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THE DYNAMICS OF TOURISM AND THE INTERNATIONAL ENVIRONMENT: THE GREEK EXPERIENCE

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Abstract

Tourism, which is gradually becoming a more industrialized economic activity, has faced constant structural changes as its functions are greatly influenced by technological advances, international competition and specialization. The implementation of new information and communication technologies and the launching of new products have led to a broader, more dynamic globalization of the tourism industry, giving it a boost and new profile through the emergence of new, dynamic destinations, resulting in spatial redistribution. Within this framework, some traditional destinations, such as Greece, have to address the challenges resulting from a continuously changing international environment. Drawn upon the Greek experience, it is argued that the tourism product's reassessment could be achieved by applying the analysis of external factors, the curves of tourism supply and demand, the life cycle model, the curve of tourism frequency, and the logistics curve. It is suggested that in this way, the dynamics of the tourism industry can be described and new strategies of qualitative upgrading and rejuvenation, which are currently the most significant, may be both determined and assessed.

JEL classification: L83, B2, D12, 010

Keywords: tourism dynamics, external factors, demand and supply curves, life cycle model, frequency and logistics curves, strategy, Greece.

1. Introduction - Analysis Framework

Economic development, primarily focused on the augmentation of productivity profits, has allowed the continuous rise of leisure time, in the framework of the gradual augmentation of consumers' spending power, which constitutes the activating force of tourism demand (Hall, 2002; Spindler, 2003). The evolution in tourism demand, in its turn, dynamically influences the tourism and travel industry,

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which is characterized by significant fluctuations, as being completely part of the 'new economy' and the 'leisure society' (Henderson, 1994; MacCannell, 1989; Poon 2002). For many years, tourism had been considered as a supporting and pre-industrial activity. The undoubted growth in the economic prosperity of the major industrial countries together with the travel revolution brought about through holidays with pay, lower international transport costs in real terms and information technology, has seen world tourism grow to a truly global business. However, one should not ignore a series of difficulties related to its conceptualization and determination as an economic sector and its substantial recognition as a dynamic industry (Goeldner & Ritchie, 2000; Spindler, 2003). Regarding the Hellenic economy, there are many factors, which necessitate the economic analysis of tourism. In this study, these factors are summarized as follows:

(a) Greece is considered as an important tourism destination, occupying worldwide fifteenth position with regard to the inbound tourism arrivals (hosting more than 14 million international tourists in 2009); and tenth position with regard to the international tourism receipts (about 12.5 billion euros). This performance of the country in the global tourism industry might be the starting point from which to formulate a series of questions concerning the tourism dynamics and its significant contribution to Greece's integrated development (Soteriades & Arvanitis, 2006; Varvaressos, 2008). These questions are more crucial for a number of New Tourism Destinations (NTD, i.e. countries of Asia, Africa and Eastern Europe regions), which consider their tourism development as a communication channel (and probably incorporation channel) with the global economy (Ryan et al., 2005). Hence, it seems that tourism, depending on the country in question, might be a leverage for the economic and social development process and contribute to the transition into the global market economy.

(b) The tourism and travel industry has a constant trend of augmentation (Holloway 2002; Ryan et al. 2005). The World Tourism Organization reports that in 2006 the international tourist arrivals were 732.6 million, representing a rise of 2.3% compared to 2004, while the international tourism receipts were 496.2 billion US\$, augmented by 2.6% (WTO 2007). Europe holds first place (with 407.8 million), and the South-Eastern Asia and Pacific regions occupy second position worldwide with 145.6 million arrivals, having registered an average annual augmentation of 8.4% (the corresponding rate for Europe was 2.3%). Consequently, ever since becoming universal, tourism activity is dynamically involved in a transactions globalisation procedure (Bianchi, 2002; Ryan et al., 2005).

(c) It is stressed that tourism constitutes an application field of industrial economics models, since it has a significant number of features (Tremblay, 1998; Varvaressos, 2008; Vellas, 2003), such as: travel and tourism industry

is characterized as international / universal; tourism products are considered as complex ones by their nature; international tourism companies' size and dynamics, as well as their strategies, substantially influence and determine tourism functions. Furthermore externalities and the rapid development of information and communication technologies (ICTs) play an important role in the tourism industry (Buhalis, 2005; Frew, 2005; WTO, 2001).

A study direction for the revitalization of tourism seems to lead to specifying the application fields, taking into consideration its particularities and the economic analysis tools available. However, it has been observed that in the framework of the industrialization of an activity, branch or sector, there is a constant transformation of its structures and the actors involved (Malecki, 1997; Tremblay, 1998). Historical observation and experience indicate that this development is not fast moving, in contrast to the manufacturing industry, since their functions are less subject to technological, competitiveness and internationalization developments. It is argued that tourism has gradually being transformed into an industrial economic activity (Bianchi, 2002; Holloway, 2002; Leiper, 2004; Mill & Morrison, 1998; Tremblay, 1998; Vellas, 2003; Vellas & Becherel, 1995). In the framework of its international specialization and organization, tourism introduces the 'creative destruction' procedure, suggested by Schumpeter (1949), which affects almost all modern economic activities. The introduction of the 'new' (for example, information and communication technologies) in the tourism field contributes to the formation of a new scene, the intensification of competition between involved business and destinations, as well as to the multiplication of modernization opportunities (Sheldon, 1997). In our study it is suggested that, based on the Greek experience, the analysis of the tourism market could be conducted, by taking into account, on the one hand, its particularities and the influencing external factors and, on the other, the concept of crucial size. The task of determining tourism dynamics and, by extension, the implementation of 'qualitative modernization' strategies could be achieved by means of external influences analysis, tourism demand and supply curves, the life cycle concept, the tourism frequency curve and logistics curve, placed in the framework of developments constantly evolving worldwide (Brent Ritchie & Crouch, 2003; Faulkner, 1998; Laws, 1995; Mansfield, 1995; Tooman, 1997).

2. The Concept of External Influences in the Field of Tourism

The analysis of evolution in tourism and development is greatly characterized as being supported by the networks theory (Novelli et al., 2006; Tefler,

2002). This economic theory has been developed in the 1980s aiming basically at understanding the procedure of 'implementation and extensive application' of new ICTs, on which the concept of external influences has been, to a great extent based. It is worth stressing that economists use the specific term to describe the conditions by which the consumption of a person directly influences the prosperity degree of another person (Varvaressos, 2008). In this approach, it appears that external influences could be grouped into two types: the positive external influences (i.e. information, specialization, development, etc.); and the negative ones (i.e. environment pollution, aesthetic degradation, dependence, etc.). The presence of external influences on productive and consumptive activities advocated the intervention actions of the public sector on market regulation (Hall 2005; Wanhill 2000). Governments encourage the development and promotion of activities creating positive externalities (by according subsidies to research and education), while on the contrary they attempt to limit the actions causing negative externalities (by taxing the activities which pollute the environment). The networks theory is substantially used to estimate the development degree and the access opportunities to information networks that are provided by means of two choices (Buhalis, 2005; Novelli et al., 2006): the Global Distribution Systems (GDS) and the World Wide Web (WWW) available on the Internet. It is obvious that technological developments create new conditions mainly in two fields: the tourists' choices and the production of new tourist products (Sheldon, 1997; Poon 2002; Spindler 2003). It is worth mentioning the 'electronic intermediaries' (e-Mediaries), encompassing the traditional ones (GDS, Viewdata, Teletext) and the new main destination managers, such as airline companies, hospitality organizations, national tourism organizations, tour operators and travel agents, portals, vortals (i.e. specialized vertically integrated, such as the golf portals), communications media, auction web sites, etc. (Buhalis & Licata, 2002; Frew, 2005). It seems that all tourism intermediaries tend to become electronic ones due to the extensive use of ICTs by all involved businesses. Moreover, the absence of frontiers in 'cyberspace' renders all tourism companies potential competitors, independent of their formal or actual headquarters (Frew, 2005; WTO 2001). Hence, it seems that networks externalities constitute a special type of external influences by which the individual benefit resulting from the consumption of a product or service depends on the number of persons consuming this product or service. In other words, the value of an information network is directly related to the number of persons using or connected to this network (Novelli et al., 2006). The Internet at an international level bases its operation on the interconnection of fragmented and spatially dispersed webs (computer systems providing information on the Internet) all over the world and intermediary users, who

are connected through their personal computers and automatically acquire the opportunity to communicate worldwide with other users. The Internet's services menu is extremely wide and, therefore, its use offers huge opportunities (Frew 2005; O'Connor, 1999; WTO, 2001), such as direct access to numerous information sources on a global scale; marketing and promotion of tourist products and services; and sales of tourism products and services. However, the networks' external influences in tourism are not so significant as they are in the manufacturing industry, information and telecommunications fields, because the development degree of a tourism destination is dependent on a series of explicative variables of the geographical unit (Gordon, 1994; Hall, 2002; Py, 2002), such as natural and cultural resources, tourism infrastructure, equipment and business activity, as well as the presence of the 'tourist visitor / consumer'. Therefore, the creation of a primary 'tourism mass' gives a value to a destination. The volume of tourism flows, the frequency degree of tourists and tourism behaviour represents a particular category of external influences of the tourism consumption (Pearce, 2005; Py, 2002). Specific consumption models that are rooted in an imitation effect often influence the appeal of a restaurant, accommodation, a beach or a theme park. At a glance, this effect seems to confirm the fact that tourism consumers behave irrationally, in contrast to the economic theory standing opinions (Bergery, 2002; Goodall, 1998). This means that tourists make decisions based on the choices of others, instead of acting in relation to their main interests. The phenomenon of spatial concentration of tourists is considerably due to information asymmetry with regard to the pre-industrial structure of the tourism product. Hence, other visitors most likely influence tourist consumption behaviour, since the mutual observation of consumption behaviour has become the main information source (Bergery, 2002; Spindler, 2003). However, tourists are not exclusively consuming tourist products and services (i.e. accommodation, sightseeing, beach and restaurant services), but the environment and ambience in which these products are determined, also attract them and they are an integral part of the whole tourism product value (Decrop, 2006; Pearce, 2005). Consequently, it could be argued that a rationale might be determined, an approach by which a tourist does not choose to visit a tourism destination because it presents a tourism value, but this destination becomes attractive since other tourists choose to visit it (Bergery, 2003; Decrop, 1999; Decrop, 2006; Pearce, 2005).

3. The Demand and Supply Curves

The tourism demand and supply curves for a destination represent the relation between tourists' arrivals and available accommodation capacity for a

time period (Py, 2002; Varvaressos, 2008). In essence, by means of this ratio, the international and domestic demand for the whole tourist product offered by the hosting spatial unit is reflected in quantitative and qualitative terms (Vellas, 2003). The case of Greece is presented in Figure 1. This figure shows the relation between the inbound tourists' arrivals* and the hotel accommodation beds for the period from 1960 to 2009. It is to be noted that a great number of other accommodation beds (hotel apartments, rented rooms, etc.) are not taken into account. This aggregate of secondary tourism accommodation had led to an important augmentation of the total accommodation park during the period after 1980s, even to their duplication during the last decade of the twentieth century (SETE, 2005; Varvaressos, 2000).

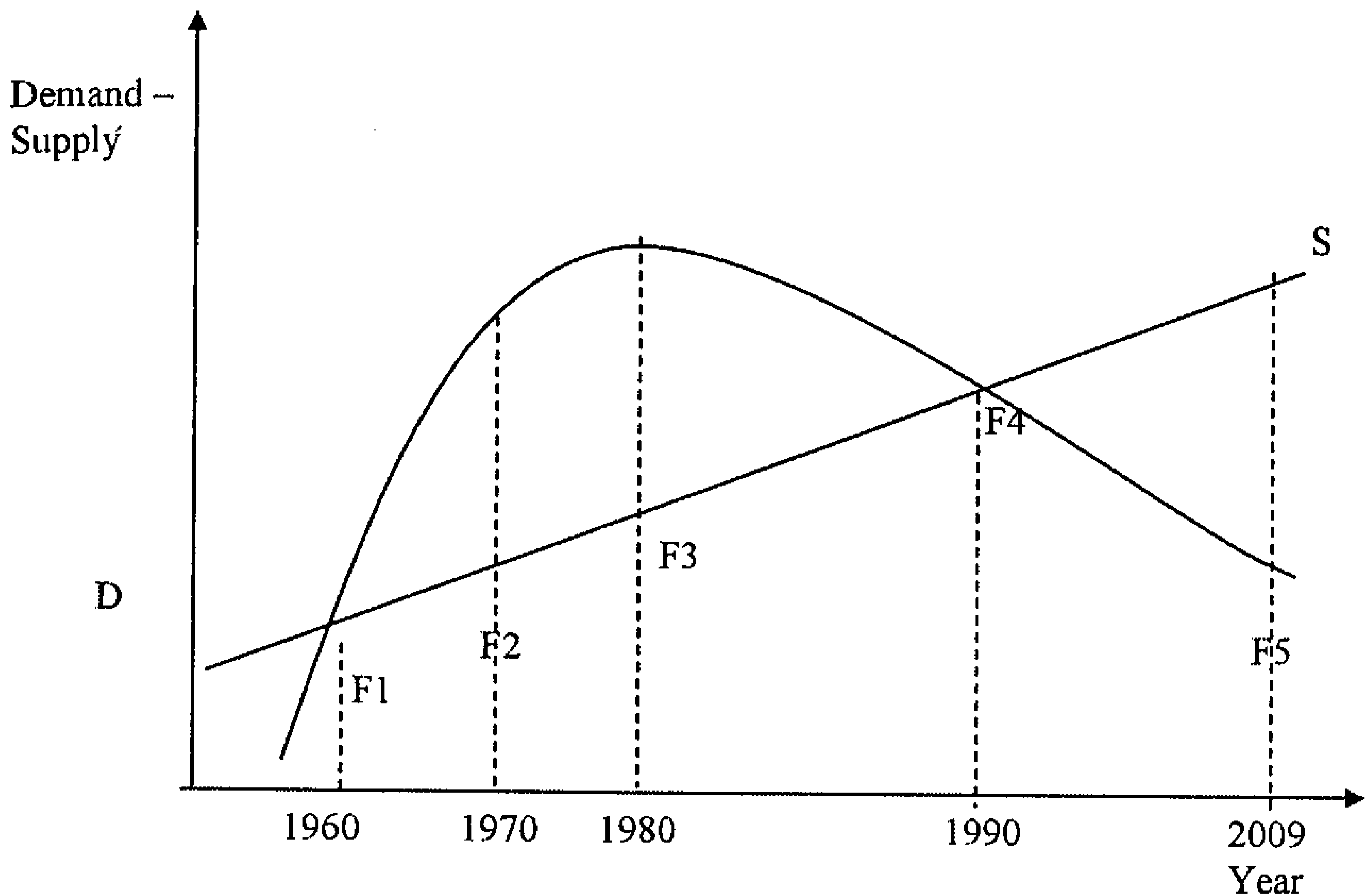
As might be seen in Figure 1, the tourism demand and supply curves represent a surplus of inbound tourism demand during the period from 1960 to 1990. An unplanned tourism development attempted to meet this demand, by constructing new beds, primarily in auxiliary accommodation and secondly in hotel units (Buhalis, 2001; Tsartas, 2000 and 2003). The incapacity of introduction and substantial implementation a model of planned tourism development and the weakness to move appropriately and timely from the spontaneous development model (SETE, 2005), have led to an oversupply of accommodation, from 1980 to 2009, thereby causing the demand curve to be placed under the tourism supply curve, since the supply of beds was greater than the augmentation of inbound tourist arrivals. The triangle S, F5 and F4 represents the size of this accommodation oversupply. The tourism demand curve, shown in Figure 1, could be compared to the resort life cycle which is analyzed in the next section, placing the Greek tourism product into the framework of demand – supply interrelation at the phase of maturation – decline (Varvaressos, 2008). However, in both cases, in the formation of the demand curve and life cycle, the presence of externalities plays a significant role; these external influences largely affect tourist consumption behaviour (Origet du Cluzeau & Vicériat, 2000; Py, 2002).

4. The Life Cycle Model

In the framework of economic analysis the term 'life cycle' substantially reflects the successive phases, which a product, resort or destination goes through from its creation until its decline (Cooper et al., 1998). Butler (1980) proposed the application of a model based on the life cycle. One of its key

* During the period from 1960 to 2004 75% inbound visitors and 25% domestic tourists accounted for overnights in hotel accommodation in Greece (SETE 2005).

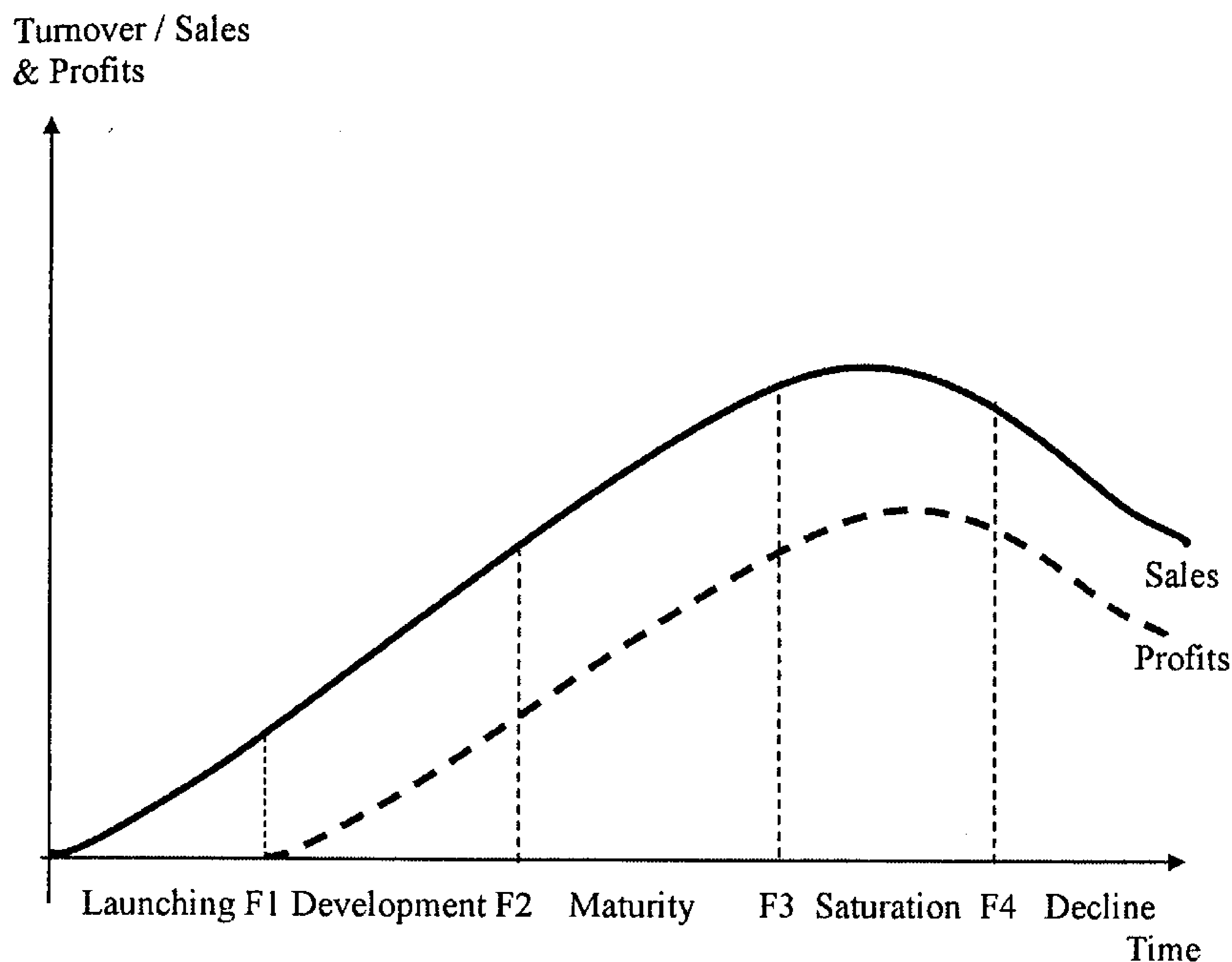
Figure 1: Curves of tourism demand and supply, Greece (years 1960-2009)



elements is process; the model suggests that there was a specific and common process of development of tourist destinations, which could be both described and modelled. As a result of this process and if intervention and management did not occur, then change and decline are probably inevitable (Cooper et al., 1998; Telfer, 2005). The phase of decline has some distinctive features, such as decrease in arrivals, low occupancy rates in accommodation, qualitative degradation of the tourism product, low social and economic profile of visitors, tourism services' oversupply, replacement of a selective clientele by a mass market clientele, weak interrelation between price and services value (Butler, 1997). The life cycle model could be more useful if its adoption reflected the commonly known concepts of linear evolution, as they are found in everyday life, and by extension, in the tourism field. As regard to the unit of analysis, Agarwal (1997), pointed out that a tourism destination is not a simple product, but consists of a series of components –accommodation, travel agencies, catering business, theme parks, etc.– and each of these has its own life cycle. Tooman (1997) claims that, while one typical non tourist product remains stable and its promotion efforts are modified (a product's modification implies a new position in the life cycle curve), the tourism destination as an integrated product would undergo the process of consecutive modifications, responding in such a way to

the changes occurring in tourism consumption and supply fields. Consequently, it appears that every evolution should be considered as possible. However, it is worth noting that the using the life cycle model as a forecasting tool has been criticized (Getz 1992; Digence, 1997); although its value as an ex post descriptive tool is recognized (Butler, 2000). The tourism destination's system of cyclical development or, in other words, its life cycle is influenced by several factors. It is stressed that the shape of the life cycle will vary from destination to destination and will be dependent upon the rate of development, access, government policy, market trends and competing destinations (Cooper et al., 1998; Tefler, 2005). The extent of positive or negative influences exerted by each factor on the geographical zone tourism development has not been proved by empirical evidence; although it is accepted that there are three groups of factors affecting the tourism destination's life cycle, namely (Laws, 1995; Williams & Gill, 2005): the 'attractiveness of the tourism product' and specifically the quality of tourism services provided in relation to their prices (value for money); the 'hosting zone's adaptability' to the tourism consumption's changes, mainly the approach of tourism as a fashion phenomenon, being launched and determined considerably by corporate aims and strategies of tour operators; and the 'tourism capacity' of hosting spatial zone, in relation to the whole potential of the actual tourism system. Therefore, it appears too difficult to accurately forecast the life duration of a tourism destination, although the process course could be represented (Haywood, 1992). The life cycle process of the majority of tourism destinations could be divided into a number of phases, such as launching, development, saturation and decline (Doswell, 1997) or conception/research, launching, development, maturity and decline (Lanquar & Hollier, 2001).

Some authors (Hovinen, 1981 and 1982; Formica & Uysal, 1996) proposed various names for these phases: Exploration, Involvement, Development, Consolidation, Stagnation, and Post-stagnation. Hovinen suggests the replacement of 'consolidation' and 'stagnation' phases by the term 'maturity' because of the coexistence of common features presented simultaneously during the various stages in a spatial zone. The phenomenon of coexistence of different characteristics has been pointed out by Agarwal (1997), while Baum (1998) proposed the phase of 'rediscovery', which might be a case of 'rejuvenation' (Formica & Uysal, 1996). During this phase the life cycle model could be a useful methodological tool and framework of analysis to be implemented, mainly a posteriori, in a tourism destination. Therefore, the distinction of life cycle phases by means of a series of features becomes feasible and this is confirmed mathematically (Lundrup & Wanhill, 2001); however, one should bear in mind that in actual (and not historical) time, the identification of phases –and even more

Figure 2: Life cycle model and its stages

the transition time from one phase to another— is extremely difficult, if not, impossible. The factors influencing the determination of the life cycle's phases of tourism destinations in general and of the sub products in particular, are grouped as follows (Agarwal, 1992; Cooper et al., 1998; Doswell, 1997; Ioannides, 1992; Russell & Faulkner, 1998): (i) Endogenous: level of economic development of the spatial zone and accessibility, business decisions, political decisions – financial incentives, legal framework, regulatory acts, public investments, partnerships agreements and promotion, etc.; and (ii) Exogenous: competitive destinations (NTD), changing tourist typologies, tour operators' expansion, hospitality organizations and airlines companies, etc.

5. The Tourism Frequency Curve

The existence of external influences on tourism consumption implies a significant importance on the formation of tourism demand curve. In economic terms, the

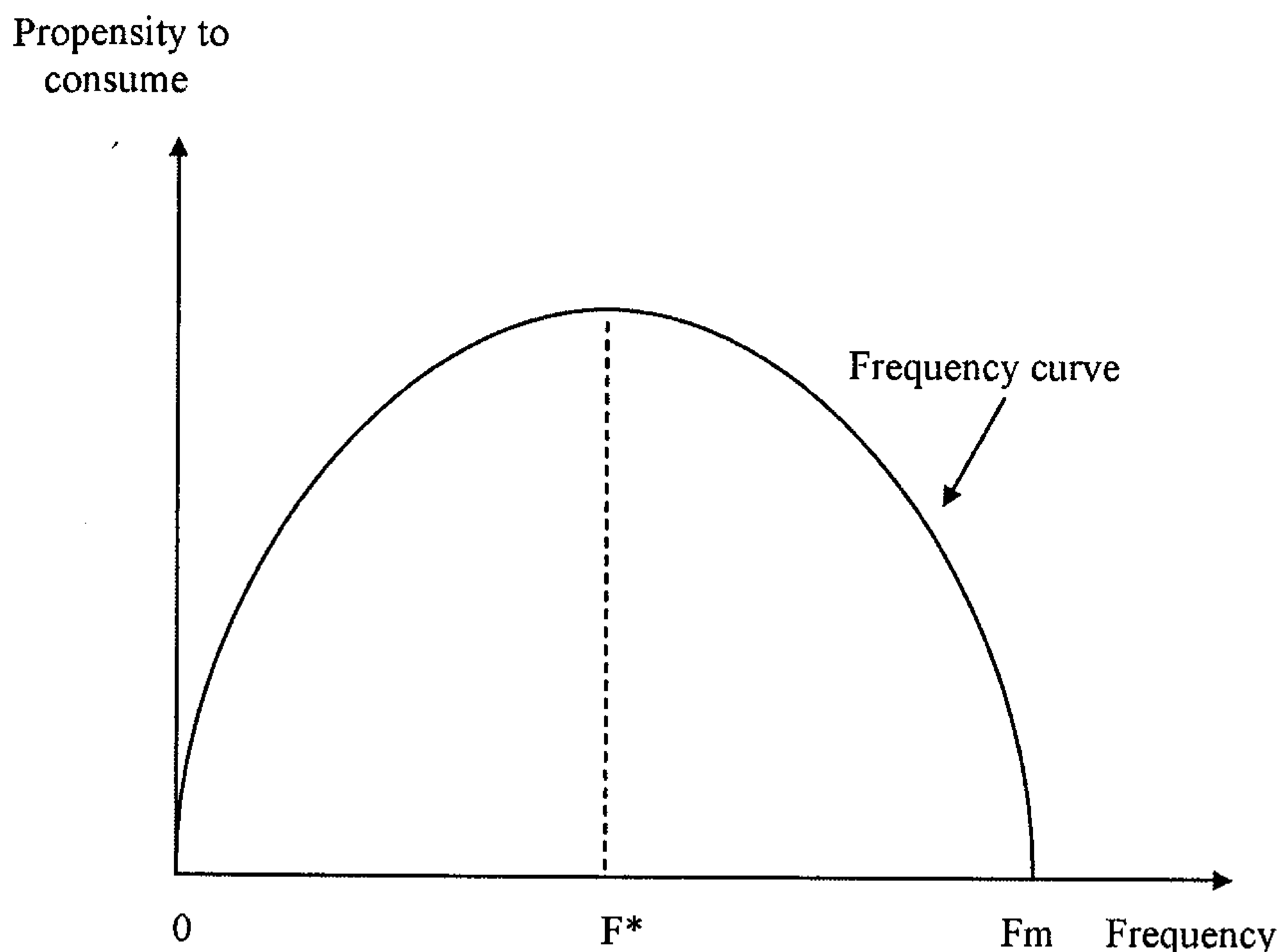
demand curve represents the maximum prices that consumers are willing to pay in order to acquire a product's quantity (Varvaressos, 2008). Based on consumption's externalities, it is obvious that the price of goods depends on the number of individuals consuming the goods (Py, 2002). Figure 3 shows a specific demand curve, called, 'frequency curve', which represents the willingness of potential tourists to consume any product –i.e. a tourism destination A, a hotel business B, a restaurant enterprise C, etc– in relation to the degree of tourist frequency.

In Figure 3 a closed curve is shown, which constitutes, in essence, the combination effect of two phenomena:

(a) During the development stage, the tourism product takes a value on the potential tourists' perception as a result of the increase of visitation frequency (Bergery, 2003; Py, 2002, Seddighi & Theocharous, 2002; Vellas, 2003). This frequency represents an indication of tourism market size, considered simultaneously as a qualitative variable. At this stage the consumption external influences are positive, since the expansion of tourism flows augments the product's value, thus having a positive impact (see also Figure 1).

(b) In the stage of decline, the propensity to consume and the tourism product value decrease resulting from an increase in tourism frequency. During this stage consumption externalities are negative (Py, 2002). Certain features, such as a heavy concentration of visitors, thus long waiting service time; aesthetic and environmental pollution which exert a negative impact on the level of tourists' satisfaction, diminish the value of a product or a resort (Andriotis, 2006). This situation is usually observed in the airports (for instance, the airport of Iraklion on the island of Crete) and in popular resorts. It could be argued that the above analysis leads to the observation that: (i) at point zero there is no value of a tourism product since the tourism frequency is null. This fact proves that the presence of tourists could contribute to the valorisation and exploitation of tourism resources; (ii) at F^* , which represents a modification point; the tourists' propensity to consume is at its maximum value. After this point, this propensity begins to diminish. Consequently, if destination management wish to continue attracting visitors, prices should decrease, since going beyond the F^* point results in a downgrading of the product's quality; and (iii) at the F_m point tourism frequency reaches maximum value, but the propensity to consume becomes null. The specific level of tourism frequency represents, in some way, the stage of saturation (see also Figure 2).

Tourism development in Greece constitutes a representative case of the above statements (Tsartas, 2000 and 2003). The Greek government with its national tourism policy had founded the expansion of tourism on the devaluation of its national currency for a long period in order to achieve an increase in tourism frequency (Buhalis, 2001; Varvaressos, 2000). According to the above

Figure 3: The tourism frequency curve under the influence of externalities

analysis, it seems that such a strategy is neither sustainable nor long lasting, since any point beyond point F^* (modification) reflects the downgrading of the quality in holidays experience, which negatively affects the image of tourism destination, while limits are imposed on reductions in prices (Bramwell, 2004; Vellas, 2003). With regard to Greece, the adherence to the European monetary zone and the application of a fixed exchange rates system inside a specific monetary zone, as a result of the Maastricht treaty, acted as prohibitions to a continuing devaluation policy (SETE, 2005). From the above analysis the necessity to introduce and implement a more active strategy to improve the quality of the tourism product and to revitalize tourism supply emerges, in order to achieve a repositioning, sustainment and enhancement of tourism frequency (Laws, 1995; Formica & Uysal, 1996; TTI, 1997; Vera & Rippin, 1996).

6. The Equilibriums

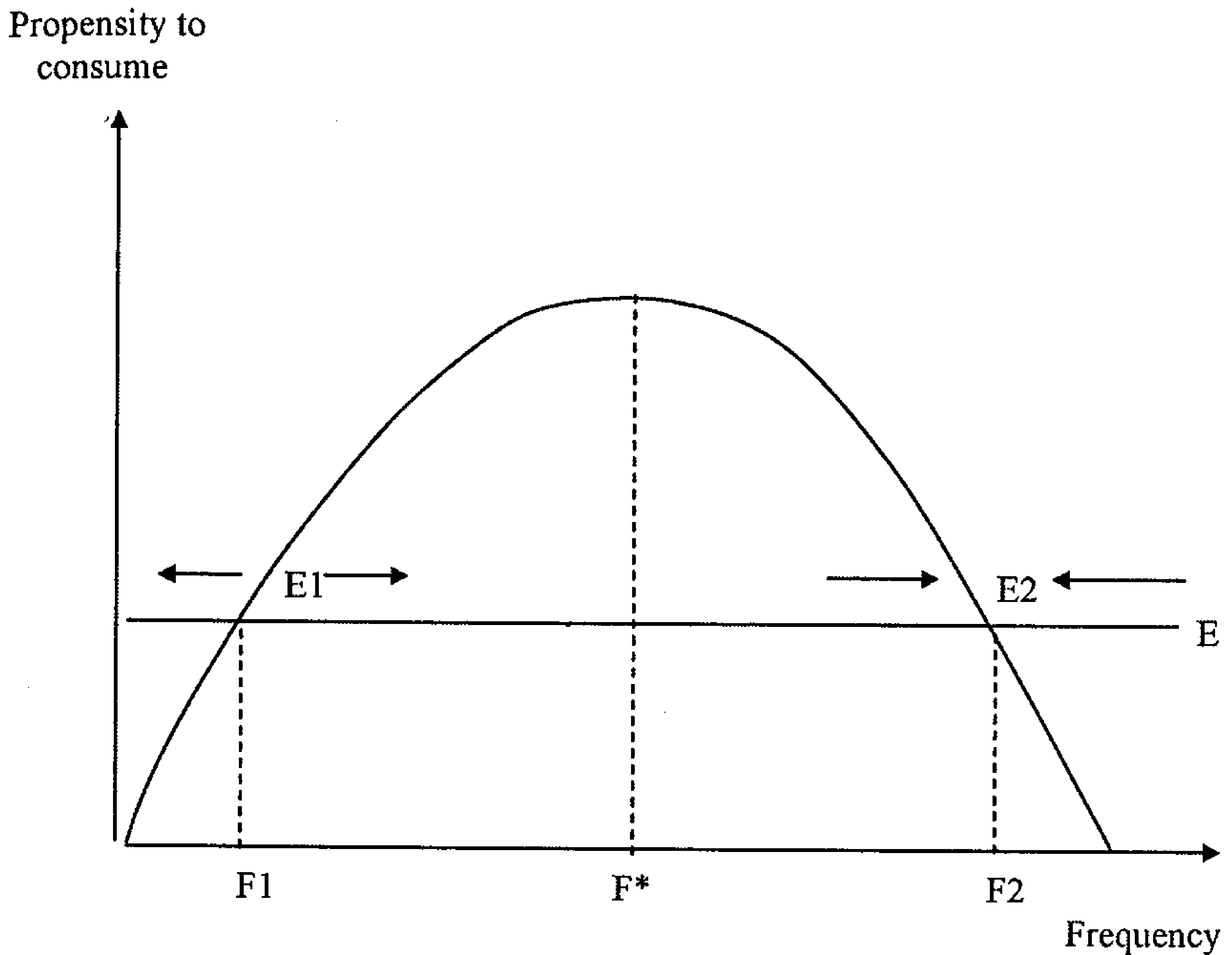
The analysis of tourism market dynamics, within the framework of external influences of tourism consumption, could be conducted by means of the

supply curve. This curve both represents and determines the relation between the quantity and the price of a product (Py 2002; Varvaressos, 2008). In an attempt to simplify, the tourism product is considered as being an outcome of a particular know-how and it is shown in Figure 4 by a supply curve, which takes the form of a horizontal line (E) corresponding to a value equal to the average cost* (2). The market is the outcome of the relation between demand and supply. In Figure 4, demand is represented by the frequency curve, and the horizontal line shows supply.

Figure 4 shows the existence of two points where supply is equal to demand (i.e. E1, E2). At point E1, consumers perceive the 'equilibrium of low frequency' as an indication of unsatisfactory quality of provided services. Hence, it could be argued that tourists are not willing to spend more money to acquire specific products or services. The point E2 presents 'equilibrium of high frequency'. A similar equilibrium tends to characterize tourism destinations that are perceived as being mass tourism resorts (Bramwell, 2004; Soteriades & Arvanitis, 2006). In this case, prices are at low levels, because tourists do not attach high value to the product even though the destination is highly frequented (Varvaressos, 2000; Andriotis, 2006). It is worth noting that at this level the negative externalities are greater than positive ones; in such a way that high frequency involves a reverse proportional relation to quality (see also Figures 1 and 2). However, since there is more than one possible equilibrium, a study of the market dynamics attempts to determine which one will finally prevail. Economic analysis states that since individuals are willing to spend an amount higher than the production cost of a good, the market's size would increase, because the potential producer ought to meet the needs and expectations of potential consumers (Py, 2002). In the contrary situation, the market's size would diminish. In the specific example, where the tourism demand curve is positioned under the tourism supply's curve, tourism frequency has increased. The vectors in Figure 4 show how the two points gradually come together, as a result of the relative positions taken by the curves. Within the framework of this dynamic procedure, point E1, designated as 'low frequency', presents an unstable equilibrium, whereas point E2, characterized as 'high frequency', represents a stable equilibrium. These observations provide useful

* It is worth noting that the supply curve moves according to cost production conditions in the industry. The accepted theory affirms that the curve should normally move upwards due to the entry of new producers in the industry, as a result of excess demand (Py 2002). The final position of the supply curve is determined by the interaction of production cost and the incorporation of new technologies. Figure 4 clearly shows the hypothesis that the industry's cost production remains unchangeable.

Figure 4: Tourism market dynamics under the influence of externalities



information regarding the specialized dynamics of the tourism market. Any information network requires the existence of infrastructure, without which it could not be set up and developed; in a similar way development of the tourism product implies the prior existence of infrastructures; their absence renders the resort worthless for potential tourists (Cooper et al., 1998; Leiper, 2004). Consequently, point E_1 constitutes the critical point, which must be outflanked in order to get into a development stage, which would eventually lead to a stable equilibrium at the E_2 level.

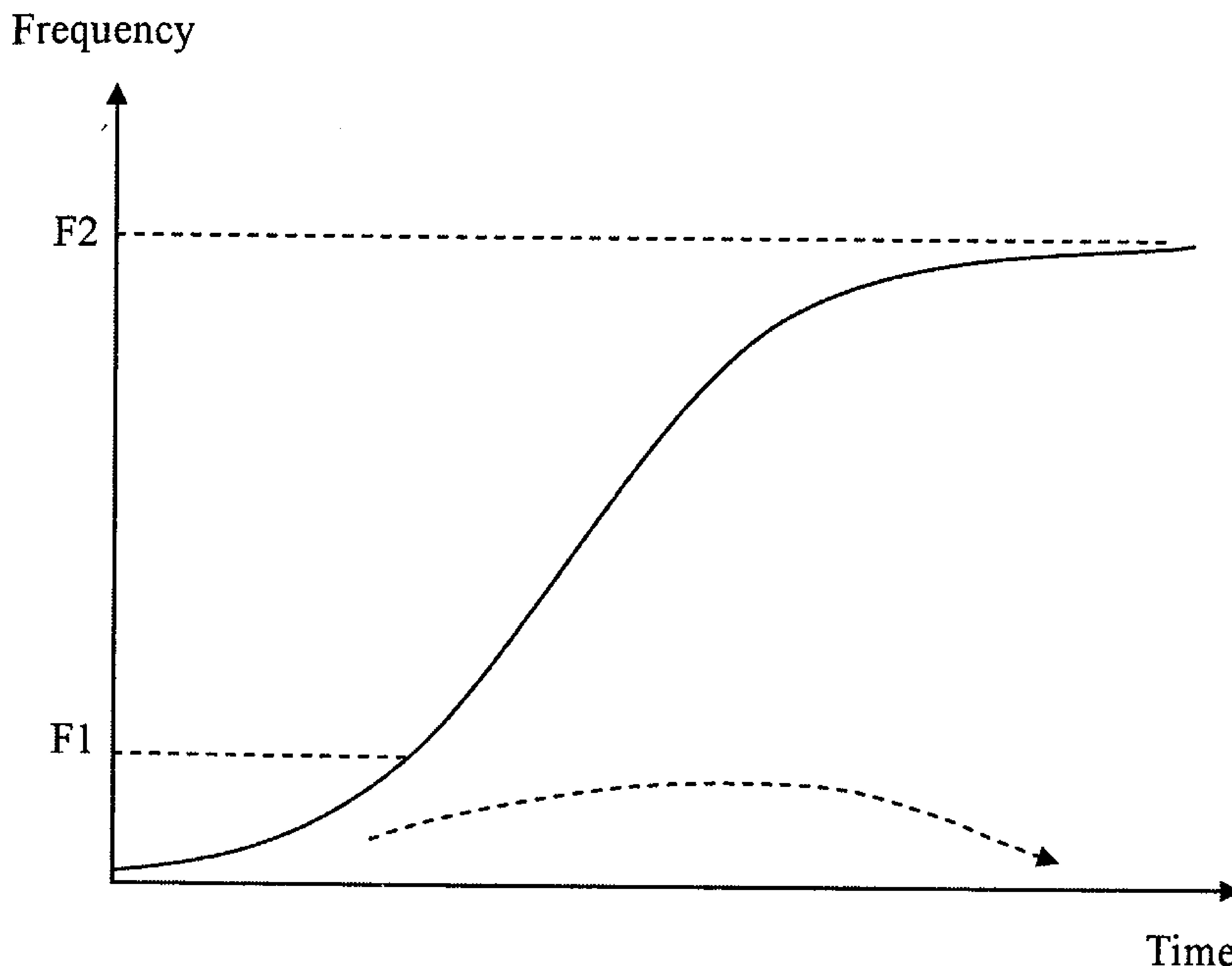
7. Development and Critical Size of a New Tourism Destination

The above analysis of tourism market dynamics has revealed the existence of two equilibrium levels, of which the first one is regarded as the critical point. Indeed, the tourism market is not self-driven to the first equilibrium level, since an action of the involved stakeholders is needed to reach the critical equilibrium volume. It has been demonstrated that level E_1 – called ‘low

frequency' – represents a potential level and, therefore, a critical point. In fact, a tourism destination that cannot go beyond the specific level would be condemned to return to a level of low frequency. At this specific level, the marginal propensity to consume becomes null and no producer will undertake any business action offering tourist products, which may result in the infeasibility of activating the market (Varvaressos, 2008). However, it should be noted that not all tourism destinations have the capability of attracting mass tourism. Therefore, in this situation, the 'low frequency' equilibrium could constitute the main aim; but, given its unstable nature, every variation from the tourism frequency level F_1 could lead to two situations: the tourism destination grows weaker, given the weak critical mass; or the tourism destination develops and moves towards the 'high frequency' level. This does not represent the direction desired by entrepreneurs and investors of selective high added value tourism. Since it is a desirable objective, going beyond the critical point F_1 might constitute a valuable strategic option. The stage of development corresponds to the take-off point, which is represented by the logistics curve. Hence, in this approach, the dynamics of logistics appears to take into consideration the course of a destination's tourism frequency connected to a time factor. The move from a low frequency, indicative of a selective tourism activity, to a high one, synonymous with contemporary mass organized tourism, presents the moulding of strong dynamics, particularly regarding the seaside, sea & sun focused tourism that characterizes the tourism development model of Greece (Buhalis, 2001; SETE, 2005; Varvaressos, 2000).

Figure 5 represents the logistics curve and gives the impression that the successive stages –namely preparation, launching, taking off, development, maturity, decline– are conducted automatically (see also Figure 2). However, the study of tourism market dynamics indicates that the development of a tourism product is not automatic –because the market is not self driven at the critical level– and requires a significant involvement of the public sector and tourism business of the host country/area (Telfer, 2005; Wanhill, 2000). If, for instance, the tourism market is not in a position to reach the tourism frequency corresponding to critical level F_1 , then the frequency would return to its initial position (indicated by the dotted vector). In essence, the S-shaped curve represents the life cycle's curve of a new successful product, for instance the products such as 'discovery', 'adventure' and 'escape' (Buckley, 2007), as well as theme products or tours which increase spatial mobility (e.g. 'Theme Roundtrips'). (Comilis, 2001; Novelli, 2004). But, since tourism demand depends on number of tourists, it is suggested that destination managers should enhance market development by engaging the stage of conception in the life

Figure 5: Curve of logistics and Critical size



cycle of the tourism product (Laws, 1995; Vera & Rippin, 1996). Once the critical level is reached, the tourism market enters the take-off stage and develops considerably, since the marginal propensity to consume remains higher than the production cost.

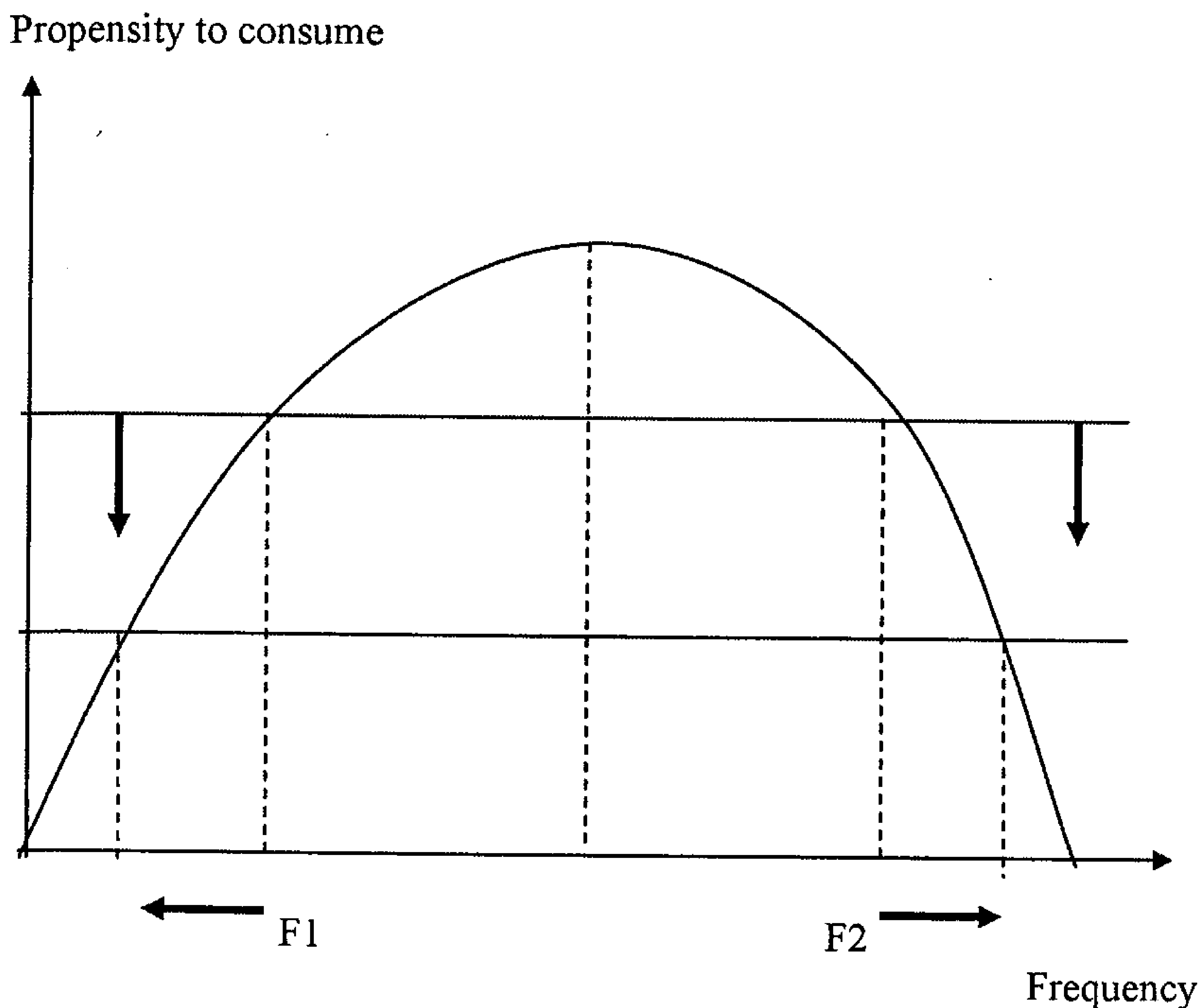
8. The Impacts of New Products on the Equilibrium's Dynamics

Within a dynamic perspective, technological developments constantly modify production conditions, consumption trends and habits (Buhalis, 2005; Frew, 2005). Initially, the production cost of a good is set at a high level, but afterwards it gradually decreases due to acquired experience, know-how and technological developments. Figure 6 shows the tourism market dynamics within the framework of changes occurring in the field of technology. The technological renewal renders possible a reduction in marginal cost, and this is shown in the figure by a downward movement of the horizontal line representing the supply curve.

When production cost falls to a satisfactory degree, then one could observe that the critical level of frequency $F1$ moves to the left (direction of the vector), indicating its decrease. The development in technologies renders the emergence of new tourism hosting zones and, by extension, the formation of new tourist flows, easier and less expensive (Buhalis, 2005). Investments in research and development of new tourism products, in combination with a decrease in tourism frequency to reach the critical point, renders feasible the take-off of the whole tourism product (Poon, 2002; WTO, 2001). Similarly, the $F2$ equilibrium level of 'high frequency' seems to be increased, indicating that the undertaken arrangements and modernizations could contribute to enlarging the hosting potential of the tourism destination. This procedure allows the backward movement of the frequency level until the point where the projection of the proportionality of negative externalities to positive ones creates additional tourist flows, contributing to the tourism destination's attractiveness. In this regard, the airlines deregulation and the increase of competition constitute an indicative example (Hass, 2000). Competition has considerably contributed to the reduction in transport cost to destinations, particularly the exotic ones, characterized as being selective.

The above described process has internationalized the tourism potential of certain regions, such as Southeast Asia and the Pacific, which partially explains, the emergence and development of specific tourism destinations (Hall, 2002; Vellas, 2003). Hence, the New Industrialized Countries (Southeast Asia) have become New Tourism Countries (NTC), radically modifying the international tourism's spatial structure. This procedure has already been observed in the field of domestic tourism, prior to the development of mass tourism, when seaside – summer tourism activity was exclusively reserved, for over many decades, for the upper socioeconomic class (i.e., aristocrats, land owners, stockholders, etc.) (Varvaressos, 2008; Vellas, 2003). Therefore, when the critical point receives indications of high frequency, the development cost of a hosting spatial zone or a new product's tourism potential is too high, resulting in the restriction of a destination's opportunities to attract a mass tourism's share. However, it could be a strategic option, as has already been pointed out, of selective tourism based on a low level of frequency, but of high added value (Comilis, 2001). The various authorities and businesses involved in tourism activity could also contribute to strengthening the spatial zone's attractiveness, by carrying out a certain volume of infrastructure investments (Telfer, 2005; Tsartas, 2000; Wanhill, 2000). In essence, tourism operations invest in order to improve their technology, enhancing somewhat the downward movement of the tourism supply curve. The public sector, acting conjointly, takes charge of infrastructure investments

Figure 6: Adaptation of tourism market cost



(transports network, telecommunications, etc); information and communications, thereby contributing to improvement of the destination image (Hall, 2005; Telfer, 2005). This particular type of public investment, a generating factor of positive externalities, enhances the reduction in the marginal cost of the tourism product and this is shown by a downward displacement of the supply curve. In broader terms, a decrease in the critical size drives the tourism product to the stage of take-off more quickly, resulting in a limitation of the conception stage. From the above analysis it has been pointed out that the tourism product's saturation does not constitute an inevitable situation. Nowadays, the tourism use of natural resources and their degree of incorporation into the whole tourism supply of a spatial zone depend on the existing technological conditions that contribute to their commercialization, and simultaneously the creation of high added value. Similarly, the inexistence of technology renders other natural resources inactive and without any economic value. In this perspective, the saturation levels in the tourism field are dependent on technological conditions,

which are indispensable to the exploitation of tourism resources (Cooper et al., 1998; Tefler, 2005).

9. Conclusions

Nowadays, tourism activity, regarded as an outcome of a series of variables – such as the economy, transport, leisure time, and ICTs – appears to constitute the most flourishing industry of the globe (SETE, 2005; WTO, 2007). According to official estimates, the number of international tourists will double within the next fifteen years, at both international levels as well as level in Greece (SETE, 2005; Vellas, 2003). The demand of this new tourism clientele, according to the emerging trends, seems extremely sensitive to the triptych of ‘quality, prices, and services’ (Brent Ritchie & Crouch, 2003), which is mainly catered for by low budget accommodation. However, the task of attracting this new mass tourism market could certainly affect the tourism activity’s structures, driving it to a further standardization of the existing products, as well as to a differentiation of new ones, as past and current experience of Greece has indicated. Obviously, these trends lead to a wider restructuring of tourism (Poon, 2002; Spindler, 2003). Nowadays, the tourism sector seems to be a field of three dynamically interactive forces; namely: (i) the globalization of tourism within the framework of a worldwide competitive market and the emergence of new host regions; (ii) the rapid introduction and implementation of new ICTs, connected to the development of networks; and (iii) the related impact on traditional distribution channels of tourism products.

The ICTs significantly contribute to the development of new tourism products and pave the way for new distribution types and channels. The traditional intermediaries face the danger of being excluded, under the intensification of international competition. The perspective of forthcoming radical changes within the structures of tourism industry, Greece, as a country of valuable tourism resources’ production and distribution, appears to be incapable of determining, ensuring, controlling and monitoring its own future course, since it depends more on the active presence and corporate strategy of large European tour operators, than on tourism flows themselves. The repositioning of a tourism product allows an analysis of both the dynamics of the tourism industry and the product life cycle. Therefore, drawing upon the Greek experience, it is suggested that the apprehension of strategies of ‘qualitative modernization’, which are implemented in the tourism industry, on the one hand, and the delimitation / analysis of the principal axes of evolving changes in this field, on the other, are now more than ever, of considerable importance. It is estimated

that the present analysis of the Greek experience constitutes an approach in this direction and this issue offers opportunities for further research.

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