

THE INFORMATION SYSTEM – A KEY FACTOR IN GROUNDING DECISION-MAKING IN HOTEL MANAGEMENT

Cezar MIHĂLCESCU¹

Ionel IACOB²

Beatrice SION³

Abstract

Some companies have gained the ability to make use of information to achieve performance. Managers have understood that they must capitalize on people, information and information technology in order to constantly improve on business performance.

In the recent years, managers have tried rather to use information technology than to manage information, and this focus on technology has happened to the detriment of the people. Even though managers have tried to learn how to handle technology and information, they have not, however, developed a deep understanding of the way in which people's behaviors affect the use of information inside the company.

Keywords: *information technology, hotel management, decision-making, employee behaviour*

JEL Classification: M15, Z30.

1. Introduction

The information systems designed for the management level have some features in common with decision-making systems. The information systems designed for the management level concentrate on strategic information which is crucial for top-level management.

The aim of these systems is to provide, for the decision-making entities on the top level, immediate and easy access to the information that is necessary to reach the strategic objectives of the company.

The top decision-making level needs huge quantities of information from various sources, such as letters, notes, regular reports or reports drawn by other information systems.

These systems need to grant quick and easy access through friendly interfaces using graphical elements.

¹ Cezar Mihălcescu, Romanian American University of Bucharest, Romania, E-mail: cezarmihalcescu@rau.ro

² Ionel Iacob, Romanian American University of Bucharest, Romania, E-mail: iacob.ionel@profesor.rau.ro; ionel.iacob@rau.ro

³ Beatrice Sion, Romanian American University of Bucharest, Romania, E-mail: beatrice.sion@rau.ro

2. The information systems

The information systems designed for the management level has, at the conceptual level, a few characteristics such as:

- use of computer networks;
- in the case of the management level, the information system software uses the system of telecommunications, whereas the data base software grants access to the information in its internal or external environment and instantaneous access to interrogations;
- it offers a great variety of information regarding the current state of the company as well as the estimates on its future status;
- The information systems designed for the management level display the possibility of analytically modeling and assessing alternatives for decision grounding systems;
- The information provided with the help of information systems designed for the management level can be presented in the form that the manager desires.

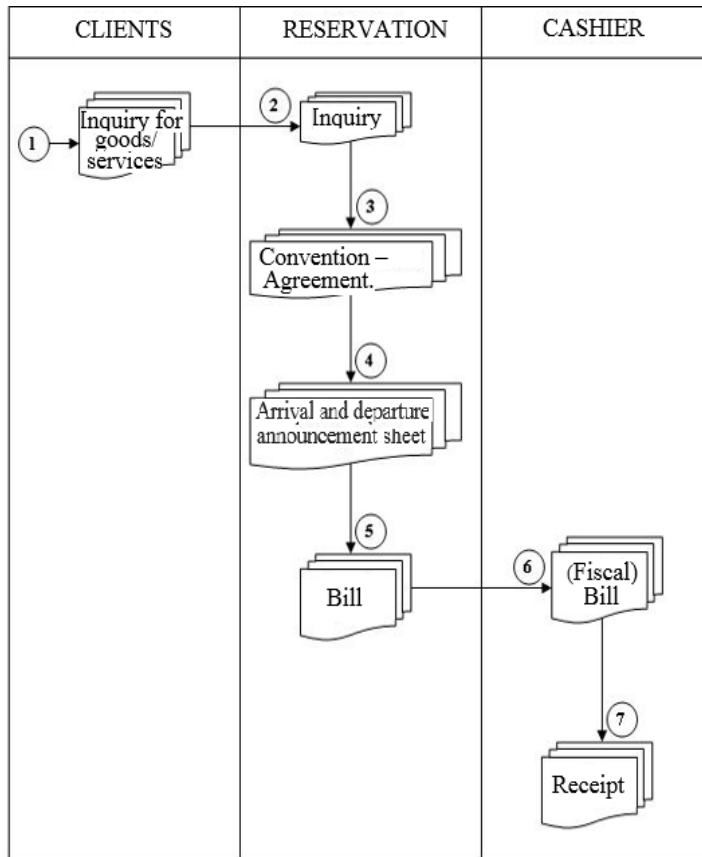
In the recent years managers have tried rather to use information technology than to manage information, and this preference for technology has been to the detriment of the people. Even if managers have tried to acquire know-how on handling technology and information, they have nevertheless lacked a profound understanding of the manner in which people's attitudes impact the use of information in a company.

The starting point of the model is the customer's inquiry for goods or services, in which (s)he wants information on the number of rooms, the types of accommodation and the cost. This inquiry is analyzed by the front office manager, and in case it is possible, the customer fills in the written convention-contract. Once it is filled in, the receptionist registers the reservation by introducing the client's personal data, the type of room (s)he has requested and its number, the number of people and of days. Optionally, the client can require additional services, such as laundry, internet access, satellite TV and swimming-pool.

The moment the reservation is completed, the customer fills in the departure-arrival chart, after which he receptionist draws up his bill, invoice and receipt.

The offer will contain information on the type of hotel rooms and their rates, included services besides accommodation, potential discounts, the cost of meals served at the hotel restaurant, as well as means of payment accepted by the hotel management.

The procedure is the following :

Figure 1: Document Flow

- The client sends an inquiry for goods/services.
- The inquiry is analyzed by the front office manager, who presents an offer to the client.
- The client fills in the Convention – Agreement.
- The actual reservation is made and the chart announcing the arrival and departure is filled in.
- The cashier draws up the invoice.
- The receipt is printed.

The variables of an information application undoubtedly represent one of its most important aspects. Thus, reports must be drawn up so as not to leave room for errors, which could cause delays in the decision-making process at the management level, or even to lead to wrong decisions. As far as keeping track of the rooms, the reports are:

3. **Report on all hotel rooms** – this report will show all hotel rooms with the details corresponding to every room, namely: the room number, its code, the floor, the status of the respective room, the facilities etc.

Figure 2: Reports on all hotel rooms

Report on all hotel rooms						
			Page 1 of 1			
NoRoom	Id_TypeRoom	NameTypeRoom	TariffRoom	Floor	Status - Occupied/Unoccupied	Facilities - RoomEquipments
1	s	single	150	Ground floor	Free	TV, Refrigerator, Air conditioning
2	s	single	150	Ground floor	Free	TV, Refrigerator, Air conditioning
3	s	single	150	Ground floor	Occupied	TV, Refrigerator
4	s	single	150	Ground floor	Occupied	TV, Refrigerator
5	d	double	300	Ground floor	Free	TV, Refrigerator, Air conditioning
6	d	double	300	Ground floor	Free	TV, Refrigerator
7	t	triple	400	Ground floor	Occupied	TV, Refrigerator
8	a	apartment	500	Ground floor	Occupied	TV, Refrigerator, Air conditioning
9	a	apartment	500	Ground floor	Free	TV, Refrigerator, Air conditioning
10	a	apartment	500	1st floor	Free	TV, Refrigerator, Air conditioning
11	s	single	150	1st floor	Free	TV, Refrigerator
12	s	single	150	1st floor	Free	TV, Refrigerator
13	s	single	150	1st floor	Occupied	TV, Refrigerator

3.1. Report on all available rooms in the hotel – it will show all the available rooms of the hotel on the date when it is drawn up (Figure 3)

Figure 3: Reports on all available rooms in the hotel

Report on all available rooms in the hotel						
			Page 1 of 1			
NoRoom	Id_TypeRoom	NameTypeRoom	TariffRoom	Floor	Status - Occupied/Unoccupied	Facilities - RoomEquipments
1	s	single	150	Ground floor	Free	TV, Refrigerator, Air conditioning
2	s	single	150	Ground floor	Free	TV, Refrigerator, Air conditioning
5	d	double	300	Ground floor	Free	TV, Refrigerator, Air conditioning
6	d	double	300	Ground floor	Free	TV, Refrigerator
9	a	apartment	500	Ground floor	Free	TV, Refrigerator, Air conditioning
10	a	apartment	500	1st floor	Free	TV, Refrigerator, Air conditioning
11	s	single	150	1st floor	Free	TV, Refrigerator
12	s	single	150	1st floor	Free	TV, Refrigerator

3.2. Report on all the occupied rooms in the hotel – it will display all the occupied rooms on the date when it is made (Figure 4).

Figure 4: Reports on all the occupied rooms in the hotel

Report on a certain room						
Page 1 of 1						
Selected Room: 1						
NoRoom	Id_TypeRoom	TariffRoom	NoReservation	Date	RoomType	Client Name
1	s	300	R116	28/04/2017	Single	Chapman W.
	s	300	R133	16/05/2017	Single	Johnson B.

3.3. Report on a certain room – this report will show all reservations made for one particular room (Figure 5).

Figure 5: Reports on a certain room in the hotel

Report on all the occupied rooms in the hotel						
Page 1 of 1						
NoRoom	Id_TypeRoom	NameTypeRoom	TariffRoom	Floor	Status - Occupied/Unoccupied	Facilities - RoomEquipments
3	s	single	150	Ground floor	Occupied	TV, Refrigerator
4	s	single	150	Ground floor	Occupied	TV, Refrigerator
7	t	triple	400	Ground floor	Occupied	TV, Refrigerator
8	a	apartment	500	Ground floor	Occupied	TV, Refrigerator, Air conditioning
5	d	double	300	Ground floor	Free	TV, Refrigerator, Air conditioning
6	d	double	300	Ground floor	Free	TV, Refrigerator
13	s	single	150	1st floor	Occupied	TV, Refrigerator
14	s	single	150	1st floor	Occupied	TV, Refrigerator

4. Reports on customer records

4.1. Report on all hotel clients – this report will show all hotel customers (Figure 6).

Figure 6: Reports on all hotel clients

Report on all hotel clients										
Page 1 of 1										
NoClient	ClientName	Locality	Street	NoStreet	Phone	PersonalIdentification	SelfIdentityCardNo	IdentityCardNo	Count	Bank
CL133	Arnette N.	Cluj	A.Iancu Boulevard	187	0721xxxxxy	1840314889912	RX	074569	BCR128946661	BCR
CL134	Perimark J.	Bucharest	Magheru Boulevard	31	0788xxxxxy	1561223489654	RR	064789	BRD678123412	BRD
CL103	Patterson J.	Bucharest	Magheru Boulevard	123	0740xxxxxy	1800521774562	RX	063965	BRD462114725	BRD
CL101	James A.	Bucharest	Magheru Boulevard	7c	0722xxxxxy	1840902460022	RX	074276	BCR123456789	BCR
CL102	Doe F.	Brasov	Postavaru Boulevard	215	0744xxxxxy	2840105841267	RX	074148	BRD459315781	BRD
CL115	Matt T.	Iasi	Al.Cuza Boulevard	4	0723xxxxxy	1790521783211	RX	062344	BCR159348357	BCR
CL116	Reynolds H.	Bucharest	Magheru Boulevard	12	0720xxxxxy	1520618742266	RT	076198	BCR278669157	BCR
CL117	Trissport S.	Bucharest	Magheru Boulevard	89-91	0726xxxxxy	1741214668815	GT	044215	BRD782336448	BRD
CL118	Swank Sh.	Cluj	A.Iancu Boulevard	25A	0788xxxxxy	2790522872291	RT	071982	BCR789321456	BCR
CL119	Weyers R.	Bucharest	Magheru Boulevard	45	0721xxxxxy	2650819743288	RR	459781	BRD453129744	BRD
CL120	Fox L.	Bucharest	Magheru Boulevard	78	0724xxxxxy	2750218991158	RT	079321	BRD593147893	BRD
CL121	Levitts O.	Bucharest	Magheru Boulevard	145	0720xxxxxy	1590823459216	RX	052991	BCR189632474	BCR

4.2. Report on a certain client – this report will display all all reservations made for one particular client (Figure 7)

Figure 7: Reports on a certain client

Report on a certain client						
Page 1 of 1						
Selected Client: Patterson J.						
Client Name	NoReservation	NoRoom	Date	Id_TypeRoom	RoomType	TariffRoom
Patterson J.	R104	3	21/03/2017	s	Single	100

5. Reports on keeping track of reservations

5.1. Report on all reservations – this report will show all reservations made until the date of the report (*Figure 8*).

Figure 8: Reports on all reservations

Report on all reservations								
								Page 1 of 1
Date	NoReservation	NoRoom	RoomType	NumberPersons	NumberDays	TariffRoom	Total Value	NoClient
16/03/2017	R101	30	Apartament	4	5	1200	1270	James A.
20/03/2017	R103	2	Single	1	4	400	435	Doe F.
21/03/2017	R104	3	Single	1	1	100	120	Patterson J.
21/03/2017	R105	6	Double	2	3	540	560	Matt T.
21/03/2017	R106	18	Apartament	2	6	1440	1500	Reynolds H.
28/03/2017	R107	15	Double	2	2	360	405	Trissport S.

5.2. Report on all reservations made on a particular date – it will show all reservations made on a certain day (*Figure 9*).

Figure 9: Reports on all reservations made on a particular date

Report on all reservations made on a particular date								
								Page 1 of 1
								Selected Date 21/03/2017
Date	NoReservation	NoRoom	RoomType	NumberPersons	NumberDays	TariffRoom	Total Value	NoClient
21/03/2017	R104	3	Single	1	1	100	120	Patterson J.
21/03/2017	R105	6	Double	2	3	540	560	Matt T.
21/03/2017	R106	18	Apartament	2	6	1440	1500	Reynolds H.

5.3. **Report on all the reservations made by a particular client** – this report will show all the reservations made by a particular client (*Figure 10*).

Figure 10: Reports on all reservations made by a particular client

Report on all reservations made by a particular client

Page 1 of 1

Selected Client NameJames A.

NoClient

NoReservationDateNoRoomRoomTypeNumberPersonsNumberDaysTariffRoomTotal Reservation

James A.

R10116/03/201730Apartment4512001270

6. Reports on the orders

6.1. **Report on all the orders** – this report will display all the orders made at the hotel restaurant (*Figure 11*).

Figure 11: Reports on all the orders

Report on all the orders						
Page 1 of 1						
NoOrder	NoReservation	ClientName	NoRoom	NumberPersonsFood	Id_FoodType	FoodType_Tariff
CMD101	R101	James A.	30	4	Breakfast	10
CMD103	R101	James A.	30	4	Lunch	30
CMD104	R101	James A.	30	4	Dinner	25
CMD106	R101	James A.	30	2	Breakfast	10
CMD107	R101	James A.	30	4	Lunch	30
CMD108	R101	James A.	30	4	Breakfast	10
CMD110	R122	James A.	30	2	Breakfast	10
CMD111	R122	James A.	30	2	Lunch	30
CMD112	R122	James A.	30	2	Lunch	30
CMD113	R122	James A.	30	2	Lunch	30
CMD114	R122	Arnette N.	30	2	Lunch	30
CMD115	R122	Arnette N.	30	2	Lunch	30

6.2. Report on all orders made on a particular date – this report will show all the orders made at the restaurant on a certain date (Figure 12).

Figure 12: Reports on all orders made on a particular date

Report on all orders made on a particular date							
Date				Page 1 of 1			
Date				04/05/2017			
Date	NoOrder	NoReservation	NoRoom	ClientName	NumberPersons	Id_FoodType	FoodType_Tariff
04/05/2017							
	CMD114	R122	30	Arnette N.	2	Lunch	30
	CMD115	R122	30	Arnette N.	2	Lunch	30
	CMD116	R122	30	Arnette N.	2	Breakfast	10
	CMD117	R122	30	Arnette N.	2	Lunch	30
	CMD118	R122	30	Arnette N.	2	Lunch	30
	CMD119	R122	30	Arnette N.	2	Lunch	30

Therefore, with the help of the new information system, keeping track of reservations will be extremely easy to do. Also, reports and invoices will be generated through a simple click on a button, and changes will be made without using any other auxiliary instruments.

Conclusion

An additional strong point of the model is economizing on the operations execution time. Hence, the client will no longer wait in front of the reception desk for the forms to be filled in by hand, this being possible much more quickly the moment the new application is implemented. The same goes for reports, which will be generated in a very short interval, eliminating the manual search through the document archive.

The technologization of making reservations will improve the activity of keeping track of them by making it more efficient and thus suitable in meeting the requirements existing at the level of hotel management as rapidly as possible. These requirements will be fulfilled through the reports provided by the computerized application, based on the information it has gathered.

References

1. Gupta, U. *Information Systems: Success in the 21st Century*, Prentice Hall, Upper Saddle River New Jersey, 2021.
2. Fesenmaier, D., Klein, S. and Buhalis, D. *Information and Communication Technologies in Tourism*, Springer-Verlag, Vienna, 2019.
3. Laudon, K. and Laudon, J. *Management Information Systems: Managing the Digital Firm*, 7th edition, Prentice Hall, Upper Saddle River New Jersey, 2021.