Exploring the Needs of Parties in Church Management in Building Knowledge Management System of Financial Reporting

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Abstract. This study explores the possible adoption of the Knowledge Management System (KMS) in church management which is an agent in the agency relationship between the management and congregation and donors. Since the agents mostly do not realize that they need to know that they are responsible for the presentation of Financial Reports, thus they do not realize that they need a Knowledge Management System for the Accounting and Financial Reporting; the need must be investigated. Moreover, in the case study church, the accounting process is very much not applied as the result of a lack of knowledge. This fact tells that churches need knowledge of the accounting process. All of those types of knowledge need to be managed in a system. The methodology used in this investigation was The Soft System Methodology (SSM). SSM emphasizes on understanding the problem situations faced by church management and expresses the situations in rich pictures. Data were gathered from interviews, focus group discussions and observations. A protestant church in Jakarta is the case study setting, focusing on pastors who give sermons, presbyters, administrators together with employees who manage all churches’ activities. The findings highlight problems faced by the various stakeholders and propose solutions in the form of a conceptual model for a Knowledge Management System platform to improve learning as well as utilizing digitized knowledge of Accounting and Financial Reporting.

Keywords: accounting, financial reporting, soft system methodology, knowledge management system

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Introduction

Background

This study is concerned with exploring the needs of knowledge management system for financial reporting (KMSFR) for a church in practice. The main objective of building this platform is to provide knowledge of a well-organized financial reporting so that churches can present highly reliable financial reports (financial statements) with highly reasonable guarantee given by independent auditors that they are free from errors especially frauds. It may be that formally there is no rule or law to impose churches to present financial reports in accordance with certain standards that are examined by independent auditors, however the fact is that churches have public responsibility regarding finance they receive. This has been evidenced by the existence of:

1. that a church has public responsibility since it receives funds and/or donations from public (Irvine, 1999), (Irvine, 2000), (Irvine, 2002), (Irvine, 2003), (Irvine, 2011) and (Mensah, 2016)
2. a principal – agent relationship between the church and the public since some congregations and/or donors (personal and/or organizations) give funds on a regular basis (Duncan et al., 1999), (Yuesti, 2014), (Rand, 2018), (Brown, 2007), (Saerang, 2003) and (Broadbent and Laughlin, 2003).
3. that the church, in fact, is a reporting entity since public responsibility and principal-agent relationship between the church and the public exists.

Researches and studies that conclude the existence of those three issues in churches may have strong impact to impose regulators to require churches to adopt accounting standards created by associations in countries where the churches reside which is in turn may motivate them to renew International Financial Reporting Standards (IFRS) and Generally Accepted Accounting Principles (GAAP) and/or other regulations specifically regarding churches financial reporting and that churches are reporting entities. In this issue, IFRS for Not-for-Profit (NFP) organizations is not adopted in Indonesia, but we do have PSAK (Pernyataan Standar Akuntansi Keuangan) No 45 instead (IAI, 2018), (IAI, 2014).

Sadly, as many other churches, especially in Indonesia, based on observation and interviews in a protestant church locating in Jakarta which is picked as the ‘case study’ one in this research, Accounting and Financial Reporting for churches are very much not applied as the result of lack of knowledge either in processing accounting events or realizing that they have public responsibility. The senior pastor in the ‘case study’ church admitted that in almost every branch of the synod she had been placed as senior pastor to shepherding the congregation she found that there was no good accounting system. At the church she is now shepherding, she met an accountant in the church congregation then asked a hand from him to build an accounting system. The accountant then asked a developer to build an accounting software for the church. As a pastor whose educational and work are merely background in theology and ministry, she certainly does not understand accounting process. She only realize that in churches she previously placed as a senior pastor, there should be better treatment for receiving funds from the church’s congregation and other contributors as well as expenditures.

The fact above shows that churches management as part of internal stakeholders (pastors, assemblies, administrators, accountants and treasurers) as well as part of external stakeholders (congregations and donors) need knowledge regarding actions should be taken for the funds received. Moreover, they also need knowledge regarding presenting Financial Statements or knowledge regarding accounting process with good and strong internal control, such as what is the best chart of accounts for certain church and how to journalize events. They also need biblical knowledge that a church must present financial statements with good and strong internal control. Furthermore, they also need knowledge regarding auditing as well. Those groups of knowledge are also needed by their congregations and donors as well as other churches as they have the same need with the one in the “case study”.

It can be said that all of those kinds of knowledge need to be organized or managed in a technological system so that easier for the ‘case study’ church’s stakeholders in creating, storing, sharing (distributing), retrieving and utilizing the knowledge.

However, outside of churches, Knowledge Management System (KMS) have progressed from helping companies to enhancing and supporting education (Alosaimi, 2018). Companies can share important information or frequently asked questions (FAQs) with their employees and customers as the knowledge is easily available through representation, storage, search, retrieval, visualization, quality control and share (Ginsburg and Kambil, 1999).
These are also factors influencing the success of knowledge management initiatives in academic market place whose main activity is knowledge (Basu and Sengupta, 2007). Figure 1 and 2 are two out of many simple visual explanations of how KMS works. KMS has to be the answer in facing the rapid change in technology in education to change its classical paradigm effectively and efficiently in serving the needs of its market. KMS can be used in many variety of different area of knowledge in KMS initiatives; KMS can also be used to educate stakeholders in churches regarding financial reporting even though there has not been any research in this area.

Research Question

Is it possible for the 'study case' church to adopt Knowledge Management System for Financial Reporting (KMSFR)?

Research Urgency

The investigation of a need of KMSFR to support knowledge creation, retrieving and sharing regarding financial reporting and other related accounting issues has become the priority. Hence, it is an urgent need to have:

a. Examination of current process of financial reporting

b. Identification of issues, problems, and difficulties face by the church regarding knowledge in Financial Reporting

c. Proposal of a conceptual that supports a knowledge management platform that can help stakeholders in Financial Reporting.

Research Rationale

There is a lack of knowledge and understanding within God’s servants, congregations and sympathizers (public) that churches need to maintain Financial Reporting in accordance with what God through the Bible teaches us and with International Financial Reporting Standards (IFRS) and Indonesia Generally Accepted Accounting Principles (GAAP) for Not for Profit (NFP) organizations, ie Pernyataan Standar Akuntansi Keuangan No 45. It is needed to investigate whether churches need a technological system that can provide the knowledge.

Literature Review

The main idea of this part is started with the Biblical Knowledge that churches have to report Financial Information transparently. This is started with definition and understanding of a church that will be explained then followed by argument about the need of churches of knowledge of a well-organized financial reporting so that churches can present highly reliable financial reports (financial statements) with highly reasonable guarantee given by independent auditors that they are free from errors especially frauds.
This argument is based on two critical financial reporting issues in churches. This part will also include arguments and examples of that it is very dangerous if churches do not have strong governance and internal control within their financial reporting system and process since theft and corruption could be very possible to happen (Laughlin, 2015). The next supporting to the main idea is the need of stakeholders including congregations and donors especially leaders of churches (head of churches, other pastors, priests, missionaries, councils, bible teachers, bishops, evangelists and office staffs including those who work in accounting and finance department of knowledge regarding the churches financial reporting within strong governance and effective internal control. Moreover, stakeholders (leaders of churches, congregations, donors, associations related with churches and churches leaders, public and regulators) must also be educated by churches with knowledge whether churches must present audited financial reports to public in accordance with existing applicable standards and for the reason that churches are funded and donated by congregations and donors who are publicly spread and not part of churches’ management or leaders. To gain more and better understanding that stakeholders need knowledge regarding the financial reporting this chapter will give thorough explanation about different types and names and purposes of the monetary giving given to churches in accordance with God’s law in the Bible as it is a reasonable response from congregations, donors and public that they are willingly to give their monetary giving to churches. All of those kinds of knowledge will not only be explained in this study but also needed to be easily, effectively and efficiently placed in a kind of library, then shared and spread to all who want to read, learn, use and reuse them in order to provide stakeholders of churches reasonable financial reports (financial statements) through financial reporting with the existence of accountability and effective internal control and strong as well as good governance and in having understanding whether churches must provide financial reports to public or not as well as in educating their stakeholders with knowledge regarding financial reporting.

**Biblical Knowledge that Churches Have to Report Financial Information Transparently**

Churches are certainly not public sector, they are not really private either as they are not businesses and therefore not purchasing and selling anything. However, they are not for profit (NFP) organizations (Harding 2016, Salamon and Anheier 1996 and Wijkström 1997). Moreover, not for profit (NFP) organizations fall into third sector (Harding, 2016 and Wijkström, 1997). According to Wijkström (1997) to be viewed as a third sector organization, an organization should thus

1. be formally organized, that is, be institutionalized in some way;
2. be private and thus separate from the government;
3. be nonprofit-distributing, that is, not returning any profits or dividends to owners, directors or members;
4. be self-governing, that is, equipped with their own internal apparatus for governance; and
5. be voluntary, that is, involving some meaningful degree of voluntary participation, either in the operation or management of the organization’s affairs. (Salamon & Anheier 1997).

So, churches are NFP organizations and recognized in third sector as well.

Churches which are classified as religious organizations due to the considering of their mission to be rooted in religious values, or receiving financial contributions from religious values or receiving financial contributions from religious sources that comprise at least half of the annual budget, or benefit from substantial contributions of services from a denomination or congregation, or due to the finding of the organization was done by people from a particular religious group and with which the group remains affiliated and whose name given by their congregation must have good governance and accounting information system with good internal control since they receive funds from the public that are their congregation must have good governance and accounting information system with good internal control since they receive funds from the public that are their congregations and other donors (either personals or groups such as companies). Their financial reports also must be audited by independent auditor. Churches in some countries get independent and even with highly independency auditors to examine the reliability of their financial reports. This is possible since the countries abide the rules and regulations very well as well as the churches abide ones made by regulators for Not for Profit – NFP organizations (regulator for NFP organizations in United Kingdom is Charity Commission for England and Wales, in Scotland is Office for the Scottish
Charity Regulator, in Northern Ireland is Charity Commission for Northern Ireland, in Australia is Australian Charities and Not-for-profits Commission, in Hongkong is Inland Revenue Department, in Canada is Public Trustee, in United States is United States Internal Revenue Service) where churches classified in by many articles and journals. However, this is not the fact in Indonesia, there is no legal framework for Not-for-Profit (NFP) organization.

Religious organizations of churches receive contributions/funds/donations as material offerings other than lives, body, time and energy, heart and mouth (prayer, praise, worship, meditation of God’s word) offerings mostly from their congregations and or donors who are actually general public. The contribution may be from the 10 percent out of income usually called as tithes (Leviticus 27:30 and 32; Psalm 24:1; Malachi 3:8-10; Nehemiah 10:38; Nehemiah 12:44 and 47b), offerings which are collected every Sunday or in other prayer meetings (Malachi 3:8-10; Nehemiah 12:47a), and donations that can be in the form of some amount of money, lands, buildings, cars, buses and so on. As tithes and offerings is obliged as written in the Bible congregations usually give tithes and Sunday offerings. They also give other kind of offerings in other church activities such as in prayer meetings and services during the week. Furthermore some of them even give other kind of donations in the form of money or other assets that sometimes not in small amount of money. However some people who are even not the member of the congregation of a church give donations as well.

If we were to use the tithes according to God’s purposes, the ingathering of the harvest would be done more effectively. This is because one God’s servant (church worker i.e. Shepherd, Pastors, Missionaries, Prophets, Evangelists, Bible Teachers, Administrators, etc) can on the average be supported by 11 other members who pay their tithes just as the Levites were supported by the other 11 tribes in Israel (Numbers 18:21; Hebrews 7:5). Tithes collected by the Levitical priests and kept in a treasury in the house of God (Nehemiah 10:37-38; 2 Chronicles 31:11-12), and is given to support the priests and also handed out to the stranger, the fatherless and widows (Deuteronomy 14:28-29), and for the maintenance of the house of God. In this way, each of the God’s servants will have a standard of living that is the average of about 11 working adults in the congregation, i.e. neither extremely luxurious nor extremely low. In this way also, every church would be able to support a greater number of God’s servants, having on the average a God’s servant for every 11 working adults in a congregation. In this way, we form a partnership with those who spend all their time in the preaching of the Gospel. Thus Paul gave reinforcement to the Church at Philippi concerning their financial support that for even in Thessalonica they sent aid once and again for Paul’s necessities. (Philippians 1:4-5; 4:15-16).

The church at Philippi was a missionary one that serves the needs of Paul during his journey (Philippians 4:15-17; 1:4-5). Providing assistance to the ministry’s mission is respected and accepted by God as "a fragrant offering, a sacrifice pleasing to God” (Philippians 4:18). So, there is nothing wrong with what we give to help a faithful messenger ecclesiastical, it is even regarded as a sacrifice offered to God. Whatever is done to one of the least of our brothers and sisters have done for the Lord Himself (Matthew 25:40).

In addition, the church is also collecting donations for the poor as done by the early church/congregation (congregation who first called Christians) that is the church in Antioch who were not Jewish together with Paul of Cilicia (the capital city of Cilicia was Tarsus) and Barnabas of Cyprus, which both are non-Jewish to the poor and elders of Judea/Judah (the capital city is Jerusalem) (Acts 11:25-30). This thing was also taught by Paul by giving answers to the questions through a letter in the Corinthians (1 Corinthians 16:1-4 and 2 Corinthians 8). The essential thing here was that Paul instructed the Corinthians to set aside income to be taken and donated to the church/congregation in Jerusalem. Paul also provided assistance to saints in Jerusalem to show the unity of the saints of Jewish and Greeks.

The tradition performed by Paul and Barnabas on the early church to the needy and the saints still maintained by the church leaders to the present and is set to be one of the Church Calls Trilogy, namely Koinonia (Fellowship), Marturia (Evangelism) and Diakonia (Social Services). However, these services are growing along with the church calling to express love to the world through a form of social services such as health charity, flood command post, etcetera (Galatians 6:10).

However any offerings or donations that are received by churches regardless whether it is restricted or unrestricted and the uses have to be recorded appropriately in the accounting information and measurement system in order to maintain the reliability of financial information. The fact that supports the argument is that most donors like to know where their money goes and preferably how it
is going to be used. Some people take it as a matter of faith that the money will be used to support a specific cause. They do not assume it will go to supplementary services provided by the church such as purchasing expensive office space and furniture or expensive advertising.

God’s word in the Bible including that His people must give offerings especially tithes to His house so that His servants can live and eat without leaving his job as priests is accepted and believed by churches as well as congregations and donors. But, God also reminds us that all offerings must be well managed so that those priests and councils are independent. In other word they do not misuse the offerings (they are independent in fact) and they also need to be independent in appearance.

The tithes were administered by officials appointed by Nehemiah when he was the Governor of Judea (Nehemiah 13:10-12). He rebuked the officials when they were negligent in their duties. Likewise in churches to day, every local church’s Shepherd (some churches use “Pastor” or “Bishop” to call their Shepherd) should be the person who makes the decisions concerning the disbursements of the funds from the tithes to the church people (Pastors, Missionaries, Councils, Bible Teachers, Bishops, Evangelists, Staffs) according to their individual needs. This is because he is the Shepherd over the congregation and because he is the one who appoints and/or approves other church people and leads in supporting other than local church’s God’s Servants. However, to safeguard a Shepherd from temptation of keeping all or most of the tithes for himself and to safeguard him from false accusations of financial abuse, he should appoint leaders to help him administer the funds. When a Shepherd controls the tithes without accountability especially when the church grows bigger he can be tempted to live luxuriously at the expense of other church’s God’s Servants. This has happened in recent times, therefore the collection and administration of church’s funds must be put into the hands of a few leaders and or God’s Servants, and not one person only, so that no one will be accused of abusing the fund’s funds (1 Corinthians 9:13-14; 2 Corinthians 8:19-21).

What is more is that Barnabas was chosen by the churches to accompany Paul as they carry the offering, which they administer in order to honor the Lord Himself and to show their eagerness to help. They want to avoid any criticism of the way they administer this gift. For they are taking pains to do what is right, not only in the eyes of the Lord but also in the eyes of men. (2 Corinthians 8:16-21). However, even if God’s word in the Bible has told everybody not to misuse the tithes, offerings and donations for their own best interest, in fact there were many frauds at churches (Myers 2012), (Cornell, Johnson & Hutchinson 2012) and (Keller & Owens, LLC., 2012). Another example is that near the end of the Middle Ages, corruption in the Catholic Church was a serious dilemma (Fasolt, --). Individuals and structures guilty of grievous crimes such as corruption in a Russian Orthodox Church (Kristina, 2007).

More than just knowing whether the money donated is not used to personally enrich the manager or leader or head of the church as well as his/her group, but donors should know how a donor to determine the best value for money donated in other words how to support the mission statement and core values of the organization; how does a donor decide which method of evangelism and discipleship as effective but also efficient or what specific target which needs to be funded and in what amounts, congregations (nowadays they are registered members of churches) and sympathizers should know where their offerings (either tithes or Sunday and other services offerings) go. So, congregations, donors and sympathizers should also know, that churches should provide financial information which have been audited in the Annual Report, so that absentee/minority congregations, donors and sympathizers who even only donate little amount of money are able to make judgments, which, though limited, on how their donations are used. They should know that churches are needed to be open and accountable to their wider public, stakeholders, congregation and especially donors through financial reporting processes with good internal controls.

The Importance of Knowledge Related with Church Accounting, Internal Control and Financial Reporting

Church accounting is becoming more important as series of discords or disputes associated with embezzlement which is legal and embarrassing took place in several churches (Chivasa 2017, Oti and Asquo 2016, Elson and Alleyna, Taylor 1982, Ventura and Daniel). Scarcity of stewardship, transparency and accountability occur in church (Ahiabor & Mensah 2013, Mensah 2016, Oti and Asquo 2016) as well as poor accounting treatment and system. Church accounting should be established
on the basis of a belief in correct recording, stewardship, transparency and accountability as a basis for integrity of Christian character. Proper accounting treatment in accordance with IFRS and/or local GAAP where the churches reside (in Indonesia: PSAK 45) are needed.

Weak internal controls, lack of accounting education, over-reliance on individuals and volunteer boards, ancient accounting system, inability to operate in business mode and lack of accounting education constitute as facts in church accounting as well (Oti and Asquo 2016).

Furthermore, a common misconception by most internal stakeholders of churches is to think that internal control exists only for the purpose of detecting and preventing fraud as done in business organizations. Their mindset goes in the way that it is not nice and too strong to exercise internal control at church, even though in their mind they in fact questioning when they found something needs control. Ahiaobor and Mensah (2013) argues that this misconception has often discouraged church leaders or religious organizations from implementing sound control policies because they do not want to appear to be untrusting.

International Federation of Accountant. (2010) states the definition of Internal Control as

“the process designed, implemented and maintained by those charged with governance, management and other personnel to provide reasonable assurance about the achievement of an entity’s objectives with regard to reliability of financial reporting, effectiveness and efficiency of operations, and compliance with applicable laws and regulations. The term “controls” refers to any aspects of one or more of the components of internal control”.

The definition does not make any difference between internal control for churches and for business organizations. Churches must develop and maintain good, strong and effective internal control.

Knowledge about Standards Used by Churches to Report Financial Information Transparently

The knowledge of that congregations and donors are publicly interested parties that churches need to release their Financial Reports to them in accordance with generally accepted accounting principles (GAAP) applies in the countries where the churches reside. GAAP in most countries all over the world have been converged with the standards that referred by all countries called IFRS since they receive funds from public. In Indonesia the accounting standard applies to churches’ accounting is the Pernyataan Standard Akuntansi Keuangan (PSAK) 45.

Churches also must provide systems of Accounting with good and strong internal controls as weak ones raise risk of fraud as well as unintended mistakes.

Knowledge Management System

In scoping the requirements and implementation plan for the information and knowledge management framework for churches this thesis provides details of the literature-based and applied research undertaken. This has included extensive using of journals retrieved from internet.


The theory of Knowledge mostly refers to the very well cited by many researchers of Nonaka’s. In 1995 the research done by Nonaka and Takeuchi proposed a theory to explain the phenomenon of organizational knowledge creation. They defined knowledge as “justified true belief” to reflect the context in which knowledge exists. Nonaka and Takeuchi argued that knowledge is initially created by individuals and that the knowledge created by individuals becomes organizational knowledge through a process described by the theory They described two dimensions of organizational knowledge creation—epistemological and ontological. On the epistemological side, the authors recognize two types of knowledge—tacit and explicit. Explicit knowledge is the knowledge that can be written down and relatively easily transferred from one person to the
next. Tacit knowledge on the other hand is more difficult to articulate because it often arises out of experience. The ontological dimension ranges from the individual at one end of the range and moves from there to team, group, organization and beyond. A spiral emerges when the interaction between tacit and explicit knowledge is elevated dynamically from a lower ontological level to higher levels. This spiral is created by the four modes of knowledge conversion through which knowledge is converted from one knowledge type to another. The modes of knowledge conversion include socialization (from tacit to tacit knowledge), externalization (from tacit to explicit knowledge), combination (from explicit to explicit knowledge), and internalization (from explicit to tacit knowledge). Their theory also explains how individual knowledge is “amplified” into and throughout the organization through these four modes that enable and promote organizational knowledge creation. Figure 3 depicts the creation of knowledge.

![Spiral of Organizational Knowledge Creation](image1)

**Fig. 3. Spiral of Organizational Knowledge Creation**


Knowledge Management (KM) and Knowledge Management System (KMS) is cited mostly from Alavi and Leidner. Their research found that KM process consist of four processes i.e. knowledge creation, knowledge storage/ retrieval, knowledge transfer and knowledge application.

![Knowledge Management Process](image2)

**Fig. 4. Information Technology Function Supports Knowledge Management System Process**

Source: Alavi & Leidner (2001), Assegaf & Hussin (...).

Information Technology (IT) has been used for a long time in support business process in organizations. IT use in the organization to make numerous contribution such as reducing time, cost, support better services for customers. The practitioner also considers IT to support KM. IT use in KM in various ways. Many applications have developed and use to support KM. Social network software, video/teleconference, organization directories, e-mail, e-learning, repositories were potential tools in support KM. IT found very potential in support KM. The main function of IT in KM is to support and enable KM process. Figure bellow describes how IT contributes in KM process. The above figure explains organization activities, KM process and IT in enabling KM implementation. Each of the social activities of people in the organization in the KM process could support by specific application developers in the organization. Example of knowledge creation occurs in social interaction between individual and expert, IT can support this interaction by providing tools like video
conference. However, IT is not the only aspect that should focus in KM. Social system related to culture and organizational structure are important aspects that managers should pay attention.

In common, Knowledge Management Systems (KMS) are IT that enables organizations to manage effective and efficient knowledge. Some definition of KMS has been proposed by some researchers. In this study we use the KMS definition by Alavi and Leidner. They defined KMS as a class of information systems applied for managing organizational knowledge. In general KMS would not have differences from other information systems, instead of content and activities by users. KMS would consist of hardware, software, people, and organization environment around it.

Soft Systems Methodology in Decision Making

The SSM emerged in response to the limitations of the hard systems approach to adequately address complex real world problems that involve human issues. The emergence of a hard systems approach was influenced by systems engineering and system analysis, which use a systematic approach to problem-solving in relation to the design, development and operation of a machine to achieve predefined objectives. (Fenessy, G. and Burstein, F., ... Sankaran, S, et al., 2008, and Williams, B, 2005).

SSM was developed through the work of researchers from Lancaster University in the 1970s, who found that the methods adopted through well-established “hard” systems approaches were inadequate to address ill-structured, complex, real-world problems faced in management situations. This led to four key ideas that resulted in the development of the first seven-step version of SSM (Checkland, 1999).

The four key ideas were:
1) In every situation the researchers undertook people were endeavoring to take purposeful action.
2) There were many interpretations or worldview of a declared purpose of a system.
3) It was not possible to develop a definite model. However, using a variety of models as an organized learning system helped debate and accommodate the various views about the situation.
4) Any course of action that was then arrived at through this process has to be both desirable and feasible for the people involved in the situation.

The seven-step version was described in a book (Checkland, 1981) that helped to teach SSM to researchers and practitioners. As SSM started being used it became clear that the process needed to be enhanced and a two-stream version of SSM was developed that took into account cultural and political issues that arose while applying SSM in the real world. This model can be found in a book by Checkland and Scholes (1990) that also includes many actual applications of SSM.

According to Checkland and Scholes (1990), the seven-step version of SSM grew out of research conducted by university staff helping organizations outside the university to address ill-structured problems. Hence, it resembled a consultancy framework where an outsider is hired to intervene in problems occurring in organizations. As SSM started being applied to day-to-day work by practitioners such as Scholes, it became a mental model for thinking about problematical situations. It presented in a paper by Checkland (1972) in the Systems Engineering Journal.

Methodology

Soft System Methodology (SSM) is used to identify problems in investigating the need of KMS in accounting and financial reporting activity in the ‘study case’ church. The SSM has seven stages (Figure 5), however they are grouped into three stages.

a. Stage 1
   Study the Existing Problem Situation.

b. Stage 2
   Express Problem Situation Using Rich Pictures.

c. Stage 3
Propose a Conceptual Platform of a Knowledge Management System that Can Support and Improve Knowledge in Financial Reporting.

Fig. 5. The Checkland’s Seven Step of SSM

In this study, the seven-step (cluster) version of SSM developed through the initial work in applying systems thinking to real-world problems. The first two stages of this model help this study to enter a problem situation, find out about the situation and express it. A root definition is developed in Stage 3 that enables development of conceptual models in Stage 4. A line separates stages 1 and 2 from 3 and 4 to indicate that this study has moved from the real world to a systems thinking world. After building conceptual models a reality check is made by moving back to the real world and assessing the feasibility and desirability of the solution arrived at through conceptual modeling in stages 5 and 6. Action follows to improve the situation in stage 7.

Findings

In order to fully understand how the users of Knowledge Management System for Financial Reporting (KMSFR), unstructured interviews with deep questions as well as answers (some may say that it is a semi structured ones), focus group and observations were undertaken. A tightly structured interview may result in the failure to investigate or explore the breadth and depth of situation. Unstructured interviews done with two pastors, two councils, two administrators, an accountant (internal auditor), and cashier bringing number of aspects wanted to be explored that have been already identified. The main issues brought in the interviews are regarding with:

1) Biblical knowledge that churches have to report Financial Information transparently
2) Knowledge that churches has public responsibility since they receive funds and/or donations from public
3) Knowledge that churches in fact are agents and the congregations and donors are principals since congregations and donors give funds on a regular basis, so churches are reporting entities, hence accounting and financial reporting is not an optional
4) Knowledge that in Indonesia churches which are classified as Not-For-Profit (NFP) organizations must present their financial reports in accordance with PSAK 45
5) Knowledge regarding presenting Financial Statements or knowledge regarding accounting process with good and strong internal control, such as what is the best chart of accounts for certain church and how to journalize events.

This study investigates whether the church needs a system to manage all of those three groups of knowledge so that they can be stored, retrieved, used and captured. The system can also improves collaboration, locates knowledge sources, mines repositories for hidden knowledge, or in some other way enhances the KM process.

Stage 1: Study the Existing Problem Situation

In this first stage, which is in the real world, there is reviewing and extracting issue or general area of interest but not yet defining the problem situation. In the case of future Knowledge Management System for Financial Reporting (KMSFR), the primary activity is to have a system of “Knowledge Management” for Financial Reporting. Its activities are supported by assessing a system for management practices of knowledge regarding Financial Reporting. The main purpose is to investigate the current situation involved in the future KMSFR and to unveil issues related to it.

Other church branches that are in the same synod with the one in this case study must have the same need for Financial Reporting knowledge. Each of the churches have management where the synod headquarters will rotate the pastors (shepherds) every three years to be placed in churches in other regions but at the same synod. For example, suppose pastor...
A is nearing the end of the third year pastoring Q church. In the next three years pastor A will be transferred to church T. However, members of other church management (assemblies, administrators, and treasurers) remain and work normally at Q church and welcome newly arrived pastors who are transferred from other churches, for example church R, but can be from church T. Management systems for pastor transfers by synods like this and clear management of offices and internal churches in each church can indicate that there is no specifically a church owner(s). The only parties who can be the (absentee) owners of the churches are congregations and other types of donors (individuals and organizations). Since owners (congregations and donors) are separated with management there can be misuse of funds collected from owners. There may not be conflict of interest as most congregations and donors do not require any kind of return, to most of them the gives are based on faith, however the misuse against God’s word and accounting standards. Moreover, there is a risk that some congregations and donors not be unhappy with the misuse of funds as they expect the funds they give would make good impact on the churches and congregations. Pastors and other member of management who are seen in luxury lives definitely will make most congregations and donors unhappy, this will create risk that congregations and donors will never donate and what even worse is that they will go and find other churches. This is a logic consequence. If there were some influence made by pastors and other member of management to make congregations and donors stay in the churches whatever happening with the funds they give, this is not part of this study as this is illogic, this is a case of undue influence that may use biblical verses that make congregations and donors are afraid of punishment from God when they do not give as perched by pastors. They may also stay in the church when they are influenced that they will be rich once they give more and more to God. More over the latest case mostly does not happen in the “case study” church.

The case is different from other types of churches in different synod. Let us get an example of synod where a church in it is built by a pastor usually started with very small congregation, one or two person. Pastors in this kind of church believe that all funds gives and donated by congregations and donors are fully under their control, they have fully authority to allocate the funds. In this kind of synod, clearly there is misuse of funds that against God’s word and accounting standards.

The latest kind of church is not the “case study” but expected to learn from the KMSFR that is reviewed here once it is built. Others other than churches management that can learn from knowledge regarding Financial Reporting of churches that will be managed in a system are congregations, donors, theology students and many other parties.
practice the supporting resources and the use of technologies in the process. To bring respondents easier to gaining understanding of either the themes of interviews or decision must be made then in adding knowledge related to KMSFR, copies of knowledge written on papers as in the theme must be shared to all respondents during interviews.

Pastors

Responses from pastors were collated from three unstructured interviews and observation. The responses were classified under four broad themes, namely (a) Biblical knowledge that the ‘study case’ church has to report Financial Information transparently, (b) The church have public responsibility since they receive funds and/or donations from public (congregation and donors) on a regular basis, (c) The church in fact is agent whilst the congregation and donors are principals since congregation and donors give funds on a regular basis, so churches are in fact reporting entities, hence accounting and financial reporting is not an optional, (d) The church which is classified as Not-For-Profit (NFP) organization must present its financial reports in accordance with PSAK 45, (e) Knowledge regarding presenting Financial Statements or knowledge regarding accounting process with good and strong internal control, such as what is the best chart of accounts for certain church and how to journalize events.

(a) Biblical knowledge that the ‘study case’ church has to report Financial Information transparently. During the interviews the pastors described that all biblical knowledge regarding churches have to report Financial Information transparently were understood by them, however they admitted that they never realize and never do specific research about it. From the interviews the pastors agree that all members of management, congregations, donors as well as the synod and public need to understand the biblical knowledge. Conclusion: This knowledge needs to be put as one in KMSFR.

(b) The ‘study case’ church has public responsibility since they receive funds and/or donations from public (congregations and donors) on a regular basis. In the interviews session the pastors explained that this knowledge is very much new to them, however finally they can accept the reason behind the knowledge that the church have public responsibility. They also can finally gained understanding that in terms of accounting and financial reporting the knowledge means that the church must present financial information in accordance with GAAP in Indonesia, that is PSAK 45. Conclusion: this knowledge will also give contribution in KMSFR.

(c) The church in fact is an agent whilst the congregation and donors are principals since congregations and donors give funds on a regular basis, so the church in fact is a reporting entity, hence accounting and financial reporting is not an optional. Similar responses and reactions from pastors with the one in (b) when interviewing them regarding this knowledge. However, in this theme of interview, pastors seemed to be softer then easier to get them to gain understanding of this knowledge. Conclusion: this knowledge will also give contribution in KMSFR.

(d) The church which is classified as Not-For-Profit (NFP) organization must present its financial reports in accordance with PSAK 45. The findings in this theme encompassed knowledge regarding standard used in presenting Financial Reports after all other types of knowledge as brought to the theme of interviews. During the interviews pastors are easier to have the same decision that this knowledge is needed in KMSFR. Conclusion: Knowledge that churches are classified in NFP organization and then that churches must present Financial Statements in accordance with PSAK 45 must be in KMSFR.

(e) Knowledge regarding presenting Financial Statements or knowledge regarding accounting process with good and strong internal control. Most pastors do not have educational or experience background in Accounting and Financial Reporting, but studies regarding theology and ministry. This condition makes them firstly to have no any idea regarding financial reporting as well as recording and accounting economic events. However, since this study uses unstructured interviews, respondents including pastors had good opportunities to firstly gain understanding regarding knowledge needed in KMSFR. This opportunity makes them easier to understand themes discussed in interviews thus easier to make conclusion whether certain knowledge must be in KMSFR.

(f) Technology use and acceptance. By the helps of the existence of discussion through unstructured interviews pastors interviewed believe that automation projects will make them much better in gaining knowledge on a daily basis when they want to. The fact that some of them are not frequently use technology did not lower their enthusiasm for making use the system. Hence, they will be able in creating and maintaining effective and strong Internal Control
that can detect and locate material misstatement when it is exists. They will also be able in presenting Financial Statements in accordance with PSAK 45.

Presbyters and Administrators
The findings of all those five themes through unstructured interviews in this type of stakeholders were quite similar to those in pastors. However, as they are many there are some of them who truly love to work with technology including two assemblies and two administrators whose education background is related with computer. These group of stakeholders mostly support and are very happy with the development of KMSFR. Conclusion: All of the types of knowledge in the theme of interviews must be in KMSFR.

Technology use and acceptance - By the helps of the existence of discussion through unstructured interviews assemblies and administrators interviewed believed that automation projects will make them much better in gaining knowledge on a daily basis when they want to. The fact that some of them are not frequently use technology did not lower their enthusiasm for making use the system. Hence, they will be able in creating and maintaining effective and strong Internal Control that can detect and locate material misstatement when it is exists. They will also be able in presenting Financial Statements in accordance with PSAK 45.

Cashier
The findings of all those five themes through unstructured interviews in this type of stakeholders were quite similar to those in pastors. However, as the cashier deals with many economic events on a daily basis, she supports the development of KMSFR very much. Conclusion: All of the types of knowledge in the theme of interviews must be in KMSFR.

Technology use and acceptance - By the helps of the existence of discussion through unstructured interviews the accountant interviewed believed that automation projects will make them much better in gaining knowledge on a daily basis when they want to. The fact that some of them are not frequently use technology did not lower their enthusiasm for making use the system. Hence, they will be able in creating and maintaining effective and strong Internal Control that can detect and locate material misstatement when it is exists. They will also be able in presenting Financial Statements in accordance with PSAK 45.

All findings in Stage 2 are about problems expressed by Pastors, Presbyters and Administrators, Cashier and Accountant, drawn in Rich Pictures as can be seen in Figure 7.

In the ‘case study’ church, the accountant does not work as an accountant at the church. She is mere a member of congregation with education and job background as an accountant that asked by the senior pastor to help the church dealing with recording transactions at church. He can only come once to the three interviews, however it was very easy to communicate the plan of developing a knowledge management system for financial reporting of the church. In the interview surely it can be seen that he supports fully the development of KMSFR especially those five themes are very rich of church accounting and financial reporting knowledge. Conclusion: The accountant agrees to bring all of those five types of knowledge to the future KMSFR.

Technology use and acceptance - By the helps of the existence of discussion through unstructured interviews the accountant interviewed believed that automation projects will make them much better in gaining knowledge on a daily basis when they want to. The fact that some of them are not frequently use technology did not lower their enthusiasm for making use the system. Hence, they will be able in creating and maintaining effective and strong Internal Control that can detect and locate material misstatement when it is exists. They will also be able in presenting Financial Statements in accordance with PSAK 45.

Fig. 7. Rich Pictures
Stage 3: Look at Problems Using CATWOE Analysis

Stage 3 looks at the problems as illustrated from the rich picture and propose solutions for improvement by delineating a “root definition” using CATWOE analysis. The root definition is essentially a hypothesis about the relevant situation and improvement to it that might help to resolve the problem situation, therefore the working root definition for KMSFR:

Church management owned and operated system to provide a conducive medium for gaining knowledge for accounting process and financial reporting that supports understanding of everybody that in fact the church has public responsibility especially to congregation and donors, developing and maintaining financial reporting and internal control, presenting Financial Statements in accordance with PSAK 45 through a digital environment.

Table 1
CATWOE Analysis

<table>
<thead>
<tr>
<th>Element of CATWOE</th>
<th>Description</th>
<th>CATWOE analysis for this research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customers</td>
<td>Who are the victims or beneficiaries of (Who are affected by) the transformation?</td>
<td>Pastors, Presbyters and Administrators, Cashier, Accountant, Other stakeholders who can learn from the system (Congregations, Donors, Other Churches, Public)</td>
</tr>
<tr>
<td>Actors</td>
<td>Who makes the transformation happen?</td>
<td>Pastors, Presbyters and Administrators</td>
</tr>
<tr>
<td>Transformation</td>
<td>What are the inputs and (transformed) outputs?</td>
<td>Current unconducive environment of gaining knowledge of accounting, financial reporting and internal control of the ‘study case’ church</td>
</tr>
</tbody>
</table>

Stage 4: Conceptual Model

A conceptual model is developed to show how various activities of different stakeholders in the
current system are related to each other based on the root definition. The conceptual model demonstrates how technology can help solve the problems expressed by four types of internal stakeholders by mapping it to a proposed system that can be used by all stakeholders.

Fig. 8. Conceptual Model Representing the Solution for Problems

Stage 5: Comparing the Current Situation with the Proposed Solution

This stage compares the conceptual model with the current system that identifies the desirable and feasible changes expected and needed.

Stage 6 & 7: Feasible, Desirable Changes Needed and Action to Improve the Problems

This stage implements all the changes that had been identified. The rich picture was redesigned into the conceptual framework which proposed Knowledge Management System for Financial Reporting (KMSFR) to be done in a digital environment in order to solve the issues and problems that had been identified in the current system at the ‘case study’ church. The details on the desirable and expected changes that should be undertaken are being analyzed and will be followed by the actual implementation of the KMSFR. The provision of an online platform to support the learning knowledge with the use of resources from KMSFR is generally welcomed by all internal stakeholders, i.e. pastors, presbyters, administrators, cashier, accountant as well as congregation and donors. Specifically, they can gain knowledge for accounting process and financial reporting that supports understanding of everybody that in fact the church has public responsibility especially to congregation and donors, develop and maintain financial reporting and internal control, present Financial Statements in accordance with PSAK 45 through a digital environment.

Conclusions

This study has shown that by employing SSM, the process and issues related to learning knowledge were captured and depicted in a rich picture based on four different views of stakeholders:

1. pastors mainly did not have any knowledge regarding church public responsibility, accounting, financial reporting and internal control; however especially the senior pastor realized that the church is very far from doing accounting in the right way, but she could not do anything other than getting and asking one of the member of congregation to help the church in creating an accounting system; that was the only thing she realized. Obviously, she did not have any knowledge that in fact the church has public responsibility especially to congregation and donors, the church must develop and maintain financial reporting and internal control, and must present Financial Statements in accordance with PSAK 45 through the future expected digital environment, as their educations and work backgrounds are connecting with shepherding, counseling, preparing sermons and together with presbyters and administrators making church planning and planting;

2. presbyters and administrators also did not have good knowledge regarding church public responsibility, accounting, financial reporting and internal control, however most of them have good educations that makes them easier in gaining understanding during interviews session; the problem is that, unlike the pastors, officially they are not responsible for making all stakeholders including congregations and donors gaining knowledge that the church has public responsibility; formally in the church they are not responsible as well in presenting financial statements;

3. cashier, just like the pastors, she does not have good understanding regarding church public responsibility, accounting, financial reporting and internal control;

4. accountant has good education and work background in accounting area, however as he is not officially work for the ‘case study’
church, he is not officially responsible for making all stakeholders having the knowledge, he is just asked for a hand by the senior pastor in making a new accounting system; even though he is an accountant he never realized that churches have public responsibility in presenting financial statements in accordance with PSAK 45.

In order to solve the problem situation as illustrated in the rich pictures a proposition of the relevant solutions were defined through a root definition which was mainly to provide a conducive medium for learning knowledge regarding church public responsibility, accounting, financial reporting and internal control as well as highly interactive and supported collaboration work through a digital environment, KMSFR. Hence, features of the proposed solution were defined and conceptual model was developed to show interaction between different views of stakeholders and described the system processes to achieve the expected and desired transformation. For example, sharing knowledge about that in fact there is an agent-principal relationship between churches and their congregation and donors exists will be more valuable and may gain rich conclusion since many stakeholders, public, other churches and researchers involved especially when they have accounting background; they may be researchers in accounting. Moreover, the future system (KMSFR) will improves collaboration and create effectiveness as discussion, sharing and collaboration will be done faster and efficient. Whilst sharing the knowledge without managed it by making use technology definitely will be slow in reaching a conclusion; even researchers can only share their knowledge through their article published in journals. Finally, the rich picture is redesigned into a new conceptual framework which proposed the process of learning knowledge to be done in a digital environment in order to solve the issues and problems that had been identified in the current system. The details on the desirable changes that should be undertaken is being analyzed and will be followed by the actual implementation of the knowledge management system, to support the learning of knowledge activities as well as utilizing resources from KMSFR. This will ease locating and accessing knowledge as highlighted by all stakeholders in this study. The digital environment would also support creating, storing, retrieving, locating, sharing, using and reusing knowledge regarding church public responsibility, accounting, financial reporting and internal control, support interactivity, discussion and collaborating amongst stakeholders (including congregation and donors), stakeholders from other churches and even researchers.

To face the challenge of how to capture the experiences and intellectual capital of any knowledge regarding Financial Reporting, the development of a Knowledge Management System for Financial Reporting (KMSFR) is essential to prevent moral and material loss of not presenting Financial Statements/Reports in accordance with IFRS and/or GAAP.

Therefore, the ‘study case’ church must own KMSFR in order to educate their own church’ people (stakeholders) (Pastors, Missionaries, Councils, Bible Teachers, Bishops, Evangelists, Staffs etc whatever the names the church may have), congregations, donors and public that the church must realize the existence of agent and principal relationship between the church and its congregation and donors, maintain Financial Reporting, Internal Control and present Financial Statements/Reports.

Bibliography


