

# Knowledge Management Initiatives in Contact Centre: A Case Study in Tenaga Nasional Berhad

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## ABSTRACT

This paper reports the results of a qualitative study of KM in World Class Contact Centre (WCCC) of Tenaga Nasional Berhad (TNB). This study uses data collected through interviews, discussions and documents obtained from managers and agents of WCCC as well as observations of the WCCC operation. Through these initiatives, several outcomes have been identified that bring benefits to the agents such as the increase in knowledge competency, up-to-date information, and improved level of confidence of contact centre agents. WCCC received many awards from internal and international association as a result of their effort in providing a world class customer service to their customers, which can be observed through the Customer Satisfaction Index (CSI) score.

**Keywords:** Knowledge Management, Contact Centre, Implementation,

## I INTRODUCTION

The view that knowledge is as critical as other assets such as land, property, labour, and cash leads to the wide acceptance of knowledge management (KM) in most business organisations such as 3M, Hewlett-Packard, Xerox and Buckman Labs (Bhatt, 2001). Although knowledge has been acknowledged as a source of competitive advantage, it has not been managed well in many organizations. A study by Takeuchi (1998) on a poll of executives from 80 large companies in the U.S. found that only a few executives felt that they managed their knowledge well. As a result, the organization may lose its competitive advantage where the knowledge was not captured, stored, re-used and shared properly.

Accordingly, within the operation of a contact centre, it is a rule of thumb that agents must have sufficient knowledge to provide the best services to their customers. Agents in a contact centre must convey accurate information about the organization, especially in an electricity utility company, where the supply of electricity is vital to the daily operation of individuals or even business and industrial consumers. Accurate and comprehensive information with regards to the electricity supply will help to describe the general information, the business plan and the operation and production schedule of the

company. For this reason, KM initiatives are important to be implemented in the contact centre to ensure that knowledge will be managed systematically and agents can perform to their best capability which will translate to the satisfaction of the customers.

This paper aims to explore the current KM initiatives implemented in the contact centre of TNB. This study will include the identification of the KM activities in the contact centre and how the KM activities produce impacts to the contact centre. Outcome from this study can be a guidance to help other contact centres in applying KM in their organization.

## II LITERATURE REVIEW

In an organization, it is common that senior workers possess high levels of tacit knowledge, which are accumulated through their working experience and learning process (Debowski, 2005). Knowledge is considered as a renewable and re-usable asset, which is valuable to a firm and is enhanced with an employee's experience (Masa'deh et al, 2015). The value of knowledge can be enhanced only if knowledge is shared, reused and applied amongst workers so as to generate creative ideas to overcome existing problems or challenges ahead.

Knowledge, being a valuable commodity in an organisation, is considered the most strategically resource of an organisation. Thus, it is viewed as a determinant of sustained competitive advantage and superior corporate performance (Takeuchi, 2013). This views echoes the view of Peter Drucker, who mentioned that the organisation can make the future by turning intellectual assets into value through innovation. Only through innovation, organisations can sustain its competitive advantage and strive for a superior performance (AL-Hayaly, 2016). Thus, KM has become the solution to many organisations in leveraging organisational knowledge. However, not all KM initiatives are successful due to the perception that KM is a silver bullet—that is just the implementation of information technology. In managing knowledge in a firm, Tobin (2003) discusses ten principles for KM success: KM is a discipline, one champion is not enough, cultural change is not enough, cultural change is not - automatic, create a change management plan, stay strategic, pick a topic, go in depth, keep it current,

don't get hung up on the limitations, set expectations or risk extinction, integrate KM into existing systems and educate your self-services users. While these principles are important for the success of KM, they have lagged practice. Using these KM principles as guidance, we explore the KM initiatives in the contact centre of TNB with the aim to identify the impact of KM in the contact centre and how KM can be improved.

### III METHODOLOGY

This study aims to identify the KM initiatives carried out in a contact centre. A literature review was done about KM to establish a baseline for the study. Semi structured interviews and discussions with managers and agents in WCCC were conducted to explore and deepen the KM initiatives that have been implemented and its effectiveness to all agents and managers in WCCC. Data collection and analysis was done to the documents related with KM initiatives such as implementation plans, schedule training, training plan for each level of employees for the Customer Operation Performance Certificate (COPC), example of exam papers, the record evaluation results forms and shift schedule of its agents to gain better understanding of the contact centre operations. The process of observing the WCCC operation includes the agents' method on how to manage calls from customers, the systems used and the quality monitoring system.

### IV KM IN CONTACT CENTRE

A successful implementation of KM in an organization may improve the company's performance by becoming more competitive and able to maintain its prominence towards its customers. As mentioned earlier, KM implementation is very crucial to be carried out in a contact centre of an electricity utility company, especially in WCCC, TNB. The main purpose of the study, which was carried out in April 2016, was to investigate on how the KM is being implemented and what are the initiatives that contribute to the success of the implementation. In overall, the results from the case study are organised into three parts as follow:-

- (i) Company Background
- (ii) WCCC
- (iii) KM Initiatives

#### A. Company Background

TNB is the largest electricity utility provider in Malaysia with asset totalling to RM110.7 billion. TNB have been entrusted by the Government of Malaysia to supply electricity throughout Peninsular Malaysia and also to Sabah and Labuan through its subsidiary company, Sabah Electricity Sdn. Bhd. There are three (3) core businesses in TNB which are

regulated by the Energy Commission (*Suruhanjaya Tenaga*). First is the generation of electricity through many means such as hydro dams and gas and coal fuelled generation stations. Second is the transmission from the generation stations to the distribution stations. Lastly is the distribution of electricity to all of its customers.

Besides that, TNB is also involve in unregulated businesses through its subsidiaries such as in the sector of manufacturing, installation, repair and maintenance of transformers, high-voltage switchgears & cables and professional consultation services related to architectural, civil, electrical engineering works and services in Malaysia, Mauritius, Pakistan, India and Indonesia. As a complement to the core businesses, TNB Research has been established as a subsidiary of TNB to research and develop new technologies to improve, sustain, nurture and promote innovations related to all TNB's operations and businesses. In the education sector, TNB has established Universiti Tenaga Nasional (UNITEN) to develop high quality graduates which will be beneficial not only to TNB as a source for future human capital but also to the country by increasing the education level of its people.

#### B. World Class Contact Centre (WCCC)

Customer satisfaction is the top priority in providing service to the customer and to ensure business excellence in TNB as a world-class company. For that purpose and to support the TNB's core businesses, the WCCC formerly known as TNB CareLine has been established as an initiative to improve the customer's experience, operational efficiency and customer's transaction virtually.

Previously, there was only one unit in TNB responsible for the call centre namely Call Management Centre (CMC) with its one-number direct line, 15454. CMC was in charge in receiving complaints regarding power outages and malfunction streetlights. Once received, they will convey the complaints to the respective units for any applicable restoration works. CMC operates 24 hours a day and 7 days a week throughout the year. Starting in 2011, another wing of the call centre which was called the One Stop Engagement Centre (OSEC) was established to manage any inquiry regarding TNB services such as electricity bills, tariff rates, electricity disconnections, payment enquiries, self-meter reading and cheque verification for any payment using kiosk. OSEC only operate in two shifts, which the shifts rotate for 16 hours a day and 7 days a week using the phone line 1-300-88-5454. CMC and OSEC managed an average of 275,000 calls per month.

Starting in 2012, as a step to boost the customers' satisfaction, WCCC was established and had added 4 more channels to manage all customers' inquiries including Social Media, WebChat, Email and SMS. In the future, the existing channels will also be integrated with Virtual Agent, IVR Self-Services, PKP (Retail), MyTNB, E-Services, Corporate Website and Kiosk.

CMC and OSEC agents are trained to be the expert regarding any services in TNB. KM initiatives need to be implemented in WCCC to ensure that the agents will be competence enough to perform their duties in the contact centre.



Figure 1. All Channels of Communication in WCCC

### C. KM Initiatives In WCCC

The most important assets in the WCCC are the skilled and highly competence agents which are the backbone of the centre. WCCC agents must be proficient in both dimensions of skills which are the technical know-how and the soft skills in human interaction. The KM initiatives that have been implemented in the WCCC are as follow: -

#### 1. Basic Training for New Agents

For new agents to start their duties and perform to their fullest potential, it is important for each agent to understand the basic knowledge about TNB and their deliverables in WCCC. New agents will undergo 15 days of initial training modules, which consists of 12 days of training in ILSAS and 3 days On-Job-Training (OJT). The purpose of the training is to provide the basic knowledge about TNB to the new staffs before performing their duties. This training will cover the following topics:-

- Basic technical knowledge.
- Application system that will be used such as Sistem Maklumat 1 TNB (SMIT), Total Outage Management System (TOMS) dan e-Customer Information Billing System (e-CIBS).
- Electricity bill calculation, principles and components such as maximum demand charge, energy charge, power factor surcharge, Good and Service Tax (GST), Imbalance Cost Pass Through (ICPT), Minimum Monthly Charge (MMC), tariff, Kumpulan Wang Tenaga Boleh

Baharu (KWTBB), late payment penalty and welding charge.

- Product information and website such as K-Portal, e-Services, MyTNB, Kiosk, Autopay and PSI.
- Processes and principles related to the customer's affairs such as new connection, change of tenancy, temporary supply, supply application online, deposit, upgrading, disconnection and Personal Data Protection Act (PDPA).
- Customer service information which includes methods to handle customers, ethical communication skills, techniques for dealing with difficult calls and good telephone etiquette.

During the OJT, new agents will manage actual calls while their supervisor will supervise and coach the agents to improve their skills and confident level. Supervisor will also assess their capability in delivering the specified jobs within the standard required. If the agents cannot meet the standard, they will need to be retrained. New agents will amass the required knowledge throughout the training by combining explicit knowledge from the 15 days session and the tacit knowledge from their supervisor during the OJT.

#### 2. Continuous In House Training for Existing Agents

To ensure that the service excellence in every existing agent are consistently updated with new information, circulars and applications, continuous in-house training for existing agents will be done periodically. Due to limited number of agents coupled with different shift schedules, training is not feasible to be carried out in ILSAS. The training unit provides an annual training schedule whereby each agent must attend three training sessions which each training session would last for a week. Each agent will take turns to give a briefing on the existing policy, while the Business Process Owner (BPO) or Subject Matter Expert (SME) will come to WCCC to give a briefing and training about new policies, circulars or applications. This training which focuses on information sharing and distribution are important as a knowledge exchange platform between agents, BPOs and SMEs.

#### 3. English Language Course

To Exceed Customer Satisfaction is the second goal from the five Key Results Area (KRA) of the TNB's Transformation Program. The target is to improve the customer touch points, channels, products and services with one of the initiatives is to make the call centre multilingual. To achieve the objective of managing and enabling customer calls from different nationalities, WCCC agents must be able to

understand, write and communicate in English. External trainer has been appointed to provide English courses to all WCCC agents.

#### **4. Soft Skills Training**

Soft skills are required during interactions with a customer. It can be related to the language use, the tone of voice and the clarity of voice and explanation. The soft skills applied by the agents will leave positive impact to influence the customers' experience and satisfaction. Through the realization of soft skills, customers will feel comfortable when dealing with the agents, who are projected as professional, compassionate, concerned and showed a sincere desire to help. The agents will be trained on how to use the soft skills in dealing with different type of customers. With this training, agents will learn the best techniques to deal with difficult calls, words and phrases to avoid, good telephone etiquette, active listening to gather appropriate information and how to handle calls in a professional and caring manner.

#### **5. Customer Operation Performance Certificate (COPC)**

COPC Inc. offers certification of the COPC® Family of Standards, which certifies WCCC's management personnel and agents having a proven, comprehensive framework for managing customer experience. Each COPC Standard focuses on best practices regarding people, processes, and performance that will drive excellence in the customer related operations. Certification to a COPC Standard enables WCCC to measure and improve all operational activities to enhance customer experience.

For this purpose, the Training Unit has developed several training modules and development plans for each individual in the management level and every front liner agents. Each person need to go through examination process once in every 3 months. If they fail, they need to review back the modules and retake the test.

#### **6. Employee Engagement**

Previously, whenever there was a revision on electricity tariffs, Tariff Unit need to set up an operation room to answer all questions regarding the revision of tariffs and other related matters such as pro-rate calculation based on the electricity bill of the customers. Tariff Unit had to manage on their own and it had disrupted their daily deliverables.

As a step to enhance OSEC's knowledge on tariff, during the tariff revision in 2009, OSEC agents were invited to take turns to be on duty in the tariff operation room to get exposure on how to answer questions and manage tariff inquiries. The

collaboration between the OSEC agents and BPOs will ensure that the knowledge transfer will happen smoothly by BPOs sharing the tacit and explicit knowledge with OSEC agents.

During tariff revision in 2011, 50% of the responsibilities in the tariff operation room were handled by the OSEC staffs and the latest in 2014, 70% of the responsibilities in the operation rooms were handled by the OSEC agents. The operation room was only opened for a short period of time and after it was closed, all inquiries were handled by the OSEC team. The OSEC team will only refer to BPOs if there is a new type of inquiry from the customer.

#### **7. Quality Monitoring Unit**

Quality Monitoring (QM) Unit's role is to check and monitor the agents' performance whether they comply with the standard in managing phone calls. QM will monitor by listening to the conversation in three situations, namely a recorded conversation, live conversation or even being next to the agents during live conversation. Result from the QM monitoring will determine whether the agents have complied with the stated standard or further training are required. QM may also on their own initiative to directly train the agent while being next to the agents during live conversation. QM may have big influence especially to the new agents.

#### **8. Standardized Performance Management Through Circulars and Procedures in PSI and e-Doc**

All the circulars and procedures will be approved by the Top Management of TNB and are documented in the Process Standardization and Improvement (PSI) Portal as well as the e-Doc Portal. BPOs will present the related items to the agents through in-house training to update their knowledge. BPOs will then explain in great details about the new circulars or procedures.

PSI Portal is the online database to keep all procedure documents while e-Doc Portal stored all circular documents. WCCC agents can easily and quickly obtain any policies or procedures throughout these two online portals. Systematic documentation in PSI and e-Doc Portal also can ensure the security of document storage.

#### **9. Structured Frequent Ask Question**

BPOs and SMEs will produce a predictable Frequent Ask Question (FAQ) that will always be asked by employees or customers. FAQ will be updated and improvised with questions that were collected during the road shows, trainings and hand-holding sessions.

As an example, any tariff revision undertaken by TNB is subject to the approval of the Malaysian

Government because most of TNB's operations are regulated by the Energy Commission. Any related components to be included in the electricity bills such as Imbalance Cost Pass Through (ICPT), Renewal Energy Fund (KWTBB) and Subsidized Fuel Cost (*Subsidi Bahan Api*) need to be endorsed by the Government.

For every tariff revision or any new direction instructed by the Government, TNB will need to review the circulars, arrange road shows, organize trainings and hand-holding sessions and prepare the FAQs to ensure the information is delivered and transferred to all employees and customers.

WCCC agents are trained to be the expert regarding any TNB services. Therefore, FAQ list is a powerful asset to CMC and OSEC in providing accurate and standard answer to the customers. The CMC and OSEC staffs should be well versed with FAQ to easily manage customers' queries.

### **10. Knowledge Portal (K-Portal)**

Knowledge Portal, also known as K-Portal provides a platform for additional information or explanation to the circulars or procedures that are being shared with all employees. K-Portal mainly provides the employees on information regarding customer services. Slide presentations, FAQs or videos are the example of materials available in the K-Portal. Around 600 FAQs have been developed by the BPOs and SMEs are stored in the online K-Portal. The BPOs and SMEs will share their knowledge and expertise by updating the K-Portal whenever needed.

Due to current social media phenomena, TNB have also established the TNB Careline's Facebook to cater the need of customers who would choose to make a complaint through social media. A dedicated team has been appointed to manage the TNB Careline's Facebook as well as to responds to any enquiry or complaints made any the customer.

## **V FINDINGS AND DISCUSSION**

### **A. Benefits**

One of the benefits of implementing KM is that the new agents can begin their duties immediately after completing the 15 days of basic and on-the-job training which they will utilize all information stored in PSI Portal, e-Doc Portal and K-Portal. The circulars, procedures and FAQs can easily be accessed instantly from the portals. New agents can find answers to common questions easily by themselves without having to constantly refer to their supervisor, thus conversation time with customers will be reduced and the customer's problem will be solved promptly while the supervisor can focus on other challenging issues.

By implementing continuous in-house training, existing agent are consistently updated with new information while at the same time can reduce agent training time which is tied with shift schedules. It also can reduce training cost and focus to knowledge sharing and exchange directly from BPOs and SMEs.

Continuous competency development for each agent through English course and soft skills training will cultivate effective communication skills, high confident level, able to produce accurate explanations, better time management during session with customers and excellence in problem solving.

Agents who have been certified by COPC Standard can increase their job-marketability value and are eligible to serve in any call centre. For the management personnel who have been certified by COPC Standard will be eligible to give consultation work to other companies to set up their own call centre.

Tacit knowledge from supervisor will be shared and transferred to agents during OJT, employee engagement such as during tariff operation room and coaching by QM. The standardisation of circulars and procedures and the establishment of FAQs will give a better understanding to the agents to deliver quick and correct answers to the customers. The reduction in conversation time will also improve customers' satisfaction and increased cost savings.

### **B. Success Factors**

One of the success factors of the KM implementation in WCCC is the full support from the management which includes ample allocation of resources, good leadership and adequate training. Without full and continual support from the management, KM may not be functioning well. The second factor is the commitment and motivation from employees and management which drives the steadiness of the KM implementation. The commitment from the employees will make sure that the KM activities being executed efficiently. The third element is the integrated technical knowledge infrastructure which covers management information system, database and repositories such as K-Portal, PSI Portal and e-Doc Portal, networks, softwares and computers. User friendly system that can be easily access by employees and is always updated will support the KM implementation. Furthermore, a positive organization structure and culture that support sharing, learning and re-use of knowledge are also the factor for success.

### **C. Awards and Recognitions**

As a proof of service excellence WCCC, some of the prestigious awards and recognition received by WCCC are as follow: -

- a) Asia Geospatial Excellence Award for Application of Geospatial Technology in Electricity for Implementation of Smartview for Outage Management in TNB Distribution in GE Smart Asia 2015.
- b) Silver Award in Best Customer Experience Delivered in CCAS Contact Centre Award 2014 awarded by Contact Centre Association of Singapore (CCAS).
- c) 3rd Place in Best Contact-Centre Utilities (open) in 15th National Customer Experience Industry Award 2014 awarded by Association of Customer Experience Industry of Malaysia (ACE).
- d) Gold Service Award in CRM Programme Implementation Contact Centre (open);
- e) Gold Service Award in Technology Innovation Contact Centre (open); and
- h) Silver Award in Best Video for Contact Centre (open) in Excellence Award 2010 awarded by CCAM.
- i) Best Emerging Contact Centre (GLC Category) in Excellence Award 2007 awarded by CCAM.

#### D. Customer Satisfaction Index (CSI) Score

Customer Satisfaction Index (CSI) is a survey that measures customer's satisfaction towards TNB services. Before 2013, CSI was conducted by Customer Service Department, Distribution Division, TNB once in every 2 years until the management has decided to do it annually. By tracking it annually, the CSI will assist TNB on planning to further improve customer satisfaction towards TNB by enhancing or adding the initiatives. Based on the improvements made by WCCC in beginning of 2011 with the establishment of OSEC as well as additional channels in 2012, the CSI Score is moving towards the upward trend and recently for financial year of 2015, TNB manage to achieve the score of 8.0. Refer to Figure 2 as shown below.

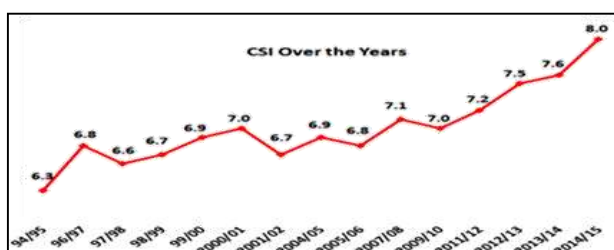


Figure 2: CSI from year 1995 to 2015

## VI CONCLUSION

This paper has presented the findings of a case study to investigate the implementation of KM in WCCC, TNB. All KM initiatives as well as its benefits have been comprehensively described. In addition, the

implementation of a systematic KM has contributed to the customer satisfaction with the increase of CSI Score whereby TNB manage to achieve 8.0 score and WCCC is recognised locally and even globally. Furthermore, with the vision “To be among the leading corporations in energy and related businesses globally”, TNB is always committed to be excellent in their products offering and services. TNB have ensured that TNB must always grow and innovate itself. Thus, implementation of KM in the WCCC is very important and requires support from the management and full cooperation from all the employees. This study can serve as a reference for other contact centre in KM implementations and to build up an effective contact centre. With the realisation of systematic KM, contact centre agents are able to become confident and competent. It will also reduce conversation time, faster problem solving and speed up new agents development.

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