

Explicit knowledge and tax revenue performance: The role of externalization process

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Abstract

One of the desires of developing countries is to improve tax revenue generation to reduce dependence on the developed countries for financial aid. Access to quality and timely tax knowledge by taxpayers can improve compliance and tax revenue generation. The purpose of this study is to explain the mechanisms that convert tacit to explicit knowledge for easy accessibility, improve compliance and tax revenue generation. Qualitative data through face-to-face interviews supported by documentary study were employed to study knowledge externalization and tax revenue performance. Twenty tax officers were interviewed face-to-face in a case study of Federal Inland Revenue Service (FIRS) Nigeria, and NVivo 10 qualitative software used to analysed the data. This study found that documentation of tacit knowledge and the design of training manual can externalize tacit knowledge in tax administration. Furthermore, explicit knowledge enhanced accessibility to knowledge, compliance and tax revenue generation. The study recommended documentation of tacit knowledge and training manual as a strategy to externalize tacit knowledge to improve access to knowledge, compliance, and tax revenue generation.

1. Introduction

The need to improve tax revenue generation in developing countries to reduce dependence on developed nations for financial assistance is critical. According to Musimenta (2020), developing nations are searching for strategies to improve tax revenue efficiency and generation to finance budgets without depending on unpredictable financial aid from the developed ones. The quest to improve tax revenue generation in developing countries resulted in several studies including Bird (2015), Umar et al. (2017), Olaoye and Atilola (2018), Ajala and Adegbe (2020), Musimenta (2020). Efforts aimed at improving tax revenue generation in developing countries have not yielded the desired result. However, studies showed that access to quality and timely tax knowledge by taxpayers can improve tax revenue generation (Bird, 2015; Rosdi et al., 2016; Semenova et al., 2017). Hence, there is a need to create and disseminate the desired knowledge in tax administration to improve tax revenue generation.

One of the knowledge creation models that is widely used in literature and practice is socialization, externalization, combination and internalization (SECI) by Nonaka and Takeuchi (1995). According to Rice and Rice (2005), Grant and Grant (2008) and Easa (2012), SECI is widely accepted, especially among management practitioners as a result of its clear description and insightful reasoning. SECI model explained that knowledge creation is a continuous process of interaction of tacit and explicit knowledge through four modes of socialization, externalization, combination and internalization (Nonaka & Takeuchi, 1995). Furthermore,

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externalization component of SECI model emphasized on transformation or conversion of tacit to explicit knowledge that is easily understandable, transferred, disseminated and communicated (Nonaka & Takeuchi, 1995; Masrek & Zainol, 2015; Cárcel-Carrasco et al., 2020; Rusland et al., 2020). Externalization converts tacit knowledge into a readable form such as a report, procedure, article, description and manual. There are several studies on SECI model which include Nonaka and Takeuchi (1995), Nonaka and Toyama (2003), Nonaka and Toyama (2005), Bandera et al. (2017), Chatterjee et al. (2018), Umale et al. (2019), Guo et al. (2020). However, studies that focus on externalization as a component of SECI model in tax administration are limited. Moreover, there is a paucity of studies on the mechanisms that can externalize knowledge in tax administration. Also, the study on the link between explicit knowledge and tax revenue generation is limited. Hence, this study filled the research gap as it explored the mechanisms of externalization in tax administration. This study aimed to address two research questions as follows: (i) How can tacit knowledge be externalized in tax administration? (ii) How can explicit tax knowledge improve tax revenue generation? Following the research questions, the objectives of this study are: (i) To explain the externalization mechanisms in tax administration. (ii) To explain how explicit tax knowledge can improve tax revenue generation. This study is structure into five sections which are introduction, literature review, research methodology, findings and discussion, and conclusion. Next section dwell on literature review.

2. Literature Review

This section reviewed literature on SECI model and explicit knowledge. Literature that focus on externalization as a component of SECI model is limited. Therefore, this study reviewed literature on SECI model and explicit knowledge. This section consists of two sub-sections which are SECI model, and explicit knowledge. Next section explained SECI model.

2.1. Socialization, Externalization, Combination, and Internalization (SECI) Model

According to Nonaka and Takeuchi (1995), knowledge creation is a continuous process of interaction of tacit and explicit knowledge through four modes of socialization, externalization, combination, and internalization. Nonaka and Takeuchi (1995) explained that socialization transfer or disseminates tacit knowledge between knowledge workers through social interaction. Externalization converts tacit knowledge into readable, understandable, communicatory, and accessible forms for easy application. Combination combines different elements of explicit knowledge to form another explicit knowledge. Internalization transforms explicit into tacit knowledge through access and reuse of explicit knowledge. The process of knowledge creation is continuous in the form of a spiral which increases in radius depicting the diffusion of knowledge in an organization (Nonaka & Takeuchi, 1995; Nonaka et al., 2000; Nonaka & Toyama, 2003). SECI model is conceptualized as an “engine of knowledge creation” (Nonaka & Takeuchi, 1995; Easa, 2012). SECI model employs an interactive approach to knowledge management (KM) which entails knowledge creation, storage, retrieval, and application (Grant & Grant, 2008; Mikic et al., 2009). It combined people, processes, and information technology (IT) to create knowledge (Nonaka & Konno, 1998; Easa, 2012).

In addition, Nonaka and Konno (1998) employed the concept of “ba” to extend SECI model. “Ba” means place or environment in Japan language. According to Nonaka and Konno (1998), “ba” is critical to knowledge creation in an organization. Four types of “bashi” exist in the four modes of the knowledge creation process. The four “bashi” include originating “ba” in socialization, interacting “ba” in externalization, cyber “ba” in combination, and exercising “ba” in internalization. “Bashi” is the plural of “ba”. Nonaka and Toyama (2003) revisited SECI model of knowledge creation and conceptualized knowledge creation as a dialectical process that synthesized diverse contradictions through active interactions between individuals, organizations, and the environment. Thus, knowledge is created through dialectic thinking and acting that synthesizes and transcends the contradictions in the knowledge creation process and organization. In knowledge creation, opposing ideologies, concepts, and beliefs are integrated through active dialogue and practice (Nonaka & Toyama, 2003). This enables individuals, groups, and organizations to transcend old boundaries to new ones as new knowledge is acquired. The process creates and expands knowledge via the process of conversion of tacit and explicit knowledge. Thus, an organization is a dialectic being that synthesizes diverse contradictions via SECI and “ba”.

There are several studies on SECI model in other organizations. For example, Girard and McIntyre (2010) described KM implementation in the security and defense sector based on SECI model. Easa (2012) who studies KM implementation in the banking sector employed SECI model as a framework. Masrek and Zainol (2015) used SECI model to investigate the link between knowledge conversion abilities and performance in academics. Wan Yusof et al. (2018) investigated tacit knowledge of military observers that can be used in decision-making in situational awareness during peace-keeping operations based on SECI model. Rusland et al. (2020) employed SECI model to evaluate the extent of the knowledge creation process in Navy fleet personnel. Guo et al. (2020) employed SECI model to study how multinational enterprises overcome barriers to transferring individual and organizational tacit knowledge globally. Other studies on SECI model in other organizations include Cabera

(2008) and Kamtsiou *et al.* (2006) in education and training organizations, Rodrigues *et al.* (2006) in IT sector, Eliufoo (2008) in the construction sector, Tsai and Li (2007), and Li *et al.* (2009) in the manufacturing sector, Rice and Rice (2005) in multi-organizational projects, Grant and Grant (2008) in financial institutions.

This study focuses on the externalization component of SECI in tax administration. Externalization is the conversion or transformation of tacit to explicit knowledge. Externalization makes tacit knowledge understandable and easy to communicate. Externalization is a key to knowledge creation as it uses tacit knowledge to create new explicit concepts (Nonaka & Toyama, 2003). Furthermore, externalization crystallizes tacit knowledge to form explicit knowledge like written documents, concepts, and images. According to Nonaka and Konno (1998), interacting “ba” exist in externalization. Based on literature review, there is a paucity of research on mechanisms that externalized explicit knowledge in tax administration. Hence, this study filled the research gap as it explores the mechanisms that externalized explicit knowledge in tax administration. Next sub-section review literature on explicit knowledge.

2.2. Explicit Knowledge

Explicit knowledge is defined as codified and formalized knowledge such as procedures, rules, and manual that can be easily disseminated (Nonaka & Takeuchi, 1995; Boadu *et al.*, 2018). It is also called known-what which is possessed by an organization and individual (Boadu *et al.*, 2018). According to Rathi *et al.* (2016), explicit knowledge includes instructions, guides, descriptions, and records either manually or electronically. McIver *et al.* (2016) described explicit knowledge as coded knowledge that can be transferred in an organized way that can be easily understood. It is shared in an organized and prescribed way by organizations. Explicit knowledge is easily created, documented, and transferred (Lombardi, 2019; Asbari *et al.*, 2019), recognize and retrieve (Boadu *et al.*, 2018), copied and learned by individuals and organizations (Ibidunni & Omankhanlen, 2021). Explicit knowledge is readily available in coded form, diagrams, audios, text, videos, drawings, databases, and pictures and can be shared, retrieved, and captured as a result of its properties, characteristics, and nature (Asian Productivity Organization, 2013). Explicit knowledge is always available and can be retrieved anytime needed. Examples of explicit knowledge in tax administration are manual or database of procedure or description of tax audit, taxpayers’ registration, tax collection, and computation of tax assessment. Table 2.1 summarized the characteristics of explicit knowledge.

Table 1. Characteristics of explicit knowledge

Explicit knowledge	S/N	Characteristics
	1	Easy to articulate, document and share
	2	Externalized
	3	Context independent
	4	Ability to teach and train
	5	Instructions, rules, shapes, plans, codes, and presentations
	6	Ability to disseminate, reproduces, access, and reapply throughout an organization
	7	Ability to organize, systematize, and translate a vision into a mission statement and operational guidelines
	8	Transfer of knowledge via products, services, and documented processes

Source: Authors

3. Research Methodology

In this study, qualitative principles were employed to study how knowledge can be externalized to improve tax revenue performance. The qualitative principle is suitable in research when it provides an answer to “how” and “why” research questions (Yin, 2009). Therefore, the qualitative approach is suitable as this study provided an answer to how tacit knowledge can be externalized in tax administration, and how explicit tax knowledge can improve tax revenue generation. A single case study of the Federal Inland Revenue Service (FIRS), Abuja in

Nigeria was employed to study knowledge externalization in tax administration. Gerring (2007) and Mansor (2011) said when a case study represents a “critical case” to test the situation under study, it is appropriate to employ. Therefore, FIRS Abuja can represent a “critical case” in testing how externalization creates explicit knowledge in tax administration because knowledge externalization takes place in FIRS. In addition, tax revenue generation in FIRS is low (OECD, 2019); hence, justify its selection as a single case study to represent tax administration in developing countries.

Research ethics is critical to this study; therefore, the study followed ethical consideration by applying to the chairman of FIRS for data collection which was approved. A copy of the interview protocol that was used for data collection was attached to the application. After the application for data collection was approved, the head of the unit (planning, research & statistics) selected tax administrators to participate in the interview. The participants were selected based on their experience and knowledge of the subject matter from different cadres and the five groups in FIRS. Twenty (20) tax administrators were interviewed face-to-face in their offices in FIRS. However, 17 tax administrators responded to the interview questions on how knowledge can be externalized in tax administration. Three (3) participants did not comment on the interview questions concerning externalization of knowledge in tax administration because of limited knowledge of the subject matter.

Participants in the interview were selected from corporate development, domestic taxes, modernization, compliance, and enforcement groups. A sample size of 20 tax administrators was interviewed in FIRS. This study follows Bernard (2013) who said a sample size between 10 and 20 is a saturation level for a case study interview. Data were collected face-to-face via the instrument of semi-structured and open-ended interview questions. Data were collected within six months. Prior to the interview session, the interview protocols were sent to participants for a proper understanding of the objective of the study. In addition, the aims of the study were discussed with participants before the interview session. Participants were also assured that information provided are confidential. The interviews were conducted in participants’ offices between 30 to 40 minutes subject to the responses of the interviewees. Sub-themes for externalization emerged in the process of interview and include documentation and training manual. In a qualitative study, new themes can emerge in the research process because it encompasses understanding an issue or problem from the participants’ perspective to provide an answer to the research question and objective (Creswell, 2007).

The interviews were recorded with a Smart voice recorder. In addition, notes were taken with a pen to complement the recorded interviews. To ensure validity and reliability, data collected via interviews were presented to the interviewees for conformity of their statements with the transcribed interview data. Upon presentation, the interviewees affirmed conformity of their statements with the transcribed interview data. Moreover, the documentary study of operation and training manual were employed to validate data sourced from the interview. In this study, data triangulation was employed for analysis. Thematic analysis was employed and the process include transcription of the interview, data coding, theme selection, and identification of connection. Also, NVivo version 10 qualitative software was used for data administration. In connection with the research objective and responses from the interviewees, sub-themes that were identified include documentation and a training manual. These sub-themes can externalize tax knowledge to improve tax revenue performance. The next section dwells on finding and discussion.

4. Findings and Discussion

Findings and discussions on data collected via face-to-face interviews are presented in this section. The data from interviews were supported by a documentary study. Documents employed include operation and training manual. Twenty (20) tax administrators participated in the face-to-face interview at FIRS. Twelve (12) males and eight (8) females participated in the interview. The age of the participants in the interview consists of 31-40 years (5 participants), 41-50 years (10 participants), and 51 years and above (5 participants). Furthermore, the qualification of participants includes 13 (BSc/HND) and 7 (MSc/MBA). The 20 participants were distributed among the five groups in FIRS as follows: 4 (corporate development), 4 (domestic taxes), 4 (compliance), 4 (modernization), and 4 (enforcement). All participants in the interview were the permanent staff. In terms of working experience, 6 participants have worked between 6 to 10 years and 14 have worked for 10 years and above in FIRS. Ranks of the participants consist of director (1), deputy director (2), assistant director (1), senior manager (4), manager (5), assistant manager (2), tax officer I (2), and tax officer II (3). Section 4.1 presented the findings and section 4.2 is on the discussion of the findings.

4.1. Findings

This section presented findings from face-to-face interviews on the externalization of knowledge in tax administration. Externalisation is the conversion or transformation of tacit to explicit knowledge. Externalization makes tacit knowledge understandable, communicatory, and readable forms such as a report, procedure, article, description, and manual. Tacit knowledge is externalized by documentation which makes it accessible to other people. Furthermore, externalization occurs by designing a training manual. Designing of manual for training

makes tacit knowledge explicit and accessible to other people. Thus, when a professional/expert-designed training manual, his/her professional/expert tacit knowledge becomes explicit and accessible to the trainees and others. Figure 1 presented the externalization theme and its sub-themes for this research. Furthermore, Figure 2 presented a summary of participants' responses on the externalization process in terms of documentation, and Figure 3 on training manual design in tax administration. The responses presented in Figures 2 and 3 are based on 17 participants. The remaining 3 participants did not respond as a result of insufficient knowledge of the subject matter. The next section discussed documentation as a mechanism for externalization of knowledge in tax administration.

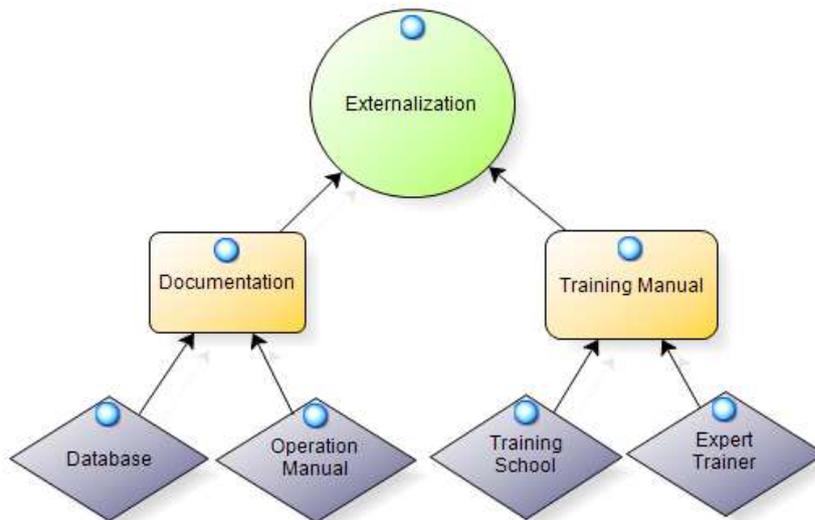


Figure 1. Externalization and its' Sub-themes for Explicit Knowledge Creation in Tax Administration

Documentation

Externalization of knowledge in tax administration occurs via documentation of tacit knowledge. According to participants, documentation of knowledge improves staff's knowledge, facilitates the work process, and improves the quality and speed of information/knowledge provided to taxpayers. Furthermore, the quality and timely provision of information/knowledge to taxpayers improves their compliance to pay taxes. Figure 2 demonstrated responses about the externalization of knowledge through documentation in tax administration.

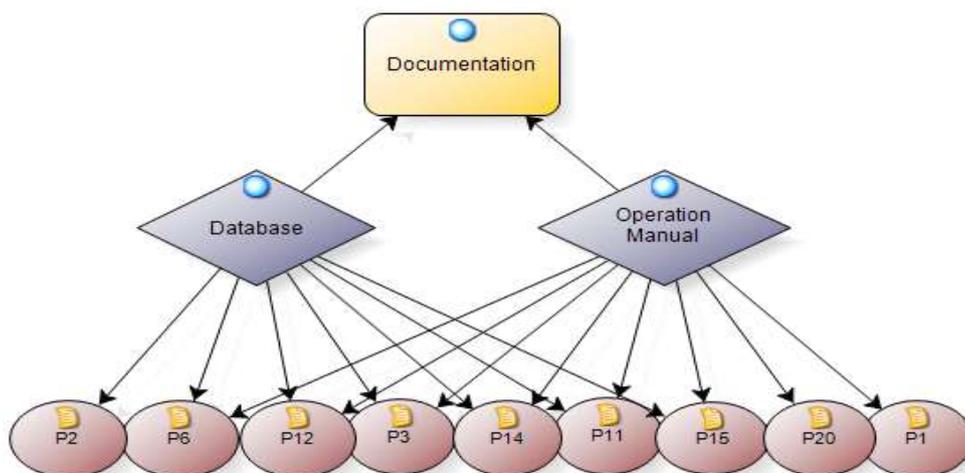


Figure 2. Documentation as a Mechanism for Knowledge Externalization in Tax Administration

Source: NVivo Analysis

Note: "P" represents the participant

Statements of participants with respect to knowledge externalization through documentation are presented below.

“In tax administration, people’s implicit knowledge is externalized by storing it in a database. As problems are fixed, people are allowed to key into such solutions so that others can see how they are fixed. Moreover, there is an operation manual in all departments which is updated regularly with new knowledge. Staff’s experiences are documented in minutes of meetings. Also, training reports from persons who attend training are documented. All documented knowledge serves as the source of references” (Participant 12, Manager).

“Tacit knowledge of staff in the department and its units are captured and documented in the manual. Every department has a process manual which we called the operation manual. The operation manual is reviewed and updated regularly for effective service delivery to taxpayers which improves their compliance to pay taxes. Also, every new employee is issued an operation manual so that he/she will be able to know what is expected of him/her. This improves staff knowledge, administrative processes, and tax compliance” (Participant 1, Deputy Director).

“Whatever is done in tax administration is documented to improve staff’s knowledge, work quality, and speed. Tax administration documents staff’s experiences during meetings. Communiqué at the end of meetings, conferences, or workshops is documented. Documentation of experience is very critical because it externalized tacit knowledge which is employed to update operation manuals of various departments in tax administration. This is because if such knowledge is documented, tax organization can use it as the source of reference to make corrections where necessary” (Participant 11, Assistant Manager).

“We have a database that captures staff’s knowledge. In FIRS, there is a research unit that is responsible for making discoveries and innovations available explicitly for better performance of tax administration. Every department in FIRS has an operation manual which is updated regularly based on reports from training and innovations. Every training and conference attended are properly documented. The documentation is meant for future references. The documents improve how things are done in tax administration. Also, all explicit knowledge in tax administration can be easily disseminated or transferred to taxpayers which improves compliance and tax revenue performance” (Participant 2, Assistant Director).

“Tax administrators’ implicit knowledge is documented in the database. For example, operation manuals in all departments at FIRS are based on externalized expert knowledge of tax officers. Documentation of staff’s experience enhances knowledge of other staff and administrative processes. In addition, externalized tax knowledge enhances tax revenue collection as more taxpayers tend to pay tax when tax information/knowledge is provided to them” (Participant 15, Manager).

“Knowledge acquired from training is reported and filed by the human capital department. The human capital department has training records for individual staff, but I do not know if they document other information. What I know is that we have operation manual printed for all departments which is a synthesis of staff’s knowledge” (Participant 20, Senior Manager).

“Database of tax knowledge is based on tacit knowledge of tax administrators and taxpayers that are converted to explicit knowledge. Manual for operation in each department is documented from the tacit knowledge of tax officers. The knowledge that is divulged during training or meetings that can improve the performance of tax administration is documented for reference purposes. Reports and decisions taken in meetings are stored and used for taxpayers’ education. Taxpayers’ education increases tax revenue collection” (Participant 3, Senior Manager).

“Tax officers’ knowledge is captured in a database, and made available online for taxpayers and tax officers. Availability and accessibility of tax knowledge to tax officers and taxpayers improve work execution of tax officers and tax payment of taxpayers. Tacit knowledge is documented in the operation manual and updated regularly using the expert knowledge of the staff. Also, the experiences of experts are documented during meetings and training. Report explaining knowledge acquired in training is compulsory for all trainees for the purpose of knowledge externalization in FIRS. Such reports are published and documented for future reference. When such knowledge is documented, it becomes a source of reference” (Participant 14, Senior Manager).

“Database is employed to store taxpayer and tax administrators’ implicit knowledge as manuals for operations. At board level, I know they do document experts’ knowledge. Knowledge documentation does improve tax officers and taxpayers’ knowledge, administration process and revenue performance” (Participant 6, Manager).

The responses above showed documentation of externalized tacit knowledge. Thus, documentation transformed tacit to explicit knowledge which makes it available for use by tax officers and taxpayers. Furthermore, the expressions demonstrated that explicit knowledge enhances taxpayers’ access to tax knowledge, compliance, and

tax revenue. This is consistent with documentary evidence of operation manuals in FIRS. The next section explained the training manual as a mechanism for externalization.

Training Manual

Another activity that can externalize knowledge in tax administration is the training manual. Training manual converts expert/professional tacit knowledge of the designer of such manual to explicit knowledge for trainees and organizations. Hence, when a training manual is designed by an expert, the expert knowledge becomes explicit or externalized and individuals or organizations can easily acquire such knowledge. Furthermore, the training manuals are documented as sources of reference which improve staffs' knowledge, capability, work process, tax compliance, and revenue generation. A summary of the data collected with respect to training manual design is presented in Figure 3.

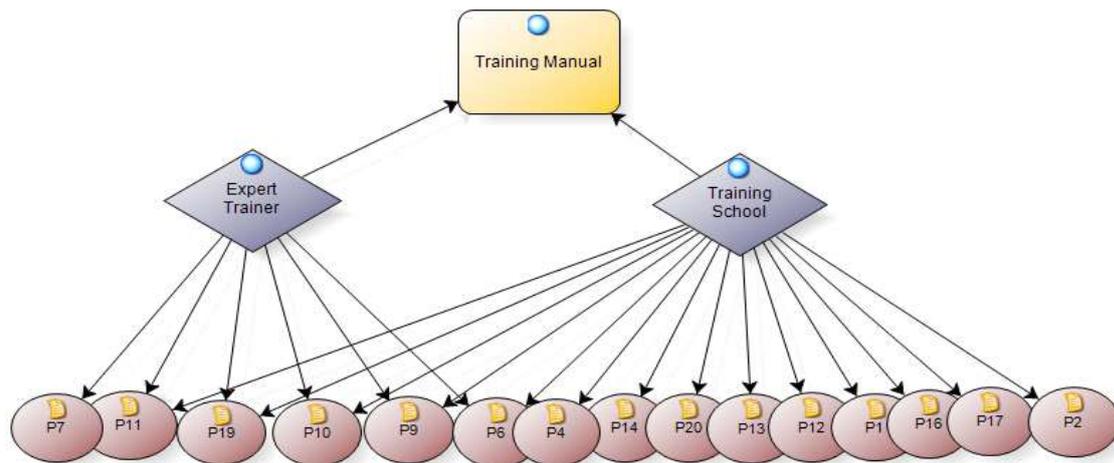


Figure 3. Training Manual as a Mechanism for Knowledge Externalization in Tax Administration

Statements of participants with respect to knowledge externalization through the training manual are presented below.

“Training manual externalizes tacit knowledge of trainers that design it. For example, in FIRS, training schools collaborate with the training department to design training programs. Tax administration benefits from a formal training program because it enables tax officers to access industries where experts are invited from different fields of taxation to explain how things are done. In such cases, experts design the training manuals which are documented for future references and improve tax administrators’ knowledge. Furthermore, the training manuals are employed to improve the service delivered to taxpayers. This can improve compliance and tax revenue” (Participant 12, Manager).

“In tax administration, training improves knowledge in two dimensions. Firstly, training transfers the tacit knowledge of the trainer to the trainees directly. Secondly, the tacit knowledge of the trainer is transformed into explicit knowledge through the training manual. In FIRS, training school with the support of various departments in the service design training programs for internal training but training experts does for external training. The service benefits from staff training because all formal training is accompanied with training manuals and whatever is learned during the training is given back to FIRS by staff” (Participant 10, Deputy Director).

“Tacit can be converted to explicit knowledge through training manual design. It is the responsibility of the training unit or training school in tax administration to design a training manual. For instance, the FIRS training school in collaboration with the training unit designs a training manual and organizes internal training. However, for external training, manuals are designed by training experts who are given contracts to train staff” (Participant 11, Assistant Manager).

“In tax administration, expert skills and knowledge are acquired from training manual to improve work processes. This is because training manuals transform tacit to explicit knowledge. Also, the knowledge serves as a source of information for taxpayers. Training manuals that are documented, are employed for taxpayers’ education to improve tax process, compliance, and revenue” (Participant 13, Senior Manager).

“Training manuals that are designed by expert trainers, training department and the school can convert implicit to explicit knowledge. Training department and school handle training programs in FIRS. Tax administration benefits from such training in respect to training manuals which improve productivity and taxpayers’

compliance to pay taxes. Knowledge is acquired from implicit knowledge of trainers and explicit knowledge of training manuals. Even if you have a Ph.D. in taxation and get employed, without training you cannot perform well. The skills, experiences, and knowledge staff acquired from formal training programs are deployed to achieve tax administration objectives such as taxpayers' education and improve service delivery" (Participant 16, Tax Officer II).

"One of the ways to externalize knowledge in tax administration is training manual design. Externalized knowledge via training manual improves knowledge of both tax officers and taxpayers, service delivery, tax compliance, and revenue generation. When staff has the right knowledge and experience, they will be able to discharge their duties effectively and thereby improve revenue generation" (Participant 2, Assistant Director).

"Training manual designed to facilitate training can transform tacit to explicit knowledge. Secondly, skills, experiences, and knowledge acquired from training assist staff in task execution to achieve tax administration objectives. Manuals from formal training programs are documented to improve the knowledge of tax officers and taxpayers. It is important to equip taxpayers with tax knowledge to enable them to comply easily" (Participant 20, Senior Manager).

"Training manual convert tacit knowledge of trainer into readable and accessible forms. Such knowledge can be employed for tax administrative work, and manuals for taxpayers to simplify their tax obligation for easy compliance. Also, training manuals from training are documented for future references to improve knowledge, service delivery and compliance to pay tax" (Participant 9, Director).

"Tax administration trains its staff and educates taxpayers. A training manual that is used for training externalized tacit knowledge of the trainer. Explicit knowledge in training manual is used by tax officers and taxpayers to improve tax administration and revenue generation. FIRS ensure both tax officers and taxpayers have access to explicit knowledge in training manual" (Participant 1, Deputy Director).

"Training programs are designed by tax administration's training school or external training experts. For internal training, the training school handled the design of its training manual while that of external training is handled by external expert trainers. The training manuals that are supplied during training are of great benefit to tax administration because expert knowledge of trainers is kept for future references" (Participant 6, Manager).

"Training manual designed by expert trainers who act as consultants change implicit to explicit knowledge. In the same vein, training schools in collaboration with the training department design a training manual for internal training. Through training manuals, staff knowledge can be improved for better service delivery and tax revenue collection" (Participant 7, Tax Officer I).

"Training school and expert trainers normally give training manual during training which is documented for future use. The manual improves knowledge. Tax administration and revenue performance are anchored on tax knowledge of both tax officers and taxpayers" (Participant 4, Manager).

"Training department and the school handled designing of training programs and manual internally while external training manuals are designed by experts that specialize in particular training. The training manual which converts tacit to explicit knowledge, enhance knowledge for better service delivery and performance in terms of revenue collection" (Participant 19, Manager).

"A source of explicit knowledge in tax administration is the training manual. Training manual covert tacit knowledge of trainers to explicit and stored for reference purpose. It enhances the capacity of tax administrators and adds value to the services rendered to taxpayers; therefore, enhance compliance" (Participant 17, Tax Officer II).

"Tacit is transformed to explicit knowledge through training manual and documented for future use. Training schools and expert trainers are responsible for designing training programs and manuals. The purpose of all training in tax administration is to learn new things to improve performance and tax revenue" (Participant 14, Senior Manager).

The expressions showed that training manuals externalized knowledge in tax administration. Also, acquired and stored knowledge as a result of training manual enhance services delivered to taxpayers, compliance, and revenue generation. Furthermore, the availability of tax knowledge to taxpayers through training manual improves compliance to pay taxes. Participants' expressions on the design of training manuals are in line with the documentary study of a training manual that was stored for reference purposes.

4.2. Discussion

Developing countries need to improve tax revenue generation to reduce dependence on developed countries for financial aid/assistance (Musimenta, 2020) and access to tax knowledge by taxpayers can improve compliance

and tax revenue generation (Bird, 2015; Rosdi et al., 2016; Semenova et al., 2017). Hence, there is a need to create and share tax knowledge with taxpayers to improve tax revenue generation. However, the study on mechanisms that can convert tacit to explicit knowledge for easy dissemination in tax administration is limited. Tacit knowledge cannot be easily transferred or disseminated because it is embedded in peoples' minds (Wan Yusof et al., 2018; Abubakar et al., 2019); therefore, it is important to convert tacit to explicit knowledge. This is because explicit knowledge is easily accessible and available as it is in the form of texts, manuals, specifications, procedures, diagrams, pictures, drawings, and videos (APO, 2013; Abubakar et al., 2019). Moreover, the study on how explicit knowledge can improve tax revenue generation is limited. This study explored the mechanisms that can convert tacit to explicit knowledge and improve tax revenue generation. The objectives of this study are: (i) to explain the externalization mechanisms in tax administration, and (ii) to explain how explicit tax knowledge can improve tax revenue generation. In line with the first objective, the finding of this study showed documentation and training manual can externalize tacit knowledge in tax administration. Thus, documentation and training manual are essential mechanisms that convert tacit to explicit knowledge based on the finding of this study. For example, participant 11 said, "..... *Documentation of experience is very critical because it externalized tacit knowledge which is employed to update operation manuals of various departments in tax administration*". In the same vein, participant 1 who is a deputy director stated that: "*Tacit knowledge of staff in the department and its units are captured and documented in the manual.....*".

Documentation transforms tacit to explicit knowledge which improves workers' knowledge and work process. When knowledge is documented, it becomes a source of reference for future task execution. In tax administration, tacit is converted to explicit knowledge through documentation and serves as a guide for work execution. Furthermore, a report from meetings, training, workshop, and conference are documented as sources of reference. Other knowledge documented in tax administrations is new innovations. Also, tax administrators' and taxpayers' information are documented in the database. Documentation transforms tacit to explicit knowledge in tax administration. Moreover, it enhanced knowledge dissemination in tax administration as tax officers in other locations can access knowledge when it is documented. This finding is in line with Nonaka and Takeuchi (1995), and Nonaka and Konno (1998). Other studies that are consistent with this finding include Easa (2012) who found that documentation externalized knowledge in an Egyptian bank. Also, Salmador and Bueno (2007) indicated that documentation of knowledge acquired from training, seminar, and meeting externalized tacit knowledge. In the same vein, Schulze and Hoegl (2008) found documentation of discussions with external bodies such as customers, suppliers, and competitors' externalized knowledge.

The second mechanism that can externalize knowledge as found by this study is the design of training manual by a professional/expert. Designing of training manual by a professional/expert externalized tacit knowledge of a professional/expert. In tax administration, experts and professionals in the training department and training school design training manual for internal training. In the same vein, experts who are consultants design training manual for external training. Training manual design by experts in tax administration training schools and consultants are sources of references that improve knowledge, work process, and quality. With respect to the finding of this research, studies that have revealed training manual as a mechanism for externalization in other organizations are Easa (2012), Li et al. (2009), Martín-de-Castro et al. (2008), Rice and Rice (2005), and Tsai and Li (2007). For example, Easa (2012) found that training manual converted tacit to explicit knowledge in Egyptian banks.

With respect to the second research objective, finding from data collection showed explicit knowledge engenders taxpayers' access to tax knowledge; therefore, improves compliance to pay tax and tax revenue. For example, participant 2 said: "..... *Also, all explicit knowledge in tax administration can be easily disseminated or transferred to taxpayers which improve compliance and tax revenue performance*". Also, participant 13 stated that: "..... *Training manuals that are documented, are employed for taxpayers' education to improve tax process, compliance and revenue*". When taxpayers have access to tax knowledge, their obligation in the tax payment process becomes easy which enables them to comply to pay taxes. Thus, access to tax knowledge facilitates the process to pay taxes; hence, engendering taxpayers' compliance and improving tax revenue generation. Studies showed access to tax knowledge by taxpayers enhances compliance and tax revenue (Bird, 2015; Rosdi, 2015; Semenova et al., 2017). On this note, Bird (2015) stated that the availability of tax information/knowledge to taxpayers improves compliance and tax revenue. Likewise, Semenova et al, (2017) affirmed that improved service delivery such as the availability of information to taxpayers enhances compliance and tax revenue generation. Keen (2014) found that improving service delivery to taxpayers enhances compliance and tax revenue.

5. Conclusion

This study explained the mechanisms that convert tacit to explicit knowledge and how it can improve tax revenue generation. The study employed literature and empirical study to explain documentation and training manual as mechanisms that convert tacit to explicit knowledge and improve tax revenue performance as a result

of tax compliance. Thus, documentation and training manual transform tacit to explicit knowledge and improve compliance and tax revenue performance. The present study contributes theoretically and practically. In theory, the study extends SECI model and knowledge creation by explaining documentation and training manual as mechanisms that convert tacit to explicit knowledge in the tax administration context. The study addressed knowledge creation; hence, it contributed to knowledge management. Furthermore, it extends tax administration performance in terms of revenue generation. The literature is important and can be employed by researchers for further research, students for learning, and teachers for teaching. The literature is important to tax officers as it can enhance their theoretical knowledge to enhance their practice.

In practice, the mechanisms can be employed as a strategy to convert tacit to explicit knowledge for easy accessibility by taxpayers to enhance compliance and tax revenue. Improved/increased tax revenue can improve the economy and living standards of citizens. Tax administration policymakers can formulate policy to convert tacit to explicit and increase revenue generation based on the mechanisms explained in this study. The limitation of this study is that it addressed only the externalization mode for the creation of explicit knowledge. According to Nonaka and Takeuchi (1995), two modes of SECI model create explicit knowledge. The two modes are externalization and combination; however, this study focuses on externalization alone and did not incorporate the combination mode for the creation of explicit knowledge. Therefore, constitute a limitation to this study. Future research can focus on combination as a SECI model to create explicit knowledge.

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