Information and communication systems are business resources of the hotel industry valorized on the market. Hotel industry is an activity with international character of dealing business, because it gives domestic and foreign guests needed services. The presence on the international market gives conditions for acceptance of a range of international information and communication standards at the market. If the hotel is not recognized by the tourism market, it has no survival and development possibilities. Information about dealing business in hotel are a capital, but satisfying conditions about being complete, correct, on time and comparable.

This paper analyzes the system of statistical standard business indicators, with the aim to enable and fasten the process of management adaptation in Croatian hotels, with needs of contemporary management and inclusion in international statistics of hotel industry.

Key words: indicators, information, business success, standards, hotel industry

1. INTRODUCTION

The information and communication systems are business resources of hotel industry which are valorized on the market. Hotel industry is an activity with international character of dealing business, because it gives services to domestic and foreign guests. The presence on the International market creates conditions for acceptance of entire International standards of information and communication on the market. A hotel which is not known on the tourism market, has no survival and development chances. Information about hotel business are the capital but conditioned as entire, exact and accurate.

Instruments which enable communication on International tourism market, are different communication systems including the Internet. It is a World’s bank of
data and the guide through the woods of information. Hotel business system, information system and communication system are enclosing an entity which has to insure the following goals:

- to find out how are other International hotels dealing business
- to present the hotel industry of the certain country on International market (who are we?)

The needs and advantages of inclusion in a Unified Monitoring of Business Results of the World’s hotel industry are the following:

- enable the comparison of business results of the hotel industry with the average of World’s, European’s and hotel industry of separate countries and also the evaluation of position on the tourism market.
- strengthen the competitive power of hotel industry, because quality of services and satisfaction of guests, and thereby the quality of tourism is brought up
- partnership is created between participants on International tourism market, because exchange of most important information about hotel business in separate countries is enabled, and the inclusion into international capital flow- the interests for investments are increased.
- a foundation for effectiveness is created, and the hotel management as a precondition for successful dealing business and increasing of hotel’s profitability.

The entrance into the International hotel standards of business- information and communication systems, seeks certain conditions and standards of every country.

This paper is dealing with the system of statistical standards of business indicators, with the aim to facilitate and accelerate the process of management in Croatian hotels, with the need for modern management and inclusion into international statistics of hotel industry.

2. BUSINESS INDICATORS

Controlling or management of business results includes planning of business results, monitoring and analyzing achieved (realized) results, creation of standard indicators of business success, and information of concious and responsible managers.

The measuring evaluation process of business results is the constant accompaniment of business management, and serves for regulation and direction of business results and success to the planned aim. This can be presented as following:
Management of business results

The best evaluation for effectivity is an achieved business result and its constant growth.

The quality of all information systems, and especially of Controlling, depends on chosen criteria for activity measurement, that means indicators which create the management signals. The indicator comes out from the relation between results and invested resources for realization of this results.

Indicators of business results are management signals which enable the comparison of achieved results and success, which enables the manager to react in time and responsible, and to direct the results in wanted direction. Therefore, business indicators have to be:

- true (to respond to real conditions),
- complete (in a sufficient number to show the aspects of business success),
- prompt (to calculate and inform the users in time)

It is necessary to distinguish two groups of business success indicators as following:

- indicators of quantity and
- indicators of quality.

This indicators are connected and conditioned.

Business success indicators of quantity are dealing with separate aspects of business results: Efficiency rate, revenues and profit. They are measured and evaluated through comparison of all aspects of the realized business results with an average: period, plan, best benchmark, target -group averages. Differences are further analyzed to determine causes and consequences (effects) of this differences.
Business success indicators of quality refer to the successful or efficient dealing business. They are the rates of quality because they indicate the relation between business results and expended resources, or the measurement of business rationality. They supplement the business success indicators of quantity and enable the decision about solvency or business quality. Namely, the realized quantity does not mean the quality of business success. Ex. The hotel has realized 20% larger sales revenues ($P$) compared with the year before, and in the same time expenses ($T$) are increased for 25%. Result quantity is satisfying, but the quality of business success does not satisfy because the coefficient of cost-effectiveness ($e$) compared to the year before, is decreased.

$$e = \frac{P}{T} = \frac{120}{125} = 0.96 \text{ or } -4\%$$

This also influenced the decrease of profitability because the profit is decreased while larger increase of expenses, compared with increase of revenues.

The indicators of business success reflect the quality of business success, but also the quality of management; how can managers with their business decisions and activities succeed to use existing resources, or is the resource rate given by optimal results or optimal profit.

While defining separate indicators, the following has to be concerned:

- adapted specific characteristics of dealing business
- reflected through quality of business success
- they have to be very measurable
- they have to be clear and possible to understand
- the indicators have to be supplement between themselves
- the indicator’s assembly has to be complete and create an entity
- they have to be comparable with other similar companies and affiliated target-groups.

General indicators are the measures of realized quality of entire business. This are consolidated indexes and they are serving for evaluation- or diagnosis of hotel’s solvency. They are also used by informing external users (stockholders, investors, suppliers, etc), and internal users (executive managers, auditing committees, etc).

Separate indicators are specific because they reflect the business characteristics of departments, offices (services), separate activities, tasks, individuals-managers or executive workers. It is used for internal reporting of information for users (executive managers).

Special indicators are the measures of realized quality of special activities, or tasks as investments, permanent education, personnel training, promotions, etc. It is also used for reporting of realized analysis, according to special assignments.
Furthermore an overview of standard business indicators is given, characteristic for hotel industry, and based on the Uniform System of Accounts for Hotels, internal business statistics and unique methodology of planning and reporting of business results and success.

3. STANDARD SYSTEM OF BUSINESS INDICATORS FOR HOTELS

The standard system of business indicators for hotel industry, used by the International Statistics of European Hotel Industry and Worldwide Lodging Industry (publisher “Horwath & Horwath International), includes many business groups, as follows:

1. Indicators of Room occupancy (Operational data):
   - Average room occupancy rate,
   - Average number of guests per room,
   - Average daily room rate
   - Average daily rate per guest night

2. Market information
   - Source of business (Analysis according to continents)
     USA
     Canada
     Central and South Africa
     Domestic guests
     Europe
     Japan
     Asia
     Australia
     Middle East
     North Africa
     Rest- Africa
     Total 100%
   - Market mix (Guest analysis according to categories)
     Business travellers
     Individual tourists
     Conference delegates
     Administration officers
     Other categories
     Total 100%

3. Structure of revenues and expenses
   - Composition of sales (means)
     Rooms
     Food
Beverage
Minor operated departments
Rental and other income
Total 100%

Related expenses as a % on departmental revenues:
Food, beverage;

Gross Operating Profit-GOP as a % on Total sales;

- Statistics of employees:
  Employees per available room,
  Sales per employee,
  Total costs per employee,
  Payroll as a % of total sales

- Revenues of telephone services:
  Annual revenues per available room,
  Revenues per available room as a % on total sales,

- Departmental revenues:
  Annual revenues of room sales,
  Revenues of room sales as a % on total sales

4. Payroll and other expenses per available room

- Payroll and related:
  Rooms
  Food and beverage
  Administrative and general
  Marketing
  Property operation and maintenance;

- Related expenses:
  Rooms
  Food and beverage,
  Administrative and general,
  Marketing
  Energy,
  Property operation and maintenance
  Payroll and related management payroll.

It is necessary to form a separate statistics and standard information system
of indicators, to satisfy the needs of planning, control, analysis and reporting,
management of business results of separate internal departments and hotel services
(room- department, food and beverage, bar, restaurant, schwimmingpool, etc).
Every organization unit has its specific business task, defined by the budget. The manager is responsible for budget realization. To accomplish his task, every manager has to have instruments of controlling, or instruments for managing business results. Therefore are indicators, or manager signals by which realized business results are evaluated in comparison with the planned results or standards.

Indicators are drawn from hotel's business statistics, terminology and standard accounting data, according to the methodology of the Uniform System of Accounts for Hotels, which is accepted in all developed countries.

The Uniform System of Accounts for Hotels (further USAH) is published for the first time in 1926 from the Hotel Association of New York City (USA), and was published in eight revised editions, the last one in 1986 prepared by the International Association of Hospitality Accounts. USAH is nowadays generally accepted from International hotel industry, and the entire Standard Monitoring System of Business Results in the hotel industry, same as the managing accountancy of hotels, is based upon. This system contains the list of standard accounting for basic accounting reports of external, but especially internal information for users.

USAH also contains a business statistics for hotels with the overview of most important information about hotel's business. According to the unique accounting information and the hotel business statistics, the indicators of dealing business and hotel business success is calculated, which is also creating a part of analysis instrumentarium and evaluation of hotel business success and solvency.

The modern and effective managing of business results or Controlling in hotels is based on USAH, which represents all specifics of hotel business and enables the comparison of business success in hotel industry, in the country and abroad.

It is especially important that hotel is, according to USAH, the basic calculating unit, which has several internal calculating units- hotel departments- and every of them has its own revenues calculation, expenses and profits. Such an internal result calculation enables an successful operative management of separate departmental revenues and expenses, and also the quick intervention in cases of negative deviation from the entire plan of hotel business.

According to the same standard methodology, an annual-book of the European Hotel Industry is being published and prepared by the Horwath Consulting in Europe, and includes the following countries, or hotel samples in this certain countries: Austria, Netherlands, Belgium, France, Germany, Hungary, Ireland, Portugal, Switzerland and Great Britain. There are also special editions for hotel industry of separate countries and regions (for example: Hungary- publication Hungarian Hotel Industry). There are also special editions for towns (Paris, London, Vienna, etc.)

We can give the internal system of managing business results of the Food and Beverage Department, as an example.
## System of standard indicators and information of the Food and Beverage Department

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Formula</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Revenues of sales per seats</td>
<td>( \frac{\text{revenues per food and beverage}}{\text{total number of seats}} )</td>
</tr>
<tr>
<td>2. Utilization of capacities</td>
<td>( \frac{\text{number of served couverts in the analyzed period} \times 100}{\text{number of seats} \times \text{days of the analyzed period}} )</td>
</tr>
<tr>
<td>3. Average cost of couverts</td>
<td>( \frac{\text{revenues of food}}{\text{number of couverts}} )</td>
</tr>
<tr>
<td>4. Foodstuffs participation in revenues (%)</td>
<td>( \frac{\text{expenses of foodstuffs} \times 100}{\text{revenues of food}} )</td>
</tr>
<tr>
<td>5. Participation of beverage expenses in total revenues (%)</td>
<td>( \frac{\text{beverage expenses} \times 100}{\text{beverage revenues}} )</td>
</tr>
<tr>
<td>6. Participation of work-expenses in total revenues</td>
<td>( \frac{\text{work-expenses of preparation of food and beverage}}{\text{revenues of food and beverage}} )</td>
</tr>
<tr>
<td>7. Revenues per room sale</td>
<td>( \frac{\text{revenues of food and beverage}}{\text{number of room sale}} )</td>
</tr>
<tr>
<td>8. Proportion between food and beverage (%)</td>
<td>( \frac{\text{revenues of beverage} \times 100}{\text{revenues of food}} )</td>
</tr>
<tr>
<td>9. Revenues of food and beverage (%)</td>
<td>( \frac{\text{revenues of food and beverage} \times 100}{\text{total sales revenues}} )</td>
</tr>
<tr>
<td>10. Revenues per day</td>
<td>( \frac{\text{revenues of food and beverage in the analyzed period}}{\text{departamental number of employees}} )</td>
</tr>
<tr>
<td>11. Productivity</td>
<td>( \frac{\text{revenues of food and beverage}}{\text{departamental number of employees}} )</td>
</tr>
<tr>
<td>12. Cost-effectiveness (%)</td>
<td>( \frac{\text{realized departamental expenses} \times 100}{\text{revenues of food and beverage}} )</td>
</tr>
</tbody>
</table>
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13. Profitability (%) 
\[
\frac{\text{gross operating profit}}{\text{revenues of food and beverage}} \times 100
\]

14. Turnover coefficient 
\[
\frac{\text{turnover of food and beverage}}{\text{average supplies of food and beverage}}
\]

15. Quality of services (%) 
\[
\frac{\text{number of complaints}}{\text{total number of served guests}}
\]

The analysis of mentioned external and internal indicators presents the fact we are dealing with vital business information about hotel industry, which enable the business travellers and potential investors to create a global picture about hotel industry of separate countries and its tourism potentials, but also the effective internal managing of business results. This enables the professionals, analysts, investors and hotel managers the comparative analysis and evaluation of hotel’s and hotel industry’s solvency, or the graduation of tourism potentials of European countries and Worldwide. Long-term analysis enable the monitoring of development tendencies of the hotel industry of separate countries. This is an evidence of necessity for application of standard information and communication systems in hotel industry.

4. CONCLUSION

The inclusion of Croatian hotel industry in the standards of monitoring of business results of the International hotel industry, asks for quick and effective adaptation to the existing situation, with new demands and needs which are dictated by the management of International hotel standards.

The basic preconditions are:

- definition of property structure of the Croatian hotel industry with the dominant private ownership,
- exchange and standardization of existing official tourism and hotel industry statistics of Croatia,
- reorganization of hotel enterprises and hotels,
- application of International hotel management models,
- application of International hotel information systems (internal and external),
- application of the Uniform System of Accounts for Hotels,
- constant education of hotel managers.

The mentioned basic preconditions are interrelated and conditioned, which cannot contribute to a quick and effective solution. Namely, a defined ownership is the precondition for reorganization of hotel enterprises, and also reorganization is the precondition for investment in information systems, which are, on the other hand, also
the precondition for introduction of the Uniform System of Accounts for Hotels, and everything creates the condition for effectivity increase of hotel management and the profitability of hotels.*

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Sažetak

STATISTIČKI INDIKATORI REZULTATA POSLOVANJA HOTELA

Informacijski i komunikacijski sustavi su poslovni resurs hotelske industrije koji se valoriziraju na tržištu. Hotelska industrija je djelatnost s internacionalnim karakterom poslovanja jer pruža usluge domaćim i inozemnim gostima. Prisustvo na internacionalnom tržištu uvjetuje prihvaćanje čitavog niza internacionalnih standarda informiranja i komuniciranja na tržištu.

U ovom se radu analizira sustav statističkih standardnih poslovnih indikatora kvalitete poslovnog uspjeha, u cilju olakšanja i ubrzanja procesa prilagođavanja upravljanja u hrvatskim hotelima sa potrebama suvremenog upravljanja i uključivanje u internacionalnu statistiku hotelske industrije.

Ključne riječi: indikatori, informacije, poslovnii uspjeh, standardi, hotelska industrija

* Today, the Croatian hotel industry has no fundamental formal preconditions for the inclusion into the information system. The evidence therefore is the official statistics of hotel industry and tourism, and also official business information, which cannot be calculated for the entire hotel industry or the hotel samples. As example we can mention that statistics is monitoring accommodation capacities through number of beds and not number of rooms, and a large number of indicators are using the number of rooms. Also, information for calculation of indicators of entire internal hotel success, do not monitor all needed marketing information.