The efficacy of internal audits in the NOSA management system implementation at ZIMASCO, Shurugwi, Zimbabwe.

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Abstract: SHE performance at ZIMASCO failed to meet the NOSCAR grade since the inception of the NOSA system yet under normal circumstances, performance is expected to achieve continuous improvement. When conducted properly, internal audits are an essential and primary tool to the achievement of a sound system performance. Nonetheless, in spite of regular internal audits, results from NOSA system performance remained below exceptional. ZIMASCO’s internal audit competency was therefore established through an assessment of; employee’s perception towards the audits, the effectiveness of audits instruments used and the general SHE performance of the organization from 2006 to 2011 2012. Data was acquired through interviews with key informants, questionnaires and existing literature from company records. Major findings pointed towards; lack of employees training that was in line with the internal audit processes, inconsistencies in audit instruments and lack of audit finding closure due to financial constraints. The paper therefore advocates for audit oriented training for all employees regardless of level or grade. More financial resources should be sought and channeled towards achieving informative internal audits for effective NOSA implementation.

Key words: internal audits, efficacy, implementation, NOSA management system, ZIMASCO Shurugwi

I. Introduction

Telford (1995) explains auditing as a proactive management technique which provides a powerful insight into identifying precisely where improvements are essential and thereby enable preventive action to be taken where necessary. Frigo and Mark (2002) define internal audit as an independent objective assurance and consulting activity designed to add value and improve an organization’s operations.

Safety, Health and Environmental (SHE hereafter) auditing started at the beginning of the 1970s in the USA and the Western Europe. During that period, developed countries were adopting environmental health and safety legislations in order to reduce companies’ actions that could affect the environment. Initially, safety, health and environmental auditing involved reviews of independent experts assessing the extent to which companies operated in line with the relevant SHE legislations (Biswas and Modak, 1999). However, these audits have undergone a revolution over the years and are no longer solely focusing on legal compliance but have gone further to consider the use of the “best practice” approach (Pain, 2010), which ensures continuous improvements in systems rather than just having a list of controls. There are basically two forms of audits, which are the internal audits and the external audits. In the case of an external audit, auditors are hired or sourced from other institutions that are not part of the company being audited, whilst internal audits, according to Adams (1976) are forms of assessments done by employees of the company being audited. In most cases however, the internal audits values depend on the external audit standards.

Auditing was mainly associated with the accounting sector before it was introduced to environmental issues and later to occupational health and safety disciplines. Cahill and Kane (2010) state that SHE auditing was introduced in the UK and elsewhere mainly by multi-national companies who began to apply audit procedures corporately and via subsidiaries. Currently, companies undertake audits in order to obtain an independent assessment as to whether the management has created efficient SHE management systems and provide for acceptable SHE attitudes. According to Ashwell and Ausbury (2012), during the early introduction of these audits, most companies world over used to handle safety and health issues as a separate component from the environment. However, recent years have seen an integration of Safety, Health and Environment into a single discipline, giving rise to SHE auditing. Some organizations have even gone a step further to integrate Safety, Health and Environment (SHE) with Quality Management (Q), thus the existence of SHEQ systems.

The corporate world now has International specialized audit associations for SHE auditing and these include the International Organization of Supreme Audit Institutions (INTOSAI). This is an internal auditing board which has membership of about 193 institutions worldwide (Mautz and Sharaf, 1961). The major function of INTOSAI is to bring a way of standardizing both internal and external audit processes at a global level (Fraser and Gelinhas, 2004). Regionally, the African Organization of Supreme Audit Institutions (AFROSAl) is more pronounced. AFROSAl is a sub-group of INTOSAI which deals with audit issues on the African platform. South Africa, for instance has local audit boards affiliated to AFROSAl.
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In the Zimbabwean case, SHE audits have also gained momentum over the past years. The Chamber of mines of Zimbabwe, the Environmental Management Agency (EMA) and the National Social Security Authority (NSSA) are active in the local industries’ audit processes. However, it is of paramount importance to note that these boards are mainly responsible for the external audit function rather than the internal audit function. Nonetheless, these external audit boards are responsible for setting standards and expectations for the internal audits. According to Zimbabwe Chamber of Mines (2010), the most common systems that are audited in Zimbabwe are under the ISO series, the Business Management System and the National Occupational Safety Authority (NOSA). Quiet a significant number of organizations in Zimbabwe are slowly realizing the benefits of introspection before they are subjected to external audits as the process of internal audit will raise awareness and in some cases, mitigation measures are factored in before a third party audit.

Zimbabwe Mining and Smelting Company (ZIMASCO) is one of the organizations which carry out internal audits for improvement purposes in SHE performance. Auditing is part of their business culture and is conducted at regular intervals. The SHE internal audit process at ZIMASCO is done across the board, from the inter-departmental audit to the interdivisional audit. During internal audits, personnel trained in auditing are selected to make up an audit team which submits audit reports to top management. Of concern in this paper is that internal audits have been introduced in the organization to ensure that the company’s SHE performance grade as awarded by the National Occupational Safety Authority (NOSA) continues to improve. However, the company continues to be rated between 5 star and 4 star grade and this is a cause for concern. Occupational accidents and incidents continue to occur at the workplace and off job incidents are also being captured on a monthly basis. Of apprehension is the fact that the company has never earned the National Occupational Safety Credited Award (NOSCAR) as awarded by NOSA external auditors despite the regular internal audits that are carried out annually in preparation for the external audit. This paper therefore aims at scrutinizing the ZIMASCO internal audit system so as to identify the flaws leading to its failures to attain the NOSCAR grade. The assessment will be done through unearthing employee’s perceptions towards internal audits, checking employees’ participation in the audit process and looking at the overall company’s SHE performance from 2006 to 2012.

AREA OF STUDY

Figure1: Map of ZIMASCO Shurugwi

ZIMASCO Shurugwi lies 36 kilometers South East of Gweru. ZIMASCO, Shurugwi is at an altitude of 1440m and is situated on the eastern edge of the highveld of Zimbabwe. The edge of Shurugwi area was subjected to intense folding and faulting resulting in an early geological feature, the Great Dyke, which stretches roughly North South for some 530 km through the center of Zimbabwe. The Great Dyke forms a marked relief feature known as Chironde range in the Shurugwi area. It is an important source of Chrome ore, gold deposits, platinum and nickel.

At its full operational capacity; ZIMASCO employs about 1450 people, supports about 10 000 people mostly employees and their dependents. ZIMASCO has two underground mines (Peak and Railway Block) and open pit mines (Valley Mine and Lalapanzi) which are currently in operation producing 138, 000 tones, 200, 000 tonnes, and 80, 000 tonnes per annum respectively (Zimbabwe Chamber of Mines 2010). The company thrives to get NOSCAR grade under the NOSA environmental management system which has unfortunately never been achieved since the inception of the system.
II. Methodology

Primary data acquisition was achieved through interviews, questionnaires and observations whilst secondary data were obtained from organizational records and documents. Due to downsizing and shutting down of Peak and Railway Block underground mines respectively, ZIMASCO depended on ore supplied by contractors and tributors. There were 170 employees registered under ZIMASCO and the rest were contractors and tributors who were not considered as ZIMASCO employees. The internal audit process only involved the 170 registered ZIMASCO employees and these automatically became the target population for the study.

Table 1: target population and sample

<table>
<thead>
<tr>
<th>Department</th>
<th>Number of employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Resources Management (HR)</td>
<td>14</td>
</tr>
<tr>
<td>Safety health and environmental management (SHE)</td>
<td>10</td>
</tr>
<tr>
<td>Occupational health (Occ health)</td>
<td>37</td>
</tr>
<tr>
<td>Finance and Administration (Fin-Ad)</td>
<td>25</td>
</tr>
<tr>
<td>Mining</td>
<td>56</td>
</tr>
<tr>
<td>Engineering</td>
<td>28</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>170</strong></td>
</tr>
</tbody>
</table>

The respondents were grouped in such a way that those from the same department represented a stratum. To validate findings all departments were well represented by at least 10% staff members. Key informants were also selected from responsible authorities (EMA, NSSA, SHE and Ministry of health) for the sake of comparison of information gathered internally and what was already gathered by the authorities.

Table 2: Key informants

<table>
<thead>
<tr>
<th>ORGANISATION</th>
<th>PERSONNEL</th>
<th>REASON FOR INTERVIEW</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMA</td>
<td>Environmental officer</td>
<td>• To gather information on the company’s environmental performance.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Information on the company’s level of compliance with the requirements of the country’s environmental legislation.</td>
</tr>
<tr>
<td>NSSA</td>
<td>NSSA representative</td>
<td>• To get comments on the company’s performance in terms of occupational safety practices</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• To identify any major incidents as noted by NSSA to do with the company’s episodes of injuries or fatalities</td>
</tr>
<tr>
<td>ZIMASCO</td>
<td>SHE manager/superintendent</td>
<td>• Information on available education and awareness practices on audits</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• To gather information on the company’s methods of assessing audit effectiveness.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• To gather information on how the SHE department incorporates employees into the audit process</td>
</tr>
<tr>
<td>MINISTRY OF HEALTH</td>
<td>Ministry representative</td>
<td>• To get comments on reliability of audit instruments in the organization</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Information on employee participation in audits</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Auditee perception/role in internal audits</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Comments on the company’s level of compliance to legislation to do with occupational health</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• To know if there are any records to do with occupational disease outbreaks</td>
</tr>
</tbody>
</table>

Secondary data

Organizational records were consulted in order to gather information on the company’s trend in SHE performance. The main reason for adopting this method of data collection was because it is an important way of tracking past changes or development since the researchers had no means of getting back in time but had to go through old SHE documents and records. Annual SHE statistical records from 2006 to 2011 were analyzed so as to come up with a comprehensive progression of SHE performance. The period from 2006 to 2011 was chosen because internal audits became more formalized and defined in ZIMASCO starting from the year 2006.

III. Results And Discussions

Qualifications and demographic status of the respondents

The greater proportion of the respondents was above 20 years old. Only 10% of the respondents were females and the rest were males. In terms of working period in ZIMASCO, 15% had below 5 years of service, 10% had between 6-10 years of service and other 75% had their years of service ranging from above 10 to 35 years.
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Employees’ audit perceptions

Respondents shared the view that audits were relevant and necessary in the implementation of the NOSA management system as indicated by their agreement to the notion that audits are an effective way of improving SHE performance. However it was then indicated that there were prevailing factors that defeated the purpose of internal audits as the respondents spelt out their grievances as shown on Figure 2.

Figure 2 shows responses to the questionnaire where employees expressed their perceptions towards internal audits carried out and their effectiveness. Responses were presented in percentages per indicated perception.

![Figure 2: employee’s audit perceptions](image)

**Auditor competence**

In terms of the competence of the internal auditors, 82% respondents were of the view that the internal auditors available at ZIMASCO were well trained and competent as auditors. The challenge believed to be a hindrance to the auditors’ efforts was lack of financial resources to adequately fund internal audits. 18% of the respondents were not satisfied by the competence of the auditors although none of them gave a reason to explain their dissatisfaction.

**Platform for workplace vendettas**

Although audits are principally effective, about 53% of the employees were of the view that audits were used as platform for grudges among employees. Members of the audited departments would always blame the auditors for their failure in an audit. It was indicated that if the audit team is not in good rapport with a certain department, then they would deliberately award low marks resulting in the failure of the department being audited to attain desirable results. According to Rameesh (2003) internal audit is to be understood as an independent and objective appraisal service within an organization. Hence, such competitive attitudes destroyed the spirit of unity and continuous improvement. This would also mean that there are high chances of internal auditors producing biased results, which are in any case not good for corporate organizational performance improvement. Brenner (2010) points out that such hostility occurs where contemporaries compete for a price by engaging in retaliatory behavior. In principle, the whole organization should function holistically as a system to yield agreeable results. Nonetheless, in the case of ZIMASCO, other departments would want to be regarded as better than their counterparts in SHE performance. The issue of workplace vendetta was pointed out to be a source of biased audit results which ultimately produced a false reflection (to the positive or negative) of what transpired on the ground, leading to unsatisfactory results during external audits.

**Audits as a stressful process**

Around 60% of the respondents pinpointed audit exercises as stressful. The justification behind this notion was that audits increased their work load as the employees would be working with a target. Furthermore, some employees associate audits with a lot of confusion because auditing is an activity that is outside their daily work routines. Although good for organizational performance, internal audits lead to occupational stress especially to the low level employees because “some managers do not take internal audits seriously as they use audits as a tool to police and discipline their subordinates” (Mohammad and Gerit, 2010). Once employees begin to perceive audits as a stressful process, they begin to dread them, leading to ultimate poor performance.
Audits as a fault finding practice

About 65% of the respondents considered internal audits as a fault finding and interrogative practice. As indicated by the respondents’ answers, “instead of auditing the system in place, some auditors audit the people in a department”. This was also observed by Kusiito (2000) in his research on quality audits in South African companies that some managers tend to take audits as an opportunity for fault finding at the expense of system improvement.

Responses towards an approaching internal audit

A negative perception has a negative influence on one’s emotions (Gay, 1999) and the ultimate performance. Other employees would get excited while others felt nervous and confused whenever an internal audit was approaching. Figure 3 shows percentages of people’s general responses to an approaching audit. For those who felt nervous, the fear was triggered by lack of an appreciation of the audit process. The employees did not want to be found on the wrong side and that created anxiety. As gathered from the interview with the SHE manager, some were not comfortable with audits for the fear of shouldering the blame if the audit outcome was not favorable. Audits were sometimes perceived as a way of making people lose their jobs due to the auditor’s fault finding. The American Institute of Stress estimates that about 60-80% cases of occupational stress are to do with trepidation of the internal audits process.

Figure 3: responses towards an approaching audit

About 48% of the employees would get excited about audits; the reason for the excitement was largely based on the fact that they had a better understanding of the SHE issues to do with their departments. Those who were comfortable during audits were mostly the SHE representatives and Heads of departments. SHE representatives, unlike other employees got adequate training on SHE issues and that explains why they had a positive attitude towards the audits. According to a survey carried out in selected companies across Middle East and India, it was discovered that 70% of managers with better performing departments were more confident in audits than managers heading departments with poor performance reputation (Bunn et al 2001). Regrettably, the identified mixed feelings towards internal audits were blamed for unfavourable audit results.

IV. Stakeholder Participation In The Audit Process

Since best audit quality depends on an integrated approach in all phases of the audit process, the researchers assessed the levels of participation in the audit process by all ZIMASCO employees. This implies that for the audit results to be useful, the process must incorporate everyone even for training.

Training

It was gathered that 65% of employees in the organization had not been trained on audits, while only 35% of the employees acknowledged to have undergone some form of audit training. However, much of the training was not directly on audits but on SHE standards and the NOSA filing system. This generally meant that as much as they may have wanted to make maximum contributions to the internal audit process, lack of training acted as a hindrance to employee participation due to limited knowledge and understanding of the audit process. Holmes (2007) is of the view that without proper training, employees may participate but they may not be able to deliver quality results.
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The SHE manager pointed out that of the 35% trained employees, only about 10% were trained on auditing. This translated to a significant number of employees that were not aware of the fundamentals of the SHE internal auditing process. As pointed out by the SHE manager, only managers were trained to be internal auditors while the rest were not subjected to that form of training. It was also pointed out the organization was yet to introduce training and awareness campaigns which are audit oriented (to cater for all employees regardless of level or grade). Poor or lack of training, according Maher and Ackers (2009) leads to employees knowing more of what they do not need to know than what they need to know causing limited contribution towards job demands.

Audit team selection procedure

About 57% of the employees were not aware of the procedure used for the selection of audit team members. Most employees had grievances concerning the audit team selection process. They pointed to the fact that the selection procedure used in the organization was quite discriminatory and lacked transparency. The team had both trained and untrained staff members, making it more difficult to establish the criterion used.

Contractor participation

Contractors were not included in the audit process. However, the need for contractor participation was supported by 85% of the respondents. They were arguing that contractors worked in the same environment as ZIMASCO employees and are exposed to the same SHE risks as ZIMASCO employees so the company must also consider incorporating contractors in internal audits. Respondents pointed out that contractors also depended on ZIMASCO’s infrastructure meaning, that they sometimes used machinery from the company. It was indicated that some of the unreclaimed pits were caused by the contractors but the locals blamed ZIMASCO for the degradation caused by contractors. Holmes (2007) is of the view that contractors’ involvement in internal audits has a potential of achieving better performance.

V. Reliability Of Audit Instruments Used at ZIMASCO

The SHE standards book and the audit protocol were the basic audit instruments used at ZIMASCO. The scope, objectives and targets of the audit mainly depended on issues covered in the audit protocol and the SHE standards book. The SHE standards book worked as an audit manual while the audit protocol was used as an audit checklist.

The SHE standards book

About 75% of the employees pointed to the fact that they were not familiar with the provisions of the SHE standards book. Some pointed to the volume of the book that it was prohibitively long to comprehend considering their work schedules. However, worth noting is the fact that the SHE standards book is a universal book which is designed to cater for all forms of mining, be it gold mining, platinum or oil extraction. This would mean that an organization had to fish out aspects applicable to its operations.

As observed from the inter-departmental audits, it was noted that most of the departments were using outdated SHE standards books such that there were disagreements over some of the standards as stated in the book. It was also noticed that the SHE department was slow in notifying colleagues of the amendments made on the SHE standards, hence the confusion. According to the NOSA standards, Element 13 of section 5, SHE communication should always be timely to avoid inconsistencies. Nonetheless, a considerable proportion of the respondents from all the groups of employees agreed that the standards book was reliable as an audit instrument.

The audit protocol

With regards to mark allocation, 33% of the respondents described the audit protocol as subjective and controversial. They argued that different auditors could be assigned to audit the same department using the same audit protocol but would come up with totally different marks. Mark allocation was subject to the auditor’s discretion which could pave way for bias, hence creating a lot of controversy over audit results. As identified by Maher and Ackers (2009) in the accounting field, some audit protocols for retail can be so strict and unrealistic. However, about 67% employees regarded the audit protocol as fair and objective. Nonetheless, the management stated that there was need for the audit protocol to be regularly revised to see whether issues in the protocol are keeping up with the ‘best practices’. According to Bunn et al (2001), an audit protocol should be versatile enough to cater for the worlds’ best practices.

VI. Safety, Health And Environmental Performance Of Zimasco From 2006 To 2011

When the internal audit quality of an organization is poor, it usually follows that the SHE performance becomes poor as well. The main function of internal auditing is to ascertain an introspection that reduces or even eliminate fatalities, disabling injuries, occupational illnesses as well as environmental incidents for the
betterment of SHE performance. Internal audits should place an organization in a compliance path with its system and offer opportunities for improvements. Figure 8 shows the organization’s annual SHE statistics from 2006 (when NOSA became part of ZIMASCO) to 2011.

Figure 8: SHE statistics for 2006-2011

Two fatalities were recorded, one in 2006 and the other in 2008. This shows that the organization’s performance is creditable in reducing occupational deaths. According to NSSA representative, the organization’s level of performance from a safety point of view was rated ‘good’ considering that no fatalities have been recorded for the past three years. However the SHE representative highlighted the importance of Social responsibility, as it is considered as an important element of a good SHE management system (Copper 1998).

During the period under study, the frequency of disabling injuries was at reasonable levels considering that there was a reduction in the number disabling injuries recorded. In terms of number of property damages, the highest were recorded in 2008 while the least were recorded in 2007. Despite the fact that since 2008 the company had not recorded a figure above hundred for property damages, a lot ought to be done of reducing property damages.

On another note, the number of environmental incidents generally increased from the year 2006 to 2011 although EMA had no complaints concerning the organization’s compliance with regulations in the Environmental Management Act. However, there was need for more effort in order for the organization to attain NOSCAR grade.

Occupational illnesses continued to be experienced in the organization. However, no epidemics were experienced as highlighted by ministry of health. The organization seemed to be stable in terms of occupational health performance. As gathered from ministry of health personnel, no epidemics to do with ZIMASCO were attended to although this did not mean that the organization had no occupational illnesses recorded. However, according to Bennet (2002), it is difficult to separate off the job illnesses and on the job illnesses to such an extent that internal audits sometimes have little or no control over most occupational health issues.

Resource conservation

Resource conservation is an important way of identifying an organization’s level of performance based on the resource conservation objectives and targets. The most important resource in mining environment of ZIMASCO is electricity. The organization achieved its best level of electricity conservation in 2008 where consumed electricity was below the budget. However, Cooper (1998) argues that there is no relationship between audit quality and resource conservation whilst Kusito (2000) believes that internal audits have control over resource conservation practices since audits emphasize the setting of objectives and targets for resource conservation.
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Figure 5: Electricity consumption

CLOSURE OF AUDIT FINDINGS
Closure of audit findings from previous audits is a leading SHE performance indicator. As gathered by the researchers from the SHE annual audit report, Table 3 shows levels of audit findings closure as a way of measuring progress ZIMASCO’s response to audit results/findings.

<table>
<thead>
<tr>
<th>Year</th>
<th>No. Of findings</th>
<th>Closed findings</th>
<th>% Completion</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>34</td>
<td>21</td>
<td>62%</td>
</tr>
<tr>
<td>2007</td>
<td>20</td>
<td>12</td>
<td>60%</td>
</tr>
<tr>
<td>2008</td>
<td>23</td>
<td>14</td>
<td>61%</td>
</tr>
<tr>
<td>2009</td>
<td>18</td>
<td>13</td>
<td>72%</td>
</tr>
<tr>
<td>2010</td>
<td>36</td>
<td>28</td>
<td>78%</td>
</tr>
<tr>
<td>2011</td>
<td>41</td>
<td>27</td>
<td>66%</td>
</tr>
</tbody>
</table>

More had to be done concerning the findings from previous audits so that the same deficiencies would not be picked in the next audit. However, the it was indicated that effective follow-up and close out of non-conformities was rather difficult for the organization owing to financial constraints. The organization failed to achieve 100% closure, explaining the organisation’s challenge in the achievement of NOSCAR grade. Blackmore and Shannon (1996) state that failure to achieve 100% closure of audit findings has a strong negative impact on SHE performance.

NOSA annual ratings
NOSA auditors awarded ZIMASCO performance grades annually as shown on Figure 7

Figure 6: NOSA performance ratings from 2006-2012

The line graph on Figure 6 illustrates trends in the annual SHE grading in terms of performance as rated by NOSA. The performance trend has never attained the NOSCAR grade. The only significant improvement noted was the increase from 3 stars in 2006 to 5 stars in 2007, still leaving the NOSCAR rating an aspiration for ZIMASCO.

VII. Conclusion
It was deduced from the findings that internal audits were very important in the implementation of the NOSA management system at ZIMASCO. Employees believed that internal audits were an effective way of improving SHE performance. However it was gathered that employees had mixed feelings towards internal auditors’ competency. In terms of training, only top management were trained on audits while the rest of the workforce had not yet received any audit oriented training. It was however observed that lack of training affected the effectiveness of the audit process. Despite regular internal audits, hundred percent audit finding closure continued to prove to be difficult to achieve due to financial constraints. Moreover, the audit instruments used in the organisation could not be totally depended upon as they had their shortcomings such as the identified inconsistencies.

Considering reports obtained from the organisation, ZIMASCO’s SHE performance was not bad serve that the internal audits were not being properly carried out and were failing to effectively achieve intended performance in the organization through objective and informative reports. Given all the challenges the internal audit process was punctuated with, ZIMASCO could not achieve the NOSCAR star grade. In-house issues were supposed to be resolved first and avoid the use of internal audits as vendetta platforms among departments and employees.

References

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