has allowed us to collect data from both interviews and a survey to understand KT and the associated management challenges within INZ. The findings have highlighted that available time, current systems and complexity are the most common barriers to KT. An individual's role will also impact on their perception of knowledge barriers, with team structures, lack of reward systems for sharing knowledge and the willingness of others to share knowledge, all listed as role specific barriers.

Organisations also need to be aware of their communication activities, as communicating process or policy changes without a feedback loop will have limited success and a blended approach for communication channels is preferred by individuals who have different learning requirements that are role dependant with participants split evenly between receiving updated knowledge through tacit or explicit methods.

It is through understanding these barriers and improving communication for process and policy change, that public service organisations can deliver efficient and effective services to their end user, the paying customer.

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Glossary of Terms

AAM – Assistant area manager. Alternative name for MM (market manager) role but based on-shore

AC – Amendment circulars. Changes to the INZ Operational Manual documented and notified prior to updating of the Operations Manual

ATIS - Advice to immigration staff on the interpretation of instructions and best practice

IAC – Internal administration circulars provide information for immigration staff on procedural and process issues. These are sent out as and when required. They are not part of the INZ operational manual.

ICC – Immigration contact centre

IM – Immigration manager

Immigration Instructions – See INZ operational manual

INZ Operational Manual – An online electronic manual containing the current and historic Immigration Instructions that are used by INZ staff to assess applications based and are publically available for viewing.

IO – Immigration officer is responsible for the processing and decision of visa applications

IPT – Immigration & Protection Tribunal is the escalation tribunal for applicants to lodge appeals against the decisions made by INZ and is run by the Ministry of Justice.

Learn@MBIE – An internal learning management system containing computer based training modules for various subjects and topics including immigration.

MM – The market manager role is responsible for the running of a group of teams within a site and is generally based offshore.

The Link – MBIE's internal intranet containing process, tools and policy information

QAP – Quality assurance program relates to the process of ensuring data entry is accurate, decisions are sound and follow current immigration instructions.

QC – Quality circle enables team members to get together to share case information

SO – Support officer who provides administrative tasks including the receiving and lodging of applications

TA – Technical adviser is considered the subject matter expert within a branch on a specific policy or team

VisaPak – A weekly email communication sent to Management from Operational Support highlighting specific policy or process changes

Appendices

Appendix 1: Demographic Information

Role	Bar	Response	%
Support Officer	_	19	18.27%
Immigration Officer		48	46.15%
Technical Adviser	-	7	6.73%
Manager		26	25.00%
National Office Staff	-	4	3.85%

Figure 10: Participant breakdown by role type

#	Answer	Bar	Response	%
1	Onshore (within NZ)		88	84.62%
2	Offshore (outside of NZ)	_	16	15.38%
	Total		104	100.00%

Figure 11: Location of respondents

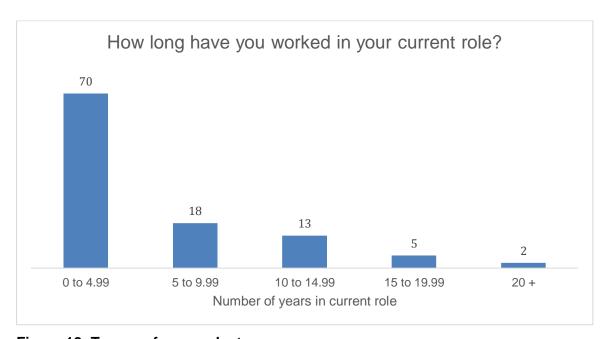


Figure 12: Tenure of respondents

Appendix 2: Knowledge Perspectives

Table 8: Knowledge Perspectives

The complexity of knowledge means that it can be referred to under a number of different scenarios or lenses referred to as perspectives. These perspectives are listed below.

Perspective		Implications for Knowledge management (KM)
Knowledge vis-a- vis data and information	Data is facts, raw numbers. Information is processed/interpreted data. Knowledge is personalised information.	Data is facts, raw numbers. Information is processed/interpreted data. Knowledge is personalised information.
State of mind	Knowledge is the state of knowing and understanding	KM involves enhancing individuals learning and understanding through provision of information
Object	Knowledge is an object to be stored and manipulated.	Key KM issue is building and managing knowledge stocks
Process	Knowledge is a process of applying expertise.	KM focus is on knowledge flows and the process of creation, sharing, and distributing knowledge
Access to Information	Knowledge is a condition of access to information	KM focus is organised access to and retrieval of content
Capability	Knowledge is the potential to influence action	KM is about building core competencies and understanding strategic know-how

Source: (Alavi & Leidner, 2001)

Appendix 3: Knowledge Taxonomies

Table 9: Knowledge Taxonomies

Knowledge Types	Definitions	Examples			
Tacit	Knowledge is rooted in actions, experience, and involvement in specific context	Best means of dealing with specific customer			
Cognitive tacit:	Mental models	Individuals belief on cause- effect relationships			
Technical tacit:	Know-how applicable to specific work	Surgery skills			
Explicit	Articulated, generalised knowledge				
Individual	Created by and inherent in the individual	Insights gained from completed project			
Social	Created by and inherent in collective actions of a group	Norms for inter-group communication			
Declarative	Know-about	What drug is appropriate for an illness			
Procedural	Know-how	How to administer a particular drug			
Causal	Know-why	Understanding why the drug works			
Conditional	Know-when	Understanding when to prescribe the drug			
Relational	Know-with	Understanding how the drug interacts with other drugs			
Pragmatic	Useful knowledge for an organisation	Best practices, business frameworks, project experiences, engineering drawings, market reports			

Source: (Alavi & Leidner, 2001)



Appendix 4: Summary of Literature – Knowledge Sharing Barriers

Knowledge Sharing Barriers	Bollinger and Smith (2001)	Zyngier (2002)	KPMG (2003)	McCann & Buckner (2004)	Wong & Aspinwall (2004)	Singh et al. (2006)	Riege (2005)	Singh & Kant (2007)	Singh & Kant (2008)	Wong (2005)	Ahmad & Daghfous (2010)
Lack of top management commitment	Х	х	х		х	Х	х	х	Х		
Concept of KM is not well understood	х	х			Х	х	х		х		
Lack of integration of KM strategy			Х				Х		х	х	
Lack of infrastructure supporting KS	х	х		х	х	х	х	х	х	х	х
Lack of transparent rewards	Х		х		Х	Х	Х	Х	Х	х	х
Lack of organisational culture	х	х	х	х	Х	Х	х	х	Х	х	х
Emphasis on individual rather than team	х				Х					х	х
Lack of knowledge retention	х	х	х		Х		х			х	х
Staff defecation and retirement						Х		х	Х	х	х

Lack of documentation	Х			Х			х	Х			Х
Lack of social network		Х	Х	Х	Х	Х	Х			х	
Insufficient analysis of past mistakes				х			х		х		х
Lack of time to share knowledge	х	Х			Х	Х	х	Х			
Fear of job security			Х				х		Х		Х
Lack of Trust	Х			Х	Х		Х		Х		
Age difference	Х			Х	Х	Х	х		Х		Х
Gender difference	Х			Х	Х	Х	Х		Х		Х
Difference in national culture	Х		Х	Х	Х	Х	Х		Х		Х
Lack of training		х			Х	Х		Х	Х	х	Х
Unrealistic expectations of employees							х	Х		х	Х
Reluctance to use IT systems	Х		Х				х			х	Х
Lack of integration of IT systems				Х			х		х	х	х

Source: Adapted from the works of Sharma et al., 2012 and Riege, 2005)



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