

An enabler framework for developing knowledge management practices: Perspectives from Nigeria



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Background: Palm oil production in Nigeria has scope for massive improvements, regardless of Nigeria's position as a dominant producer. Palm oil from Nigeria is banned in certain countries because of a lack of standards. The majority of palm oil producers are indigenous farmers who tend to use traditional practices to extract the product. While palm oil production conducted traditionally is cleaner, indigenous farmers need more workforce and mechanized machinery to extract their oil in bulk supply.

Objectives: This research aims to highlight palm oil producers' indigenous knowledge management practices and specifically explore how the information is created, stored and disseminated compared with contemporary producers.

Method: A qualitative research approach involving 40 participants who were purposively drawn was used to investigate the indigenous knowledge management and contemporary knowledge management practices related to palm oil extraction in Ologbo in Ikpoba-Okha of Edo State, Nigeria, using Lee and Choi's 2003 enabler framework.

Results: The study identified areas of convergence and divergence in the knowledge management practices of indigenous and contemporary farmers using the enabler framework.

Conclusion: Using the enabler framework to highlight knowledge management practices that need improvement is novel and provides a starting point for indigenous producers to improve their knowledge management practices.

Contribution: The investigation of the enabler framework extends current theorization by providing contextual insights into how each framework component is collectively organized to support organizational outcomes.

Keywords: enabler framework; contemporary knowledge management; indigenous knowledge management; knowledge management; Ologbo Ikpoba-Okha – Local Government area In Edo state Nigeria.

Introduction

The term indigenous knowledge is synonymous with 'tradition' and 'neighbourhood knowledge' and distinguishes the knowledge created by a particular community from the knowledge framework of the world (Cerchione & Esposito 2017). Indigenous knowledge implies knowledge of indigenous groups and some other distinctive communities (Forutnani et al. 2018; Mali et al. 2018). In addition, local knowledge, or precise knowledge, is extraordinary knowledge of a particular culture or society. The reverse also applies: Knowledge can be created through research and other formal training institutions. Indigenous knowledge is also embedded in people's day-to-day experience and is sometimes relied upon by decision-makers to address problems related to culture, food security and social improvements (Chendov 2018).

Historically, indigenous Africans lacked the innovative capacity and relied on word of mouth to exchange information (Colnar & Dimovski 2017). Combining with Ologbo's history, this research in management research classifies queries, interprets, and contextualizes how information has evolved to help the indigenous farmers to improve their practice (Amadi, Ola & Ayoola 2020). To understand the new (contemporary) technique, small and medium-sized palm oil producers in the empirical context are questioned to help uncover how they have transformed their practices. Traditionally, farmers are regarded highly in the community because of the impact of their work in sustaining the livelihood of locals in the Ologbo community. Understanding indigenous knowledge management (KM) practices is essential for organisations today, especially for small and medium enterprises (SMEs), because employees in the empirical context may sometimes have a strong affinity towards their ethnicity. Applying indigenous practices in contemporary organisations may

be appreciated by those who strongly value their ethnicity and, thus, result in a display of organisational solidarity behaviour (Pepple & Davies 2019; Pepple 2020).

Palm oil production in Nigeria has scope for massive improvements, regardless of Nigeria's position as a dominant producer. Palm oil from Nigeria is banned in certain countries because of a lack of standards. The majority of palm oil producers are indigenous farmers who tend to use traditional practices to extract the product. While palm oil production conducted traditionally is cleaner, indigenous farmers need more workforce and mechanized machinery to extract their oil in bulk supply (Bayat et al. 2018). The situation in the Ologbo community is similar to the national experience and indigenous people struggle to access accurate information (Igwe et al. 2018). However, the Nigeria Agriculture Ministry currently supports farmers by providing them information and enabling them to cultivate viable seedlings. This support is provided free of charge to farmers (Jellason et al. 2021).

This study investigates palm oil producers' indigenous and contemporary KM practices using the Lee and Choi (2003) enabler framework. This area of research is essential as it not only provides a framework to uncover the challenges of indigenous and contemporary KM practice (Yulianti & Surendro 2018) but also identifies areas that can be improved to support indigenous KM. The following research questions are presented in line with this aim:

- What factors influence KM from an indigenous and contemporary perspective?
- How can the Enabler framework support indigenous and contemporary KM?

Literature review

Knowledge management enablers

The KM enabler framework proposed by Lee and Choi (2003) is adopted in this research, following a need for studies that comprehensively investigate KM enablers (Usman, Zaveru & Hamza 2021). The framework provides a link between the KM process and how knowledge is created to support the overall performance of an organisation (Hlongwane, Slotow & Munyai 2021). The framework provides a holistic view of the activities that enable the creation of knowledge such that it becomes possible to identify areas that need attention in the knowledge-creation process. The enablers include capacity and social relations in the workplace that affect how KM can influence an organisational outcome. This framework therefore responds to the call for more empirical investigation into understanding KM in the context of its enablers and how it impacts organisations (Usman et al. 2021). The enabler framework is discussed in greater detail in the following subsections:

Knowledge management strategy

Knowledge management strategy provides a technique for organisations to share information with the right person on time (Gyamfi 2017). Organisations use the information to

establish what is necessary to achieve their goals. These processes are often documented to enable managers to integrate them into business procedures (Igwe, Madichie & Amoncar 2020). Kankara et al. (2018) suggested that a transparent process is required for employees to understand an organisation's goal. Consequently, for organisations to gain a competitive advantage, they should be able to develop, share and deploy information effectively (Ogundiran 2019).

Information technology

Information technology helps organisations to promptly access, integrate and effectively deploy data to solve organisational problems (Jellason et al. 2021). The performance of any organisation depends on its ability to effectively use data from information technology (Nwafor et al. 2018). Such uses include how e-learning, management information systems, database administration and data mining have helped to improve business outcomes (Guiriba 2019).

People

Employees play an essential role in the success of an organisation. They bring their skills and experiences to support their organisation's goals and are integral to knowledge creation (Usman et al. 2021). The success of an organisation depends on its ability to create and share information, and people are essential to making this happen through day-to-day organisational interactions and relationships.

Enablers knowledge creation process

The enabler knowledge creation process is a way to collaborate, learn, gather and support KM between individuals or groups of people (Lee & Choi 2003). The process includes *socialisation*, a term that describes the collaboration between unspoken carriers. Socialisation helps to create new information through workplace interactions between employees and other stakeholders. *Externalisation* explains how data can be converted and expressed by using installed derived data to generate new concepts. *Combination* explores how to create a model by combining different components of the information expressed. *Internalisation* – here, the information is obtained from previously reported materials. It is known as obfuscation when compelling knowledge is gained from reported or external information shared with the company. The Nonaka model assumes that individual information can be converted into institutional knowledge, leading to creativity and increased institutional performance, ultimately leading to associations in a dynamic environment (Ifeanyi-Obi et al. 2017).

Knowledge management intermediate outcome

This framework reflects an organisation's actions to improve monetary and non-monetary outcomes. Information literacy, clear commitment, development, ideas creation, insights and innovation are deployed to improve the organisational process. Bayat et al. (2018) refer to this process as authoritative

imagination, where people develop ideas by working together in a complex social context (Bayat et al. 2018).

Organisational performance

Knowledge management, when deployed effectively, helps to improve performance. Promoting organisational performance requires appropriate resources and practical information management (Ebu et al. 2021), which improves organisational learning (Ebu et al. 2021). Effective information management can become a competitive advantage involving the entire organisation. This way, learning becomes organisation-wide and significantly impacts performance (Adedayo 2020).

Methodology

This research adopted an interpretive stance (Pepple, Akinsoewon & Oyelere 2021) to uncover the factors influencing indigenous and contemporary KM. A qualitative methodology enabled the authors to gain deep insights into how context may influence conceptualising the KM enabler framework (Easterby-Smith, Thorpe & Jackson 2012; Kohler, Smith & Bhakoo 2019). A qualitative research method is adequate, given that the factors investigated in the enabler framework are influenced by the context in a region with limited research (Reinecke, Arnold & Palazzo 2016). To understand what enabled KM, Lee and Chow's (2003) framework was explored to frame the interview questions around three broad areas in line with the research aims:

1. How is palm oil knowledge created, shared and stored historically?
2. What is the Current Palm Oil Extraction process?
3. How do indigenous and contemporary farmers creatively improve their palm oil production business?

Forty participants (20 indigenous and 20 contemporary SMEs) were drawn from Ologbo in Ikpoba-Okha of Edo State, Nigeria, for the study (see Table 1). The 40 participants were purposively drawn from among palm oil producers with over 5 years of experience in oil palm farming. Purposive sampling was adequate because it allowed the authors to interview participants who would provide valuable insights to address the research question (Bell, Bryman & Harley 2019). Although this sampling technique allows for internal validity, it has limited external validity (Andrade 2021). Therefore, the authors call for caution in how findings are interpreted in relation to how the enabler framework uncovers indigenous and contemporary KM practices.

A computer-aided tool NVIVO was used to gain helpful insight into the data collected by providing a systematic way to themes and sub-themes (Leech & Onwuegbuzie 2011). Before data collection, ethical approval was received from a UK university. Interviews were conducted via zoom because of the covid pandemic travel restrictions; interviews lasted from 45 min to 1 h and were recorded and transcribed. Notes were also taken during the interview to allow for the follow-up questions. Participants were interviewed individually for confidentiality, which helped ensure candid responses to

questions (Saunders 2012). After interviewing 40 participants involving 20 indigenous and 20 contemporary farmers, the second author ended the interviews because of saturation (Saunders et al. 2018). This was because subsequent interviews did not provide new information at this point.

A thematic analysis was used to understand the narrative as per the research objective. Before the analysis, the researchers listened to the interview recording several times to understand the participants' views better. This enabled the authors to develop codes reflective of the data and literature on the KM enabler framework (Nath & Dwivedi 2021). This analytical approach is premised on an a priori coding where codes are developed from a literature review to support an investigation into a phenomenon (Nunes & Al-Mamari 2008). There are challenges with using this analytical approach, such as inhibiting innovation (Snelgrove 2014); however, this is beneficial as it allows for data reduction and the development of relevant codes (Pepple 2022).

Research findings

The article developed its findings in line with the enabler framework to provide insights into how indigenous and current KM practices of palm oil extraction were created (Lee & Chow 2013). This framework is helpful as it enabled the authors to investigate KM effectiveness to support organisational performance, especially among oil palm farmers (see Figure 1).

Culture and collaboration

Palm oil cultivation in West Africa is traceable to the last 5000 years. Information from indigenous farmers showed that using traditional methods was better.

Indigenous farmers

'The traditional palm oil process method is better, and our customers prefer it.' (Local Indigenous Farmer 14, Male, Palm oil farmer owner)

'The traditional methods are hard work, but with improvement in some of our local tools, the work is not as hard as it used to be years back, and information was passed around by word of mouth.' (Local Indigenous Farmer 4, Male, Palm oil farm owner)

Structure and combination

Nigeria's palm oil business has seen unsustainable development since the 1960s (Yadav, Pant & Seth 2020). The government is currently exploring ways to support palm oil's sustainable cultivation and production (Tume, Kimengsi & Fogwe 2019). The findings of this study highlight how contemporary and indigenous farmers organized their businesses and the support system available.

Contemporary farmer

'We have an organization in our local region called Agenda 21, which has drawn out and is looking at new ways of regulating palm oil extraction.' (Contemporary palm oil farmer 1, Male, Medium size palm oil farmer owner)

TABLE 1: Description of participants.

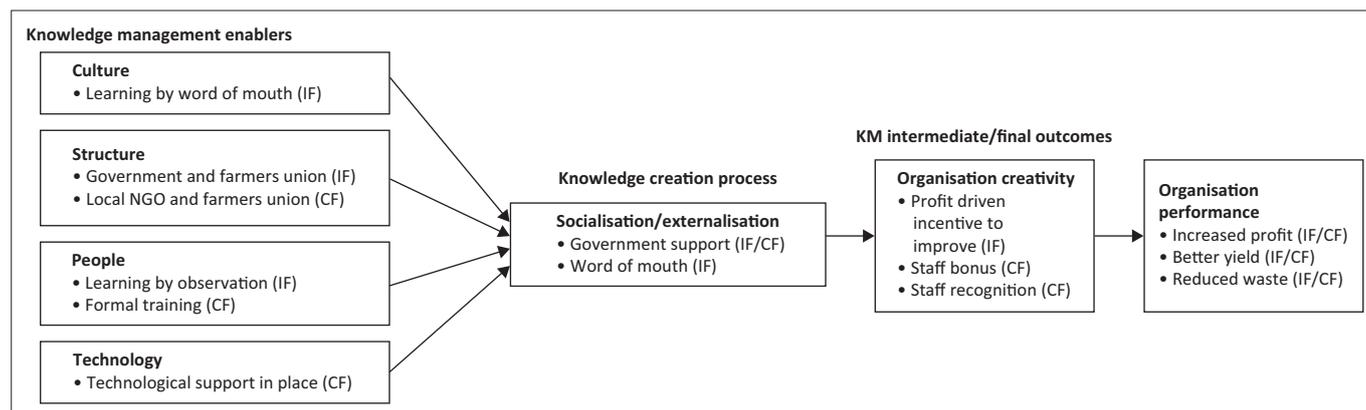
S.No	Participants' identity	Gender	Qualification	Position	Palm oil farming experience	State of origin	Age
1	Local indigenous farmer (1)	Male	WAEC Secondary School Qualification	Palm oil farm owner	30 years	Edo State	50 and above
2	Local indigenous farmer (2)	Male	WAEC	Palm oil farm owner	40 years	Edo State	50 and above
3	Local indigenous farmer (3)	Male	WAEC	Palm oil farm owner	28 years	Edo State	50 and above
4	Local indigenous farmer (4)	Male	Primary school leaving certificate	Palm oil farm owner	20 years	Edo State	40 and below
5	Local indigenous farmer (5)	Male	Primary school leaving certificate	Palm oil farm paid worker	10 years	Edo State	40 and below
6	Local indigenous farmer (6)	Male	WAEC	Palm oil farm owner	35 years	Edo State	50 and above
7	Local indigenous farmer (7)	Female	Primary school leaving certificate	Palm oil farm owner	30 years	Edo State	40 and below
8	Local indigenous farmer (8)	Male	Primary school leaving certificate	Palm oil farm owner	42 years	Edo State	50 and above
9	Local indigenous farmer (9)	Male	Primary school leaving certificate	Palm oil farm owner	48 years	Edo State	50 and above
10	Local indigenous farmer (10)	Male	WAEC	Palm oil farm owner	40 years	Edo State	50 and above
11	Local indigenous farmer (11)	Female	WAEC	Palm oil farm owner	25 years	Edo State	40 and below
12	Local indigenous farmer (12)	Male	WAEC	Palm oil farm owner	40 years	Edo State	50 and above
13	Local indigenous farmer (13)	Male	Primary school leaving certificate	Palm oil farm owner	43 years	Edo State	50 and above
14	Local Indigenous Farmer (14)	Male	Primary school leaving certificate	Palm oil farm owner	27 years	Edo State	50 and below
15	Local Indigenous farmer (15)	Male	WAEC	Palm oil farm owner	15 years	Edo State	40 and above
16	Local Indigenous farmer (16)	Male	WAEC	Palm oil farm owner	41 years	Edo State	50 and below
17	Local Indigenous farmer (17)	Male	WAEC	Palm oil farm paid worker	15 years	Edo State	40 and above
18	Local Indigenous farmer (18)	Male	Primary school leaving certificate	Palm oil farm owner	20 years	Edo State	50 and below
19	Local Indigenous farmer (19)	Male	Primary school leaving certificate	Palm oil farm owner	20 years	Edo State	40 and above
20	Local indigenous farmer (20)	Male	WAEC	Palm oil farm owner	30 years	Edo State	40 and above
1	Contemporary palm oil farmer (21)	Male	Master's Degree	Medium size palm oil farm owner	12 years	Edo state	50 years and below
2	Contemporary palm oil farmer (22)	Male	Bachelor's Degree	SME palm oil farmer	14 years	Delta state	40 and above
3	Contemporary palm oil farmer (23)	Male	Bachelor's Degree	Medium size palm oil farm owner	7 years	Edo State	40 and above
4	Contemporary palm oil farmer (24)	Male	Master's Degree	Medium size palm oil farm owner	10 years	Edo State	50 and above
5	Contemporary palm oil farmer (25)	Female	Master's Degree	Medium size palm oil farm owner	15 years	Edo State	40 and above
6	Contemporary palm oil farmer (26)	Male	Bachelor's Degree	SME palm oil farm owner	8 years	Ondo State	40 and above
7	Contemporary palm oil farmer (27)	Male	Master's Degree	SME palm oil farm owner	8 years	Edo State	40 and above
8	Contemporary palm oil farmer (28)	Male	Master's Degree	Medium size palm oil farm owner	6 years	Edo State	40 and above
9	Contemporary palm oil farmer (29)	Male	Bachelor's Degree	SME Palm oil farmer	4 years	Edo State	40 and below
10	Contemporary palm oil farmer (30)	Female	Bachelor's Degree	SME Palm oil farmer	7 years	Edo state	40 and above
11	Contemporary palm oil farmer (31)	Male	Bachelor's Degree	SME Palm oil farmer	24 years	Edo State	50 and below
12	Contemporary palm oil farmer (32)	Male	Master's Degree	Medium size palm oil farmer	30 years	Ondo State	50 and above
13	Contemporary palm oil farmer (33)	Male	Bachelor's Degree	Medium size palm oil farmer	5 years	Delta State	40 and above
14	Contemporary palm oil farmer (34)	Male	Bachelor's Degree	SME palm oil farmer	10 years	Edo State	50 and below
15	Contemporary palm oil farmer (35)	Male	HND Higher National Diploma	Medium size palm oil farmer	6 years	Edo State	40 and above
16	Contemporary palm oil farmer (36)	Female	Master's Degree	Medium size palm oil farmer	5 years	Edo State	50 and below
17	Contemporary palm oil farmer (37)	Male	Bachelor's Degree	SME palm oil farmer	10 years	Edo State	40 and above
18	Contemporary palm oil farmer (38)	Male	Bachelor's Degree	SME palm oil farmer	7 years	Edo State	40 and above
19	Contemporary palm oil farmer (39)	Male	Master's Degree	SME palm oil farmer	3 years	Delta State	40 and below
20	Contemporary palm oil farmer (40)	Male	Bachelor's Degree	Medium size farmer	10 years	Ondo State	50 and above

SME, small and medium enterprise; WAEC, West Africa Examination Council.

'During our farmers' forums or meetings, we discuss best practices, challenges, and opportunities we encounter in our line of work with colleagues from other farms.' (Contemporary palm oil farmer 5, Female, Medium size palm oil farm owner)

Indigenous farmer

'I have received visits from the state ministry of agriculture telling us how to promote sustainable farming in my business.' (Local Indigenous Farmer 12, Male, Palm oil farm owner)



Source: Adapted from Lee, H. & Choi, B., 2003, 'Knowledge management enablers, processes and organisational performance: An integrative view and empirical examination', *Journal of Management Information Systems* 20(1), 179–228. <https://doi.org/10.1080/07421222.2003.11045756>.

NGO, Non-governmental organisation; IF, indigenous farmers, CF, contemporary farmers.

FIGURE 1: An enabler framework for understanding indigenous and contemporary palm oil farmer knowledge management practices in Nigeria.

'We have our local union and, in these meetings, we share information on ways on moving forward in our business.' (Local Indigenous Farmer 8, Male, Palm oil farmer owner)

People and skills

Traditionally, indigenous farmers learn their skills by observing their peers and through information passed down generationally. This was the case with the participants interviewed. This way of knowledge creation is limited and may not allow indigenous farmers to produce at the scale needed to meet the demand (Nwafor et al. 2018).

Local indigenous farmer

'Most of my palm oil extracting practice I learned from observing my father and also through words of mouth information; if we have properly documented records in the past, our business would have grown much more significant by now.' (Local Indigenous farmer 15, Male, Palm oil farm owner)

Contemporary farmer

'There are no proper record keeping in the past by indigenous farmers on traditional processing methods they use, and this none record keeping has not advanced their practices.' (Contemporary palm oil farmer 19, Male, SME palm oil farm owner)

Information technology and knowledge creation

There have been concerns about the inability of palm oil producers in Nigeria to access relevant technology to improve the quality and output produced (Opeke, Allen & Opele 2019) and how this affects the quality of palm oil produced in the country. This is notwithstanding the \$618.8 million in funding from the world bank to develop technology to support palm oil cultivation and production (Lawal et al. 2020). Participants responded when asked about available technology as follows:

Contemporary farmers

'The technology we use in our extraction process in my company is good, but it can be better with current technology

in the market for our extraction process.' (Contemporary palm oil farmer 20, Male, medium size farm owner)

'We use Agrisoft Systems, a palm oil management program that is the most comprehensive and sophisticated software solution available to the palm oil farmers in our area.' (Contemporary palm oil farmer 12, Male, Medium size oil palm farm owner)

Local indigenous farmer

'I get Information from the local government agricultural department in Ologbo, information gathered from other local palm oil farmers in the area by word of mouth.' (Local Indigenous Farmer 9, Male, Palm oil farm owner)

Socialisation and externalisation

To understand how socialisation influenced knowledge gathering and sharing, participants were asked how external socialisation supported their KM practices consistent with Stilwell (2010), who found that social relations among farming communities and their relationship with external farming organisations were helpful sources of knowledge.

Local indigenous farmers

'We have our local union and, in these meetings, we share information on ways on moving forward in our business.' (Local Indigenous Farmer 8, Male, palm oil farm owner)

'I do get information from the state Ministry of Agriculture to support my business.' (Local Indigenous Farmer 14, Male, palm oil farm owner)

Contemporary farmer

'We have not had an expo recently, but when we use to the Ministry of Agriculture in the state do share information with us on current palm oil farming practices around the world.' (Contemporary palm oil farmer 16, Female, medium size oil palm farm owner)

Organisational creativity

The contemporary farmers interviewed highlighted how incentives and recognitions was used to motivate staff to

explore creative solutions for their palm oil business. This was not the case for indigenous farmers.

Incentives linked to performance

Participants were asked to explain other avenues encourage staff performance. It was found that contemporary farmers provided financial incentives for their top performing staff. This was however, not the case for indigenous farmers, who were sole traders. They treated themselves to holiday breaks as incentives for good farm yields:

'KPI is set, and if met by staff then annual bonus is given.' (Contemporary palm oil farmer 8, Male medium size farm owner)

'It is my business, so I pay myself any extra profit I make and reward myself with a holiday during festive periods.' (Local Indigenous Farmer 6, Male, Palm oil farm owner)

Staff recognition

Participants from contemporary palm oil farmers claim to have monthly staff meetings to recognize the staff of the month, and Christmas parties are organized at the end-of-year:

'With the hard work involved in our business, awards are given to the best working staff in our company to encourage them.' (Contemporary palm oil farmer 9, Male, SME palm oil farm owner)

'Sorry, we do not have a system like this in place.' (Local Indigenous Farmer 2, Male, palm oil far owner)

Organisational performance

Overall, participants acknowledged the significant role that KM played towards improving business outcomes.

Increase profit

Participants of contemporary and indigenous farmers had this to say in their responses:

'We have seen an increase in our profits as a result.' (Contemporary palm oil farmer 12, Male, medium size palm oil farmer)

'Information passed to me has helped me to know which fertilizer is good for my farm.' (Local Indigenous Farmer 7, Female, palm oil farm owner)

Better farm yields

Participants of the contemporary palm oil business and indigenous palm oil farmers said that their palm oil-related brunches had increased their yield because of development in KM:

'We have seen more fruitful harvest and bigger palm crops in our business due to KM software usage.' (Contemporary palm oil farmer 3, Male, Medium size palm oil farmer)

'It has brought good development for my business.' (Local Indigenous farmer 18, Male, Palm oil farmer)

Prevent resources wastage

Contemporary farmers were able to reduce wastage in their cultivation process through their KM practices:

'My company do not waste money farm inputs we do not need any more as we now have available information on quantities of different farming products, we need for our palm oil extraction.' (Contemporary palm oil farmer 17, male, SME palm oil farm owner)

'From the information shared and passed on from government to us, I know the number of seeds that is enough for my farm.' (Local Indigenous Farmer 1, Male, palm oil farm owner)

Discussion of research findings

This section provides insights into the KM practices of indigenous and contemporary farmers based on Lee and Choi's (2003) enabler framework. Evidence from findings showed that indigenous farmers had no documentary evidence on how knowledge was developed and passed on. This is consistent with extant literature that found a collaborative process involving passing information from one generation to another through word of mouth (John & Oyewobi 2018). Information about seedlings and yields was learned from the parents of indigenous farmers who were palm oil farmers. A possible reason for the lack of documentary evidence is the lack of higher education in agriculture, as the majority of those interviewed were educated at the secondary level (John & Oyewobi 2018).

On the structure and combination, Igwe et al. (2018) suggested that local government authorities were deploying liaison officers to help farmers with the information required to improve their yield. This was consistent with the findings in this research. This lack of organized structure may be the reason why Makate (2019) reported a lack of production models among indigenous farmers compared with contemporary farmers who have developed oil palm farming models to support productivity. Contemporary farmers have the resources to mechanize their practices and introduce the division of labour into their process (Ebu et al. 2021). The lack of formal skills reported in this research may be explained by indigenous farmers' inability to afford formal training (Zakariyah et al. 2020). While indigenous farmers continue to use skills passed down from their parents, new knowledge about the palm oil process's mechanisation may help improve their practice.

Findings also corroborate the increasing use of technology to support palm oil production among contemporary farmers. The Agrisoft software mentioned by contemporary farmers provides an example of how technology is helping SMEs and medium-sized farms to improve their yields better than indigenous farmers (Ebu et al. 2021). From an externalisation and/or socialisation stance, indigenous and contemporary farmers acknowledged the support they received from the government. Tharakan (2017) suggested that one such support was access to funding that would support land acquisition for oil palm farming. However, government ministries must go beyond supporting access to funds to providing training on KM software to support palm oil production.

Following the evidence of how KM enablers influence the knowledge creation process of contemporary and indigenous palm oil producers in the empirical context, the intermediate findings further explain why the KM process improves the performance of contemporary farmers more than it does for indigenous farmers. Research shows that incentives and staff recognition motivate employee creativity and performance (Doran & Ryan 2017). Indigenous farmers, in most instances, had no employees as they worked as individuals and family units to run their oil palm farming. The lack of employees may also mean that they lack the opportunity to tap into the knowledge that is available from employees with diverse views. Thus, while there was increased output for both groups of farmers, it is not surprising that contemporary farmers fared better.

Conclusion

The study explored how the enabler framework of Lee and Choi (2003) informs the KM practices and overall performance of indigenous and contemporary palm oil producers in Ologbo Ikpoba-Okha of Edo state. While indigenous farming practices yielded cleaner produce compared with yields produced through mechanized farming, the inability of indigenous farmers to scale up through technology remains a challenge. Consistent with Tume et al. (2019), indigenous and contemporary farmers reported similar experiences in relation to structure, socialisation and externalisation.

The findings using the enabler framework also have differences regarding indigenous and contemporary farmers' practices. Regarding people skills, most indigenous management practices were passed down from generation through word of mouth and learned by observations compared with contemporary farmers with KM systems software they use in their businesses (Nwafor et al. 2018). The findings also showed that contemporary farmers tend to use KM software in their business when it comes to information technology creation compared with indigenous farmers. Their limited level of education may explain this. More training about technology use may help improve their business as contemporary farmers reflected in the findings. Contemporary farmers had a better organisational performance with an increased profit because of technology adoption. When it comes to organisational creativity, contemporary farmers have staff incentive schemes to support their employee creativity; this was not the case with indigenous farmers, whose businesses mostly comprised family members.

Contribution

This study is novel as it provides insights into how KM enablers collectively influence organisational outcomes using a qualitative research method (Usman et al. 2021). Investigating the enabler framework qualitatively provides contextual insights into how each framework component is collectively organized to support organisational outcomes. This study also extends the Lee and Choi (2003)

enabler framework by exploring it within indigenous knowledge and contemporary KM debate. The investigative approach has highlighted areas such as KM practices of indigenous farmers and those of contemporary palm oil farmers and areas where indigenous knowledge can be improved upon, and how that can improve KM among palm oil farmers in Ologbo Ikpoba-Okha. The empirical context also contributes to the novelty of this research. This study has contributed to KM from a developing context as Nigeria is a developing country, and the study of KM is dominated by Western literature (Abioye & Oluwaniyi 2017).

Implication to practice

This article has uncovered critical areas that need attention in the KM practices of palm oil producers in the empirical context. Understanding these problems is an initial step for policymakers and those interested in agro-business to develop targeted strategies for supporting farmers' KM practices. With palm oil still being barred from some countries, the findings help in some way to develop a framework for supporting the KM practices and overall performance of contemporary and indigenous farmers. Moreover, with the high unemployment in Nigeria, the enabler framework could guide the development of KM policies for local palm oil farmers.

Limitations of the study

This study presents the following limitations: firstly, the qualitative approach was used in this study and this method has been criticized for needing more validity (Saunders, Lewis & Thornhill 2009). However, care was taken to reduce bias by assuring participants of anonymity and interviewing each participant separately to avoid groupthink. Also, the sample size for this study was small, with 40 participants who are indigenous and contemporary palm oil farmers from the Ologbo Ikpoba-Okha community in Edo State. However, the qualitative approach allowed for an understanding of the research phenomenon. The study is also limited as it focuses only on palm oil extraction, examining indigenous knowledge and contemporary KM practices of the palm oil extraction process (Lawal et al. 2020). Future studies could explore KM in the oil and gas sector, one of Nigeria's most significant export and source of revenue (Majekodunmi 2018). Lastly, the data collected in this study is limited to Ologbo in Edo state Nigeria; hence the findings may only apply to some countries especially developed countries' economies. However, Nigeria can represent developing economies with similar cultures and economies. Hence, the findings might be helpful outside of Nigeria among developing countries and economies.

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Competing interests

The authors declare that they have no financial or personal interests that may have inappropriately influenced them in writing this article.

Authors' contributions

D.P. is responsible for the conceptualisation, formal analysis, project administration, writing-review and editing and supervision. M.M.D.-O. is responsible for conceptualisation, formal analysis, methodology, writing original draft, review and editing and data curation.

Ethical considerations

Ethical approval was received from the University of Wales Trinity Saint Davids Research Ethics Committee (no. EC895 PG2).

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Data availability

The data that support the findings of this study are available from the corresponding author upon reasonable request.

Disclaimer

The views and opinions expressed in this article are those of the authors and do not necessarily reflect the official policy or position of any affiliated agency of the authors.

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