LUMINOUS
INSIGHTS

Check for updates

Research Article

The Influence of Spatial Infrastructure on Resort Hotel Crime: A Case Study in Crete.

Georgios Triantafyllou[a*] [ID] | Eirini Stratakia[a] [ID] | Michael Volyrakis[b] [ID]

[a]Department of Business Administration & Tourism, Hellenic Mediterranean University, Crete, Greece
[b]Hotel Management, Aquila Elounda Village Resor, Crete, Greece

ABSTRACT

The primary objective of the study is to investigate the possible existence of significant links that bind spatial infrastructure and property layout with hospitality-related crimes. Under this topic, the researchers tried to shed light on a previously unexplored region of criminality within the service sector in Greece, investigating 4 and 5-star resort hotels on the island of Crete. A form of non-probability purposive sampling was applied. The methods of the research were three: Direct observation of hotel infrastructure, ranking of key variables by an expert panel, and a semi-structured interview with hoteliers. It derives from the results that the expansion of hospitality properties in smaller sites weakens effective security. Defining the way of how infrastructure affects crime, can lead to a differentiation in thinking during the designing process.

1. Introduction

The main goal of the research concentrates on exploring the way that the spatial infrastructure of resort hotels can deter or reinforce crime occurrences. The question is how the design and the space allocation of resort hotels in Crete affect the security level in their premises. The reason for choosing resort hotels for the study is mostly because of their target – market that defines their infrastructure. Guests of resort hotels are not business travellers but tourists who are looking for leisure and recreation. Thus, the scenery and the structural layout of resort hotels must correspond to guests' expectations for enjoyment and relaxation. Posing an array of barriers or fortifying hospitality designated operations are rather dated points of view that have no place in modern hospitality approaches. Moreover, hospitality operators are faced with a challenge; they have to ensure safe accommodation for guests and

associates while at the same time they have to manage the operation cost-effectively. A few words about the location of the sample area will depict a better picture of the sample. Crete, an island of Greece, is the fifth-largest island in the Mediterranean with an area of 8,335 square kilometers. Crete is divided into four provinces. Moving from west to the east first comes Chania, followed by Rethymno, Heraklio, and Lassithi. The island, with a population of 600,000 inhabitants, has developed an economy based on a mixture of tourism and agriculture. In the last twenty-five years, the hospitality industry has shown tremendous development on the island, shifting its economy from purely agricultural to a combination of commerce and tourism.

2. Literature review

Regarding travellers, personal security and safety have become major concerns for the traveling pub-

Corresponding author:
Georgios Triantafyllou | triantafyllou@hmu.gr | Department of Business Administration & Tourism, Hellenic Mediterranean University, Crete, Greece.

lic (Burstein, 1980). Buckley and Klemrn (1993) added to that belief, indicating through their work, that fear and insecurity are among the most important motivations of tourists, posing as a major barrier to travel. Tourists are concerned about safety to a high degree. It is no surprise that Pizam (1999) found that acts of crime and violence against tourists in a specific location have a negative effect on hotel occupancy in that location. Prideaux (1996) updated Burstein (1980) observation, noticing that most tourists select their destinations based not only on price and destination image but most importantly, on personal safety and security. He also argued that destinations which are known to travellers as crime hot-spots are likely to experience considerable difficulties in maintaining adequate levels of tourism demand.

From 1995 onwards, researchers started to take an interest in acts of crime and violence against tourists (Bloom, 1996). As Detwiler (1997) correctly observes, very little research has been conducted in the past on crime committed in hotels. These observations came long overdue since the awareness of the damage caused by products of crime and the need of identifying some sort of remedy for this plaque has been a burning issue for the industry for decades (Bach & Pizam, 1996). The weakness of a hospitality enterprise to protect the guests in its settings has a negative impact on its reputation and, therefore, on its profit margin (Ho et al., 2017; Mawby, 2017).

Criminal acts within the hospitality context can be categorized as violence against the person, (Jones & Groenenboom, 2002) property-related crime (Hughes, 1984), fraud and forgery (Burstein, 1980). Violence against the person includes acts such as infliction of physical damage, sexual offenses, any sort of physical or verbal harassment, as well as robbery. The property-related category includes acts such as damage to the property as a direct result of vandalism, theft, or damage caused by negligence. Fraud and forgery as a category include acts such as defalcation, credit card fraud, and counterfeit money fraud. It is worth mentioning that a large proportion of crime is unrecorded, as many offenses

are not reported to the police Povey and Cotton (1998). Based on the work of several researchers such as Lebruto (1996), Axler (1974) and Hughes (1984), criminals in the hospitality industry can be classified as "external" or "internal", based on their origin. All criminals who spawn beyond the limits of the operation are classified under external, whereas all threat originating within the organization is considered internal. External criminals can be subdivided into locals, mainly composed of persons leaving in the broader area of the operation and drifters, who frequent the area for a short period and carry on to other target areas. Criminals within the limits of the operation can be guests, visitors, or members of the staff.

Huang et al. (1998) indicated that hotel structural characteristics as the size of the hotel, the number of rooms, the location, and the access to public transportation, had an influential effect on specific crime categories, including larceny, burglary, and auto theft. They also emphasized the role of centralized internal entrance in strengthening the natural surveillance as well as the accessibility of rooms through lobbies or inside corridors. Though, the particular research focused on hotels that mostly cater to business travellers. The investigation of the available literature related to hotel security and hotel design revealed an under-researched area associated with the relationship between the actual structure of a resort hotel and its effect on criminal acts.

3. Methodology

As this qualitative study attempts to shed light on a vaguely identified area by gathering non-standard data, its research is exploratory. The method of grounded theory is thought to be more suitable for non-standard data analysis (Glaser & Strauss, 1968). The research was concentrated on 10 properties located in the areas of Rethymno, Hersonissos, an area 30 Km east of Heraklion, which could be described as the core of tourism on the island, as well as Elounda, a traditional village, ten Km southeast of Agios Nikolaos, small golf, noted for some of the most explicit hospitality operations in the Balkans. A form of the non-probability purposive sample was applied.

To gain a variety of perspectives, three interrelated methods of research were devised and conducted: a) Direct observation and measurement of hotel infrastructure and key variables in the sample hotels. This became possible with the aid of a checklist instrument devised especially for the needs of this study, b) Interviews with an experts' panel, and forced-choice ranking of key variables. The second instrument of forced entry grids was also developed from scratch to accommodate research requirements, c) Semi-structured interviews with hoteliers to investigate their perceptions of hotel crime and security. Concerning the categorization of variables, they were divided into two groups, the exterior, and the interior security factors. The phrase exterior security factors accommodate all security variables that exist on the premises, around the facility, whereas interior security factors include variables that have to do with the buildings themselves.

3.1. The checklist

Before interviewing hotel managers, a checklist was put together mobilizing literature resources and knowledge gathered during informal talks, with people of the industry (Appendix A). This instrument accommodated the precise measurement of influential to hotel security variables such as location and size of the property, condition of public areas, use of closed-circuit television, building characteristics including room aspects relevant to the number, type, and dimensions of doors and windows. This instrument aims to provide the research with evidence that would back up the viewpoints and beliefs of the interviewed hotel managers, as well as identify possible weaknesses in the actual implementation of theoretical beliefs. This checklist was later on updated as a greater understanding of the topic was established through talks with the board of experts. Variables in the list were originally grouped in categories based on physical relationships. All aspects relative to the surroundings, for instance, were grouped under "land", whereas all the measurements that were relevant to accommodation were grouped under "rooms". Further analysis of the data after measurements had been taken, resulted in rearrangements in categories. Normalization of the results from the measurements was later required

to amalgamate findings with the outcomes of the panel of experts' forced entry grids to achieve relative weighting.

3.2. The panel of experts

Through the constant communication with people demonstrating expertise relative to the researched subject fields, the need for the second category of interviewees probed with a different interviewing tool, came to light. Before interviewing hotel managers, hotel architects, civil engineers, and security advisors were consulted in an attempt to gather as much information as possible on the researched subject. Their job was relatively weighed the selected variables according to their expertise so that the measurements of the checklists could yield sound results. Five persons participated in the panel. One advisor with BA in engineering and substantial knowledge in the area of security, a civil engineer, who is also co-owner of a small hotel chain and he is actively engaged in hotel design, two security systems advisors, representing well-known security brands, as well as one personal security operator that covers hotel security outsourcing. Experts were separately interviewed concerning their general views on the topic and were then asked to fill in two forced entry grids, devised especially to cover the needs of this research (Appendix B).

Based on existing literature (Lockwood & Jones, 1984), two forced entry grids were devised to accumulate the knowledge of people that did not belong to the hospitality industry, but yet had an outstanding degree of influence on the quality of its operation. Variables accumulated for use in the checklist were divided into two groups and were assigned to two grids as explained below. The former accumulated the top ten of the most influential security factors dealing with external security issues according to the relative literature. The latter was designated for the ten most influential factors concerning the buildings' spatial infrastructure in a hospitality operation. Those instruments aimed to aid researchers in identifying which of the proposed security elements were of most importance to hotel security. This knowledge in conjunction with the normalized measurements accumulated by the checklists resulted in categorizing the sampled properties accord-

ing to their relative security and helped in dividing the sample into two major groups, secure and less secure, to draw some guidelines and reinforce some findings. This ranking and categorization is completely relevant to the specific sample of this research and cannot be used to individually conclude the security status of each property.

3.3. Interview process

To meet the needs of this particular study, the researcher has chosen to collect data with the use of semi-structured interviews. As the aim is to collect the interviewees' experiences, opinions, and expertise, semi-structured interviewing has been chosen as the most appropriate tool to investigate an area as sensitive as a crime in the hospitality industry. This type of topic-centred interviewing, characterized by an informal style (Mason, 1996) assisted in creating a healthier environment which is believed to create mutual trust and eliminate bias concerns. The interviews took place in the interviewee's environment because placing the interviewee in familiar surroundings will add to the feeling of comfort and therefore the flow of conversation will be easier.

Through the ongoing process of developing sets of questions, a final form of guiding questionnaire was used in the interviews. Dividing the questionnaire into sections assisted the researcher in caring out a cross-case analysis of the collected answers to each set of questions (Appendix C). The results of this phase were compared with the findings of the board of experts, checklist analysis, and available literature review to produce final results. During the construction of the questionnaire, particular interest was applied in placing questions of similar context together to form groups. This did not only facilitate a sequence of rationale which gave ease to the flow of conversation, but also ensured that all needed areas were covered during the discussion. The major sets of questions cover the aspects of crime in Crete, the importance of location, perimeter access, public access areas, as well as building and room security. The first set of questions is designed to explore the degree of crime infiltration on the island, while at the same time provide an introductory platform for the main subject. The second set

of questions probes the affiliation of the surrounding environment and the hotel as an operation itself, looking more intensely into the relationship between influences and variables that origin beyond the boundaries of the operation and the ways and scales to which the organization can protect itself from infiltration. This resulted in identifying the possible "exterior" threats to the operation. The third and fourth sets investigate the internal aspects of the potential influence of spatial infrastructure and crime, dealing mainly with public access areas within buildings as well as protective measurements applied in guest rooms. This was expected to yield results concerning the "inner" defence system of the structure.

4. Findings

In the first phase, observations collected with the use of the checklist are being portrayed. Those pieces of information are relevant to the layout characteristics of the sampled properties and attempt to give a general description of certain infrastructure aspects that were deemed of importance based on the literature. This is then followed by the remarks of the experts' panel and the conclusions of the semi-structured interviews with the hotel managers. In order to preserve the confidentiality of survey data, the names of sampled properties were replaced, during the presentation of the findings, by their acronyms, which are the following:

LT: 1st Hospitality Property

AN: 2nd Hospitality Property

BL: 3rd Hospitality Property

AN: 4th Hospitality Property

BY: 5th Hospitality Property

BE: 6th Hospitality Property

EV: 7th Hospitality Property

BP: 8th Hospitality Property

CS: 9th Hospitality Property

RB: 10th Hospitality Property

Observation, through the application of the checklist instrument, provided a set of precise measurements which were then formed in the two data sets presented

Table 1. Raw data resulting from checklist measurements.

Check lists' raw data		Hotels										
Exterior Factors		LT	AV	BL	AN	BY	BE	EV	BP	CS	RB	Max
A	Location	2	1	1	2	2	2	2	2	1	2	2
B	Adjacent road	0	6	0	0	6	6	6	4	6	6	6
C	Number of entrances	5	8	4	4	4	4	8	5	8	8	8
D	Fencing	5	6	3	3	3	3	3	5	6	6	6
E	Lighting	3	3	3	3	2	0	2	1	3	3	4
F	Parking lot	5	5	4	2	4	4	5	2	4	4	6
G	Size of property	0	5,4	3,4	5,7	3,4	4,1	5,4	4,5	4,5	4,5	8
H	Access from the beach	2	5	8	3	8	8	6	6	0	0	8
I	Closed Circuit TV surveillance	2	0	0	0	0	0	0	8	0	4	8
J	Neighbouring constructions	7	5	2	3	5	5	4	8	4	3	8

Table 2. Check lists' raw data

Check lists' raw data		Hotels										
Interior Factors		LT	AV	BL	AN	BY	BE	EV	BP	CS	RB	Max
K	Type of building	2	0	1	2	1	0	0	1	2	2	2
L	Number of floors	2	1	3	3	2	2	1	2	4	4	4
M	Surveillance of entrances/CCTV	0	0	0	0	0	0	0	1	0	1	1
N	Access to back of house areas	1	1	1	1	1	0	1	2	2	2	2
O	Lighting of interior corridors	2	2	2	2	2	2	2	2	2	2	2
P	Access to floor rooms	4	2	2	2	2	2	2	2	2	2	4
Q	Accessibility from adj. balconies	1	0	1	0	2	1	0	1	1	2	2
R	Access to rooms with gardens	1	0	1	1	1	2	0	2	0	1	2
S	Type of exterior frames	1	1	1	1	3	4	1	3	1	3	4
T	Number of exterior frames	8	6	8	8	7	6	8	8	8	8	8

below (See Table 1 and Table 2).

The table below shows the averaged outcome of the forced entry grids produced by the panel when asked to weigh those factors that influenced exterior hotel security (Table 3).

The factors in question were:

A) Location

B) Adjacent road

C) Number of entrances

D) Fencing

E) Lighting

F) Parking lot

G) Size of property

H) Access form the beach

I) CCTV surveillance

J) Neighboring constructions

Then, the table below presents the averaged outcome of the forced entry grids produced by the panel, when asked to weigh those factors that influenced interior hotel security (Table 4). The factors in question were:

K) Type of building

L) Number of floors

M) Surveillance of entrances/CCTV

Table 3. Outcomes of exterior factors' forced entry grids

Total weighting raw score by expert	Factor letter									
	J	I	H	G	F	E	D	C	B	A
1st Expert	6	27	9	0	6	17	9	16	2	7
2ndExpert	4	20	20	5	1	14	8	6	4	7
3rd Expert	13	18	14	3	0	13	5	10	0	3
4th Expert	3	18	11	5	3	16	11	4	3	5
5th Expert	14	9	4	4	10	14	15	9	3	3
Total weighting raw score	40	92	58	17	20	74	48	45	12	25
Average weighting raw score	8	18	12	3	4	15	10	9	2	5

N) Access to back of house areas

O) Lighting of interior corridors

P) Access to floor rooms

Q) Accessibility from adjacent balconies

R) Access to rooms with garden

S) Type of exterior frames

T) Number of exterior frames

Results, merged with the normalized outcomes of the checklist provided the researchers with a relative security ranking of the sampled properties which was used to make further observations and discussions. Results from the forced entry grids (Table 3 and Table 4), multiplied by the normalized outcomes of the checklists (Table 5), and finally gave a unique scoring in each of the sampled properties, on every variable (Table 6). The higher the scoring the better security was considered to be.

Talking with hotel managers revealed that they have a very good knowledge of the overall criminality rates of the island, as well as a good feeling of what happens around their area. This knowledge is put to work when making decisions concerning security. Nobody can deny that a hospitality operation is a business and therefore profit is crucial. The low level of criminality is a recognized fact on which managers are constantly based to back up their actions or, to say it better, lack of actions. Spending on more security measures could not be sufficiently justified at the moment that there is

little threat.

The importance of security is well recognized and accepted, but its level is what is in dispute. Interviewees placed criminal origin outside the boundaries of their operations, meaning that the threat whatsoever came outside of the hotels. As for crime graduation, theft is considered by interviewees the major type of hotel-related crime that occurred on the island. Burglaries and fights are the next types of hotel crimes, in managers' view, whereas cases of sexual harassment are the following one. Concerning robberies and murders, they are extremely rare occasions. Thieves usually targeted unattended property since things left in ground floor verandahs and gardens were easy prey. In the rare event of a burglary, burglars usually took advantage of doors or windows that had been left open by guests. Based on their experience hotel managers expressed the opinion that ground floor rooms provide easier access to criminals.

4.1. Exterior security analysis of the sampled properties
4.1.1. Location
Observation showed that location seemed to play a very vital role in the amount of security that hospitality and establishment can enjoy. The findings of this research strongly suggest that rural areas have the advantage over urban simply because of the immense difference in the volume of potential attackers. Experts through their eyes rated location as seventh in importance. This does not mean that they don't respect the role of location in security. Location is highly capable

Table 4. Outcomes of interiorfactors' forced entry grids

Total weighting raw score by expert	T	S	R	Q	P	O	N	M	L	K
1st Expert	0	25	5	9	7	15	3	20	3	9
2nd Expert	6	7	0	0	3	13	1	21	8	8
3rd Expert	8	11	5	3	7	23	2	17	2	19
4th Expert	14	20	17	8	8	4	6	5	3	9
5th Expert	10	10	9	14	4	13	8	17	2	0
Total weighting raw score	38	73	36	34	29	68	20	80	18	45
Average weighting raw score	8	15	7	7	6	14	4	16	4	9

Table 5. Rating properties by interior and exterior security factors

Check lists' raw data		Hotels										
Factors		LT	AV	BL	AN	BY	BE	EV	BP	CS	RB	Max
A	Location	8	4	4	8	8	8	8	8	2	4	8
B	Adjacent road	0	8	0	0	8	8	8	5,32	8	8	8
C	Number of entrances	5	8	4	4	4	4	8	5	8	8	8
D	Fencing	6,65	8	4	4	4	4	6,65	6,65	8	8	8
E	Lighting	6	6	6	6	4	0	4	2	6	6	8
F	Parking lot	5	5	4	2	6	6	6,65	2	4	6	8
G	Size of property	0	5,4	3,4	5,7	3,4	4,1	5,4	4,5	4,5	4,5	8
H	Access from the beach	2	6,65	8	3	8	8	6	6	0	0	8
I	Closed Circuit TV surveillance	2	0	0	0	0	0	0	8	0	4	8
J	Neighbouring constructions	7	6,65	2	3	5	5	4	8	4	3	8
K	Type of building	8	0	4	8	4	0	0	4	8	8	8
L	Number of floors	4	2	6	6	4	4	2	4	8	8	8
M	Surveillance of entrances/CCTV	0	0	0	0	0	0	0	8	0	8	8
N	Access to back of house areas	4	4	4	4	4	0	4	8	8	8	8
O	Lighting of interior corridors	8	8	8	8	8	8	8	8	8	8	8
P	Access to floor rooms	4	4	4	4	4	4	4	4	4	4	8
Q	Accessibility from adj. balconies	4	0	4	0	8	4	0	4	4	8	8
R	Access to rooms with gardens	4	0	4	4	6	8	0	8	0	4	8
S	Type of exterior frames	2	2	2	2	6	8	2	6	2	6	8
T	Number of exterior frames	8	6	8	8	7	6	8	8	8	8	8

of influencing security, but the implications caused by a bad location can be corrected with the utilization of means such as additional surveillance, CCTV, and lighting. The cost was not always the main concern in the minds of experts.

Managers on the other hand were more cost-sensitive and were always looking for ways to increase their properties' protection cost-free. They pointed out that in densely populated areas, security is distracted by multiple potential dangers. The larger the number of people, the harder it is for security to check and control the area as the possibility of criminals hiding in the crowd rises dramatically. On the other hand, rural areas provide better conditions for surveillance. The intentions of a person found wandering in an isolated area near the property can be easily put in question, as the operation tends to mentally extend its frontiers covering the surrounding area.

Table 6. The weighting of hotel security factors

Weighted Security Scores		Hotels										
	Exterior security factor	LT	AV	BL	AN	BY	BE	EV	BP	CS	RB	Max
A	Location	40	20	20	40	40	40	40	40	10	20	40
B	Adjacent road	0	19,2	0	0	19,2	19,2	19,2	12,8	19,2	19,2	19,2
C	Number of entrances	45	72	36	36	36	36	72	45	72	72	72
D	Fencing	63,8	76,8	38,4	38,4	38,4	38,4	63,8	63,8	76,8	76,8	76,8
E	Lighting	88,8	88,8	88,8	88,8	59,2	0	59,2	29,6	88,8	88,8	118,4
F	Parking lot	20	20	16	8	24	24	26,6	8	16	24	32
G	Size of property	0	18,4	11,6	19,4	11,6	13,9	18,4	15,3	15,3	15,3	27,2
H	Access from the beach	23,2	77,1	92,8	34,8	92,8	92,8	69,6	69,6	0	0	92,8
I	Closed Circuit TV surveillance	36,8	0	0	0	0	0	0	147	0	73,6	147,2
J	Neighbouring constructions	56	53,2	16	24	40	40	32	64	32	24	64
Total Weighted Score		374	446	320	289	361	304	401	495	330	414	689,6
	Interior security factor	LT	AV	BL	AN	BY	BE	EV	BP	CS	RB	Max
K	Type of building	72	0	36	72	36	0	0	36	72	72	72
L	Number of floors	14,4	7,2	21,6	21,6	14,4	14,4	7,2	14,4	28,8	28,8	28,8
M	Surveillance of entrances/CCTV	0	0	0	0	0	0	0	128	0	128	128
N	Access to back of house areas	16	16	16	16	16	0	16	32	32	32	32
O	Lighting of interior coridors	109	109	109	109	109	109	109	109	109	109	109
P	Access to floor rooms	23,2	23,2	23,2	23,2	23,2	23,2	23,2	23,2	23,2	23,2	46,4
Q	Accessibility from adj. balconies	27,2	0	27,2	0	54,4	27,2	0	27,2	27,2	54,4	54,4
R	Access to rooms with gardens	28,8	0	28,8	28,8	43,2	57,6	0	57,6	0	28,8	57,6
S	Type of exterior frames	29,2	29,2	29,2	29,2	87,6	117	29,2	87,6	29,2	87,6	117
T	Number of exterior frames	60,8	45,6	60,8	60,8	53,2	45,6	60,8	60,8	60,8	60,8	60,8
Total Weighted Score		380	230	352	360	437	394	245	576	382	624	706

4.1.2. Adjacent road

Observation revealed that properties in urban or sub-urban areas, which were not directly neighboring with other facilities, had some sort of open front to fight against. Neighboring with something as long as it was not a source of additional troubles, rendered the operation free from concerns about securing that side, transferring security to the neighbor. Experts rated the existence of adjacent roads as last in comparison to other external factors, pointing to a variety of methods that could enhance perimeter coverage at a relatively high cost.

The majority of managers believed that roads adjacent to their properties do not consist a threat to providing security. In particular, some of them pointed out that adjacent roads strengthening the natural surveil-lance. Criminals would be scared of thinking that anybody who passes by could easily see them jumping over or going through the fence. Had there not been a road, it is highly unlikely that people of good intentions would be passing from that point in any part of the day, hence allowing criminals to cross the fence undisturbed.

4.1.3. Number of entrances

In this case, an observation confirmed what common-sense dictated: The bigger the number of entrances, the higher the threat to security. Both managers and experts unanimously agreed to that. Managers expressed their concerns that increasing the number of entry points requires multiple amounts of resources for adequate surveillance. Security experts explained that multiple entrances weaken the possibility of security guards being aware of the number of people

on the property at any time. This occurs mainly because people can access the facility from one point and leave from another. Not knowing who is on the property does not allow security personnel to assess possible danger. At the same time, criminals when presented with more ways in or out of the property, have greater chances of discovering a weak point and taking advantage of it.

4.1.4. Fencing

Although observation revealed that fences in some of the sampled properties were not in the best condition, it was a common practice to take additional fortifications in areas that indicated high levels of risk. The panel of experts ranked this variable fourth in the exterior group, indicating the value of its importance in hospitality security. Experts said that there is no way of succeeding in keeping a property crime-free, without some sort of enclosure that will ensure some levels of protection for perimeter sections. For managers, who liked to think that all security threats originated beyond the limits of their operation, keeping unwanted people out came very high in their agenda. They believed that proper fencing was one of the prime things that should be considered when dealing with security in the hospitality sector. The use of flowers bushes and trees to cover the fences also gave a couple of more benefits other than increasing the aesthetics of the construction.

4.1.5. Lighting

Available literature was keen to recognize the fact that higher lighting conditions are a very good means of increasing safety in certain areas that shared characteristics attractive to criminals (Palmer, 1989; Sfiraki, 2019). Experts expressed the notion that criminals do not want to be seen and will go to immense lengths to stay covered until the last moment. High lighting reduces the number of good hiding spots, making it more difficult for criminals to ambush their victims or hideout.

Managers agreed on that fact and applied lighting as means of increasing security in several cases. However, they indicated that there are some problems when applying increased lighting in hospitality operations. Lighting does not only create a high operational

and maintenance cost but it often a source of nuisance for guests as well. As younger properties tend to be squeezed in smaller sites, it is very common for areas that need additional lightings, such as parking lots or loading bays, to be in very close proximity to room areas. This causes intense light to penetrate guestrooms, disturbing the sleep of guests. Furthermore, intense lighting spoils the romantic scenery which most guests are likely to take advantage of in a resort hotel.

4.1.6. Parking lot

Observation showed that hotel parking lots are secondary targets for hotel security. Although literature pointed out that parking lots were an area of high criminality and suggest adequate levels of lighting in the parking areas, this does not apply in the selected location. Neither experts nor managers thought that parking lots are a threat to guest security because parking areas are located within the visual range of the guarded gates. This indicates a brilliant way applied by the industry to achieve better security results and a splendid example that shows how space allocation can directly affect security.

4.1.7. Size of the property

Field observations pointed out a direct connection between property size and security level. Experts admitted that the bigger a property the more recourses are needed to ensure security. Security agents were also keen to underline the fact that modern technology has provided means to countermeasure property sizes, such as motion sensing magnetic fields and radar systems capable of calculating the weight of targets. Nonetheless, managers are unwilling to pay the heavy cost to acquire such technology. Although someone could suggest the obvious solution of positioning more security personnel, operations are unwilling to have large numbers of security guards patrolling their sites, in fear that this will cause insecurity to guests.

4.1.8. Access from the beach

Observation discovered that all properties in areas that allowed for natural beach access had problems with unwanted people using their right to beach access as an excuse to enter the premises. In previous cases, variables were placed lower in the experts' ranking as

they could come up with an array of alternative solutions, some of which might have been more costly than what managers were willing to pay but still applicable. When it came to beach access, experts' esteem of the problem was very high and identify it as the biggest threat to maritime resort hotels. Managers could only apply more manpower to cope with the increasing number of intruders. This almost doubled the cost of security and was one of the reasons that forced some of the properties to outsource security, as internal personnel is incapable of dealing with it. Moreover, the operations' image is often targeted as guards who are considered to be the public face of the operation, have to protect guests while shielding the interest of the operation, without hurting anybody or causing alarm.

4.1.9. Closed Circuit TV surveillance

Observation showed that hotels that use Closed Circuit TV surveillance to monitor their facilities have an advantage over those that don't. The certainty that premises are constantly being monitored was enough to discourage potential criminals and create a sense of security for possible victims. Experts, who ranked CCTV top in their list, provided numerous examples where such means may balance security hazards. Yet, managers are reluctant to adopt the extensive use of CCTV surveillance on the premises, mainly because of the legal constraints related to privacy protection and secondly due to its high cost. In addition to these reasons, it was noticed on some occasions, that installation of cameras had caused discomfort to guests.

4.1.10. Neighboring constructions

The type and quality of neighboring facilities have a direct impact on the operation's security. Neighboring a nightclub will not only produce noise pollution but a great number of heavily drunk barflies as well. Experts ranked threats from neighboring facilities sixth in importance. They focused especially on the type of next-door operation as this often defined the levels of security applied in their premises. As one expert said: "neighboring with a bank and a municipal playground is not the same thing". Managers also revealed that the type and quality of a neighboring facility influence their levels of security and affect directly criminality levels. They indicated that for a hospitality operation, the next

best thing to having no neighbors at all is to neighbor with a similar facility of a superior class, whereas the worst thing that could happen is to operate next to a facility of an inferior class.

4.2. Interior security analysis of the sampled properties

4.2.1. Type of building

The observation came across two types of buildings, single or monolithic which had identical multiple floors, and Multiple or spread-out which had a lower building profile and a variety of designs. Concerning security, monolithic constructions are by far easier to secure. This is established by simple facts. The smaller number of entrance points and the simpler the corridor layout, the easier it is to secure the building. Compact, subsequent, identical floor patterns with straight double-loaded corridors require less time and personnel to secure when opposed to corridor mazes spread around single floored, semi-autonomous buildings. Furthermore, the main buildings have several workstations and facilities located on the ground floor. This provides more chances of natural surveillance, as personnel can control in-house areas and exits. Experts rated building type fourth in their evaluation, agreeing with the managers on the fact that the simpler and compact the design of a building is, the easier it is to ensure effective crime protection at low costs. Managers understood the potential of single buildings, however, they were not willing to exchange successful spread out designs for skyscrapers, since guests of resort hotels are in favour of diversification. People that spend the entire year in apartment blocks, surrounded by cement want to escape from the routine caused by typical floor layouts, subsequently repeated floor after floor. Spread-out buildings have the advantage over monolithic constructions since they can host rooms that can provide more privacy and independence.

4.2.2. Number of floors

The observation concerning this variable revealed a contradiction with the literature. Newman (1972) was keen to point out that the higher a building was the higher the criminality rates. This notion was a result of observations on public housing buildings. On the contrary, hospitality facilities enjoy higher levels of security as the distance from the ground increases. The

panel of experts was less considered about this factor, ranking it last in its group. Managers did not seem to directly bind floor number and criminality but strongly expressed that their experience indicated that ground floor rooms gathered by far the vast majority of criminal outbreaks, mainly due to ease of access and escape.

4.2.3. Surveillance of entrances/ CCTV

It is very simple for anyone to notice that in almost every hospitality operation the front desk is within sight of the main entrance. This serves multiple purposes. As newly arrived guests enter the building chances are that among the first facilities of the hotel that they are going to use, other than the restroom, is the reception desk. This mainly allows for a better quality of service. At the same time, natural surveillance is also achieved through the correct space allocation. The industry thought that since the reception desk should be close to the main entrance, it would be a good practice to place it facing the door so that desk staff could also keep an eye on people entering the premises. This is a wonderful example of how industry experience utilized natural surveillance. Direct surveillance dramatically decreases the volume of crime over the supervised area. Nowadays technology allows for indirect surveillance wherever natural monitoring cannot be established. Only a few things can deceive the eyes of a CCTV system, rendering it one of the most useful weapons against crime. Based on those assumptions, experts voted it top on their list. As managers we're deeply concerned about outsiders penetrating their facilities, effectively surveilling entrances meant that the core of their operations could be protected. Although adequate surveillance was desired, it was mainly in the younger properties, that the cost of CCTV systems was facilitated.

4.2.4. Access to back of house areas

Generally speaking, observation showed that access to the back of house areas was neglected. This mostly came as a result of increased natural surveillance as personnel by default frequenting these "off-limits" areas could easily pick out unfamiliar faces, whose intentions were directly put in question if not accompanied by another member of the staff. Experts attributed little importance to this variable believing that criminals were rarely bold enough to risk entering

so heavily surveilled areas. Managers pointed out that during operational seasons, primarily rooms and secondarily public areas close to the seafront were mostly targeted. This trend shifted to the back-of-house areas when the hotels were closed as this is where valuable items are stored. As there was limited need for access to such areas when the hotels were not operating and due to the value of stored goods, additional measures such as security patrols, complete and constant locking down of entire sectors were applied to prevent crime. As far as operation seasons are concerned, this study points toward the principle that access to the back of house areas is not of significant importance to hotel security.

4.2.5. The lighting of interior corridors

As interior corridors are, by definition of the word, inner parts of the building, there are limited resources that can be utilized to help maintain low criminality rates. Lighting and surveillance are the two most common. Observation showed that hospitality operations tend to employ lighting as a norm. The higher the lighting levels the higher the levels of self-assurance experienced by people using them and the lower the chances of criminal acts taking place in them, as natural surveillance becomes easier. This fact is not only supported by literature but by previously expressed observations and outcomes related to other variables. Experts indicated how important lighting is ranking it third in their preferences, judging those higher combinative results can be achieved by teaming up lighting with CCTV surveillance. Managers understood the importance of lighting in interior corridors and were willing to accept the cost. Under this scope, the researchers believe that adequate lighting is the best possible way of keeping interior corridors crime-free.

4.2.6. Access to floor rooms

This variable was not utilized as it was proven that other variables such as interior corridor lighting, entrance surveillance, and type of buildings overlapped its value. Access to rooms is either included in building access or incorporated in entrance surveillance. The only thing that observation indicated is that access to floor rooms of secondary buildings is often much easier opposed to the central building, as secondary

buildings are often unattended.

4.2.7. Accessibility from adjacent balconies

Observation related to this variable revealed that little or no concern was given on behalf of architects to ensure adequate protection from occupants of adjacent rooms. This meant that in the majority of the sampled properties, one could easily jump, or even simply walk from one balcony to another with no particular risk. Experts did not find this variable of particular importance, ranking it third from the end. This low level of importance was also supported by managers who based on their experience, failed to come up with a sufficient number of instances capable of attaching some importance to it. The main reason for this is that although it is particularly easy for one to jump from one balcony to another it is equally easy for others to see that, a scene that would raise suspicions.

4.2.8. Access to rooms with garden

Extensive observation on access to rooms with gardens indicated an extremely weak point in hotel security. Having the advantage of the ground approach, which ensures easy escape, criminals were in many cases challenged to act. Gardens, even though stated as private, were completely open to anyone. The general idea among managers and experts is that although the problem has been identified, little could be done on-site, without turning gardens into private fortresses.

4.2.9. Type of exterior frames

Observation revealed that, even when criminals were able to gain access to the public areas, robust exterior frames made access to rooms extremely difficult if not impossible. Experts believed that the type of exterior frames had a direct psychological impact on the minds of criminals according to the perceived difficulty in breaching their security. But, as managers pointed out, breaking and entry was an extremely rare event in upmarket hotels and had only occurred during the non-operating seasons. Managers saw no security importance in the type of exterior frames and when interviewed stated that the factors that influenced their choices were in order of importance cost, aesthetics, durability, and future maintenance. What was more important than the type of exterior frames was the type of fitted locks and the presence or absence of a

viewport. Unfortunately, as these variables were not foreseen, they were not incorporated in the experts' forced entry grids. Nevertheless, the additional investigation suggested that key card locks offer the highest levels of anticrime security. Viewports were also considered a very good enhancement, unlike safety chains which were considered unnecessary.

4.2.10. Number of exterior frames

The observation did not appear to produce any particular findings related to this variable, the very high number of room variations in the sampled properties, exceeded the limits of this study. The norm was thought that low category rooms which represented the majority in all properties had one entrance door and a wide sliding balcony, which was also used as the entrance in ground floor rooms. Experts underlined the fact that the higher the number of existing exterior frames, the higher the number of entry points from which the criminal can choose. Presenting criminals with an increased variety of choices means that they will be able to choose the weakest or more convenient one, based on available time and skills. Managers highlighted that, based on their experience, in the cases where criminals entered rooms, it was because guests had left a door or window unlocked or wide open. Managers instructed housekeeping and maintenance personnel to check on all doors and windows upon leaving the rooms and lock anything that was found open.

When it comes to the relative property ranking instrument, it was devised in the hope that, when the researchers talked with people in the sampled hotels, the relative ranking would be reflected in the volume of crime. As the notion that criminal danger derives outside of the operation's limits illustrates the view of the local industry representatives, two sets of the ranking were produced, one for interior and a second for exterior security, so that it would be possible to make comparisons between levels of exterior and interior security of the sampled properties (Table 7 and Table 8).

Table 7. Relative property ranking based on hotel security exterior factors

Properties	Hotels										
	LT	AV	BL	AN	BY	BE	EV	BP	CS	RB	Max
Indexed security score	54	64	46	42	52	44	58	72	48	60	100
Ranking	5	2	8	10	6	9	4	1	7	3	

Table 8. Relative property ranking based on hotel security interior factors

Properties	Hotels										
	LT	AV	BL	AN	BY	BE	EV	BP	CS	RB	Max
Indexed security score	54	33	50	51	62	56	35	82	54	88	100
Ranking	6	10	8	7	3	4	9	2	5	1	

5. Discussion/ Conclusions

Generally speaking, the study has contributed to the understanding of the issue to some extent; an issue that has proved to be more complex and challenging than was expected. A certain amount of success in the primary objective has been achieved, whereas new aspects have been brought to light in regards to the hospitality crime issue.

5.1. Theoretical and practical implications

It derives from the findings, especially from the interviews, that architects should have taken a better look at the day-to-day operation of a hospitality property before designing buildings. Placing a large number of ground floor windows or open pathways could allow for more lighting and better access during the day, but at the night or even worse during the winter, when the property was shut down, those features became a constant headache to security.

An interesting finding that should be underlined is that all participating sides agreed to the fact that due to the nature of the industry, it is virtually impossible to render a hospitality operation crime-free without having a direct and negative impact on the quality of the official service. A hotel is a property where guests have to experience leisure, consequently, it is not possible to design a facility that is completely secure with regards to spatial infrastructure. Because of that, a determined criminal cannot be easily kept out of hospitality installations. Nevertheless, opportunists, people that are not criminals but see an opportunity to commit a crime, can be steered away by the application of simple, low-cost ideas within the general concept of hotel security.

Regarding access from the beach, spatial definition through landscaping, as pointed out by literature, could be the solution to this problem. Subsequent alternation of increasingly semi-private zones would not only warn people that they are entering private property, but it would also give personnel more time to react as trespassers would need to cross a wider area before reaching inner facilities (Crowe, 2000). This of course is easier said than applied as there is still the problem of personnel being capable of clearly identifying guests from wanderers.

Another issue that emerged over the first steps of the field observations and was later backed up by the analysis of the interviews is that ground floor rooms and rooms with gardens were easily accessible and vulnerable to much more attacks than rooms located high above the ground. Even though it is admitted that ground floor rooms suffered from increased hazards, the only thing that hotel managers could suggest was to build even higher fences around them. Suggestions were made that by increasing perimeter and beach access security, potential criminals would eventually be kept away from such areas. The application of some simple ideas, such as the use of natural materials, as means of diversifying security areas or the allocation of work stations and facilities on specific positions or entrances perhaps increase the aesthetic of the property along with the security standards. It was also noticed that not higher but wider (thicker) fences had a more profound effect on security. Those mea-

sures might be effective when criminals are outside the operation's limits but are quite useless when facing criminals that nest inside the property. Instead of building high walls, perhaps partitioning gardens with the use of short plants combined with vestigial doors, can have the desired effect. Creating multiple zones can lead to increasingly rising levels of private areas. Having people cross multiple zones leaves no doubt about their intentions to reach a specific area. As the rightful occupant's certainty of ownership is strengthened one zone after the other, he will not only protect his territory but look over the neighboring areas as well.

Based on the knowledge gained by managers, keeping down the number of exterior frames, not only narrows down entry points, but the chances of guests forgetting to lock something down.

Analysis of the interviews revealed some aspects of the managers' way of thought that were neither contradicting nor compatible with the opinions expressed by the panel of experts. It was simply a case of looking at the same thing from different points of view. Experts were concerned about the quality of the achieved security, whereas managers seemed to look for more cost-effective solutions. This is pretty much understandable, as managers have to cope with the financial implications of running the operation. Achieving high amounts of security often entailed that a great amount of money should be spent on non-productive facilities such as the parking lot. A happy medium had to be worked out to achieve a satisfactory value for money outcome, without completely jeopardizing the operation's security. Hotel security in Cretan upscale hotels is mainly outsourced as has been mentioned before. This again brought in the cost factor which in combination with low criminality, left room for plenty of debating and provided a great deal of reasoning, concerning the number of guards that should be employed to ensure adequate security. The bottom line is that managers had a limited amount of funds to work with and the operation's survival was often depending on how those funds are allocated. Spending on additional security was not considered a sound decision as experience strongly supported that there was no substantial need.

Nevertheless, managers did not seem to underes-

timate the value of spatial infrastructure when it came to security. But other than the analysed examples of double use of main gate's guards, natural surveillance of beach activity by beach personnel, and proximity between the front desk and main entrance, they were unable to produce more examples where spatial infrastructure interacts with security.

5.2. Limitations and future research

Although there were several examples where the hospitality industry through collective experience had shown deliberate use of space allocation to enhance security, the link between spatial infrastructure and crime was detected but it was not very strong, in terms of frequency. Physical infrastructure did not seem to be the only thing influencing crime. Low criminality rates of the island could have also played a vital role in the effects of this research. Choosing an area with low criminality, affected the outcome of this research. Perhaps the findings could be different if a similar study had been conducted in an area with more distinct levels of crime. Additionally, managers in general, are very reluctant when appealed to identify, accept and analyse a matter so delicate as a crime in the hospitality industry; especially when the questions come to the matter of staff's integrity. Having gone through the entire process, the researchers can provide ideas on how future research could be improved. Seasonal trends, with regards to crime focus points, were another influencing variable that emerged as a result of this study. Further investigation should take place inquiring the differences in hotel security between operating and nonoperating seasons as findings strongly support that there is a significant change in security volume as well as shifts in areas of concentrated interest. Future research should also look at customer perception about security, as perception and actual security might be very different things.

Funding statement

Conflict of interests

No conflict of interest

ORCID

Georgios Triantafyllou

⬤ | https://orcid.org/0000-0001-9717-4055

Eirini Stratakia

⬤ | https://orcid.org/0000-0003-3416-9122

Michael Volyrakis

⬤ | https://orcid.org/0000-0003-3065-231X

References

Axler, B.H. (1974). *Security for Hotels, Motels, and Restaurants*. N.Y.: ITT Educational.

Bach, S., & Pizam, A. (1996). Crimes in Hotels. *Hospitality Research Journal*, 20(2), 59-76. https://doi.org/10.1177/109634809602000205

Bloom, J. (1996). A South African Perspective on the Effects of Crime and Violence on the Tourism Industry. In Pizam, A., , Mansfeld, & Y. (Eds.), *Tourism, Crime and International Security Issues* (pp. 77-90). John Wiley & Sons Ltd.

Buckley, P.J., & Klemrn, M. (1993). The Decline of Tourism in Northern Ireland. *Tourism Management*.

Burstein, H. (1980). *Management of hotel and motel security*. New York: Dekker Inc.

Crowe, T.D. (2000). *Crime Prevention Through Environmental Design: Applications of Architectural Design and Space Management Concepts* (2 ed). Kentucky: Butterworth-Heinemann.

Detwiler, A. (1997). *Slam the Door on Hotel Crime*. Palmhouse Publishing.

Glaser, B.G., & Strauss, A.L. (1968). *The Discovery of Grounded Theory; Strategies for Qualitative Research*. London: Weidenfeld and Nicolson.

Ho, T., Zhao, J., & Dooley, B. (2017). Hotel crimes: An unexplored victimization in the hospitality industry. *Security Journal*, 30(4), 1097-1111. https://doi.org/10.1057/sj.2016.11

Huang, W.S.W., Kwag, M., & Streib, G. (1998). Exploring the relationship between hotel characteristics and crime. . *Hospitality review*, 16, 81-93.

Hughes, D. (1984). *Guide to Hotel Security*. Aldershot: Gower Publishing Company Limited.

Jones, P., & Groenenboom, K. (2002). Crime in London hotels. *Tourism and hospitality research*, 4(1), 21-35.

Lebruto, S.M. (1996). Legal Aspects of Tourism and Violence. *Tourism, Crime and International Security Issues*, (pp. 297-310).

Lockwood, A., & Jones, P. (1984). *People in the Hotel Catering Industry an Introduction to Behavioral Studies*. London: Cassell Educational Limited.

Mason, J. (1996). *Qualitative Researching*. London: Sage Publications Inc.

Mawby, R.I. (2017). Crime and tourism: what the available statistics do or do not tell us. *International Journal of Tourism Policy*, 7(2), 81-92.

Newman, O. (1972). *Defensible Spaces: Crime Prevention Trough Urban Design*. N.Y.: Macmillan.

Palmer, R.A. (1989). The Hospitality Customer as Crime Victim: Recent Legal Research. *Hospitality Education and Research Journal*, 13(3), 225-229.

Pizam, A. (1999). A Comprehensive Approach to Classifying Acts of Crime and Violence at Tourism Destinations. *Journal of Travel Research*, 38(1), 5-12. https://doi.org/10.1177/004728759903800103

Povey, D., & Cotton, J. (1998). Recorded Crime Statistics England and Wales. *London: Government Statistical Service*.

Prideaux, B. (1996). The Tourism Crime Cycle: A Beach Destination Case Study. *Crime and International Security Issues*, (pp. 59-76).

Sfiraki, M. (2019), What an architect should keep in mind when designing a hotel. Retrieved from https://www.hotelieracademy.org/what-should-an-architect-keep-in-mind-when-designing-a-hotel/

Appendix I. Physical Infrastructure Check List

Physical Infrastructure Check List

Date: . . .

Location: _____
Property Name: _____
Contact: _____ Tel. _____
Category: Lux ☐   A ☐   Number of levels: ___

Land:
Location:
Size: ___ sq.m   Covered: ___ sq.m
Built ratio:
Adjacent road Y ☐ Nr of sides ___
Main entrance gate: Y ☐ N ☐ Guarded: Y ☐ N ☐
Closed circuit TV surveillance: Y ☐ N ☐
Access from secondary entrances: Y ☐ N ☐
Nr of entrances: ___
Type of fencing: ___   Continuous? Y ☐ N ☐
Perimeter length: ___ m   Height: ___ m
Border with coast line: Y ☐ N ☐ Length: ___ m
Access form beach: Y ☐ N ☐ Guarded: Y ☐ N ☐
Controlled: Y ☐ N ☐
Bordering constructions: _____

External public areas:
CCTV surveillance: Y ☐ N ☐
Clear footpath marking according to CPED: Y ☐ N ☐
Adequate lighting: Y ☐ N ☐

Parking lot:
Ease of visual contact: Obstructed ☐ Limited ☐ Extended ☐
Distance from Gate: ___ m   Guarded: Y ☐ N ☐
Distance from nearest building: ___ m CCTV: Y ☐ N ☐
Number of spaces: ___   Adequate lighting: Y ☐ N ☐

Main Building:
Type of building: ___
Number of levels: ___   Number of floors: ___
Number of entrances:
Visual contact of entrances with manned stations: ___
CCTV surveillance: Y ☐ N ☐
Access to Back of house areas:
CCTV surveillance: Y ☐ N ☐
Number of fire exits: ___
Armed with surveillance system: Y ☐ N ☐
Space allocation: _____
_____
_____
_____
_____
_____

Secondary Buildings:

	A	B	C	D	E	F
Type of building:						
Number of floors:						
Number of entrances:						
Number of fire exits:						
Armed with surveillance system:						
CCTV surveillance:						
Visual contact of entrances:						

Space allocation: _____
_____
_____
_____
_____

Rooms:
Number of rooms: ___ Number of beds: ___
Number of room types: _____
Av. room size by type: _____
Access to floor rooms: Obstructed ☐ Limited ☐ Extended ☐
Dimensions of typical interior corridor: _____
Lighting levels: L ☐ M ☐ H ☐
Nr. of fire exits per floor: ___ One way locks: Y ☐ N ☐
Accessibility of fire escape routes: L ☐ M ☐ H ☐
Accessibility from adjacent balconies: L ☐ M ☐ H ☐
Dimensions of main entrance: _____
Type of frame: ___   Type of lock: ___
View port: Y ☐ N ☐   Safety chains: Y ☐ N ☐
Number of exterior flames: Doors: ___ Windows: ___
Dimensions of exterior frames: _____
Type of frames: ___   Type of locks: ___
Type of glassing: ___   Thickness: ___ mm
Number of ground floor rooms: ___ With garden: ___
Access to garden rms: Obstructed ☐ Limited ☐ Extended ☐
Type of garden gate: _____
Entrance from garden: _____
Type of garden fencing: ___   Height: ___ m
Dimensions of exterior frames: _____
Type of frames: ___   Type of locks: ___
Type of glassing: ___   Thickness: ___ mm
Number of exterior frames: Doors: ___ Windows: ___
Dimensions of typical exterior corridor: _____
Lighting levels: L ☐ M ☐ H ☐

Times monitored by personnel during check: ___
Ease of access to restricted areas: L ☐ M ☐ H ☐

Appendix II. Forced entry grids

What presents a greater challenge to being able to asure a better security?

Evaluation Matrix for the Relative Weighting of Hotel Security Exterior Factors

Criteria

Importance
3 - Major importance
2 - Medium importance
1 - Minor importance
0 - Letter/Letter
     equal importance each
     scored zero points

Relative Weighting

Comments:

- A — Location
- B — Adjusent road
- C — Nrumber of entrances
- D — Fencing
- E — Lighting
- F — Parking lot
- G — Size of property
- H — Access from the beach
- I — Closed Circuit TV surveillance
- J — Neighbouring constructions

Factor letter	J	I	H	G	F	E	D	C	B	A
Total weighting raw score	6	27	9	0	6	17	9	16	2	7

Evaluation Matrix for the Relative Weighting of Hotel Security Interior Factors

Criteria

Importance
3 - Major importance
2 - Medium importance
1 - Minor importance
0 - Letter/Letter
     equal importance each
     scored zero points

Relative Weighting

Comments:

- K — Type of building
- L — Number of floors
- M — Surveillance of entrances/CCTV
- N — Access to back of house areas
- O — Lighting of interior coridors
- P — Access to floor rooms
- Q — Accessibility from adj. balconies
- R — Access to rooms with gardens
- S — Type of exterior frames
- T — Number of exterior frames

Factor letter	T	S	R	Q	P	O	N	M	L	K
Total weighting raw score	0	25	5	9	7	15	3	20	3	9

Appendix III. Questionnaire
Crime in Crete

How important do you think security is for upscale hotels in Crete?

Is it a matter of true need or is it a matter of image?

How would you categorize tourist crime incidents that occur in Crete?

How often do you think such kinds of incidents take place?

How would you categorize the origin of criminals?

Location:

How important do you think the location is when it comes to crime?

Is crime more prevalent in isolated or heavily populated areas?

What role do you believe that neighboring facilities play in enhancing (or not) security?

Does the presence of adjoining roads affect security?

Perimeter access:

What sort of measures can be taken to obstruct crime?

How important do you think that ease of access is for a criminal?

Do you believe that presenting a criminal with physical barriers will act as a discouraging agent?

What factors affect the design of your perimeter fencing?

We both know that access to the beach has to be kept open to the public; do you think that this could be the cause of additional security problems? In what way?

Public access areas:

Lighting/CCTV/Patrols

Building security:

Fire exits CCTV entrance visual contact from manned outlet

Room security:

What factors influenced your choice of frames to install on doors and windows? [cost, appearance, security, …] How important was security in making your choice?

Is there a difference between interior and exterior frames?

What factors influenced your choice of locks to install on doors and windows? [cost, appearance, security, …] How important was security in making your choice?

In rooms/villas featuring private swimming pools and gardens are there any additional security measures implemented?

Belief vs implementation:

Which protective measures do you think that can positively contribute to crime prevention?

Which of the measures mentioned above are you using in your hotel?

Security department:

Does your hotel have a separate budget for security?

Do you have your security personnel or do you outsource security? How many?

Why have you decided to outsource security?

Do you screen personnel before hiring them?

Other than outsourcing security personnel have you consulted a security advisor?

Our security staff uniformed or not? (Why?)

Do you think that the presence of uniformed security staff creates a climate of comfort for the guests?

In-house incidents:

Can you think of any recent security incidents?

What additional measures did you take after the incident?

Do you know of any problems with the design of the hotel that now cause weaknesses or flaws in total security implementation?

Finalizing…

If you had to choose between customer comfort and security what would come first in your agenda?

Based on your personal experience do you think that there could be any sort of relationship between physical infrastructure and hotel-related crimes?

Not grouped yet…

Does your hotel have a house safe?

What extra security measures do you apply when the hotel is shut down for the winter season?

Cultural context / power relationships

What types of crime occur in Crete?