

# Consistency of socio-economic theory of organisations and organisational innovation: An example of customer complaint management strategy

*Anh Tu Nguyen*

## **Abstract**

This present study discusses appropriate selection of research paradigm and research strategy of socio-economic theory of organisations for organisational innovation in general, customer complaint management (CCM) in particular. Ontology and epistemology of socio-economic approach to management (SEAM) methodology, mixed quantitative and qualitative methods are proved to be consistent with the implementation of CCM in small-to-medium sized enterprises (SMEs).

The research indicates how to produce and generalise theoretical and practical knowledge through abductive reasoning and early-versus-latter-stage research design for a pragmatic-oriented action research. The conceptual model highlights that CCM can positively and simultaneously impact technical innovation, economic performance and social performance. One more interesting result is that economic performance can positively affect social performance.

The research process includes two five-step action plans in the early stage and empirical study in latter stage. The two five-step action plans (2015-2016 and 2017-2018) analyse customer complaints, explore the causes of customer complaints from employees' viewpoints, put forward action plans, implement action plans and evaluate organisational performance. The empirical study applies structure equation modeling, to test whether technical innovation mediates the relationship between CCM and organisational performance.

**Keywords:** Action research, Customer complaint management, SEAM, organisational innovation, abductive reasoning

## **Consistencia de la teoría socioeconómica de las organizaciones e innovación organizacional: Un ejemplo de estrategia de gestión de reclamos de clientes**

## **Resumen**

El presente estudio discute la selección apropiada del paradigma de investigación y la estrategia de investigación de la teoría socioeconómica de las organizaciones para la innovación organizacional en general, y la Gestión de Reclamos de Clientes (GRC) en particular. La ontología y la epistemología de la metodología del enfoque socioeconómico para la gestión (SEAM, en inglés) y los métodos mixtos cuantitativos y cualitativos, han demostrado ser consistentes con la implementación de la GRC en pequeñas y medianas empresas (PYMES). La investigación indica cómo producir y generalizar cono-

cimientos teóricos y prácticos a través del razonamiento abductivo y el diseño de la investigación de etapa inicial versus etapa tardía para una investigación de acción orientada y pragmática. El modelo conceptual destaca que la GRC puede impactar positiva y simultáneamente en la innovación técnica, el desempeño económico y el desempeño social. Otro resultado interesante es que el desempeño económico puede afectar positivamente el desempeño social. El proceso de investigación incluye dos planes de acción de cinco pasos en la etapa inicial y un estudio empírico en la última etapa. Los dos planes de acción de cinco pasos (2015-2016 y 2017-2018) analizan las quejas de los clientes exploran las causas de las quejas de los clientes desde el punto de vista de los empleados, presentan planes de acción, implementan planes de acción y evalúan el desempeño organizacional. El estudio empírico aplica el modelo de ecuaciones de estructura para probar si la innovación técnica media la relación entre la GCR y el desempeño organizacional.

**Palabras clave:** Investigación-Acción, gestión de reclamos de clientes, SEAM, innovación organizacional, raciocinio abductivo

## Introduction

The relationship between action research and organisational innovation attracts attention from numerous researchers with regard to topics such as action research and organisational learning (Eikeland, 2012), action research and individual knowledge use in organisational innovation process (Sousa et al., 2015), action research innovation cycle (Salehi et al., 2015), systematic approaches to designing and implementing change in organisations (Benn and Baker, 2009; Molineux, 2018), and design-led innovation (Price, 2018). They confirm that “flexible loop which allows action (exploration and exploitation Innovation) and research (organisational learning and feedback system) to be achieved at the same time”. However, evaluation of the strategic action plans after implementation stage of action research and generalisation of the case study research have not been focused. Therefore, SEAM is considered as a methodology to shorten this gap.

Customer complaint management (CCM) strategy is often considered at functional level by empirical studies applying deductive reasoning. A few researchers implement this strategy, based on action research with deductive reasoning. Therefore, there has not been any research adopting abductive reasoning and SEAM to recognise both operational specificities of organisation as well as stability of core knowledge for broader community of SMEs over the world.

The study including two stages: early and latter, uses abductive reasoning that means a process of deductive – inductive – deductive logics. In the abductive approach, the research starts with “surprising facts”, and then is devoted to their explanation (Bryman et al., 2015).

First, deductive reasoning is applied to suggest a CCM project. The reason is that the intervention research project starts with “puzzles” of a SME in passenger transport industry of Vietnam such as significant decline of customers, strong decrease of profits of flagship service: inter-city bus, high turnover rate of employees, receiving many customer complaints about service quality, serious competition on the crowded market, and needs a framework with specific intentions to be implemented as soon as possible. In the early stage or production of knowledge called professional knowledge (or practice knowledge), a five-

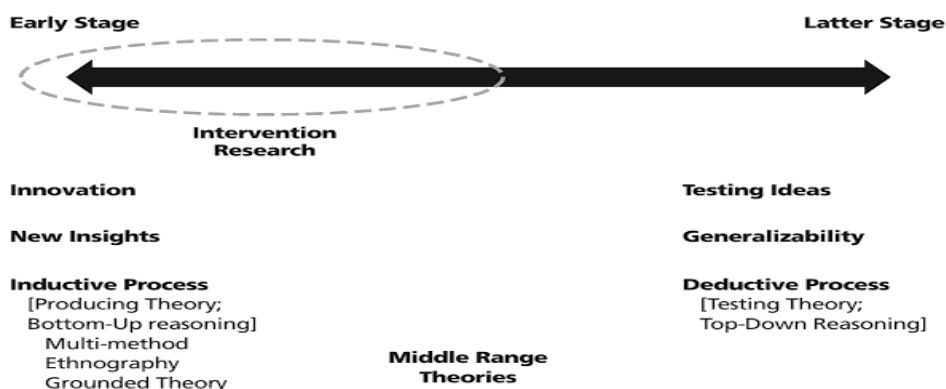
step CCM framework is suggested with regard to analysing problems of the company and literature review on intervention methodology, customer relationship management (CRM) and customer complaint management combined with SEAM. In this stage, knowledge is science-based, with characteristics of relevance and responsibility. CCM framework is approached from system and relational approach of relationship marketing; integrated and holistic combination between people, process and technology of CRM from a strategic angle; aggregate complaint analysis; organic aspects of exit-voice theory; led to achieve multifaceted organisational performance, and human capital development.

Second, inductive reasoning is applied during the implementation of the CCM project. Key ideas occurred through transformations created by the processes of interactions between researcher and organisational actors, as well as transferring tools of management. These key-words are necessary actions formulated in the CCM project. Then, they are coded into constructs including organisational learning, human resource management and strategic management led to form customer complaint management; as a result technical innovation of innovation capabilities is created, including types of innovations such as service, process, technology and marketing; economic performance, social performance, customer complaint management profitability, and hidden costs are coded into organisational performance.

Third, deductive logic is repeated. The three variables stemmed from the inductive process are customer complaint management, technical innovation and organisational performance, that will be tested through an empirical research in order to be actionable in a larger social context, applied and disseminated to a broad network of audiences.

## Research design

Buono et al. (2018) suggest a research process applying SEAM methodology including two stages as presented in the below figure.



*Figure 1:* Conceptualising intervention research: Early-versus latter-stage research  
(Source: Buono et al., 2018)

## Early stage – Innovation and new insights

Early stage (Production of knowledge) is a longitudinal intervention research with innovations, new insights and inductive process through productive interactivity of knowledge between researcher and actors (Buono et al., 2018). Results of the first stage are not only improving organisational performance of the case by implementing CCM combined with SEAM, but also suggesting the conceptual model for the relationship between CCM and organisational performance mediated by technical innovation. Raw materials are written documents, oral expression and acts of actors, making the first axis called intervention research in services marketing and organizational development.

### Research question of the early stage

How does a transportation SME in Vietnam improve organisational performance by implementing customer complaint management through a socio economic approach to management?

To this end, five sub-research questions are posed to develop a more refined analysis.

Sub research question 1: What do customers complain about?

Sub research question 2: How do employees view customer complaints?

Sub research question 3: How does an SME act to reduce customer complaints?

Sub research question 4: How does an SME implement strategic action plans?

Sub research question 5: How does an SME evaluate its organisational performance after resolving customer complaints?

### Epistemology of the early stage – generic constructivism and epistemology of SEAM

Generic constructivism of SEAM is situated between constructivism and positivism, meeting demands of management science research whose main scope of knowledge development and transmission is not individual but team or organisation.

Epistemology of SEAM consists of three principles. First, cognitive interactivity is an interactive process of knowledge production between company actors and researchers, through successive feedback loops with the goal of increasing values of information processed by scientific work. Second, contradictory inter-subjectivity is a technique for creating consensus based on the subjectivity perceptions of different actors, in order to create more objective grounds for working together through numerous interactions between the actors. Third, generic contingency means that while recognising the operational specificities of organisations, postulates the existence of invariants that constitute generic rules, embodying core knowledge that possesses a certain degree of stability.

### Dysfunctions of SEAM

The socio-economic theory of organisations was developed by Savall and his colleagues in ISEOR, Lyon, France, began in 1973, provides an alternative to traditional management. The micro and macro isomorphism paradigm in macroeconomics (Savall, 1975) is the origin of the socio economic theory. SEAM is the methodology incubated by this theory.

An organisation is a complex whole, made up of five types of organisation structures (physical, technological, organisational, demographic and mental) that interact with five types of human behaviors (individual, trade, group, occupational group, affinity group and collective). This interaction creates the enterprise's functioning. Such functioning, however, is permeated with anomalies, disturbances, and discrepancies between the desired functioning (referred to as orthofunctioning), and the observed functioning (i.e., dysfunctions). These dysfunctions can be classified into six families: working conditions, work organisation, communication, communication – coordination – cooperation (3C), time management, integrated training, and strategic implementation.

### Hidden costs of SEAM model

According to ISEOR researchers, these dysfunctions generate hidden costs for the organisation. They taint the relevance, effectiveness and efficiency of decisions.

They prove that the socio-economic method of hidden cost analysis includes five headings of socio-economic indicators in which three predominantly social (absenteeism, work accidents, occupational sickness and personnel turnover), and two predominantly economic (product/service quality and direct productivity). Savall et al. (2011) instruct that hidden costs constitute the destruction of value – added, which affects the overall economic performance of the enterprise. Such hidden costs have six components, including excess salaries, overtime, overconsumption, nonproduction, non-creation of potential and risks endured by the enterprise.

### Research strategy of the early stage

The research strategy is context driven and comprehensive participations of employees. Some techniques are used such as 10 open interviews with customers, 131 semi-structured interviews with employees in the first period (2015-2016), 16-in the second period (2017-2018); qualitative observations, quantitative measurements, analysis of documents, discussions, ideation, shared action, monitoring and evaluation during the two periods. Dysfunctions and hidden costs are investigated by the interactions between company actors and the researcher, and approved by Board of directors of the company through mirror effects of SEAM.

## Research process

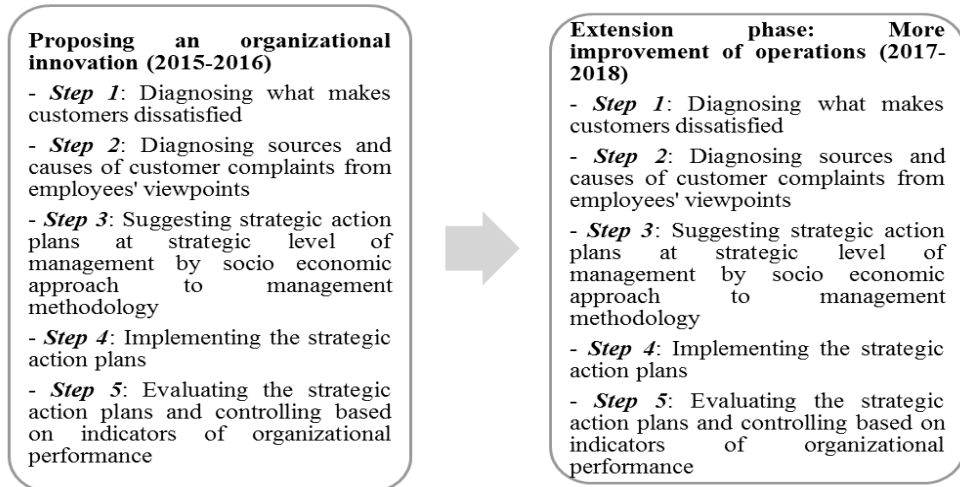


Figure 2: The two cycles of CCM framework

Step 1 and step 2 are to find out dysfunctions and hidden costs confirmed by mirror effects. Step 3 and step 4 are to use management tools of SEAM. Step 5 is to evaluate organisational performance by indicators such as economic performance, social performance, customer complaint management profitability and decreased hidden costs.

## Latter stage – Testing ideas and generalizability

Latter stage (or conditions of validation of knowledge) is to test construct validity and generalisability based on deductive reasoning and empirical research. In this research, constructs include customer complaint management, organisational performance and organisational performance. Raw materials are questionnaires for transport SMEs of Vietnam. Sampling of 400 questionnaires ensures a large number of observations, creating the second axis in which customer complaint management and technical innovation of the organisation are researched.

## Research question of the latter stage

To what extent does technical innovation mediate the relationship between customer complaint management and organisational performance?

## Epistemology of the latter stage

Deductive reasoning and empirical research are applied in the latter stage, in order to test whether the conceptual model of the early stage is generable.

## Research strategy of the latter stage

Survey questionnaires were randomly distributed to 400 members of Association of transport enterprises in Vietnam and 301 transport companies. Mediation analysis technique is used to confirm the relationship between integrated-SEAM customer complaint management, technical innovation and organisational performance.

## Literature review

Outcomes of the literature review are to explore the relationship between CCM and organisational performance through SEAM; and mediation role of technical innovation in the relationship between customer complaint management and organisational performance.

## Customer complaint management and organisational performance through socio economic approach to management

### Literature review before the first action plan

The research develops customer complaint management framework based on important intentions of effectively managing services employees in services marketing by pragmatic orientation of action research in which customers, top management as well as front line employees all join the process to provide useful knowledge, and their participation will reduce their resistance to organisational change related new CCM strategy.

Customer complaint management is a sub-component of customer relationship management that is a component of relationship marketing. Therefore, in this study, customer complaint management is approached from systems and relational perspectives of relationship marketing; holistic and integrated combination between People, Process and Technology of customer relationship marketing. The relationship between customer complaint management and organizational performance is proved in studies by Faed et al. (2015), Yilmaz et al. (2015), Johnston (2001), Fornell and Wernerfelt (1987), Fornell and Wernerfelt (1988), Zang and Kim (2010), MacLeish (2010), Homburg et al., (2013) through empirical research methodology. Furthermore, implementation of customer complaint management is conducted in some researches by action research such as Hsiao et al. (2016), Arash (2014); other qualitative methods such as Johnston and Mehra (2002), Katrien and Yves (2014) (*Please see the Appendix I*). As a result, there is no research on implementation of customer complaint management by SEAM methodology.

The reasons for the combination of CCM and SEAM are to solve service failure, reveal human capital development in this process, and new comprehensive evaluation of organisational performance. This study approached from organic aspect of exit-voice theory (Hirschman, 1970) meaning making favorable internal environment for CCM success through SEAM.

SEAM is a systematic approach to organisational change, appropriate to strategic level of customer complaint management. Savall (2003) concludes as follows: “based on bio systemic, SEAM integrates human resources and financial management by calculating the

costs of the dysfunctions related to a lack of quality management; integrates marketing, sales and strategy through the use of strategic vigilance indicators at every departmental level within the company; integrates the operations and production management with organisational development, in a participative way, by involving the actors in the defining of solutions for process improvements within the company according to technological appropriation principle". SEAM therefore is expected to accelerate holistic integration of People, Process and Technology of the organisation in combination with CCM.

Almost all previous researchers use quantitative indicators that are insufficient to measure achievements of all management functions on organisations. However, SEAM analysis of organisation performance is based on qualitative, quantitative and financial data, not only based on financial data as traditional management, reflecting multi-dimensional aspects of empowerment of CCM such as profitability, retaining customers and employees. So, this research shorten the gap by considering organisational performance as a CRM success that decreases in hidden costs (Savall, 2003; Lakshmi et al., 1996); increases corporate social performances including economic performance (productivity, profitability and return on complaint management) and social performance (Working conditions/health and safety, Employee opportunities and relations, Internal communications, Community relationships, turnover rate and absenteeism rate) (O'Connor et al., 2008); rises customer complaint management profitability (Stauss et al., 2003; Gupta et al., 2005). The measurement method is more comprehensive than the previous.

### Literature review after the first action plan (Figure 3)

Organisational learning means leaning how to manage employees, how to operate the new service system, leading to positively impact operating performance through strategic decisions (Bergh et al., 2008). Organisational learning provides clues as to how to best implement a new strategy to enhance performance.

Human resource management is implemented to improve the poor working environment and employees' stress levels (Hoffman, 2007; Linnenluecke et al., 2010), enhance the managerial capacity of mid-level managers (Toderi et al., 2015).

That seriously competitive market and poor customer relationship result in poor reliability of service operations needs service innovation, a new corporate strategy (Porter, 1987) and a new more offensive marketing strategy (Bolton et al., 1995) rather than a defensive marketing strategy or service recovery strategy. This is the reason why a new inter-city bus limousine service is launched (Bessant et al., 2015; Nada et al., 2015; Panou et al., 2015). Furthermore, the guaranteed dimension of the service quality was reflected in the physical facilities and equipment with poor technology. This was solved by investing in new vehicles (Plantinga et al., 2001; Schueth, 2003) and new information technology (Bessant et al., 2011; Davis, 1980).

Innovation capability refers to the implementation or creation of technology as applied to systems, policies, programs, products, processes, devices or services that are new to an organisation (Chang and Lee, 2008). Innovation capability is also the ability of firms to assimilate and utilise external information for transfer into new knowledge (Cohen and Levinthal, 1990). In terms of scope of innovation, there are administrative innovation and technical innovation. Technical innovation includes service innovation, process innovation and



marketing innovation. Service innovation is the introduction of a new service (inter-city limousine bus) to the market in terms of function, quality consistency of appearance (Liao et al., 2007). Process innovation involves creating and improving the method of production, and the adoption of new elements. Marketing innovation means new marketing strategies such as offensive and defensive.

From status of action plan implementation, customer complaint management impacts technical innovation by formulating service innovation, marketing innovation and process innovation.

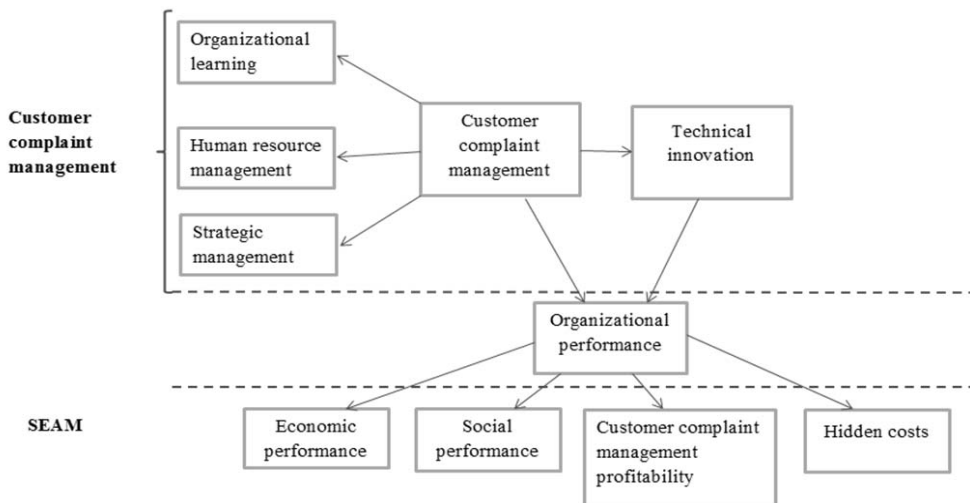


Figure 3: Conceptual model after the first action plan

#### Literature review after the second action plan (Figure 4)

First, from perspectives of human resource management, some important actions are training, rewarding, regulations, promotion procedure and internal communication. Training direct employees and managers are prioritised to be implemented. Jalal Hanaysha (2016) proved that employee training has a significant positive effect on organisational commitment. According to Lawler et al. (1992), rewards systems are often implemented within organisations as a key management tool that can contribute to a firm's effectiveness by influencing individual behaviour and motivating employees at work. Schuler et al. (1987) agreed that the relationship between rewards, motivation and job satisfaction of employees are strategically important to organisation success, and are sources of competitive advantage, because it helps to create a unique and dynamic competencies level to the organizations (Khalid et al., 2011). Internal regulation (also called directive, guideline, code, instruction etc.), which is an internal normative act of an employer regulating rights and obligations of its employees, is proved to be in Kaplan and Ferris' (2006) study. If sufficient efforts and resources are allocated for assuring that personnel manage to translate the strategy to their roles, the organisation will have a committed workforce who know how to execute the plan (Baron, 2006). It is worth mentioning that employees get their communication

from how the company operates as well, e.g. what is accepted, what is noticed, who was hired and who was laid off.

Second, from perspectives of standardised process, Davenport (1993) defines a business process as a structured, measured set of activities designed to produce a specific output for a particular customer or market. It implies a strong emphasis on how work is done within an organisation, in contrast to a product focus emphasis on what is done. A business process is a complete, dynamically co-ordinated set of activities or logically related tasks, that must be performed to deliver value to customers or to fulfill other strategic goals (Guha et al., 1997). Organisational responsiveness on social media reveals responding to customers' requests/complaints fast because the response speed is more important in online customer satisfaction than offline (Cho et al., 2002).

Third, in marketing policies manner, from perspectives of membership policy, the market share of a firm is generally positively correlated to its profit (Buzzell et al., 1987). Therefore, increasing market share is one of the main targets of a firm. Hung et al. (2017) propose a multi-year membership pricing policy for a service business like a gym chain, in which membership pricing is long – term contracts. However, passengers cannot predict and plan seat bookings for long – term contract. Therefore, the company should give loyal passengers incentives after 1 year of using Limousine service. Customers with the highest number of times per year will receive incentives. Weick et al. (2005) suggest that mental model of business–customer interactions affect the sense making of social media. In the year of 2020, after the action research, the company should focus on Perceived quality and credibility of fan page. Therefore, revising, uploading detailed information about all services on Facebook and responsiveness strategy should be implemented immediately in 2017.

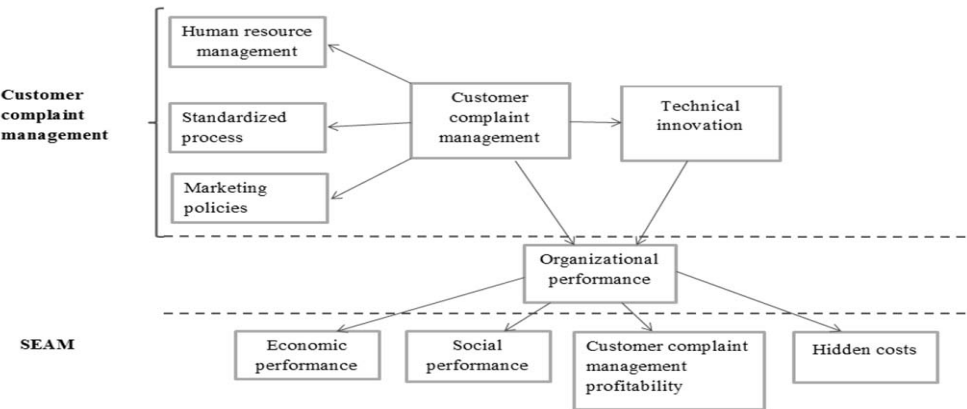


Figure 4: Conceptual model after the second action plan

## Mediation role of technical innovation in the relationship between customer complaint management and organisational performance

That customer complaint management positively impacts organisational performance is approached from organic and mechanistic approach of exit-voice theory and empirically proved in studies of Yilmaz et al. (2016), Faed et al. (2015), and Homburg and Furst (2005).

Many researchers explore the relationship between customer complaint management and innovation capabilities, for example, Dow et al. (1999), Lin et al. (2010). However, the relationship between customer complaint management and technical innovation has been an under researched field of customer integration into service innovation processes. Meik et al. (2014) by combining knowledge from two substantive research areas: customer complaint management and service innovation management, develop and discuss a conceptual framework for a promising form of (indirect) customer integration to stimulate service innovations; and suggest companies to make use of multichannel complaint management since it bears potential to access unique customer experience information.

Battor and Battor (2010) demonstrate how customer relationship management capability and innovation work together to produce performance advantages; investigate the mediating role of innovation between CRM and performance. Their results support the direct impact of CRM and innovation on performance, and the indirect effect of CRM on firm performance through innovation.

The mediation role of technical innovation in the relationship between customer complaint management and organisational performance through structure equation modeling is analysed in the latter stage.

## Findings

### Findings of early stage – Innovation and new insights

#### The first period – Proposing an organizational innovation (2015-2016)

Results of the first and second steps are dysfunctions and hidden costs. Dysfunctions include strategic implementation, working conditions and work organization. From perspectives of strategic implementation, the two sub-themes are strategic orientation and information system. In working conditions manner, some problems are downgraded infrastructure and vehicles, bad attitudes of employees. Based on aspects of work organisation, the company faced stressed employees and limited managerial capacities.

The 20 actions are coded into 5 baskets that are implemented step-by-step. The organisational learning group consists of learning how to select departures and destinations (stations), learning how to operate the service system with information technology, learning how to directly interact with customers, and learning how to manage drivers and other direct employees. Reinforcing human resource group composes new uniform for employees, changing organisational chart, training direct frontline employees: communication skills, facility upgrades for accommodation, offices, parking areas, developing outdoor and visit-

ing activities, internal regulations, new slogan: “Customers pay our salaries” for all employees, training plan for line managers: management skills and communication skills. Group of suggesting corporate strategy includes designing content of new strategy, suggesting functional level of strategic management: offensive marketing strategy and designing limousine service to replace old inter-city bus service. Investment into new vehicles comprises of preparing capital to buy new cars and purchase of 30 new cars – Ford Limousine D-Car. Investment in new information technology contains setting up hotline booking number, Fan page of the company, and responsiveness on these two communication tools.

Total actions that are successfully implemented are 19 out of 20. One action has not been conducted, that is about training for line managers, and will be transferred to the second action plan.

### Second period – Extension phase: more improvements of business operations (2017-2018)

Dysfunctions are identified in the second period compose strategic implementation (not-on-time or delay in service process, under-skilled marketing employee, vehicle maintenance, insufficient marketing tools), integrated training (training direct employees and training managerial employees), work organisation (overloaded works, unsatisfied and stressed employees, unclear internal regulations, bad c-ordination between call-center department and others).

In the second action plan, 12 actions are grouped into human resource management, commitment to improve service quality, and marketing policies. Human resource management includes professional training programmes for frontline employees, training programme for mid-level managers (Management skills and Communication skills), suggestions for reward/encouragement policies, more internal regulations and promotion procedures, suggestions for internal communication procedures and promoting labour union to create activities as well as attention paid to complaints from stressed employees. Total 12 actions are successfully implemented.

As a result, in this second period, the company fosters process innovation and marketing innovation. Organisational performance is improved overtime.

*Table 1: Customer complaint management profitability after the two action plans*

Customer complaint management profitability at the end of a year	2014	2016	2018
Profit of complaint management (VND)	None	36,200,000,000	531,749,000
Total investment in customer complaint management (VND)	None	60,487,900,000	262,461,000
Return on complaint management (%)	None	60%	202.60%

After implementing customer complaint management, from perspectives of economic performance, the company decreased risk of failure of customers, risk of failure of machinery and risk of failure of labour. Besides, competitiveness of the company is gradually increased through higher average wages, higher corporate income taxes paid and higher revenue from new branches of the company. Also, Profitability, Productivity, Total revenue and Total production per each flagship type of business have grown every year.

Although the first period action plan focused on economic performance, it also contributes to improve social performance. Employee satisfaction index is raised up because of better human resource management, for example, increased number of training programmes / hours of training, number of employees trained, professional development. Customer – oriented corporate culture is developed by implementing means developed within the company to prevent exclusion such as not allowed to drink alcohol, drugs and other stimulants, comply with traffic law of the government, comply with the company's regulations, customers are right in any case, customers pay salaries for us, meet all demands of customers. Therefore, the company decreased number of accidents and turnover rates.

Last, hidden costs are presented in the below table. Regarding to the two cycles of the intervention research, hidden costs were decreased year by year.

*Table 2: Hidden costs before and after the two action plans*

Hidden costs at the end of 2014	Hidden costs at the end of 2016	Hidden costs at the end of 2018
<b>SEAM model</b> – Economic impact of employees' bad behaviors is VND 5.298 billion. – Employee turnover cost is VND 464.1 million. – Quality defects cost is VND 6.484 billion. – Direct productivity gap cost is VND 5702.1 million. →Total costs = VND 17.9482 billion	<b>SEAM model</b> – Economic impact of employees' bad behaviors is VND 3294 million – Employee turnover cost is VND 260 million – Quality defects cost VND 216 million – Direct productivity gap cost is VND 108 million →Total hidden costs = VND 3.878 billion <b>Lakshmi model</b> – Lose 3,430 customers per year, because of 3 new rivals	– Economic impacts of employees' bad behaviors at total of VND 2436 million – Employee turnover costs at total VND 195 million – Quality defect costs at total of VND 144 million – Direct productivity gap cost is VND 46 million →Total hidden costs = VND 2.821 billion <b>Lakshmi model</b> The number of lost customers at the end of 2018 is estimated 1996 people

## Findings of latter stage – Testing ideas and generalizability

### Reliability analysis

Reliabilities of observed variables: Cronbach's Alpha is more than 0.6, Cronbach's Alpha if item deleted is lower than Cronbach's Alpha, and Corrected item-total correlation is more than 0.3. So, observed variables (organisational learning, human resource management, strategic management, technical innovation, economic performance, social performance, customer complaint management profitability and decreased hidden costs are selected to continue factor analysis.

### Exploratory Factors Analysis

EFA result shows that there are four factors satisfying standards such as  $KMO > 0.5$ ,  $p\text{-value} < 0.05$ , eigenvalue  $> 1$ . However, Cumulative Extraction Sums of Squared Loadings is approximately 50% that can be acceptable, because the research model is stemmed from an action research, so it is not too high from theory testing. The four factors are described as

the below table “Pattern Matrix”. They have factor loading more than 0.55 excluding customer complaint management profitability and hidden costs; and are used to do confirmatory factor analysis.

Confirmatory factor analysis

Chi-square /df is lower than 3, CFI, GFI and TLI are more than 0.9, and RMSEA is less than 0.05. Therefore, the researcher can continue to analyse structure equation modelling.

Structure equation modelling

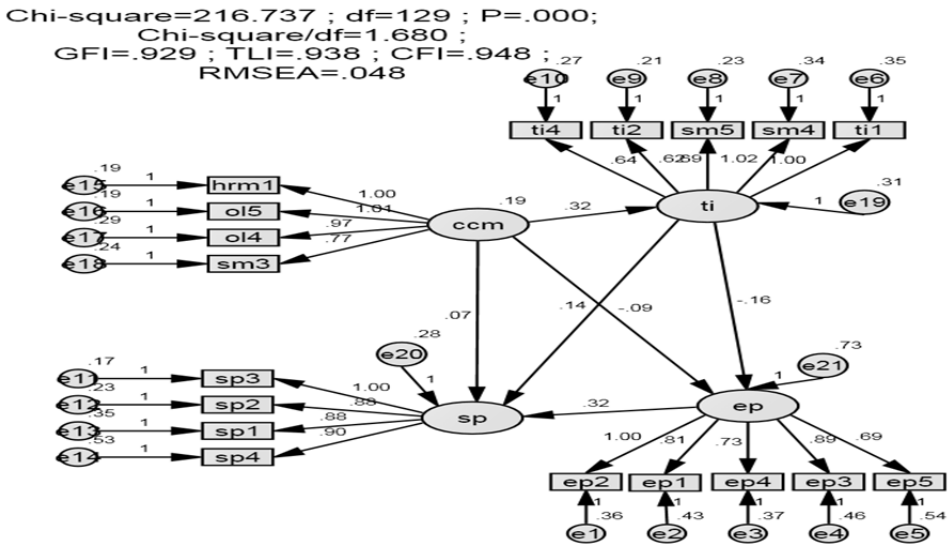


Figure 5: SEM modeling

In general, indicators of the model such as Chi-square/df, GFI, TLI, CFI and RMSEA are statistically significant. In particular, latent variable “customer complaint management” positively impacts technical innovation, social performance and economic performance. Especially, economic performance positively affects social performance that ISEOR researchers have not proved in their socio-economic theory of organisations. So, the final model of the study is illustrated as follows:

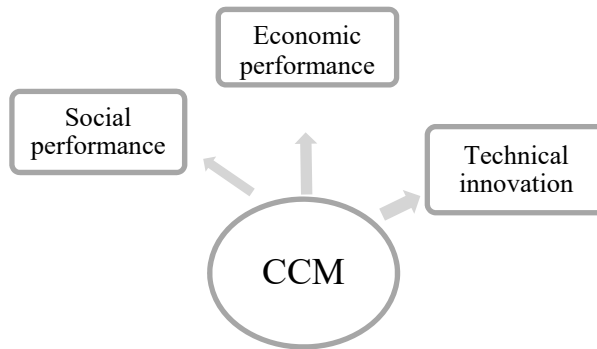


Figure 6: Research outcome

## Discussions and implications for SMEs

To summarise, the early stage focuses on the methodological role of SEAM to foster the relationship between customer complaint management and organisational performance. Advantages of the combination between SEAM and CCM are superiority of socioeconomic diagnostic, strength of maintenance or extension phase of SEAM, reinforcement of structured actions to organisational performance, similarity between socio economic evaluation and organisational performance, employee motivations in organisational change. The latter stage generalises the conceptual model generated from the early stage that describes the mediation roles of technical innovation in the relationship between integrated-SEAM customer complaint management and organisational performance.

There is no evidence to prove the mediation role of technical innovation in the relationship between customer complaint management and organisational performance. However, it is confirmed that customer complaint management directly and positively impacts technical innovation, economic performance and social performance. It is interesting that economic performance can foster social performance, if an SME implements customer complaint management.

If an SME implements this research model in which CCM is combined with SEAM, it can achieve outcomes that not only affect service quality, but also overall quality, by simultaneously developing structural and behavioral quality, including service quality, functioning quality and management quality.

In order to attain higher organisational performance, SMEs should pay attention to investment in organisational learning, human resource management and strategic management, that are actionable professional knowledge for any SME.

First, the company in this case study research has prominent attributes of Vietnamese SMEs as well as international SMEs, for example, size, limitations in resources, dynamic, adoption of technology innovation, impacted by support policies from the government. Other SMEs in Vietnam can apply research results from this study.

Second, dysfunctions of CCM were proved over 40 years by thousands of case studies that are large-sized and small-and-medium sized enterprises. SMEs of Vietnam can adopt step-by-step guidelines to implement CCM based on employee engagement, two cycles of the intervention research process, and pay attentions to roles of CCM in fostering technical innovation as well as enhancing organisational performance.

Third, this model reflects the trend of action research in which stakeholders are considered as co-researchers, related to consistency between bio systemic approach of SEAM and system, relational approach of relationship marketing. Moreover, if leaders of the SMEs well understand SEAM and train their subordinates to be internal interveners, they will carry out organisation innovations by themselves.

Fourth, the CCM framework does not involve special features of specific industry or its operations that is difficult to implement. Any SME of any industry can apply the CCM framework, management tools of SEAM (priority action plan, internal and external strategic action plan, etc.) and encourage its employees as well as customers in CCM implementation. Based on hidden costs model of SEAM, multi-faceted organisational performance is measured by economic performance, social performance, customer complaint management profitability and decreased hidden costs, solving weaknesses of accounting methods.

## Theoretical contributions

This study is expected to contribute theory of intervention research, socio-economic theory of organisations, services marketing, relationship marketing and SEAM methodology.

First, for theory of intervention research, it is providing materials referring to how creating formal and professional knowledge through two-stage conceptualising intervention research. In this case study of action research during the first stage, the interactions between company actors such as top management, middle managers, front-line employees and the researcher (consultancy) formed the 6 dysfunctions, the 4 hidden costs, the 2 action plans with the 32 actions during the period of 5 years approved by the Board of Directors of the company, through mirror effects of SEAM that reflect effective co-operation between the researcher and company actors.

Moreover, “bio systemic” base of SEAM that integrates management functions (human resources and financial management; marketing, sales and strategy; operations and production management with organisational development to explore dysfunctions, calculate hidden costs and propose solutions for improvements) is appropriate to system approach of relationship marketing, because it composes all relevant actors and represents process nature of marketing (Sheth, Gardner, & Garrett, 1988). Furthermore, it also fosters the relational approach of relationship marketing, through long-term focus, consideration of humanism, improvement of quality of customer interaction and attention to internal marketing within the organization, contributing to the formal link between knowledge (theory) and professional knowledge (practice).

Second, for socio – economic theory of organisations, this study is expected to add more meaningful measurements for firm performance in relationship marketing manner, such as customer complaint management profitability, develop construct validity of dys-



functions and hidden costs in SMEs of Southeast Asia. Besides, it confirms logical adequacy of the theory by proving the most important proposition of the theory that is “organisational dysfunctions will generate hidden costs which are not considered either in accounting information systems or in decision making models”. Hidden costs are decreased after the first and the second action plan of the research. Moreover, it expands utility of variables and constructs of socioeconomic theory in services marketing.

Third, for services marketing, the author develops aspects of managing services employees from pragmatic-oriented intervention research approach, and the organic perspective of exit-voice theory of Hirschman (1970,) leads to decrease of economic impacts of bad behaviours of employees and human capital development in a successful services marketing project.

Fourth, for relationship marketing, combining “bio-systemic” base of SEAM with system and relational approach of relationship marketing is to rise up the societal impacts of academic research to managerial practices through finding out how to promote the relationship between passengers and transport service provider, top management and frontline employees, intervener-researcher and organisational actors (Gummerus et al., 2017). More specifically, “bio systemic” base of SEAM that integrates management functions (e.g., human resources and financial management; marketing, sales and strategy; operations and production management with organisational development to explore dysfunctions, calculate hidden costs and propose solutions for improvements) is appropriate to the system approach of relationship marketing that composes all relevant actors and represents process nature of marketing (Sheth et al., 1988). Besides, it also fosters the relational approach of relationship marketing through long-term focus, consideration of humanism, improvement of quality of customer interaction and attention to internal marketing within the organisation.

Fifth, in terms of pragmatic oriented action research, the study contributes to increase workability of humans, promotes co-operation and collaboration through training programmes, strategy participating permission and appreciation of their ideas, leading to their satisfactions and loyalty.

Last, but not the least, this study develops SEAM methodology. SEAM focuses on co-creating knowledge by researchers and actors inside organisations (top management, middle managers, frontline employees). This research supplements new trends of innovation and customer relationship management that are co-creation of customers. In the CCM, customers participate in improving customer values through collecting and analysing their complaints in the first step of the framework. Diagnosing what makes customers dissatisfied; evaluating customer satisfaction in the last step. Evaluating the strategic action plans and controlling based on indicators of organizational performance. Hence, from perspectives of epistemology level, adding external actors’ involvement in organisation innovation is consistent with a seriously competitive context. Furthermore, company sustainable performance of SEAM is more in-depth evaluated by four indicators (economic performance, social performance, CCM profitability and hidden costs) with more measurement methods such as O’Connor (2008), Stauss (2004) and Lakshmi (1996).

## Limitations

The cultural change model has not received attention, although the organisational change needs cultural change from an “entitlement culture” towards a “performance culture” (Molineux, 2018).

The author has not applied individual complaint handling and mechanistic approach of the exit-voice theory. In the future, researchers and organisational actors should combine individual complaint handling and mechanistic approach to formalise organisational policies for customer complaint management at functional level.

Besides, hidden costs and hidden values can be considered as vague ones or it is not easy for researchers and organisational actors to find out.

Furthermore, this analytical technique is time intensive by intervention research for several years, and requires broad literature review to transform practical knowledge to formal knowledge of theories.

## Conclusion

With regards to organisational innovation, quantitative and qualitative methods should be mixed to implement pragmatic action research. These improvements in measurement of what company actors think and act represent a methodological advance supporting subsequent research. Abductive reasoning and epistemological principles of SEAM (e.g. cognitive interactivity, contradictory inter-subjectivity and generic contingency) result in transforming outcomes of action research to be actionable for broader organisations. Researchers can approach them to design action research strategy in various approaches of different organisational theories.

Implementing CCM (considered as a functional strategy) combined with SEAM results to strongly increased profitability of functional strategy, decreased economic impact of employees' bad behaviour, turnover, quality defects, and direct productivity gap, leading to reinforcing the closed relationship between researcher and organisational actors of businesses. These successful consultancy outcomes of the action research project in business field are rooted from in-depth research about science and art of functional management, as well as pragmatic-oriented intervention methodology.

## Bibliography

- Arash, S. (2014). “Customer Complaints Management and Empowerment”. *4th International Management Conference*, (p. 14).
- Baron, A. (2006). “Aligning Internal Employee Communication with Business Strategy”. In Gillis T, *The IABC Handbook of Organizational Communication: a Guide to internal communication, public relations, marketing and leadership*. San Francisco: Jossey-Bass.
- Battor, M., & Battor, M. (2010). “The impact of customer relationship management capability on innovation and performance advantages: testing a mediated model.” *Journal of Marketing Management*, Vol. 26, Nos. 9-10, August 2010, 842-857.  
doi: 10.1080/02672570903498843

- Benn, S., & Baker, E. (2009). "Advancing sustainability through change and innovation: a co-evolutionary perspective". *Journal of Change Management*, Vol. 9 No. 4, pp. 383-397. doi: 10.1080/14697010903360574
- Bergh, D. D., & Lim, E. N.-K. (2008). "Learning how to restructure: absorptive capacity and improvisation views of restructuring actions and performance". *Strategic management journal*, 29 (6): 593-616. doi: 10.1002/smj.676
- Bessant, J., & Tidd, J. (2011). *Innovation and entrepreneurship*. Chichester: John Wiley.
- Bessant, J., & Tidd, J. (2015). *Innovation and Entrepreneurship*. Wiley.
- Bolton, R. N., & Bronkhorst, T. M. (1995). "The relationship between customer complaints to the firm and subsequent exit behavior". *Association for consumer research*, 94-100.
- Bryman, A., & Bell, E. (2015). *Business research methods*. Oxford University Press.
- Buono, A. F., Savall, H., & Cappelletti, L. (2018). *Intervention research from conceptualization to publication*. Information Age Publishing.
- Buzzell, R., & Gale, B. (1987). *The PIMS Principles: Linking Strategy and Performance*. New York: Free Press.
- Chang, S., & Lee, M. (2008). "The linkage between knowledge accumulation capability and organizational innovation". *Journal of Knowledge Management*, Vol. 12 No. 1, pp. 3-20. doi: 10.1108/13673270810852359
- Cho, Y., Im, I., Hiltz, R., & Fjermestad, J. (2002). "The effects of post – purchase evaluation factors on online vs. offline customer complaining behavior: Implications for customer loyalty". *Advances in Consumer Research*, Vol. 29 / 319.
- Cohen, W., & Levinthal, D. (1990). "Absorptive capacity: a new perspective on learning and innovation." *Administrative Science Quarterly*, Vol. 35 No. 1, pp. 128-52. doi: 10.2307/2393553
- Davenport, T. H. (1993). *Process innovation reengineering work through information technology*. Boston, Massachusetts: Harvard Business School Press.
- Davis, F. J. (1980). *A technology acceptance model for empirically testing new end – user information systems: theory and results*.
- Dow, D., Samson, D., & Ford, S. (1999). "Exploding the myth: do all quality management practices contribute to superior quality performance?" *Production and Operations Management*, Vol. 8 No. 1, pp. 1-27. doi: 10.1111/j.1937-5956.1999.tb00058.x
- Eikeland, O. (2012). "Action research and organizational learning – A Norwegian approach to doing action research in complex organizations." *Educational Action Research*.
- Faed, A., Chang, E., Saberi, M., Hussain, O., & Azadeh, A. (2015). "Intelligent customer complaint handling utilising principal component and data envelopment analysis". *Applied Soft Computing*, 17 pages.
- Fornell, C., & Wernerfelt, B. (1987). "Defensive marketing strategy by customer complaint management: A theoretical analysis". *Journal of Marketing Research*, 24(4), 337-346. doi: 10.2307/3151381
- Fornell, C., & Wernerfelt, B. (1988). "A Model for Customer Complaint Management". *Marketing Science*, Vol. 7, No. 3. (Summer, 1988), pp. 287-298. doi: 10.1287/mksc.7.3.287
- Guha, S., Grover, V., Kettinger, W., & Teng, J. (1997). "Business process change and organizational performance: exploring an antecedent model". *Journal of Management Information Systems*, 14(1), 119-154. doi: 10.1080/07421222.1997.11518156
- Gummerus, J., Koskull, C. v., & Kowalkowski, C. (2017). "Relationship marketing: Past, present and future". *Journal of services marketing*, Vol. 31 Issue 1. doi: 10.1108/JSM-12-2016-0424
- Gupta, S., & Donald, R. (2005). *Managing customers as investments*. Philadelphia: Wharton School Publishing.
- Hirschman, A. (1970). *Exit, Voice, and Loyalty: Responses to Decline in Firms, Organizations, and States*. Cambridge: MA: Harvard University Press. ISBN 0-674-27660-4.

- Hoffman, A. J. (2007). "The importance of fit between individual values and organisational culture in the greening of industry". *Business strategy and the environment*, 2(4): 10-18. doi: 10.1002/bse.3280020402
- Homburg, C., & Furst, A. (2005). "How Organizational Complaint Handling Drives Customer Loyalty: An Analysis of the Mechanistic and the Organic Approach". *Journal of Marketing*, Vol. 69, No. 3 (Jul., 2005), pp. 95-114. doi: 10.1509/jmkg.69.3.95.66367
- Hsiao, Y.-H., Chen, L.-F., Choy, Y., & Su, C.-T. (2016). "A novel framework for customer complaint management". *The service industries journal*, Vol. 36, NOS. 13-14, 675-698. doi: 10.1080/02642069.2016.1272592
- Hung, H.-C., Chung, C.-Y., Wu, M.-C., & Shen, W.-L. (2017). "A membership pricing policy to facilitate service scale – expansion". *The Service Industries Journal*, Volume 37, 2017 – Issue 3-4. doi: 10.1080/02642069.2017.1303048
- Jalal, H. (2016). Examining the Effects of Employee Empowerment, Teamwork, and Employee Training on Organizational Commitment. *Procedia – Social and Behavioral Sciences*, 229: 298-306. doi: 10.1016/j.sbspro.2016.07.140
- Johnston, R. (2001). "Linking complaint management to profit." *International Journal of Service Industry Management*, 12(1), 60-69. doi: 10.1108/09564230110382772
- Johnston, R., & Mehra, S. (2002). "Best-Practice Complaint Management." *Academy of Management*, Vol. 16, No. 4, Services: Enhancing Effectiveness (Nov., 2002), pp. 145-154. Retrieved from [www.jstor.org/stable/4165910](http://www.jstor.org/stable/4165910)
- Kaplan, D. M., & Ferris, G. R. (2006). "Fairness Perceptions of Employee Promotion Systems: A Two?Study Investigation of Antecedents and Mediators". *Journal of Applied Social Psychology*, 31(6):1204-1222. doi: 10.1111/j.1559-1816.2001.tb02670.x
- Kaynak, E. (2006). "Service industries in developing countries: A conceptual framework and analytical insights". *The service industries journal*, 1-4. doi: 10.1080/02642068600000001
- Khalid, K., Salim, H. M., & Loke, S.-P. (2011). "The Impact of Rewards and Motivation on Job Satisfaction in Water Utility Industry". *2011 International Conference on Financial Management and Economics* (p. IPEDR vol.11 (2011)). Singapore: IACSIT Press.
- Lakshmi, T., & Rao, T. J. (1996). "Measuring and reporting the cost of quality". *Production and Inventory Management Journal*, Second Quarter, pp. 1-7.
- Lawler, E., & Cohen, S. (1992). "Designing Pay Systems for Teams." *ACA Journal*, 1(1), pp. 6-19.
- Liao, S., Fei, W., & Chen, C. (2007). "Knowledge sharing, absorptive capacity, and innovation capability: an empirical study of Taiwan's knowledge-intensive industries". *Journal of Information Science*, Vol. 33 No. 3, pp. 340-59. doi: 10.1177/0165551506070739
- Lin, R.-J., Chen, R.-H., & Chiu, K. K.-S. (2010). "Customer relationship management and innovation capability: an empirical study". *Industrial Management & Data Systems*, Vol. 110 No. 1, 2010, pp. 111-133. doi: 10.1108/02635571011008434
- Linnenluecke, M., & Griffiths, A. (2010). "Corporate sustainability and organizational culture". *Journal of World Business*, 45, pp.357-366. doi: 10.1016/j.jwb.2009.08.006
- MacLeish, M. (2010). *Customer complaint management systems in a food processing industry*. James Madison University.
- Meik, J., Brock, C., & Blut, M. (2014). "Complaining Customers as Innovation Contributors Stimulating Service Innovation through Multichannel Complaint Management." *2014 SRII Global Conference*, (pp. 125-132).
- Molineux, J. (2018). "Using action research for change in organizations: processes, reflections and outcomes". *Journal of Work-Applied Management*, vol. 10 No. 1, pp. 19-34. doi:10.1108/JWAM-03-2017-0007

- Nada, N., & Ali, Z. (2015). "Service value creation capability model to assess the service innovation capability in SMEs." *7th Industrial Product-Service Systems Conference – PSS, industry transformation for sustainability and business* (pp. Procedia CIRP 30 (2015) 390-395 ). Elsevier B.V.
- O'Connor, Martin & Spangenberg, Joachim H. (2008). "A methodology for CSR reporting: assuring a representative diversity of indicators across stakeholders, scales, sites and performance issues." *Journal of Cleaner Production*, 16(2008) 1399-1415. doi: 10.1016/j.jclepro.2007.08.005
- Panou, K., Kapros, S., & Polydoropoulou, A. (2015). "How service bundling can increase the competitiveness of low market share transportation services". *Research in Transportation Economics*, Volume 49, June 2015, Pages 22-35. doi: 10.1016/j.retrec.2015.04.003
- Plantinga, A., & Scholtens, B. (2001). *Socially Responsible Investing and Management Style of Mutual Funds in the Euronext Stock Markets*. Research Report 01E17, University of Groningen, Systems Organisations and Management Research Institute. doi: 10.2139/ssrn.259238
- Porter, M. E. (1987). "From competitive advantage to corporate strategy." *Harvard Business Review*.
- Rebecca, P., Cara, W., & Matthews, J. (2018). "Action researcher to design innovation catalyst: building design capability from within". *Action Research*. doi: 10.1177/1476750318781221
- Salehi, F., & Yaghtin, A. (2015). "Action Research Innovation Cycle: Lean Thinking as a Transformational System." *Procedia-Social and behavioral sciences*.
- Savall, H. (1975). *Enrichir le travail humain : l'évaluation économique*. Dunod.
- Savall, H. (2003). "An updated presentation of the socio economic management model." *Journal of Organizational Change Management*, 16(1), 33-48. doi: 10.1108/09534810310459756
- Savall, H., & Zardet, V. (2011). *The qualimetrics approach: Observing the complex object*. Charlotte, NC: Information Age Publishing.
- Schueh, S. (2003). "Socially Responsible Investing in the United States". *Journal of Business Ethics*, 43: 189-194. doi: 10.1023/A:1022981828869
- Schuler, R., & Jackson, S. (1987). "Strategic human resources management: Linking the people with the strategic needs of the business". *Academy of management executive*, 1(3): 207-219. doi: 10.1016/0090-2616(92)90083-Y
- Sheth, J., Garnder, D., & Garrett, D. (1988). *Marketing Theory: Evolution and Evaluation*. New York: Wiley.
- Sousa, M. J., Cascais, T., & Rodrigues, J. P. (2015). "Action Research Study on Individual Knowledge Use in Organizational Innovation Processes". In A. Rocha, S. Costanzo, & A. M. Correia, *New contributions in information systems and technologies: Volume 2*.
- Stauss, B., & Schoeler, A. (2003). *Beschwerdemanagement*. Gabler Verlag, Wiesbaden.
- Toderi, S., Gaggia, A., Balducci, C., & Sarchielli, G. (2015). "Reducing psychosocial risks through supervisors' development: A contribution for a brief version of the "Stress Management Competency Indicator Tool"". *Science of the Total Environment*, 345-351. doi: 10.1016/j.scitotenv.2015.02.082
- Verleye, K., & Vaerenbergh, Y. V. (2014 ). "Turning customer feedback into gold: challenges and hindrances." *AMA SERV SIG*.
- Weick, K., Sutcliffe, K., & Obstfeld, D. (2005). "Organizing and the process of sensemaking. *Organization science*", 16(4), 409-421. doi: 10.1287/orsc.1050.0133
- Yilmaz, C., Varnali, K., & Kasnakoglu, B. T. (2015). "How do firms benefit from customer complaints?" *Journal of Business Research*, doi: 10.1016/j.jbusres.2015.08.038.
- Zhang, W., & Kim, M. (2010). "A systematic knowledge management approach using object-oriented theory in customer complaint management." *Information Management and Business Review*, Volume 1, issue 1. doi: 10.22610/imbr.v1i1.866

## Appendix 1: Summary of related studies about CCM

Name of author	Research title	Methodology	Limitation of research
Hsiao et al. (2016)	A novel framework for customer complaint management	<ul style="list-style-type: none"> <li>– Action research in Taiwanese restaurant chain</li> <li>Approached from aggregate complaint analysis</li> <li>Method of integrating a decision tree inductive learning algorithm (DT) into the Six Sigma analysis</li> </ul>	<ul style="list-style-type: none"> <li>– The study only determines problems of service process</li> <li>Results of solutions are just simple indicators insufficient to prove effectiveness of project implementation such as number complaint per month, % of working time to deal with customer complaints, customer satisfaction.</li> </ul>
Arash (2014)	Customer Complaints Management and Empowerment	<ul style="list-style-type: none"> <li>– Literature review- Comprehensive CCM system is considered as function level</li> </ul>	<ul style="list-style-type: none"> <li>– The 7 step process is quite complicated and steps should be merged to ensure logics.</li> <li>The measurement is based on economic aspect that is customer complaint management profitability, but this indicator is not enough to prove impact of CCM on organizational performance because organizational performance must be calculated also based on social performance.</li> </ul>
Faed et al. (2015)	Intelligent customer complaint handling utilising principal component and data envelopment analysis	<ul style="list-style-type: none"> <li>– Empirical research</li> <li>Prove the relationship between customer complaint handling and firm performance moderated by types of business (business to business, business to consumer, manufacturing, service) with methodology of PDA (principle component and data envelopment analysis).</li> </ul>	One of weaknesses of empirical research is not to implement recommendations in the field.
Yilmaz et al. (2015)	How do firms benefit from customer complaints?	<ul style="list-style-type: none"> <li>– Empirical research</li> <li>Symmetric testing using hierarchical regression analysis of data obtained from complainants and firm managers</li> </ul>	<ul style="list-style-type: none"> <li>– Organizational performance is sparsely evaluated by only financial performance.</li> <li>Recommendations are not proved to be effectively implemented or not.</li> </ul>
Johnston (2001)	Linking complaint management to profit	<ul style="list-style-type: none"> <li>– Operational value of complaints</li> <li>Empirical benchmarking study</li> <li>Ensuring complaint processes are "staff-friendly", rather than simply trying to satisfy customers.</li> <li>Appreciating role of service recovery.</li> </ul>	<ul style="list-style-type: none"> <li>– Financial performance is the main outcomes of customer complaint management</li> </ul>
Johnston and Mehra (2002)	Best-practice complaint management	The research took a grounded-theory approach based on rich case studies of the five outstanding United Kingdom service organizations identified in an earlier study (Cross-case analysis)	Twelve insights into best complaint-management practice were identified including the need not only for speed of resolution but also a human touch, the need for closure not just follow-ups, top-level involvement in complaints, the strategic use of complaints, a combination of decentralized and centralized tasks, and parallel systems for staff suggestions/complaint
Fornell and Wernerfelt (1987)	Defensive marketing strategy by customer complaint management: A theoretical analysis	Economic model of defensive marketing strategy is developed for complaint management based on Hirschman's exit-voice theory	The research does not consider the possibility of customer abuse. Besides, defensive marketing strategy is more focused than offensive one.
Fornell and Wernerfelt (1988)	A model for customer complaint management	A model of customer complaint management is developed in terms of defensive marketing strategy. A consideration of the trade-off between defensive marketing strategy in the form of complaint management and various offensive marketing tools such as advertising and pricing	The research doesn't explore why customers are dissatisfied. That is a weakness of mathematics model that cannot indicate causes and sources of human behaviors.

Name of author	Research title	Methodology	Limitation of research
Liang (2013)	Exit and voice: A game-theoretic analysis of customer complaint management	The study develops a multi-agent communication model involving participation decisions to address customer complaint behavior and the corresponding management policy.	This study is limited by the availability of reliable data. Although there are many attempts to measure the customers' satisfaction across countries, industries and firms, a suitable measure of complaint resolve is still absent.
Zang and Kim (2010)	A systematic knowledge management approach using object-oriented theory in customer complaint management	The application of object-oriented theory for which the notation of unified modeling language has been adopted for the representation of the concepts, objects, relationships and vocabularies in the domain of hotel industry is approached from in the context of systematic knowledge management. This application is to systematically support customer complaint management.	The study focuses on individual complaint handling that deals with symptoms rather than causes.
MacLeish (2010)	Customer complaint management systems (CCMS) in a food processing industry	To improve the total quality of the system, the study established a defensive method of addressing customer complaints by connecting methods such as Quality Functional Deployment (QFD), Fuzzy Logic, Kano's methods, Voice of the customer, and Go-See-Think-Do.	The research provides a methodical approach to addressing customer complaints and correcting the associated manufacturing components. However, it hasn't been consider human factor in CCMS.
Katrien and Yves (2014)	Turning customer feedback into gold: challenges and hindrances	The content of positive and negative customer feedback largely overlaps. The feedbacks are related to environmental, interactional, administrative and technical quality. Regarding the degree to which firms act upon customer feedback in relation to the quality dimensions, the results demonstrate the importance of customer-oriented culture, a commitment-based strategy and innovation capacity.	Although the study illustrates the critical roles of culture, strategy and innovation, it doesn't designate how businesses improve them by holistic approach of People, Process and Technology.
Homburg et al., (2013)	How Organizational Complaint Handling Drives Customer Loyalty: An Analysis of the Mechanistic and the Organic Approach	This article addresses how an organization's complaint management affects customer justice evaluations and, in turn, customer satisfaction and loyalty. In delineating an organization's complaint management, the authors draw a distinction between two fundamental approaches, the mechanistic approach (based on establishing guidelines) and the organic approach (based on creating a favorable internal environment). The empirical analysis is based on a dyadic data set that contains managerial assessments of companies' complaint management and complaining customers' assessments with respect to perceived justice, satisfaction, and loyalty.	The data is analyzed based on small sample size, limited number of customer responses in a B2C context. It did not explore a possible causality between the two approaches. There is a lack of studies "that offer a comparison across consumer goods, consumer services, business goods, and business services firms."

## About the Author

Anh Tu Nguyen, Ph.D. in management from University of Strasbourg (France), is a Vice Head of Department of Economics and Management at International School of Thai Nguyen University in Vietnam. She is interested in action research projects in business community of Vietnam and Southeast Asia.

### *Author's address*

Nguyen Tu Anh

International School, Thai Nguyen University

Tan Thinh ward, Thai Nguyen city, Thai Nguyen province, Vietnam

Post code: 251370

Email: tuanh1010@tnu.edu.vn

Tel. (+84) 978662007