Improving the Process of Accident Insurance Policy Issuing Using FOCUS PDCA in Asia Insurance Company

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Abstract: The dynamic competitive atmosphere of insurance industry has made constant service improvement a necessary factor to keep customers and get a bigger share of the market. Accident insurance is one of the key services offered by insurance companies. The improvement of this service could play a big role in customers' satisfaction. The present research deals with the factors that have an adverse effect on the issuing of that service. It is concerned with the process of issuing accident insurance policy in Asia Insurance Company. The article also tries to answer this fundamental question that how can AIC accelerate the process of issuing the insurance policies by removing unnecessary steps. Statistical population in this article for identifying the factors consists of experts in the department of issuing accident insurance policy and for confirming the factors consists of the policyholders who came to the company. We employed a descriptive field method of research and used questionnaires to gather information. The results show negative factors in three categories: unnecessary steps, weakness in empowering personnel and unnecessary bureaucracy. Finally, suggestions are made to the managers of the insurance company.

Key words: Process, Insurance, Accident Insurance Policy, FOCUS PDCA method, Asia Insurance Company (AIC)

INTRODUCTION

Customer-centered service is the basis of modern marketing management theories, the core of which is to put strategic emphasis on customers (Rezaee, et al., 2007). A customer-centered organization develops its policies according to customers' necessities, expectations and preferences. Companies have found that keeping current customers carries lower costs than drawing new ones. In addition, loyal customers encourage others to use companies' services. Therefore, a direct relation between customers' satisfaction and profitability is accepted as an important principle. In customer-centered organizations, clients' satisfaction is one of the main factors of success. These organizations make heavy investments on the improvement of activities that result in customers' satisfaction (Shen & et al., 2000: 98).

That situation has made the atmosphere so dynamic and competitive. The emergence of new insurance companies with modern insurance services has intensified the competition. These forces companies to adopt effective plans in order to keep their customers; that is, their share of the market. For this reason, insurance companies carry out improvement projects regularly to increase customers' level of satisfaction. One effective method to avoid customers' dissatisfaction is to constantly control systems and processes of providing service as well as the factors that have adverse effects on the quality of the service. One effective method is to speed up the service process by identifying and removing unnecessary steps, which requires the implementation of modern technics. In order to meet customers' needs, companies must have effective evaluation systems, so they can identify their weaknesses and strengths. FOCUS PDCA, which is a widely recognized method, is an effective technic to establish an evaluation and control system for constant improvement. It helps managers make decisions that are based on facts and avoid subjective speculations and guesswork.

Asia Insurance Company is one of the largest private insurance companies in Iran. Considering the current competitive atmosphere, it intends to find and remove factors that have adverse effect on providing service to customers. This article tries to identify adverse effects on insurance service through FOCUS PDCA technic, find essential steps as well as unnecessary steps and suggest a more effective process.

2 - A review of Theoretical Principles:
2-1- Techniques for Constant Improvement:

Today, companies work hard to reduce production costs and extravagance, and to speed up production in order to gain competitive advantage. To reach that goal, constant improvement is the path to take (Buhijan& Baghel, 2005: 680). Constant improvement might be either evolutionary or revolutionary. In the first form, improvement is achieved through regular and incremental changes. In the second form, fundamental change is triggered by an innovational idea or by the combination of incremental changes. One can achieve improvement...
through employing some statistical tools and methods searching for the roots of problems and trying to reduce them to the minimum (Buhiyan & Baghel, 2006: 765). Constant improvement might include reducing manpower, minimizing errors, meeting exceeding customers' expectations and improving processes for the executor. Investing on each of the mentioned items will certainly result in more profitability and paves the way for keeping the company running while experiencing growth (Mohammadi, 2000).

Since the present article is based on FOCUS PDCA, first we will provide a brief explanation of a few techniques for constant improvement, and then we'll explain FOCUS PDCA as part of the process of finding adverse effects.

2 – 2 – Total Quality Management:
TQM is the outcome of gradual evolution of "quality" as an idea and of management theories in the 20th century. Combining technical and behavioral approaches, it has developed a new framework for companies' success in present day competitive markets. It's been widely accepted that the quality of a product or service is determined according to the level they meet customers' needs (Rungtusanatham & Ogden, 2003:921). Comprehensive quality is a philosophy advocating a managerial approach with specific principles, procedures and techniques. Attention to customers, improvement and teamwork are three concepts we get by studying written materials on TQM (Fedikova, 2004:59).

2 – 3 – Hoshin Kanri:
With the advent of Deming Prize in the early 1950s in Japan, Hoshin Kanry as a concept was introduced by translating management by objectives. It combined Deming and Jurur's ideas making first attempts to set a quality policy. In late 1960s and early 1970s, Hoshin management developed and became a part of total quality management (Shoji, Shiba, 2001: 6). Hoshin management model has its roots in total quality management, although over time, its use expanded and it started to be used in strategic management.

Hoshin is a system of managing organizational processes for achieving major goals of a company through proper preparation and optimization of sources (manpower, material, product, money) in terms of quality, quantity, cost and time. This system is based on cohesive plans that originate from long-term (3-10 year), medium-term (3-5 year) and annual policies and strategies. Hoshin Kanry is an effective process of strategy development that strengthens the link between the company's strategy and annual cycle of planning (Tennant & Roberts, 2001: 292). Hoshin Kanry operates at two levels: the first, according to Juran, is "pioneer management" or "strategy developers". The second is the daily management of current affairs or fundamental issues concerning Deming's cycle, i.e. plan, do, check, act.

2 – 4 – Excellence Model:
The concept of Excellence model was introduced at the final level of the development of quality management. Excellence means getting improved. People can get perfect by their acts and companies can too (Sharma & Talwar, 2007: 6). Here, we see a transformation from a stockholder-centered approach to a stakeholder-centered approach. Stakeholders include workers, owners, customers, suppliers and the organization itself. While in the quality domain the goal is to evaluate the guarantee of internal and external quality as well as the quality of subordinate systems, TQM tries to ensure the connection between system quality and the company's defined goals, and to confirm excellence. Organizational excellence seeks to improve quality and function through diagonal self-assessment (Tavakkoli & Azizi, 2002). Organizational excellence models are methods of function evaluation for determining the gap between current performance of a company and what is considered perfect (Oakland, 2003: 59). Different types of Organizational excellence are discussed: Malcolm Baldrige Model, EFQM Model, Diamond Model, Tito-Conti Model and Kanji Model.

2 – 5 – FOCUS PDCA Technic:
FOCUS PDCA is a Gamba Kayzen-based practical technique to identify and reduce process problems and adverse factors. Each of its letters represent one word: F (find) for finding a process of improvement, O (organize) for organizing the whole team to achieve improvement, C (clarify) for clarification of the process, U (understand) for understanding the roots of inefficiency, S (select) for selecting fundamental cause of improvement, P (plan) for developing a plan to improve fundamental cause, D (do) for implementing the improvement plan up to a limit, C (check) for checking the results of limited implementation of the plan, A (Action) for acting on the basis of the evaluation results.

3 – Theoretical Framework of the Research:
FOCUS PDCA is employed in this research to identify and remove adverse factors that affect the process of issuing accident insurance in Asia Insurance Company. Chart 1 demonstrates different steps of the model.
4 - Research Goals:

4 – 1 – the Main Goal:
The ultimate goal of this research is to identify and remove adverse factors that affect the offering of accident insurance service to customers, thereby speeding up the process and its efficiency which will result in increasing customers' level of satisfaction.

4 – 2 – Minor Goals:
The minor goals of the research are as follows:
1. Evaluation and analysis of the efficiency of the process by which Asia Insurance Company issues accident insurance and offers service
2. Identification of the fundamental problems that slows down the process of issuing insurance policy in Asia Insurance Company
3. Identification of unnecessary steps in the process of issuing accident insurance policy
4. Presentation of technics to remove unnecessary steps and speed up the process of issuing accident insurance policy

5 – Methodology of the Research:
The present study is a descriptive research when goals are concerned and an applied research when uses are concerned. It is also a cross-sectional and quantitative research. The domain of the study is limited to the process of issuing accident insurance in Asia Insurance Company and the location of the research is AIC's branch in Tehran. The study is done from late May to November 2012.

FOCUS PDCA model is employed, in this research, for the analysis of the current process of issuing accident insurance policy. Exploratory factorial analysis is used to determine the evaluation indexes of the current situation of the process. Also, Kolmogorov-Smirnov Test is employed for analyzing the normality of
distribution of variables. Statistical test for population mean is used for testing the research hypotheses. And Friedman test is used for prioritizing the studied factors in the process of issuing accident insurance policy.

Our statistical population consists of the policyholders who came to the company from late May to November 2012. Ninety four out of 123 customers were chosen by accidental sampling. It's worth mentioning that exploratory interviews were held with experts in the AIC's branch in order to design the questionnaire. The questionnaires were distributed among our sampling members and a poll was taken about the constituent factors of the process of issuing accident insurance policy in this company.

A 17 item questionnaire designed after exploratory interview with experts in AIC's branch in Tehran is our main tool for gathering information. To check validity of the questionnaire we took experts' views and to assess reliability, the first 35 questionnaires were pretested and the reliability index, using SPSS software, was found to be 91%, which represents acceptable reliability.

6 – Pathology of the Process of Issuing Accident Insurance Policy via FOCUS PDCA Method:

Step one (find): with respect to the researchers’ knowledge of insurance processes and due to the AIC managers' requests, the process of issuing accident insurance policy was chosen for diagonal procedures. The reason we chose that process was its importance to customers, especially when the breadwinner member of the family is dead. The goals are speeding up the process and increasing the level of customers' satisfaction.

Step two (organize): In order to organize the team, researchers took the views of staff in policy issuing department of the company. Members of the team were selected from experts in the policy issuing department.

Step three (clarify): In this step, the current process of issuing policies is illustrated step by step.

Steps 4 and 5 (select & understand):

In order to understand fundamental problems, we employed a cause and effect diagram and took advantage of the questionnaires. We prioritized the factors using Friedman test. Then in order to identify factors that have adverse effect, we held brainstorm sessions with experts and insurers and then drew a cause and effect diagram as follows:

![Flowchart Diagram]

Diagram 1: The current process of issuing accident insurance policy
6-1: Data Analysis:
After drawing the cause-effect chart, the questionnaire designed and the collected data were analyzed. Then, all of the variables were examined by the Likert spectrum. In order to identify the basic factors of the questionnaire, the exploratory factor analysis was applied. Results of the variance table showed that the following 16 parameters, extracted in the interviews with insurance experts, totally create three basic factors. These factors have special significance of more than one and totally demonstrate 71 percent of the variance of the deficiencies and drawbacks of the accident insurance policy issuance in this company. Then, applying the rotated factor matrix we determined the factors and labeled them based on coherence analysis between the parameters. The results are as follows:

Table 1: results of the exploratory factor analysis for the accident insurance questionnaire

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Essential Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Presence of unnecessary steps</td>
</tr>
<tr>
<td>Q1</td>
<td>Slowness and delay in issuing the insurance policy</td>
</tr>
<tr>
<td>Q2</td>
<td>Repeated questions in the proposal form</td>
</tr>
<tr>
<td>Q3</td>
<td>Extensive, long and detailed questions in the proposal</td>
</tr>
<tr>
<td>Q4</td>
<td>Delay in issuing the insurance policy because of out-of-date computer systems</td>
</tr>
<tr>
<td>Q5</td>
<td>Inappropriate delegation for confirming the issuance of insurance policy</td>
</tr>
<tr>
<td>Q6</td>
<td>Lack of motivation of the insurance company employees</td>
</tr>
<tr>
<td>Q7</td>
<td>Irresponsibility of the employees in issuing the insurance policy</td>
</tr>
<tr>
<td>Q8</td>
<td>Shortage of required trainings for employees responsible for policy issuance</td>
</tr>
<tr>
<td>Q9</td>
<td>Employees’ low proficiency and precision in issuing the policies</td>
</tr>
<tr>
<td>Q10</td>
<td>Extensive hierarchy for affirming the issuance of insurance policy</td>
</tr>
<tr>
<td>Q11</td>
<td>Long process of the insurance policy confirmation in the account department</td>
</tr>
<tr>
<td>Q12</td>
<td>Lack of required equipment for paying in cash or by POS machine</td>
</tr>
<tr>
<td>Q13</td>
<td>Time wasting for getting the cash payment bill for the insurance fee</td>
</tr>
<tr>
<td>Q14</td>
<td>Difficulty in understanding the general terms and conditions of the insurance policy</td>
</tr>
<tr>
<td>Q15</td>
<td>Non-transparency in stating the general terms and conditions of the insurance policy</td>
</tr>
<tr>
<td>Q16</td>
<td>Time wasting and discontent due to over printings</td>
</tr>
</tbody>
</table>

In order to determine the relationship between parameters and factors, we can find the highest factorial load (coherence between parameter and factor) and then by analyzing the parameters' contents, label them under an elemental or basic factor. The results displayed that since the impact level of the parameters 1, 2, 3, 4, 11 and 13 on the first factor are higher, all of them can be categorized under the basic factor of "Presence of unnecessary steps". Accordingly, the parameters 6, 7, 8 and 9 under "Weakness in empowering the employees" and finally parameters 5, 10, 12, 14, 15 and 16 will constitute the elemental factor of "Excessive bureaucracy".

6-2: Research Hypotheses:
1. The presence of unnecessary steps is one of the deficiencies of the process for issuing Accident Insurance Policy in Asia Insurance Company.
2. Weakness in empowering the employees is one of the deficiencies of Asia Insurance Company in the process of issuing the Accident Insurance Policy.
3. One of the drawbacks of the Asia Insurance Company in the process of issuing an Accident Insurance Policy is excessive bureaucracy.

6-3: Research Findings:
6-3-1: the Kolmogorov–Smirnov test (K.S test) for the variables of Accident Insurance:
This test, in order to analyze the normality of research variables, is applied. Table 2 demonstrates the results of Kolmogorov–Smirnov test for the three variables of absence of unnecessary steps, absence of weakness in empowering the employees and absence of excessive bureaucracy. Zero hypotheses denote the normality and the alternative hypothesis reveals the lack of normality of the variables.
Table 2: analyzing the normality of the research variables

<table>
<thead>
<tr>
<th>Kolmogorov–Smirnov test</th>
<th>absence of unnecessary steps</th>
<th>absence of weakness in empowering employees</th>
<th>absence of excessive bureaucracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critical value of the K-S test</td>
<td>0.065</td>
<td>0.072</td>
<td>0.061</td>
</tr>
</tbody>
</table>

Since the calculated significance amounts for all of the research variables are higher than the considered level of significance (0.05), the null hypothesis is accepted. On this basis, all of the variables are normal.

6-3-2: Hypothesis Testing:

For testing the hypotheses, the Test of Population Mean is applied. The results are as follows. The research hypotheses say that all of the research variables are among the drawbacks of the process of accident insurance policy issuance. The results of the test of statistical population mean for research hypotheses are shown in table 3.

Table 3: results of the test of statistical population mean for research hypotheses

<table>
<thead>
<tr>
<th>One-Sample Test</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>95% Confidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>absence of unnecessary steps</td>
<td>1.989</td>
<td>93</td>
<td>0.02</td>
<td>0.2683</td>
<td>-0.0202, -0.92</td>
</tr>
<tr>
<td>absence of weakness in empowering employees</td>
<td>2.187</td>
<td>93</td>
<td>0.02</td>
<td>0.3457</td>
<td>-0.1557, -0.7012</td>
</tr>
<tr>
<td>absence of excessive bureaucracy</td>
<td>1.996</td>
<td>93</td>
<td>0.02</td>
<td>0.3218</td>
<td>-0.5065, -0.4681</td>
</tr>
</tbody>
</table>

In order to decide about the highness or lowness compared to the mean of 3, we need to focus on the computed level of significance and the extreme marks of lower and upper. If both extremes have negative marks, the mean is less than 3 and the variable is in an inappropriate condition. On the other hand if both extremes have positive marks, the mean is higher than 3 and the variable is in appropriate condition. Since the calculated numbers of significance are lower than 0/05 and the marks are negative, the variable's condition is lower than the mean of 3 and these factors are among the drawbacks of the issuance of accident insurance policies. Therefore, with a confidence of 95 percent, all of the hypotheses of the research are accepted.

6-3-3: Ranking the Accident Insurance Factors:

This test helps us to rank the variables of the study. Tables 4 and 5 display the results of the Friedman test.

Table 4: significance of The Friedman test for detected factors

<table>
<thead>
<tr>
<th>Statistical parameters</th>
<th>Calculated amounts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount</td>
<td>94</td>
</tr>
<tr>
<td>$\chi^2$</td>
<td>37.213</td>
</tr>
<tr>
<td>degree of freedom</td>
<td>9</td>
</tr>
<tr>
<td>Level of significance</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Since the amount of the calculated significance (0.000) is less than the accepted level of significance, it can be concluded that the detected factors in Asia Insurance Co. do not have the same rank. The primacy and ranking of these factors are illustrated in table 5.

Table 5: grading the factors of accident insurance based on the average rank by Freidman Analysis of Variance

<table>
<thead>
<tr>
<th>primacy</th>
<th>Identified factors</th>
<th>Average rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>absence of unnecessary steps</td>
<td>5.15</td>
</tr>
<tr>
<td>2</td>
<td>absence of excessive bureaucracy</td>
<td>5.02</td>
</tr>
<tr>
<td>3</td>
<td>weakness in empowering employees</td>
<td>4.95</td>
</tr>
</tbody>
</table>

The results of Friedman ranking demonstrates that weakness in empowering employees is the worst parameter among the others and making improvements in this field has the highest priority. The next priorities are reducing the excessive bureaucracy and eliminating unnecessary steps.

7 – PDCA Cycle for the Process of Issuing Accident Insurance:

Step one (plan):

In this phase, necessary changes for the improvement of the process of issuing policy are suggested. It's worth mentioning that some of these suggestions will make no difference while designing a reform process; still they will speed up the process of issuing insurance policies.

1. Designing a proposed form while devoting careful attention to simplicity and coverage of necessary items.
2. Removal of insurance policy print and receipt form prints concerning auditing office (since the office is not required to confirm them), issuing department (since there is a general all-inclusive system) and agent (since there is no affiliate agent and the company branch is the only agent).

3. Designing a new insurance policy in which family insurance annex is included in the main policy form, thereby avoiding unnecessary prints.

4. Providing policyholders with facilities to pay in cash like POS machine.

5. Removal of auditing office confirmation step because of the general system and the distance between the offices of issuing and auditing.

6. Removing unnecessary bureaucracy such as auditing office confirmation or confirmation by head of the issuing department.

7. Delegating the authority of issuing policy when there is much capital.

8. Getting access to optical fiber and high-speed internet in order to speed up the process of issuing insurance policy.

9. Employing skillful technical supporters to fix possible problems in the system while issuing insurance policies.

10. Upgrading and buying new and fast computer systems in order to speed up the process of issuing policies.

11. Generating motivation through providing the staff with job security, asking them for effective participation in organizational affairs, providing material and spiritual motivations, job promotions, expressing gratitude to the employees, etc.

12. Staff education is among employees' motivations. The goal of staff education is to teach certain skills and knowledge so the employees would act in line with organizational goals. Using qualified staff, policies can be issued faster and with better care.

13. Making general regulations easier to understand in order to accelerate the process of issuing insurance policies.

14. Providing personnel with proper education and motivation, so they would show greater willingness to accept responsibility while issuing policies, avoiding errors.

Step two (do): according to the proposed plan of change, the reform processes will be put to the test limitedly.

Steps three and four (check and action): Here, the new processes are undertaken in one part of the company and after evaluation, if they proved successful, should be standardized in all branches of Asia Insurance Company.

8 – Conclusion and Suggestions:

While the country is heading toward a service-based economy, insurance industry, in this respect, has played an important role. The potential for growth of this industry has paved the way for the establishment of more insurance companies. In addition, a more competitive market has forced the companies to come up with several modern services. Such dynamic competitive atmosphere has turned constant service improvement into a necessary factor to keep customers and get a bigger share of the market. Fastness, simplicity and efficiency of service are among the important elements that affect customers' satisfaction. The present research has tried to identify technics to simplify and speed up the process of issuing accident insurance policies in Asia Insurance Company. For this reason, we held exploratory interviews with the company's experts and found 16 factors that have adverse effect on the process of issuing policies. We made use of factor analysis to categorize them into three main groups (variables): unnecessary steps in the process, inefficiency of the staff and unnecessary bureaucracy. Statistical test for population mean was used for testing the variables and factors, which proved that all factors had adverse effect on the process of issuing accident insurance policies. The results of prioritizing those factors by Friedman test showed that empowering the employees should take the top priority. Perhaps that's because in service companies, the way employees do their job has much influence on customers' perception of the quality of the service.

The process of providing service was analyzed by FOCUS PDCA method and several technics were suggested in order to correct flaws in the three mentioned domains. Managers of AIC can implement these suggestions to improve the process of issuing insurance policies. They can also increase the level of customers' satisfaction, earn loyalty and seek a bigger share of the dynamic competitive insurance market.
Diagram 3: the proposed pattern for issuing accident insurance policy

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