



## **DYNAMIC KNOWLEDGE MANAGEMENT STRATEGY DEVELOPMENT IN INTERNATIONAL NON-GOVERNMENTAL ORGANIZATIONS**

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# **DYNAMIC KNOWLEDGE MANAGEMENT STRATEGY DEVELOPMENT IN INTERNATIONAL NON-GOVERNMENTAL ORGANIZATIONS**

## **Abstract**

Knowledge management strategies are important for firms' competitive positioning. This paper examines how knowledge management codification and personalization strategies are developed in response to environmental and organizational dynamics in an international non-governmental organisation. A longitudinal case study of the organisation's strategic reformulation of its KM strategy over a 2.5 period is drawn upon. The research examines how pressures in the firm's operating environment led to the organisation identifying the need to leverage the value of local contextual knowledge. Subsequent reformulation required the organisation to change its strategic mix of codification and personalization over time. Although efforts were focused on increasing personalization, developments were supported through codification demonstrating the a symbiotic, mutually supporting relationship between the strategies. The strategic reformulation involved processes of reflection, repackaging and support activities.

**Keywords: Knowledge Management Strategy, Knowledge Dynamics, Non-governmental Organization, International Development, Case Study.**

## **INTRODUCTION**

To achieve competitive advantage knowledge needs to be managed strategically (Ikujiro Nonaka, 1994; Venkitachalam & Willmott, 2017) involving the alignment of knowledge management (KM) strategies to firms' competitive positioning (Venkitachalam & Bosua, 2014; Zack, 1999). Venkitachalam and Willmott (2013) argue that an 80:20 mix, advocated by Hansen et al. (1999), is too generalized. To accommodate such differences, Scheepers et al (2004) propose a dynamic perspective. Some studies have identified drivers for such a change in mix between personalization and codification (Venkitachalam & Willmott, 2013) though these have relied on case studies of companies at a particular point in time.

The objective of this study is to examine how knowledge management strategies are developed in response to environmental and organizational dynamics. The international development (ID) sector was chosen as knowledge is central to its activities (Athayde et al., 2016; Choudry, 2013) with the sector currently undergoing changes (King et al., 2016). This study draws on a longitudinal case study to examine how, over a 2.5-year period, an international non-governmental organization (INGO) responded to environmental changes by making changes to its existing knowledge management strategy. It examines environmental and organisational dynamics that led to an INGO redeveloping its KM strategy.

The paper begins by explaining the centrality of knowledge in international development work and outlining knowledge dynamics that place additional requirements on INGOs. Alternative static and dynamic perspectives on knowledge management strategies are presented. Having outlined our case study methodology, the background to the study and the case context are presented next. This is followed by an examination of the processes involved in reformulating the KM strategy, after which the contributions of the research are discussed. The paper concludes by drawing conclusions, recognising limitations and indicating areas for future work.

## **BACKGROUND LITERATURE**

### **Knowledge Management Dynamics in International Development**

International Non-Governmental Organisations (INGOs) are a major presence in developing countries. They play an important part in knowledge creation and sharing, providing a brokering role between Donors and local actors. INGOs receive substantial funds from donors and are an increasingly influential policy actor (Morton, 2013). International development work uses both

local and global knowledge (Leach et al., 2008). Research on NGOs has focused predominantly on scientific knowledge around farming (Ngcoya & Kumarakulasingam, 2017) and healthcare (Corbin et al., 2011; Hushie, 2016; Kotadia et al., 2018; Ridde et al., 2011). INGOs are also involved in lobbying (Sabbarwal, 2017) with such advocacy described as a 'site for knowledge production' (Choudry, 2013). NGOs provide value by disseminating knowledge (Hushie, 2016) acting as a conduit between foreign institutions (Choi & Kim, 2010), national governments (Vasconcellos & Sobrinho, 2015) and local communities (Corbin et al., 2011). As well as disseminating knowledge NGOs also learn from local knowledge. Barker & Beckford (2006) also found local farmers possessed high degrees of technical knowledge relating to botany, topology and soils. Indigenous NGO knowledge was important for sustainable environmental management practices in the Amazon (Athayde et al., 2016) and NGO partners' knowledge in managing flooding was critical in creating new knowledge (Musungu et al., 2016). Vasconcellos and Sobrinho (2015) argue there is a need to recognise local communities demands and knowledge. Therefore, for INGOs to provide meaningful aid there is a need to include local knowledge and have local participation.

The international development context is characterised by spatial separation between stakeholder groups and socio-political instability (Hermano et al., 2013), intangible project objectives (Khang & Moe, 2008) and challenging local constraints (Ramalingam et al., 2014). Where operating environments change rapidly, to create and sustain a competitive advantage, firms need to exploit knowledge while also exploring ways to innovate in order to respond flexibly to those changes (Lannon & Walsh, 2020; Pellegrinelli et al., 2015). The international development sector received \$185 billion in 2016 (Donor Tracker, 2018). Such investments from development agencies and governments are not unproblematic (Reinhart & Rogoff, 2004). Both local NGOs and INGOs act outside the realm of government but face pressure to show their credibility and legitimacy within what are constantly changing environments, which has (King et al., 2016) argue, resulted in a need for them to redefine their roles and reinvent themselves, with knowledge a central element of this reinvention.

There is also an increasing emphasis on the need for NGOs to engage more in good governance practices (King et al., 2016). Ensuring 'good governance' involves NGOs becoming more 'business-like', emphasising monitoring and evaluation, accountability and a results-focus (Porter, 2003) leading to a projectification of the sector (Lannon & Walsh, 2016). NGOs provide a role in mediating and legitimating knowledge (Brockington & Schofield, 2010). Development is predominantly seen by INGOs as involving programme stages, project cycles and logical frameworks (Kontinen, 2016). Results-based management (RBM) is another mechanism that requires INGOs to provide robust and rigorous evidence, which affects knowledge management (Hayman, 2016). Although RBM considers knowledge creation and systems it requires

organisations, in response to donors' demands for increased levels of accountability, to provide evidence of effectiveness (King et al., 2016). Thus, methodologies and frameworks used constrain how knowledge is constructed and expressed (Sanderson & Kindon, 2004). Ostensibly learning and accountability are within the purview of monitoring and evaluation (M&E) units; in practice their only function is external donor accountability (Kachur et al., 2016). There is a need to move beyond the limits imposed by such quantitative reporting methods to provide more nuanced analysis (Corbin et al., 2011). M&E departments' focus on donor accountability constrains their ability to adapt and learn with calls to improve M&E practices that meet donors requirements for operational excellence while providing accountability for adaptiveness and learning (Chambers, 2015; Prieto-Martin et al., 2017). There is a need to manage the balance between explicit organizational knowledge with contextual knowledge that is informed by local practices (Kontinen, 2016; Lannon & Walsh, 2020).

As NGOs engage in practice and research they become "*site[s] for knowledge production*" (Choudry, 2013). To achieve sustainable change requires the input of varied stakeholders possessing different knowledge and with different interests (Musungu et al., 2016), an understanding of stakeholders' values and objectives (Moshtari, 2016). Consequently, the networks in which NGOs operate provide opportunities for knowledge creation and exchange (Choudry, 2013) occurring at the local level (Musungu et al., 2016). In order to engage with the knowledge possessed by local communities' participatory approaches are advocated (Millar et al., 2004; Sanderson & Kindon, 2004). Cycles of reflection and action are needed to achieve social learning by developing practices and understanding (Reynolds, 2008) and reduce ambiguity around context-specific knowledge (Walsh, 2014). It is important that as well as being cognisant of local perspectives, NGOs articulate indigenous knowledge (Athayde et al., 2016) though southern NGOs have been found to lack the skills needed to document local knowledge. Nonetheless, the dominant view is of top-down knowledge transfer (Moschitz et al., 2015). It is also important to mitigate the risk of knowledge asymmetries reducing opportunities for knowledge co-creation (Walsh & O'Brien, 2018). The best place to develop solutions is in the context in which they will be implemented (Chambers & Ramalingam, 2016). Tensions may develop between international and local NGOs (Cunha et al., 2016). There is a need for partnerships to reconcile local and global knowledge (Corbin et al, 2011).

Collectively, such research indicates that there are knowledge dynamics within the international development sector which require context-sensitive activities to enable change (King et al., 2016; Kontinen, 2016; Porter, 2003) which make it suitable to examine the effects of environmental and organisational changes on KM strategies. Such multi-level knowledge dynamics (Schriber & Löwstedt, 2018), can affect strategic knowledge management in organisations, while managers

involved in decision making often have limited understanding (Venkitachalam & Willmott, 2013). It is these KM strategies that are examined in the next section.

### **Knowledge Management Strategies**

The strategic use of knowledge is often critical for competitive performance (Venkitachalam & Willmott, 2017) making it important to implement an appropriate KM strategy (Grant, 1996). Such alignment requires that knowledge is harnessed and mobilised effectively (Venkitachalam & Bosua, 2014). When designing and explicating a knowledge strategy the codification and personalisation categories developed by Hansen et al. (1999) are useful for strategic KM, as according to (Venkitachalam & Willmott, 2013) this is achieved through firms '*continuously reviewing and revising the mix of codifying and personalizing*'. There are, however, different views on whether the strategic mix should be seen as static or dynamic.

A key distinction in the KM discipline is categorising knowledge as tacit or explicit (I. Nonaka & Takeuchi, 1995). This distinction underpins the seminal work of Hansen et al. (1999) that outlines two KM strategies, personalisation and codification. Use of these strategies has been found to improve firm performance (Kim et al., 2014; Scheepers et al., 2004) and positively affect firms' ability to enact organisational change (Imran et al., 2016). While describing Hansen et al.'s (1999) as the '*most influential and highly referenced*' contribution to strategic KM (Venkitachalam & Willmott, 2013) argue it lacks a knowledge dynamics perspective. Knowledge dynamics involve aligning tacit and explicit organisational knowledge with knowledge relating to the organisations competitive landscape: both of which are continually being reformulated (Venkitachalam & Willmott, 2013). Implementing the codification strategy involves extracting individuals' knowledge, storing it using information systems and disseminating it to employees (Hansen et al., 1999) promoting knowledge reuse (Kumar & Ganesh, 2011). It is predicated on initial codification costs being outweighed by the value of subsequent use, what Hansen et al. (1999) call the economics of re-use. It suits mature markets with stable services and recurrent, well-defined problems (Kankanhalli et al., 2003; Mukherji, 2004). The personalisation strategy uses information systems to connect individuals, translating external knowledge (Walsh, 2015), developing knowledge networks and enabling experts to share knowledge, so that deeper insights can be developed (Hansen et al., 1999). Situations with high knowledge tacitness are appropriate for this strategy (Gorovaia & Windsperger, 2013) such as where creativity and innovation are required (Kumar & Ganesh, 2011). Also, as the underlying economic model relies on providing customised solutions to unique problems (Hansen et al., 1999), it is suitable in highly volatile environments (Kankanhalli et al., 2003; Mukherji, 2004).

While the tacit-explicit distinction is important, knowledge need not remain in the same form. (Greiner et al., 2007) argue against reliance on a single strategy with (Venkitachalam & Willmott, 2017) outlining the associated risks and pitfalls. There is recent interest in the optimal mix between codification and personalization (Imran et al., 2016). This mix between strategies has been attributed to a number of factors. Hansen et al. (1999) argue it is dependent on whether the firm's products are standardised or customised, mature or innovative, or reliant on tacit or explicit knowledge. Kankanhalli et al. (2003) include environmental volatility and whether the firm was product or service-based. Some studies find that the firm's stage of growth is relevant with personalisation predominant in early stage SMEs (Merono-Cerdan et al., 2007) for others it is the stage of firms' KM evolution (Lin, 2014) or the design stage in engineering development (McMahon et al., 2004) with research on creative firms by (Bettiol et al., 2012) finding personalisation supported creative activities while guidelines and principles were codified. Other research on creative firms found the strategy mix depended on whether an artistic competency or product portfolio approach is being followed (Bashouri & Duncan, 2014). While various studies have identified contexts in which either strategy should be dominant such research supports the view that once an equilibrium is achieved it should be maintained.

In their original paper Hansen et al. (1999) argue for a static position between the two strategies involving an optimal 80:20 split with a dominant and support strategy. This view has been supported by a number of researchers (Bashouri & Duncan, 2014; Haesli & Boxall, 2005; Kankanhalli et al., 2003; Kim et al., 2014; Song et al., 2008). For some the underlying work lent itself to codification being the dominant strategy (Song et al., 2008). For others, a reliance on process efficiency suggests codification as dominant while personalisation was suitable for innovation (Greiner et al., 2007) or, for creative firms personalisation should be dominant with codification playing a support role (Bashouri & Duncan, 2014). The two strategies have been further extended with a contingency model developed that further categorises codification and personalisation as both having internal and external dimension (Kim et al., 2014) or extended to include strategic HR dimensions (Haesli & Boxall, 2005).

There are those who believe that Hansen's 80:20 split involves '*crude and potentially misleading generalized prescriptions*' (Venkitachalam & Willmott, 2013) or that the 80:20 position should be seen as a starting position (Scheepers et al., 2004). Other researchers argue for a more dynamic view of the relationship between strategies as a way of enhancing both (Scheepers et al., 2004). Several researchers (Ali & Khan, 2017; Kumar & Ganesh, 2011) have found both strategies used at similar levels with no dominant strategy. This mix has been described as occupying a middle ground (Bettiol et al., 2012), a hybrid (Desouza & Evaristo, 2004), blended (Storey & Kahn, 2010) or balanced approach (Ribiere et al., 2007; Scheepers et al., 2004; Venkitachalam & Willmott, 2013). Although (Scheepers et al., 2004) found 2 of their 4 case study companies fitted the

dominant-support mix, they argue that this was because the firms were examined at a point in time and that, over time, the mix would progress to a more balanced position.

To use knowledge effectively as business needs change the mix of strategies must evolve to reflect this, with the support strategy being augmented, even if it doesn't result in the 80:20 split advocated initially by Hansen et al. (1999) argue Scheepers et al. (2004). Venkitachalam and Willmott (2013) posit that (Hansen et al., 1999) gives 'scant consideration' to the factors influencing knowledge strategy. An appreciation for the contexts in which knowledge strategies develop is important with Venkitachalam and Willmott (2013) finding that a more dynamic analysis of the personalisation and codification strategies was possible, whereby knowledge is aligned to a firm's competitive landscape, requiring continual reformulation. They identified five important factors; leadership, external competition, organisational politics, technology and culture. Another driver of KM strategy identified by Zyngier and Venkitachalam (2011) is KM governance. Venkitachalam and Willmott (2013) argue that this approach, considering internal and external organisational dynamics, allows managers better assess the required strategic mix. The ability of an organisation to respond dynamically and align to business and environmental conditions is especially important when knowledge is a key organisational resource (Zyngier & Venkitachalam, 2011).

As well as the appropriate mix, there is also the question of whether the strategies should be seen as distinct or interact. While (Chai & Nebus, 2012) argue that both strategies should be considered simultaneously they, like (Mukherji, 2004) who sees them as complementary, believe that the appropriate strategy should be chosen to support different organisational activities. Similarly (Lin, 2014) found the two strategies to be positively associated and complementary mechanisms. Kumar and Ganesh (2011) found both strategies were highly correlated suggestive of a reinforcing relationship with no negative effects on performance. Other researchers argue the two strategies are symbiotic with each deriving benefit from the other, with neither predominant (Jasimuddin et al., 2005; Venkitachalam & Willmott, 2013) and that there should be a degree of integration between them (Ancori et al., 2000; Denford & Chan, 2011). Indeed Storey and Kahn (2010) found that that both codification and personalisation strategies helped improve the usefulness of the other. Consequently Venkitachalam and Willmott (2013) have called for more research, on more diverse types of organisations, that examine the interaction between the strategic management of knowledge and changing business contexts.

There is widespread acceptance of the utility of both codification and personalisation strategies. However, there is currently a debate about whether the optimal mix of strategies is a static one, or one which changes dynamically as a result of ongoing environmental and organisational change. Consequently, there are also different views on the nature of the relationship between the



strategies. One reason for such differences is that previous studies examine firms' strategic mix at a point in time. The current study seeks to overcome this by examining how knowledge management codification and personalization strategies are developed in response to environmental and organizational dynamics during a 2.5-year period of strategic reformulation.

## **METHODOLOGY**

As this study examines how knowledge management strategies are developed in response to environmental and organizational dynamics it uses an interpretive longitudinal case study to examine this phenomena over time. Strategy development took place over a 2.5-year period (2015-2017). The INGO engaged in partnerships with multiple stakeholders at multiple levels. Identifying ideal case studies is rare (K. Eisenhardt, 1989). The international development sector was chosen as it had changed as a result of sectoral dynamics regarding governance and legitimacy (King et al., 2016; Kontinen, 2016), while the case company was selected as it had just undergone a strategic change programme, moving from project to programme management and was seeking to engage in more knowledge sharing as a result of those sectoral dynamics.

The case study design (R. K. Yin, 2002) was chosen as it enables phenomena to be examined in their natural context (K. M. Eisenhardt & Graebner, 2007). We sought, through the systematic analysis of cases in three country settings, to use a replication logic (R. Yin, 2009) to make the findings more robust (K. M. Eisenhardt & Graebner, 2007). A case study approach has previously been adopted, both to develop an understanding of KM strategies in similar and dissimilar contexts (Scheepers et al., 2004).

The research involved a mixture of qualitative methods, drawing on multiple sources of evidence (R. K. Yin, 2002). Like Scheepers et al. (2004) when researching KM strategies we used semi-structured interviews which were recorded and transcribed. Similar to Kreiner et al. (2015) we used onsite observations and field notes as well as attending meetings and workshops. Access was also available to group discussions which have been found to be useful in research on programme evaluation and strategic planning (Hennink, 2007).

Following prior studies (Ravasi & Philips, 2011; Tripsas, 2009) we developed a timeline of events (Table 1) with data coded and analysed to develop themes against those events. Firstly, there was unrestricted coding in order to identify and categorise key strategizing activities that took place. A thematic analysis approach, involving the identification of themes and data reduction was used where themes were identified and reduced (Guest et al., 211). Secondly, there was further coding

to identify the different identities at play. Finally, we related these themes to Hansen et al. (1999) KM strategies. We were seeking higher-order themes (Kreiner et al., 2015) which, similar to Scheepers et al. (2004) could be examined using a cross-case analysis to identify similarities and dissimilarities. Like Cunha et al. (2016) there was continual movement between sources of data and interpretations of the data until a stabilized interpretation was achieved.

Table 1: Project Event Timeline

<b>Timeline</b>	<b>Activity</b>	<b>Data Collection</b>
<b>Phase 1</b>		
December 2015	Initial discussions and development of terms of references	Group meetings: Strategic Impact Unit Managers (2)
April 2016	Organisational KM Discussions	Interviews: Senior Managers: (3) Strategy department, (5) IT department (2) Development Programme Managers (3)
May 2016	Terms of reference	Group meetings: Strategic Unit. Internal Documents.
June 2016	Sectoral Workshop	Representatives (25) from 8 NGOs. Participant observation field notes.
July 2016	Pre-fieldwork planning.	Strategic Unit Managers. Participant observation notes.
August 2016	2-day KM workshop	Strategic Unit Manager Field Staff (5, all levels) 3 Partner Interviews (6)
December	Internal report on Phase 1	Internal document.
<b>Phase 2</b>		
March 2017	Phase 2 planning meeting	Strategic Unit Managers.
July 2017	KM Workshop planning meetings	Strategic Unit
August 2017	Workshops	Kenya (6 staff) Uganda (5 staff) Zimbabwe (11 staff)

September 2017	Action plans	Internal documents from all 3 countries
October, November, December 2017 January, February, March 2018	Monthly KM team Skype Meetings	Participant observation notes
May 2018	2-day KM Project meeting and presentation to Headquarters	Participant observation notes Internal Documentation
July 2018	Sectoral Feedback	20 Participants from 10 NGOs.

**INTERNATIONAL DEVELOPMENT CASE STUDY**

The case study organisation AidCo (a pseudonym) was an INGO providing aid to over 2.5 million people in 23 countries. It worked in the international context outlined earlier, facing the problems outlined. Requiring good governance and extensive donor reporting AidCo had a dominant codification strategy that focused on supporting internal efficiency to meet agreed deliverables with upward knowledge sharing emphasising the importance of meeting donor reporting requirements. Even staff using codified knowledge recognised limitations.

*“many of the solutions that is not fitting into our results framework. So we’ve got all of these linear management tools where a programme wouldn’t really have the depths of knowledge of what’s contextual and what’s important and the real knowledge is there so it’s kind of, trying to emphasise the importance of that local knowledge as well.”* (Member, Strategic Management Department).

Recognition of personalization, involving local knowledge about contextual programme implementation, was achieved during field-visits and an annual gathering at headquarters. Responding to changes in its operating environment AidCo moved from individual projects to more integrated programming. *“We literally structured the whole organisation around core programme areas and that completely transformed how we did our work... moving from just scattered projects into the integrative sort of programmes we’re doing now.”* (Senior Manager). This allowed it to focus on three selected themes, accommodating economies of scale and enabled them to respond to sectoral pressures.

The organisation worked with partners (local NGOs) who worked directly with recipient communities, decreasing AidCo’s visibility. Strategically, senior managers sought to increase donor visibility to secure funding and with local stakeholder to improve the effective use of funds. AidCo also wanted to develop its reputation.

*“The ambition that we have as an organisation in a sense we become the Irish development leaders in those sectors and that we are also able to articulate and be clear on the roles that we can potentially play internationally in those sectors. So, our knowledge management, it has to have a goal, and for me that's where we want to be as an organisation. We want to be more recognised for working at those levels with roots deep into the grassroots...”* (Senior Manager).

To achieve this AidCo wanted to increase participation with local NGOs and deepen its partnership with local organisations, recognising the importance of context and leveraging staffs’ tacit knowledge. As staff in Zimbabwe commented *“having more narrative and reflection coming from a partner level would be really, really valuable because there’s more applied context with it”* (Internal report). Similarly, at headquarters staff argued for the importance of contextual knowledge.

[Regarding] *‘field offices and all of that, that would be the background I come from... [for KM] in our international work there are things that we need to know that informs our practice... what do you live with for the beneficiary that we work with, that informs the practice that we have, that we can actually action on field level’* (Manager).

There was a recognition that to achieve these aims, the focus needed to be on a personalisation rather than a codification strategy.

*“Well one thing I found was that, doing a document, email and all the rest, we almost never get traction. We almost have to be face-to-face...”* (Senior Manager).

## **PLANNING THE KM PROJECT**

After discussions at headquarters and in the Zimbabwe field office it was decided to reformulate the organisations KM strategy. Three countries were selected to develop KM activities dealing with organisational issues but which could be modified for local needs. Project implementation was coordinated from headquarters. Two-day workshops in each country took place. First, the concept of KM was outlined. Country staff were then asked to develop ‘job portraits’ where they identified their networks. The USAID knowledge management cycle was presented, which categorises KM activities into a cycle of knowledge generation, capture, sharing and application, staff listing their work activities for each stage. This allowed staff to name their actions as KM activities and identify gaps and opportunities. Project deliverables were outlined. There were monthly skype progress meetings, convened by headquarters. Over the course of the project three key activities, reflection, repackaging and support activities, were identified in all three countries. These activities were central to the reformulation of the INGOs KM strategy.

## REFLECTION

The ‘job portraits’ exercise involved staff reflecting on the stakeholders with whom they interacted. In addition to headquarters staff and donors, all three countries identified additional stakeholders including local organisations, national government departments, external research institutions, consultants, international aid networks, financial institutions, media outlets, other aid agencies, external national aid organisations, policy makers, local and national government institutions, local communities, church groups, advocacy groups as well as international aid networks. *“Reflecting on the knowledge networks the country team can identify opportunities for more strategic engagement”* Kenya Country Visit Report. There was a need for increased visibility with external networks, to be more influential.

The second exercise used the USAID model. Staff listed daily activities, categorising them against the four stages. Ugandan Workshop notes outline *“questions of how knowledge is valued and whose knowledge is valued in the organisation”* and from the Zimbabwe workshop *“What knowledge is valued?”* Staff reflected on specific knowledge management activities, identifying the types of knowledge they used and generated finding *“The organisation extracts/gathers a lot of knowledge but doesn’t always value it”* Uganda Workshop Notes. Similarly, *“The general view from the Kenya team is that they generate a lot of knowledge but don’t capture it, share it or apply it as well as they could...they are not leveraging what is already known”* Kenya Field Notes. It was felt that while they engaged in knowledge-related activities there was no clear strategy to systematically garner value from them. *“[We] don’t spend the time needed to articulate and share. By the time we get around to sharing we’re already going on to something else”* Uganda Workshop Report. While capturing knowledge took significant time and energy what was captured was less valuable locally than to headquarters for donor reporting. Secondly, there was a lack of tools for knowledge sharing so there was a focus on making local knowledge easier to locate. Kenya considered the reasons for articulating the knowledge they had generated in new ways by showing how it linked to programme and organisational strategies (Field Notes). They wanted to increase the visibility of their existing knowledge application and sharing to aid an understanding of their work that was embedded in their local context. They saw this as also capturing knowledge in a way that providing wider and better visibility for their work.

Reflection produced a consensus among countries to prioritise context-specific tacit knowledge that they generated but did not subsequently use. *“[We’re] very donor driven, not enough time spent reflecting on bigger picture, longer term impact.”* Zimbabwe Staff Member. This knowledge was valuable to diverse stakeholders, and, if made available, increased visibility on their expertise, nationally and internationally. This would provide increased legitimacy, allowing staff to develop their reputation to deepen current, and build new relationships.

The format and objectives of some meetings were restructured in Uganda. There were initially different perspectives on purpose of meetings. KM activities in Zimbabwe also focused on restructuring some of meetings as reflective spaces. Staff discussions distinguished between different meeting types based on their purpose. Staff saw an opportunity to have specific meetings, where partners were invited, for in-depth knowledge-sharing. This reduced the danger of reflective spaces for knowledge-sharing being crowded out by the immediacy of daily activities.

## **REPACKAGING**

As a result of the reflection process staff considered the nature of their work and the networks with whom knowledge could be shared. In Uganda a distinction was drawn between ‘programme work’ and ‘non-programme work’: the former was well supported with detailed reporting metrics and ways to capture activities within existing information systems, non-programme work, while underpinning programme work, had lower priority. In terms of knowledge sharing “*staff feel there needs to be more focus on why and with whom?*” with the reflection process leading them to question how to “*showcase the evidence of the effectiveness and impact of their programme approaches*” Kenya Country Visit. Staff in all three counties favoured of making local contextual knowledge more visible to “*ensure knowledge captured is shared in an understandable way*” with external stakeholders, Kenya Country Visit Report.

Ugandan staff, working on core programme work for sustainable agriculture, were involved in developing land-rights legislation to support such work. This involved negotiation and building relationships with government departments and local communities. They developed a national land policy, written in different formats for different communities, in two local languages. A shared folders system for such non-programme work was developed to support sharing local knowledge. In the area of advocacy staff focus on key successes on which they were formally reporting develop a ‘Policy Brief’ to influence non-donor stakeholders.

There was agreement in Zimbabwe that moving local reports and case studies to shared folders had worked well, with most files migrated from individual computers, increasing staff access. Zimbabwe also considered how to package new knowledge by providing additional local context to general material on Agri-Ecology.

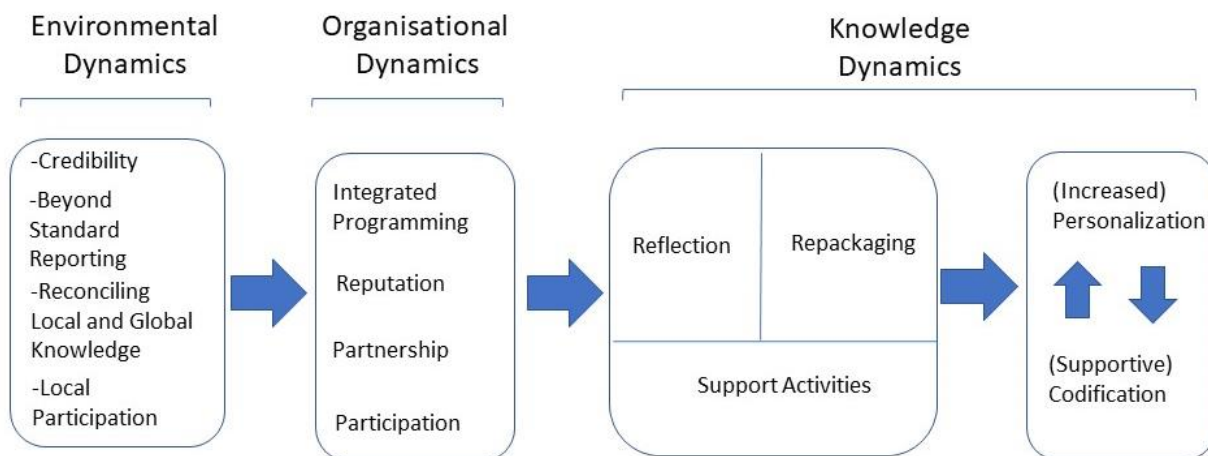
## **SUPPORT ACTIVITIES**

Developing country-level KM projects involved implementing local supports while identifying additional supports from headquarters. Local supports included developing internal sharing methods. These involved using technology to structure knowledge through templates, sharing knowledge using shared folders and visualise reporting through dashboards. Staff repackaged local knowledge not previously codified in corporate information systems, using it to develop new relationships. Support activities also involved embedding reflective spaces into the office’s annual plan so ‘*it’s part of the work we do*’. Kenyan staff reflected on how KM could make their decision making easier, developing dashboards and templates that others could use.

Country staff were used to coordinating, monitoring and evaluating aid projects. As part of this work they sought to embed sustainable changes. They wanted to ensure any locally developed KM changes would be sustainable to avoid ‘*going back to normal*’. They drew on their knowledge of project evaluation, identifying how KM activities could be monitored and evaluated by headquarters. They wanted clarification from headquarters on the motivation for KM to clarify what headquarters wanted to achieve from KM, who would assume KM-related roles, and the need for related time and budgets. Ownership of the projects was discussed in relation to workload ‘*Who takes ownership of projects?*’ seeking clarification on whose roles additional activities would fall. What staff wanted from headquarters was that KM roles would be recognised and clarity on KM activities, with deliberate milestones so KM was taken seriously.

The sequence of actions taken by the case study organization can be illustrated by the framework provided in figure 1.

Figure 1: A dynamic perspective on KM strategy development.



## DISCUSSION

This research was designed to examine how personalization and codification strategies are developed as a result of changes in environmental and organizational contexts. The seminal paper to consider moving from a static perspective was Scheepers et al. (2004) who extend Hansen et al. (1999) by considering the 80:20 mix as open to change over time as a result of political and cultural factors. This paper extends the dynamic strategies perspective in three ways.

First, the static position views codification and personalization as aligning to an initial set of environmental conditions (Scheepers et al., 2004). However, ongoing alignment processes are required as firms adapt their KM strategies to environmental changes. This paper showed how the challenges facing the international development sector, including the need for credibility moving beyond just good governance practices and reconciling local and global knowledge through participative approaches with local stakeholders, led to organizational dynamics which involved DevCo focusing on key themes and introducing integrated programming. As a result, the organization sought to modify their KM strategy. This research, extends the work of Scheepers et al. (2004) by showing how environmental changes resulted in organizational requirements that in turn led to the need to realign the KM strategy. Another key paper to extend the dynamics perspective was Venkitachalam and Willmott (2013) who identified factors influencing organizational dynamics and shaping the evolving contexts of knowledge strategies as their case study organisations responded to market pressures such as expansion, increasing efficiency, as well as quality and safety. While Venkitachalam and Willmott (2013) interviewed managers, directors and CEOs at a point in time this study conducted a longitudinal case study and focused on how strategy was initiated and developed in ways that responded to both local and organisational dynamics. Taking a dynamic perspective on KM strategies previous research examines firms at a point in time. This study highlights the importance of understanding the nature of change, how the firm developed an organisational response and how both knowledge management strategies were developed to manage this response over an extended period.

Second, as outlined earlier there is an ongoing debate between those supporting the Hansen et al. (1999) dominant-support (80:20) position (Bashouri & Duncan, 2014; Greiner et al., 2007; Haesli & Boxall, 2005; Kankanhalli et al., 2003; Kim et al., 2014) and those finding more balanced positions (Ali & Khan, 2017; Kumar & Ganesh, 2011). Some researchers focus on the mix of the two strategies but only at a particular point (Ali & Khan, 2017), their focus on the current situation rather than the antecedent dynamics or processes. An initial codification-dominant personalization-support mix existed in the case organization. During the project the focus was on the personalization strategy. This is consistent with Scheepers et al. (2004) argument that changes to the mix would involve augmenting the support strategy. This paper extends existing research by outlining the processes of reflection, repackaging and support activities that augmented the



personalization strategy. The importance and value of expertise in applying knowledge in local contexts was highlighted as a way of responding to external and internal changes by developing the organizations reputation and illustrating the credibility of its work beyond its standard reporting processes. This provides support for the argument that the optimal mix of strategies changes over time as realignment takes place. Personalization is a method of ‘connecting and developing networks’ (Hansen et al., 1999). The organization sought to develop networks in a novel way. Hansen et al. (1999) suggest technology facilitates personalization by enabling expert identification. This study was different as it found a codified people-to-documents that outlined local customizations and organizational expertise, developed so they could be shared with external stakeholders to enable the recognition of experts. This was predicated on the economics of expertise rather than reuse. While the study does not show the mix having reached parity, as suggested by Scheepers et al. (2004), it supports their contention that the strategic mix changes towards parity over time. This is the first study to follow the process involved in that change. As such it helps explain why both strategy-dominant and balanced models are found when researchers examine the mix only at a point in time.

Third, while Ancori et al. (2000) considers whether the strategies are complements, substitutes or mutually influence each other, Jaismuddin et al. (2005) argue for a symbiotic relationship and Desouza and Evaristo (2004) for a hybrid approach, such papers are conceptual and without empirical evidence. Even if treated as independent Kumar and Ganesh (2011) argue that through practice a reinforcing relationship may develop. Scheepers et al. (2004) see the relationship intertwining though they rely on cases examined at a point in time. No research was identified that examined the processes used as the mixes of personalization and codification were reformulated over time. It is worth noting that the employees involved in the reformulation processes covered all aspects of the service and were involved in both codification and personalisation and were different from previous studies where codification and personalisation strategies were separated, being based on different types of work. The reformulation processes are instantiations of the symbiotic relationship between codification and personalisation strategies. Rather than seeing the two strategies as separate entities we see the dominant strategy (codification) supporting the support (personalization) strategy. Although the interaction was one-way, with the dominant codification strategy facilitating the development of personalisation the reverse situation was identified by Bettiol et al. (2012). This paper is useful in providing evidence of symbiosis in the opposite direction.

## **CONCLUSIONS**

This study set out to examine how knowledge management codification and personalization strategies are developed in response to environmental and organizational dynamics. Using a longitudinal case study of an INGO in the international development sector this research has

extended the dynamic view of the codification and personalisation strategies. In a changing environment where INGOs were expected to provide good governance and reporting to donors while engaging in more participative ways with local stakeholders, reconcile local and global knowledge and exhibit greater degrees of credibility for their work we found the INGO studied reacted by engaging in more integrated programming and wished to increase its reputation as a thought leader while increasing participation and deepening partnerships at a local level. This led to a need to reformulate its KM strategies by developing its personalisation strategy. Taken together these provide support for viewing personalisation and codification as dynamic rather than static and capable of continual realignment in response to environmental and organizational needs. The three main processes through which this reformulation was achieved were reflection, repackaging and support activities. In addition, the two strategies were found to be interwoven and mutually supporting rather than distinct and separate. Although the study was carried out in an international development context and involved a single case study organisation which limit the generalisability of the findings it does offer insights into potential avenues for future research. Previous research on knowledge management strategy dynamics have been theoretical, or empirical case studies and surveys that analyse strategies at a point in time. Future longitudinal research could deepen an understanding of KM strategies in several ways. There needs to be more consideration of how environmental changes lead to organisational drivers, that lead to a need to reformulate KM strategies. This study found the organisation had implemented one strategic change, the move to integrated programming, and used the KM reformulation process to achieve additional strategic objectives around reputation and deepening partnerships through participation. Future studies could consider the sequencing of strategic changes and KM reformulation as alignment is achieved. Although this study identifies three reformulation processes there is a need to develop more of a repertoire of such responses. While this study identified movement from a dominant-support position parity was not achieved between codification and personalisation. Future studies are needed to track longer trajectories to identify whether parity is a natural final position, whether intermediate points are sufficient or indeed if moves from parity towards the dominant-support mix are possible.

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