



American University of Armenia

Հայաստանի Ամերիկյան Համալսարան

A US-accredited institution affiliated with the University of California.

MAY 12, 2016

MIKAYEL MAYRAPETYAN

NARINE POGHOSYAN

SONA HOVHANNISYAN

ANNA GEVORGYAN

SATENIK MOVSESYAN

IBIS: Filling the Longstanding Gap of Armenian Tourism Cluster

Introduction

In this paper our team will find out the main concerns impeding or slowing the development of a successful tourism cluster in Armenia. We are positive that tourism is the new locomotive for Armenia's economy; it is the future of our country, and it will once again reinvigorate the economy and create stable, high growth rate environment, which will bring new jobs and needed prosperity shared across all social classes.

To really understand the issues in the industry, we organized a multi-layer analysis, comprised of macroeconomic and geopolitical analysis, continued with regression analysis concerning hotel market. We will examine whether Armenia has the competitive edge in tourism and is it wise to invest in Armenian tourism from now on. We will reveal all the important data and information to answer the posed questions. Both classic and novel methods of presentation will be used in order to best showcase the added value our research provides. Our team appreciates your kind review!

Country Background

Armenia is a mountainous country that is located in the southern Caucasus between the Black Sea and The Caspian Sea. Being the smallest of the former 15 Soviet Socialist Republics (29,743 square km), Armenia is bounded by Georgia, Azerbaijan, Iran and Turkey. Although during many centuries most Armenians lived in Highlands tending animals, today about 70 percent occupy the nation's towns and urban areas.

As of 2013, the population of Armenia is 2.977 million, the life expectancy is 74.44 years, and the official language is Armenian. Armenia prides itself on being the first nation that formally adopted Christianity in 301 AD.

Political & Economic Development

Until 2015 Armenia has been a semi-presidential representative democratic republic. According to the Constitution of Armenia, the President is the head of state and a multi-party system. With the amendments to the Constitution, Armenia has become a parliamentary republic. The government is exercising the executive power of the country. Legislative power is vested in both the government and parliament. The governing party in Armenia for last 18 years has been Armenian Republican Party.

The fairness of Armenian elections has always been a dispute as many of international observers cited for numerous violations and misconducts of the elections' procedures.

Before independence, the economy of Armenia was based mainly on chemicals, electronic products, processed food, machinery, synthetic rubber and textiles; it heavily relied on external resources. Agriculture accounted for 20% of net material product and 10% of employment before the collapse of the USSR in 1991. Armenian mines are rich with copper, zinc, gold and lead. The vast majority of energy is produced with imported fuel, including gas and nuclear fuel from Russia. The main domestic energy source is hydroelectric. Small amounts of coal, gas and petroleum have not yet been developed. Like other former states, Armenia's economy suffers from the legacy of a centrally planned economy and the breakdown of former Soviet trading patterns.

Since 1995 Armenia has registered robust economic growth, and inflation has been negligible for the past several years. New sectors, such as precious stone processing and jewelry making and communication technology (primarily Armentel, which is left from the Soviet era and is owned by external investors). This steady economic progress has earned Armenia increasing support from international institutions. The International Monetary Fund (IMF), World Bank, EBRD, as well as other international financial institutions (IFIs) and foreign countries are extending considerable grants and loans. These loans are targeted at filling the budget deficit, stabilizing the local currency; developing private businesses; energy; the agriculture, food processing, transportation, and health and education sectors.

Armenia became a member of the World Trade Organization (WTO) in 2003. Armenia also has managed to cut inflation, stabilize its currency, and privatize most small- and medium-sized enterprises. However, Armenia's unemployment rate remains quite high, despite economic improvements.

Current Economic Performance and Competitiveness of Armenia

After getting independent in 1991, the economy of Armenia has undergone thorough transformations. Steady growth, various reforms, and inflows of capital and transfers have created a market-oriented environment. In 2015, Armenian purchasing power parity (PPP) GDP rose by 2.5% and was equal to \$25.22 billion, compared to \$35.37 billion and \$174.3 billion in Georgia and Azerbaijan respectively. PPP adjusted GDP per capita in the same period was equal to \$8,400 while the same indicator in Georgia and Azerbaijan amounted \$9,500 and \$18,700 respectively.

The composition of the economy in 2015 by sector of origin was the following: the biggest portion of GDP was made up by services – 46.7%, agriculture, and industry sectors are contributing to the GDP by 23.3% and 23.0%.

The economy of Armenia heavily relies on the import of goods and services which make up 44.4% of GDP compared to the export of goods and services equal to 29.5%. The biggest export destination for Armenia are Russia 20.3%, China 11.3%, Germany 10.4%, Canada 6.1%, US 5.8%, Bulgaria 5.6%, Iran 5.6%, Georgia 5.5%, Iraq 5.3%, Netherlands 4.9%, Belgium 4.1%.

The top exported goods of Armenia are Copper Ore (\$361M), Hard Liquor (\$186M), Gold (\$143M), Ferroalloys (\$117M) and Raw Copper (\$90.2M), using the 1992 revision of the HS (Harmonized System) classification. Its top imports are Petroleum Gas (\$518M), Refined Petroleum (\$267M), Cars (\$187M), Gold (\$174M) and Diamonds (\$113M). The main importing countries are Russia 24.9%, China 9.5%, Germany 6.4%, Turkey 5.3%, Iran 4.7%, Ukraine 4.6%, and Italy 4.1%.

Armenia as a developing country strongly depends on foreign direct investments (FDI). Statistical Yearbook of Armenia of 2015 shows that in 2014 total amount of FDI to the country was equal to 120 597.3 million AMD. The largest investors are considered to be Russian Federation, Germany, France, United States, Cyprus, and Argentina.

According to Doing Business Report, in 2016 Armenia is the 35th out of 189 countries. It registered a three-point improvement in rank compared to 2015. The best indicator of the country is Starting a Business where Armenia is the 5th. The worst ones are Dealing with Construction Permits, Getting Electricity, Protecting Minority Investors and Getting Credit. However, it is worth mentioning that Armenia has substantially improved some of its rankings since last year.

Research and Development is one of the weakest parts of the Armenian economy. Based on World Bank publication, only around 0.2% of GDP is spent on R&D which has an essential negative impact on the development of the country in the long-term period. In 2011, there were only 121 patent applications, and 185 scientific and technical journal articles. The capacity of innovation and overall quality of scientific research institutions is very low.

According to Global Competitiveness Report (GCR) of 2015-2016, Armenia is ranked 82nd (+3 position vs. previous year) in Global Competitiveness Index (GCI) rankings, which is much lower than its neighbors. Azerbaijan and Georgia are the 40th and 66th respectively. Almost all indicators in the country are much below the average. Access to financing, inefficient government bureaucracy, foreign currency regulations, inadequately educated workforce, and corruption are distinguished as the most problematic factors for doing business.

The infrastructure of Armenia needs significant improvements as most of it was constructed during the Soviet time. The quality of roads, railroads, and air transport infrastructure is quite low compared to other countries. In 2011, the road network of Armenia extended

approximately 7,749 km. The railroad network extends for about 707.4 km. It has 69 operating train stations along the way. Armenia has two operating airports: “Zvartnots” International Airport in Yerevan, and “Shirak” International Airport in Gyumri. Both of them were modernized in the last decade, and now offer better quality to the clients. Currently, the new North-South highway, about 556 km in length, is being constructed which will enable safe and fast transportation of goods between the Persian Gulf countries and Europe. Upon its completion, this road will facilitate the traffic from Armenia's southern border to the Georgian border, and beyond to the ports of the Black Sea.

According to the World Bank, the number of Internet users is constantly increasing. Now 46 people out of 100 are using The Internet compared to 32 in 2011.

Based on UNDP report, in 2012 HDI value in Armenia was equal to 0.729. The country is positioned the 87th out of 187 countries and territories. Between 1990 and 2012, Armenia’s HDI value increased from 0.628 to 0.729, an increase of 16 percent or average annual increase of about 0.7 percent. Between 1980 and 2012, Armenia’s life expectancy at birth and mean years of schooling increased by 3.5 and 1.6 years respectively. Expected years of schooling also increased by 2.3 years.

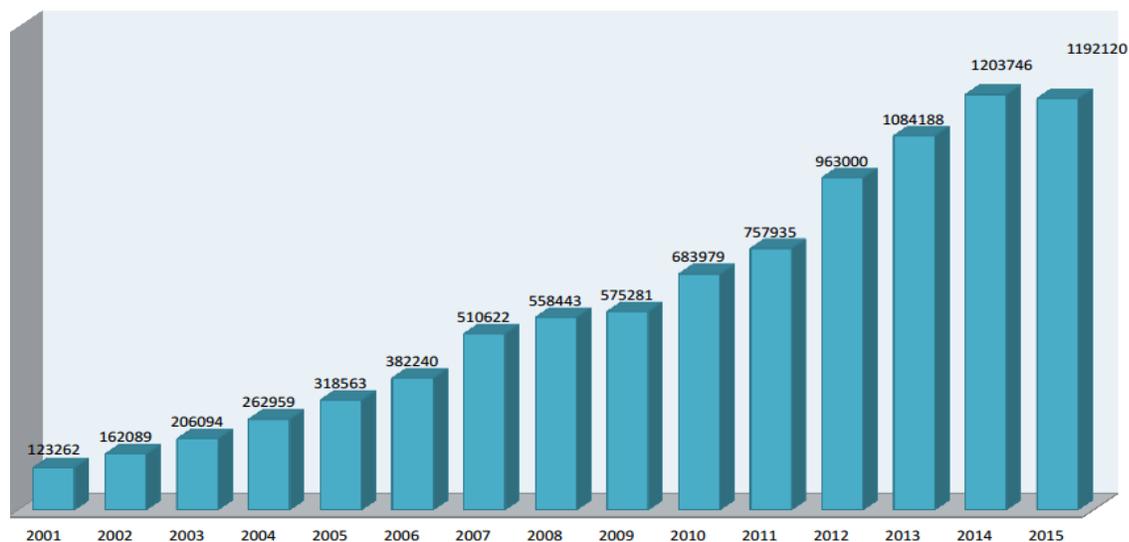
Overview of the Tourism Cluster

The tourism industry is one of the most important sectors of the economy, as it has a significant contribution to economic development of the country. Armenia, with its beautiful nature and historical heritage, has a great potential in the industry, especially in rural and cultural tourism. The total contribution of the tourism cluster to the GDP was 13.5% in 2015. Incoming

tourism is Armenia's second major export after mining and metal industry and covers more than half of services export. Besides, about 20 thousand people are employed in the spheres of incoming, outgoing and domestic tourism, which totals around 3% of nonagricultural employment.

The tourism cluster is one of the main directions of the government development program. In February 2008, the Government of Armenia adopted an ambitious tourism development plan with the goal to increase the contribution of tourism to gross national income, improvement of living, balanced development, standards and poverty alleviation in rural areas, preconditioned through an increase in tourism arrivals, an increase in tourism revenue and job creation. (See Exhibit 2-Targets Established by the 2008 Tourism Development Plan.)

The number of incoming tourists is steadily growing since the celebrations of the 1700th anniversary of adopting Christianity by Armenians in 2001. The annual growth rate of incoming tourists for the period of 2001-2015 amounts around 18.1%, which proves the high development potential of the sector in the country. The number arrivals to the country approaches 1,192,120 people in 2015.



Source: Ministry of Economy of the Republic of Armenia

The main gateway for incoming tourists are Moscow airports and Georgia land route which together account for more than 50% of visits. There are more than 10 Moscow-Yerevan daily flights.

According to the research implemented by USAID-funded Competitive Armenian Private Sector project during September 2006 – August 2007, more than half of the international arrivals to Armenia were mainly from Russia and Georgia. The study also suggests that international visits are more frequent from former Soviet republics, neighboring countries (Iran) and countries with large Armenian Diaspora communities (USA, France, Syria, Lebanon, etc.). Moreover, around one-third of visitors from Russia are citizens of Armenia, permanently residing in Russia. (See Exhibit 3- Structure of Incoming Tourists by the Country of Origin.)

As for 2013, 72.2% of the incoming tourist is of non-CIS countries, from which 36.3% are from EU countries, and 35.9% are from non-EU countries (rest of the world). When analyzing the dynamics of the structure of incoming tourism by country of origin one may find that this structure has slightly changed in favor of CIS countries since 2006. The most notable change was registered in other CIS countries tourists. If in 2006 the share of other CIS countries visitors was 4.3%, then in 2013 this indicator comprises about 5.1%. Significant positive changes were registered for German tourists, other EU countries and Russian and Iranian tourists.

According to the official reports provided by the hotels, on average around 14.8% of all international visitors stay at hotels. The rest prefer to renting apartments or staying with their relatives or friends houses (85.2%). (See Exhibit 4-International Tourists Arrivals: Place of Stay.)

Over the past decade, foreign arrivals at Armenian hotels have increased on average at the rate of 13.5%. Particularly, in 2011, there has been a significant increase of 76.8% over 2010. This continuous growth is also an indicator of the potential success of the industry.

Approximately half of the tourist who stay at Armenian hotels are guests from Russia, USA, and France.

International visitors at Armenian hotels based on their purpose of travel in 2001 - 2011 (in % from total arrivals) are summarized in the following table:

IBIS: Filling the Longstanding Gap of Armenian Tourism Cluster

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Business	47.21	60.37	51.27	39.51	41.40	33.95	37.51	38.31	39.16	44.41	29.02
Holiday and leisure	37.88	12.61	13.71	15.45	18.48	24.78	19.96	16.11	19.94	21.36	21.77
Education	0.58	1.10	0.65	1.19	0.40	0.42	0.03	0.04	0.00	0.03	0.01
Health	0.83	0.49	0.50	0.20	0.31	0.59	0.22	0.27	0.22	0.82	0.96
Other	13.51	25.42	33.88	43.64	39.42	40.26	42.28	45.28	40.69	33.37	48.24

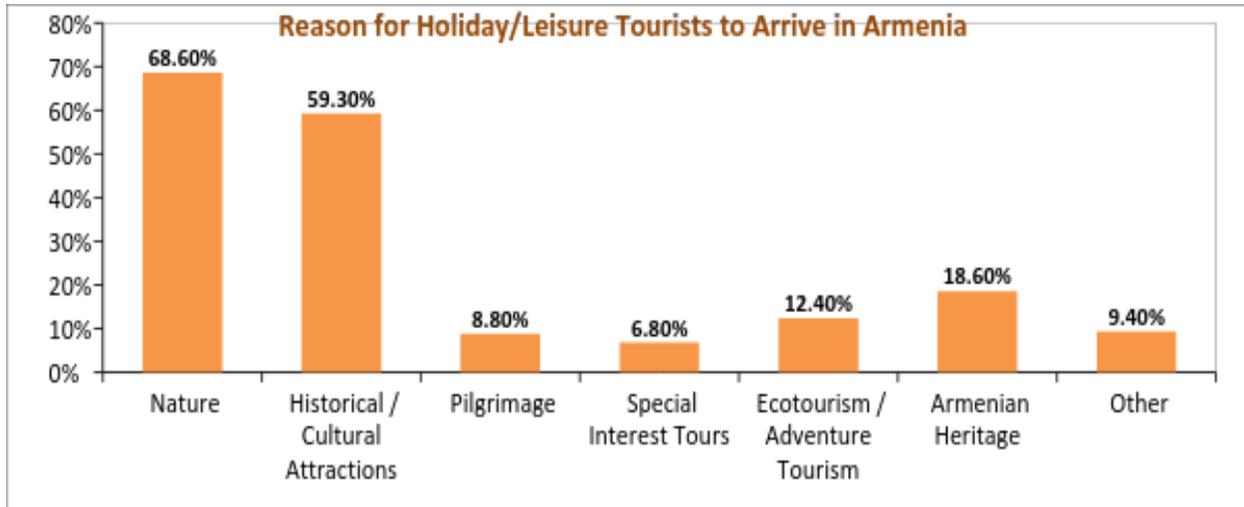
Source: National Statistical Services of Armenia

The majority of incoming tourists to Armenia have business as well as leisure and entertainment interests in the country. During the last eight years, there was no significant change in the structure. The leading one, business tourism on average accounts for around 40% of all visitors. During the recent decade, the share of leisure travel has increased almost twice – from around 13% in 2002 to 22% in 2011.

Other components of the structure are participation at conferences, sport and cultural events, long-term employment and so on. The share of such types of the tourism has also increased from around 14% in 2001 to around 48% in 2011.

It is worth mentioning that since 2009 significant changes have been registered in medical tourism. If in 2007 the number of incoming tourists hosted by hotel industry and interested in treatment issues was 130, then in 2011 this indicator comprised 1187. However, in 2012-2013, this figure dropped twice. But this situation does not allow assuming that the popularity of medical tourism is reducing because the vast majority of incoming tourists interested in medical tourism prefer staying at own or rented home.

The Armenian International Visitor Survey shows that Armenian nature was by far the main reason for spending holidays in Armenia. Next important reason for choosing Armenia for holiday/leisure tourism is historical and cultural attractions of the country. In Armenia, you can find sites from the official list of UNESCO World Heritage Sites such as Monasteries of Haghpat and Sanahin, The Cathedral and Churches of Echmiadzin and the Archaeological Site of Zvartnots, Monastery of Geghard and the Upper Azat Valley.

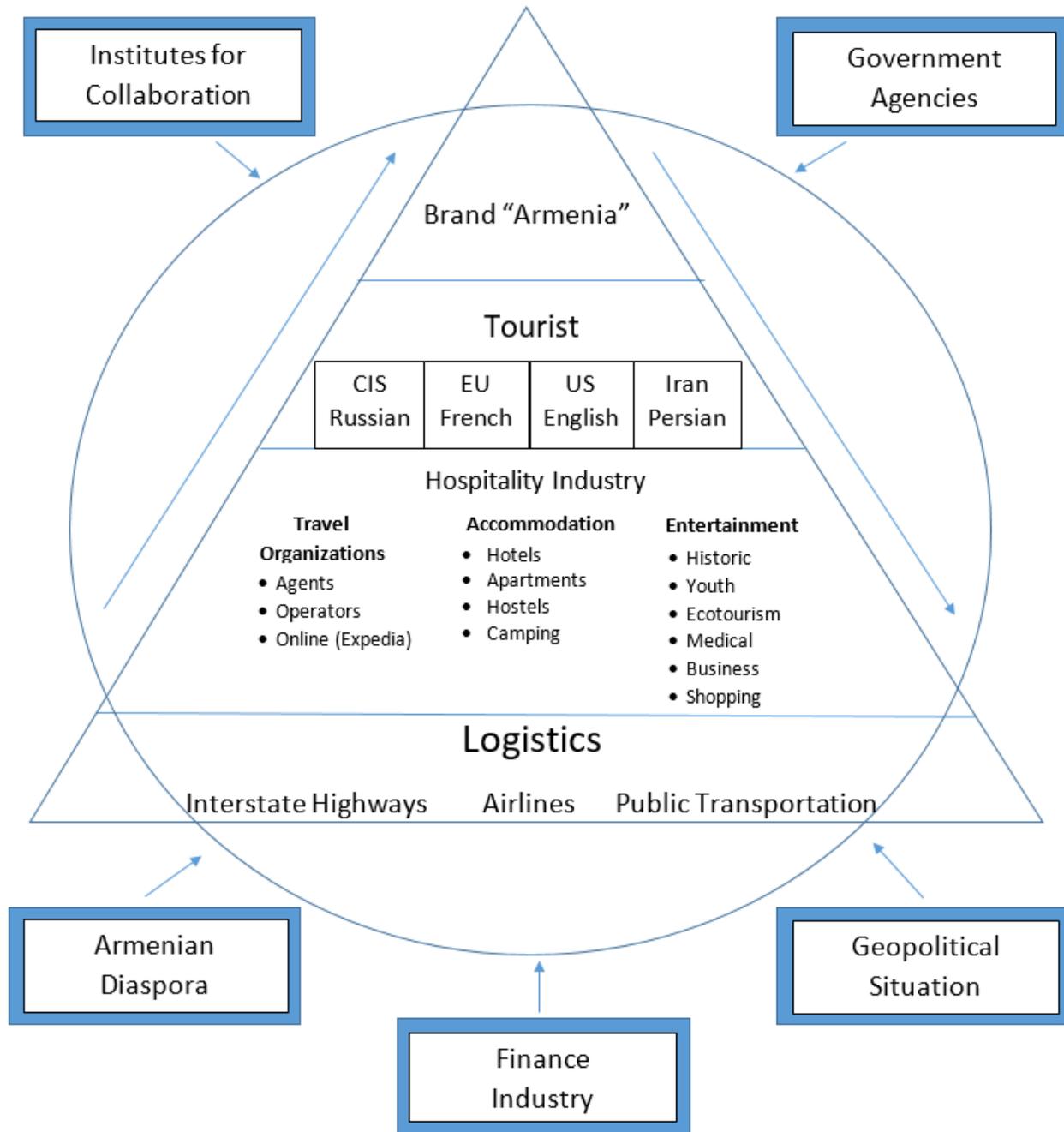


Source: Armenian International Visitor Survey, September 2006 – August 2007, Competitive Armenian Private Sector, USAID-funded Project

Armenian heritage (18.6%) and Adventure Tourism/Ecotourism (12.4%) were also significant reasons for international arrivals with holiday/leisure purpose.

Cluster Map

To understand such a complex and challenging industry in depth, there should be a structured approach and thorough understanding of interrelations between all players in the market. For that purpose, our team has created a unique canvas for tourism cluster research, it's called Tourism Cluster Value Chain, presented below.



This value chain can also be considered a mind map to the world of Armenian tourism. Inside the bubble are four main parts of the Value Chain: Logistics, Hospitality Industry, Tourists and "Armenia" Brand. The pyramidal shape underscores the fact that like in the Maslow pyramid of needs, there is a hierarchy of parts in the value chain: if the base part is not developed enough one cannot build upon a stable business model.

The foremost importance is given to Logistics of getting to Armenia and to places within it. If there is no means of getting to Armenia, like stable flights reaching Armenia at comfortable hours for potential tourists from main countries targeted by the industry or a developed Interstate Highway network within Armenia connecting it to neighbor countries, there could be no conversation about developing a tourism cluster. Another concern we suggest as crucial in logistic infrastructure is Public Transportation. In Armenia it is in an underdeveloped state, which can be fixed by government regulation, development of existing metro network in Yerevan and incentivizing a quality-first approach in providers of services, such as bus, microbus, taxi.

The second phase of development concerns the value-added services that clients are most willing to experience: Accommodation, Entertainment and services provided by Travel Organizations. This is the most robust and complex part of the Value Chain, as it intends an independent development of nearly every type of services in Armenia done by private sector.

Our paper is most concerned about the state of Accommodation industry, particularly hotel development. However, in Accommodation industry alone you have three more sub-categories: Apartments for rent, Hostels and Camping services (modest accommodation in the nature).

Another part of Hospitality is, of course, Entertainment industry. As it is the most complex industry in the Armenia, as it encompasses nearly all types of services, we suggest classifying them into six groups based on their end users:

- Historic (sightseeing, family reunion)
- Youth (extreme, night life)
- Ecotourism (experiencing nature's beauty)
- Medical (visiting Armenia for cheaper medical services like Stomatology)
- Business (visiting Conferences and organizing business meetings in Armenia)
- Shopping

Continuing the theme of Hospitality industry is Travel Organization Industry. It is mainly composed of Travel Organizations, Travel Agents, and online services booked by clients themselves. Their main job is to show the unknown, change perspectives and break stereotypes

about Armenia. By organizing interesting, guiding tourists through ancient and modern wonders of Armenia, they indisputably add as great of value to the overall customer satisfaction as Accommodation and Entertainment industries do.

Next pillar of the Value Chain is the Tourists themselves. All the work done prior, during and after their visit is useless if one cannot attract and retain them. Our thorough analysis of the industry and the industry statistics suggest there are four main types of tourists coming to Armenia:

- Visitors from CIS countries, majority of them speaking Russian
- US visitors speaking English
- EU visitors, speaking mainly French, apart from English
- Iran visitors, speaking Farsi

Our group suggests focusing forces of the industry mainly on these four types of tourist, as they are the most prevalent, all of them represent the biggest populations in the region, they are willing to revisit Armenia as they are either closely located or have business ties here, and the fact that there is a need to master only four languages to please the vast majority of tourists makes it far easier to recruit and train the staff accordingly to tourist population.

At last at the top of the pyramid, there is the main notion of all the work done, constantly reshaping brand of “Armenia”. Overall, everybody understands that to shape a brand one must define it first. As our country is a newly-independent state, there is this notion of being lost as there is nothing around to base yourself on. However, as slow as it seems Armenia is developing itself into a modern capitalist nation-state, which gives hope: the advent of technological development shifts the paradigm and day after day our country is shaping its brand and presenting it to the world. And the most fascinating part of this process is the fact that it is reciprocal: the industry is shaping the brand and the reshaping of the brand reshapes the industry.

This last part is crucial as tourism is one of the only industries in the world that is self-reinforcing, meaning that it’s not just demand that creates supply, but additional supply by itself stimulates demand. One can argue that if there was a demand for hotels in Armenia, they would already be built. However, the fact that tourists are willing to explore the world unseen and would

do that only if there is an existing supply, pushes the industry to develop and reshape itself every day.

And finally, the last part of the Tourism Cluster Value Chain that influences the industry in profound way consists of five outside factors:

- **Geopolitical Situation:** overall risks associated with visiting and doing business in Armenia are majorly driven by tensions in the region, including Nagorno-Karabakh conflict, Recognition of Armenian Genocide and instability in Middle East.
- **Finance Industry:** without proper capital investments, provided mainly by banking industry and private investment, there could be no consideration of further development
- **Government Agencies:** Proper regulation and government incentives help invigorate an industry and change overall business environment for the better
- **Armenian Diaspora:** more than 7 million Armenians abroad help tremendously in shaping the brand of “Armenia” throughout the world. By promoting its culture and instilling an interest in their foreign friends to visit Armenia, they add prosperity and great value to the universal cause of all Armenians; to see Armenia rise.
- **Institutions for Collaboration:** Many institutions in Armenia and abroad help spread the word and develop the appropriate institutional base for future development of the cluster.

This canvas called Tourism Cluster Value Chain, is meant for educating all parties involved in the process of cluster development. Our team is thrilled to share this unique perspective with everyone.

It is the first step of understanding the cluster and a useful tool for all researchers. Let this format be a structured canvas, that all parties use to research, discover and develop novelty in Armenian tourism cluster.

Hotels in Yerevan

Today, there are approximately 114 hotels in Yerevan. According to National Statistical Services of Armenia, among them around 77% belongs of the low-cost class, 12% economy class, and the rest are upscale or upper upscale hotels (11%).

Some part of the hotels in the city was built in Soviet times and has been completely refurbished after privatization. However, most of the hotels have been constructed over the last decade. During 2005-2011, the total number of hotels has almost doubled in Armenia. However, the bed capacity increased only around 1.4 times, i.e. more facilities with a small number of rooms were opened in the country.

Nowadays, there are six international chain member hotels in Yerevan: Best Western International, Marriot International, Golden Tulip Hospitality Group, Hyatt Place, Radisson Blue and DoubleTree by Hilton Hotel. The opening of Ibis Yerevan Hotel will add one more international chain hotel in Armenian hospitality industry supply.

Institutions for Collaboration

In the tourism sector, there are several institutions of collaboration which are more or less have their impact on the development of this cluster in Armenia. Here are the most important ones:

- The Union of incoming tour operators
- The Union of Armenian tour operators
- The Armenian Guides Guild
- The Association of Armenian hotels
- The Association of Ecotourism

These are private sector entities the primary goal of which is creating a brand name for Armenian tourism cluster, promoting the development of this industry, increasing the quality of the offered services, etc. Most of these associations are created in years 2004-2006.

The biggest impact made on the development of tourism cluster is associated with the Union of incoming tour operators a non-governmental organization including 39 member companies. This association being private and non-governmental is keeping connections with Ministry of Economy of Armenia and reporting time to time their results to the minister, which is showing the interest of Armenian government in the future development of this cluster.

It is worth mentioning that the members of associations are mainly leading tour operators and best hotels in Armenia which want to spread their practices and dictate their rules in the market.

Regression Analysis of the Hospitality Industry of Armenia

Analysis and Key Findings

For the regression analysis we have chosen the main 37 three to five star hotels in Yerevan. The variables that we have considered are the following: Price, location, number of rooms in the hotel, chain membership, starts, review scores, parking availability, number of languages spoken, pet allowance, presence of beauty services, spa, pool, fitness, gift shop and shuttle service.

During our research we have found that as of May 4, 2016, the **price** range for mentioned type of hotels in Yerevan varies from AMD23, 000 (Delux Hotel) to AMD84, 000 (Hyatt Place).

In order to take the **location** as a variable, we need to quantify it. We have taken the central point of Northern Avenue, have given it value of 0 and measured the distances of hotels from that point. The closest hotel to that point has turned out to be the North Avenue Hotel (15 meters), and the farthest one was Caucasus Hotel (8780 meters).

As a criteria for composing our list of hotels, we have taken only ones that have more than 20 rooms. Our research showed that the most **number of rooms** among hotels of Yerevan has Ani plaza hotel (262 rooms), and the “poorest” one in this variable is Forum hotel (23 rooms).

Nowadays, there are six international **chain member hotels** in Yerevan: Best Western International, Marriot International, Golden Tulip Hospitality Group, Hyatt Place, Radisson Blue, DoubleTree by Hilton Hotel. The opening of Ibis will add one more international chain hotel in Armenian hospitality industry supply. Only the **star** ranking of above mentioned hotels are corresponding to the international standards. For the remaining hotels we have taken the star rankings in *Booking.com*.

For getting the accurate *review scores*, instead of relying on one source, we have calculated the average reviews scores of *Booking.com*'s and *TripAdvisor*'s. According to the data, the minimum review score by 10 scale grading system is 7 (Shirak Hotel) and the maximum is 9.3 (Opera Suite Hotel).

The rest of the variables, including chain membership, are dummy, so in order to accurately include them in our model analysis, we assigned them certain costs.

Afterwards, we have inserted some available information about Ibis Hotel, such as the number of rooms (255), the star ranking (3 star hotel), location from the central point (15 meters), languages spoken (4). Among the dummy variables mentioned Ibis Yerevan has the following ones: parking, gift shop and shuttle services.

Comments on the Regression Analysis

In Exhibit 5, we show the graphic representation of assumed Regression formula, bringing to optimal price. It is shown that the optimal price is obtained at Elasticity level of 1. The Average Cost is dropping precipitously in the first quantities of supply, eventually minimizing at approximately the optimum quantity. At this quantity the corresponding optimum price brings to maximum Total Revenue. As industry analysis suggests, the majority of expenses have a nature of fixed costs, which helps us assume that the marginal cost of hotel service is nearly insignificant. So, if we simplify the idea, at optimum quantity and price we would get not only maximum revenue, but maximum profit.

So we have done regression analysis in order to find the standard room price of Ibis Hotel, which is in the range from approximately 55000 AMD to 60000 AMD. The optimal price of 58000 AMD was obtained from the best regression with p-value 0.115209. This number is showing significance and accuracy of our analysis from which we can conclude that a number of 58000 AMD per standard room is a reasonable price. For details, see Exhibit 6.

This relatively low p-value was obtained by changing the proportions of the costs in the component of average cost (sum). Particularly we took this structure:

- Chain member-15000
- Prking-3000
- Pets allowed-1000
- Beauty salon-1000
- Spa-1000
- Fitness-1000
- Pool-1000
- Language-1000
- Gift shop-2000
- Shuttle service-2000

As this is an extremely subjective industry with subjective and diverse preferences of customers it is difficult to find the most accurate proportions of these costs in the whole cost structure of the hotels. We tried different proportions of these costs and finally came to the conclusion that the highest importance in these parameters should be given to the Chain member parameter. We gave a value of 15000 to Chain member which is much higher than the others, which shows the competitive edge of chain member hotels in setting higher prices based solely on said membership. All others are services which were given a proxy of market price for a daily package of such services. We took these proportions as they are resulting in the lowest p-value. R squared (coefficient of determination) in this regression is about 65% which is showing that 65% of the variations are explained by this model.

As for the coefficients we got following numbers:

- Stars 9922.636726
- Location (meters) -3.993835141
- Review score 3967.770291
- Number of rooms 35.51700476
- Sum (average cost) 0.517159554

These coefficients show that the except location parameter all others are positively correlated with the price of the room. More specifically, the increase in variables such as star ranking, number of rooms, review scores and average costs increase the price per room. On the

other hand parallel with the increase of the distance of the hotel from the city center the prices of the rooms are falling. The remoteness of the hotel from the center and its overall location put downward pressure on the willingness to pay of the tourists.

Because hospitality industry is auto perpetuating there is no clear dependent and independent variable, so there could be both effect of stars and review score on the price and the opposite. Also this industry is one of the rare which creates demand through supply, and not only the opposite. This suggests that going against the flow can bring added value to the industry.

Elaborating on the obtained results we can conclude that there is obvious demand for the economy class hotels (3-star hotels) which are proving high quality-price ratio.

Ibis Background

Ibis is an international three-star hotel company, owned by Accor Hotels group that was founded in 1967. The Ibis opened its first hotel in 1974 and in January 2014 it opened the 1000th hotel in Surabaya, Indonesia. In France, there are about 400 Ibis hotels and the rest of the hotels are mainly in other countries of Europe. The hotels are close to city centers, airports, railway stations and offer low rates compared to many global hotel groups of the same size.

Ibis offers its customers the ultimate comfort and the proof are the new innovative bedding designed by IBIS Research Department, a comfortable and well-equipped room and new welcome areas. The Ibis Hotel's main objective is to offer its customers qualified services, which will stand out from competition and satisfy customers' needs and expectations while maintaining the necessary profitability for the survival and growth of the company. Ibis ensures the highest-level service of its category: 24-hour reception, breakfast from 4:00 am to midday, light meals served all day and a non-stop bar. Ibis has a ISO 9001 certified guarantee of quality and "15 minutes' satisfaction" contract, which means that if the hotel is not able to resolve the problem in a given time, the service is paid for the client.

Ibis Armenia has approximately 250 rooms and all of these rooms are designed to offer their clients a peaceful sleep and the possibility to work quietly: soundproofed, connected to

Wi-Fi of the hotel, flat LCD screen TV, a desk and a roomy bathroom will be available. At the same time, rooms have been designed to be eco-responsible by having a cost-saving lighting but being bright, built from materials according to environmental norms (certified by Forest Stewardship Council), even the soap will be Eco label designed exclusively for Ibis.

Conclusion

The regression analysis and the whole case study revealed the most important factors that are taken into account when setting the price. As a result of our regression analysis, we created the profile of the successful hotel, which is located in the heart of the capital, is a member of famous international chain, offers adequate price-quality ratio, and is quiet large to dictate its rules in the market. This is the most profitable and sustainable business model that can operate in the Armenian market. The model is considered sustainable when it has the highest revenue generation coming from increased turnover and acceptable pricing.

As mentioned before, chain is a very important factor. Many hotels are increasing their price based on only being a member of a respected global chain. Thus, Hyatt Place or Double Tree by Hilton do not offer additional services as, for example, Ani Plaza. However, by being chain members they are able to overprice their services while Ani Plaza is obliged to decrease its prices.

Hotel chains guarantee service standardization which according to our model is considered to be the most viable investment. The model shows that profit margin shrinks when you add more services, because the purchasing power of customers stays roughly the same. So, there is no meaning in adding new services, when marginal analysis of those services shows the opposite: the cost of maintenance is higher than the increase in price. Additional services, like swimming pool, spa, gym, beauty services, and the like, do not add value. Only becoming international chain member and consequently implementing better international standards will bring more added value than all other services combined and will substantially increase the willingness to pay of clients. This will elevate the hotel from the scene of other players in the market in the eyes of tourists and local population.

During our research also we found out that tourists coming to Armenia are mainly no-frills and low-cost. This means that they prefer adequate amount of low-cost service. Adequate price-quality ratio is extremely important for them. Concerning the hotel chains, we can say that it is important for tourists to know that when coming to unknown country like Armenia they will find respected and well-known hotels. Location of the hotel is also a significant variable for them. Tourist is more interested in entertainment, like museums, restaurants, clubs, pubs, cafes, etc., located mainly in the city center. This factor becomes even more important for countries like Armenia with uncomfortable transportation and where only the city center is developed and there are not many things to see in the peripheries.

Positive logical correlation between star and price was also proved by our model. However, it is worth mentioning that there are many self-proclaimed 5 star hotels in Yerevan that have negative influence of the industry. These hotels, like hotel National, do not offer any services that will match with their five-star image.

Another crucial factor is the size of the company. If you are big the bargaining power in the market is getting bigger, which means you can dictate prices to travel agencies and serve the niche of large groups of business tourists who notably have higher purchasing power. In case of Armenia this can be a serious competitive advantage as there is a oligopolistic market of travel agencies that set their own game rules.

These were the biggest takeaways of our regression analysis that hopefully will guide industry in the right direction, bring the desired fast pace development to the cluster and contribute to the international image of Armenia. We expect that tourism will become the new locomotive of Armenian economy by reinvigorating it and reinstating the double-digit growth Armenia once had when being called “Caucasian Tiger”.

Exhibit 1 Armenia’s Performance Compared to Georgia and Azerbaijan

	Armenia (Rank)	Georgia (Rank)	Azerbaijan (Rank)
2015 Index (out of 141 countries)	89	71	84
Business Environment	50	32	65
Environmental sustainability	97	51	94
Safety and security	38	32	36
Health and hygiene	48	31	44
Prioritization of travel and tourism	80	53	58
Air transport infrastructure	92	94	84
Ground transport infrastructure	97	67	65
Tourism infrastructure	73	50	93
ICT Readiness	69	82	74
Price competitiveness in T&T industry	77	66	65
International Openness	83	58	107
Human resources	71	50	49
Natural resources	136	126	130
Cultural resources	99	80	87

Exhibit 2 Targets Established by the 2008 Tourism Development Plan

Targets	2020	2030
PRIMARY TARGETS		
International Tourism Arrivals (CAGR – 9%)	1.5 million	3 million
Income Generated from Inbound Tourism (CAGR 11% at 2007 prices)	US\$1.35 billion	US\$3 billion
Internal Tourism Visits	1 million	1.5 million
Tourism Employment as a % of Total Employment	1.9%	2.0%
SECONDARY TARGETS		
Armenia’s Market Share in Europe	0.18%	0.31%
Total Bed Spaces	49,315	51,370
Hotel Occupancy Rates	50%	60%
Per Capita Daily Expenditure (2007 prices)	\$60	\$67
Armenia’s Ranking in WEF T&TC Index	<60	<50
Government Tourism Expenditure	US\$ 7.9 million	US\$ 49 million
TERTIARY TARGETS		
Proportion of Leisure/Vacation Tourists	20%	25%
Number of Leisure/Vacation Tourists	300,000	750,000
Proportion of Diaspora Visitors as % of Total	<55%	<50%
Number of Diaspora Visitors	825,000	1.5 million
Proportion of First Time Diaspora Visitors	20%	20%
Average Length of Stay	15 days	15 days
Repeat Visitation Rate	60%	50%
Use of Internet for Travel Bookings	25%	50%
Leisure Tourists Use of Tour Operators	20%	20%

Exhibit 3 Structure of Incoming Tourists by the Country of Origin

	2006	2007	2008	2009	2010	2011	2012	2013
CIS countries	23.9	24.8	21.6	18.4	21.0	19.9	21.8	27.8
Russia	19.6	18.3	18.9	16.2	18.3	16.8	18.5	22.7
Other CIS countries	4.3	6.5	2.7	2.1	2.7	3.0	3.3	5.1
Non-CIS countries	76.1	75.2	78.4	81.6	79.0	80.1	78.2	72.2
EU countries	35.5	37.1	37.0	37.1	31.3	38.5	38.4	36.3
France	14.8	12.1	11.0	13.4	9.4	10.0	8.6	7.7
Germany	5.3	6.7	6.5	7.5	5.7	5.5	5.5	6.1
United Kingdom	5.3	6.4	5.0	3.3	4.3	4.7	7.6	3.4
Other EU countries	10.1	11.9	14.4	12.8	11.9	18.3	16.7	19.1
Other countries	40.6	38.1	41.4	44.5	47.7	41.6	39.8	35.9
USA	21.6	21.0	17.8	18.1	14.4	14.8	13.1	12.2
Iran	5.3	5.0	5.3	7.7	10.4	7.4	6.8	5.8
Georgia			5.1	3.8	3.6	2.6	2.8	3.1
Turkey	1.2	0.9	1.4	1.2	2.8	1.4	0.8	0.7
Canada	2.1	1.9	1.7	1.9	2.0	1.7	1.3	1.3
Other countries	10.3	9.3	10.2	11.7	14.5	13.7	15.0	12.7

Source: Avenue Consulting Group, Tourism and Services Development Tendencies in Armenia 2014

Exhibit 4 International Tourists Arrivals: Place of Stay



Source: National Statistical Services of Armenia, 2011

Exhibit 5 Total Revenue and Maximum Profit

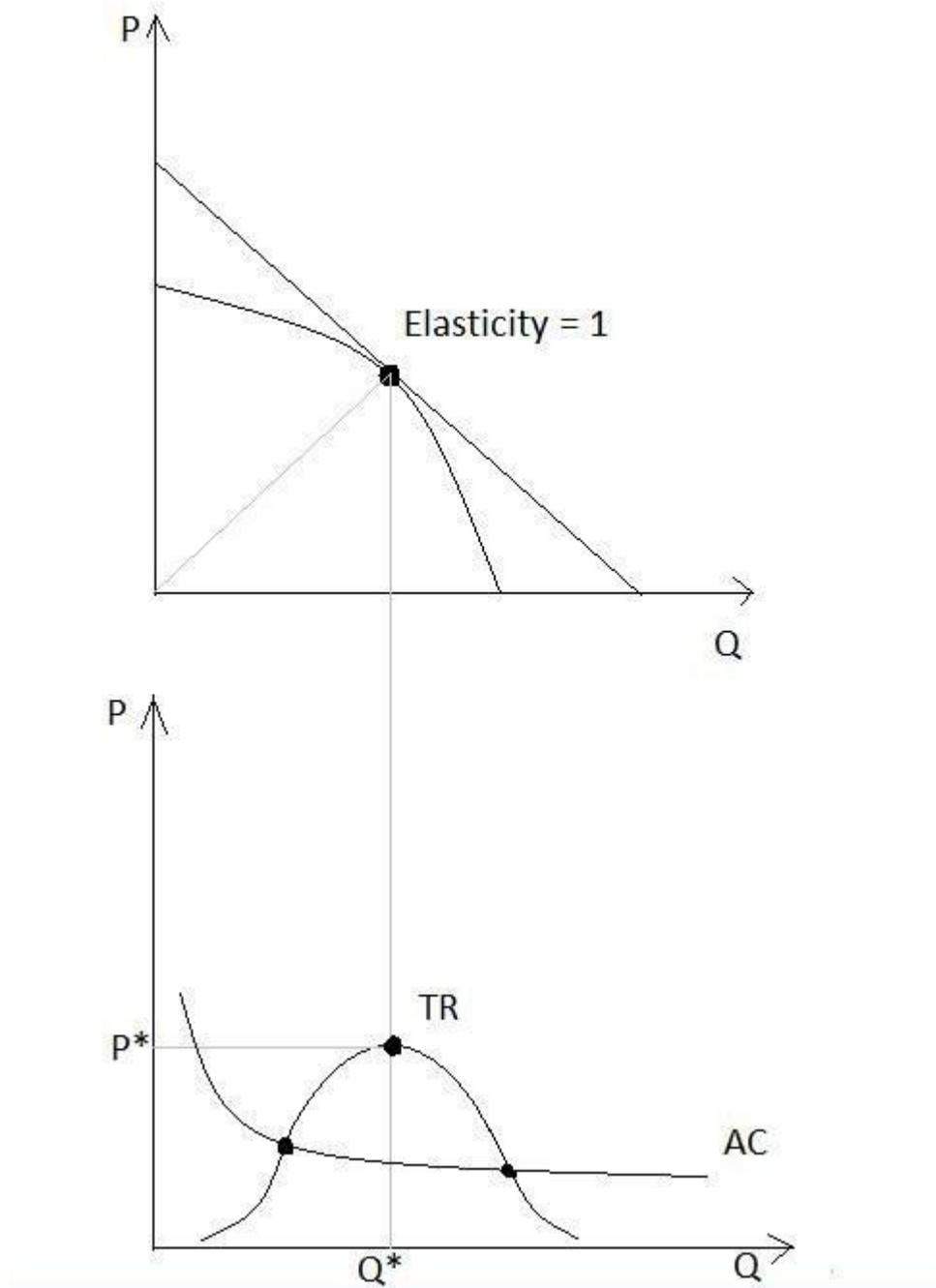


Exhibit 6 Screenshots of Regression Analysis

Step 1: Data Collection, Proportion Setting

#	Hotels	Price (Stan Stars	Location (r	Review Soc	Number of Chain Men	Parking	Pets Allow	Beauty Ser Spa	Fitness	Pool	Language	Gift shop	Shuttle Ser Sum		
1	Hotel Nati	71000	5	430	8.5	75	0	0	0	1	1	2	0	1	7000
2	Royal Tulip	69000	5	105	9	104	1	2	2	1	1	1	1	0	35000
3	Paris Hote	54000	4	390	9.1	65	0	2	1	0	0	5	0	1	15000
4	Hotel Repu	76000	4	535	9.2	56	0	0	1	0	0	4	1	1	10000
5	Erebuni Hc	38000	4	540	8.9	38	0	0	0	0	0	2	1	1	6000
6	Tufenkian	77000	4	515	9.1	82	0	0	0	1	0	2	1	1	8000
7	Opera Suit	61000	4	930	9.3	101	0	2	1	0	1	7	0	1	18000
8	Best West	55000	4	815	8.4	126	1	0	2	1	1	0	2	1	26000
9	North Aven	62000	4	15	8.9	24	0	0	0	1	0	5	0	1	8000
10	Ani Plaza H	46000	4	475	8.3	262	0	2	0	1	1	7	1	1	21000
11	Minotel Be	42000	4	815	8.8	50	0	2	0	0	0	2	1	1	12000
12	Marriott A	75000	4	465	8	259	1	2	1	1	1	4	0	0	29000
13	Diamond H	49000	4	615	8.9	52	0	1	0	0	1	3	1	1	11000
14	Europe Ho	56000	4	525	8.6	47	0	0	0	1	0	3	0	1	6000
15	Hotel Arar	40000	4	1130	8	50	0	0	0	1	1	6	1	1	13000
16	Royal Plaz	53000	4	815	8.8	84	0	1	0	0	0	4	1	1	11000
17	Hyatt Plac	84000	4	575	8.9	95	1	2	1	0	0	10	0	1	35000
18	Double Tre	63000	4	1150	7.9	176	1	2	0	0	1	3	0	0	26000
19	Imperial P	45000	4	1090	9.1	77	0	2	0	0	1	2	1	0	12000
20	Metropol	57000	4	1350	8.3	109	0	1	0	0	1	6	1	1	15000
21	Hotel Shir	33000	3	725	7	100	0	2	0	1	0	2	1	1	13000
22	Cascade H	42000	3	1080	8.7	25	0	0	0	0	0	2	0	1	4000
23	Panorama	42700	3	1760	8.8	82	0	1	0	0	1	2	0	1	9000
24	Nare Hote	30000	3	2010	8.7	30	0	1	0	0	1	2	0	1	9000
25	Delux Hote	23000	3	2450	8.8	25	0	1	0	0	1	3	0	1	9000
26	Forum Hot	38250	4	1200	9.2	23	0	1	2	0	1	2	0	0	9000
27	Hrazdan H	35000	3	1240	8	77	0	1	0	0	0	2	0	1	8000
28	Caucasus H	25000	5	8780	9	46	0	1	1	0	1	4	1	1	15000
29	Nova Hote	39000	4	560	8.6	37	0	0	0	0	0	4	0	1	6000
30	Artsakh Hc	40000	4	3400	9.1	36	0	2	0	0	1	3	1	1	14000
31	Nairi Hote	38000	3	1840	7.6	120	0	2	0	0	1	2	0	1	12000
32	Aviatrans H	45000	4	90	8.6	90	0	2	0	0	1	3	1	0	12000
33	Silachi Hot	30000	3	1360	8.1	70	0	2	0	0	0	2	1	0	10000
34	Regineh H	31450	3	1600	9.2	57	0	2	2	0	0	2	0	1	13000
35	Venice Ho	25000	3	3500	8.8	50	0	2	1	1	0	2	0	1	13000
36	Baden-Bac	25000	3	7500	8.3	30	0	2	0	0	0	2	0	1	10000
37	Olympia H	28000	3	4200	7.6	30	0	2	0	0	1	2	1	1	13000
	Ibis		3	15	8.6	255	1	1	0	0	0	4	1	1	26000
Allocation	Cost	in AMD													
Chain Men	Parking	Pets Allow	Beauty Ser	Spa	Fitness	Pool	Language	Gift shop	Shuttle Service						
15000	3000	1000	1000	1000	1000	1000	1000	2000	2000						

IBIS: Filling the Longstanding Gap of Armenian Tourism Cluster

Step 2: Identifying Chain Membership, Location, and Review Score significance

#	Hotels	Price (Standard Room)	Distance from Center	Review Score	# of rooms	Chain Member	Shuttle Service	SUMMARY OUTPUT	
1	Hotel National	71000	430	8.5	75	0	1		
2	Royal Tulip Grand	69000	105	9	104	1	0	Regression Statistics	
3	Paris Hotel	54000	390	9.1	65	0	1	Multiple R	0.78733796
4	Hotel Republica	76000	535	9.2	56	0	1	R Square	0.61990106
5	Erebuni Hotel	38000	540	8.9	38	0	1	Adj R Square	0.55859478
6	Tufenkian Histor	77000	515	9.1	82	0	1	Standard Error	11068.2554
7	Opera Suite Hotel	61000	930	9.3	101	0	1	Observations	37
8	Best Western Co	55000	815	8.4	126	1	1		
9	North Avenue Ho	62000	15	8.9	24	0	1		
10	Ani Plaza Hotel	46000	475	8.3	262	0	1		Coefficients
11	Minotel Barsam	42000	815	8.8	50	0	1	Intercept	-49688.8304
12	Marriott Armeni	75000	465	8	259	1	0	Location	-3.87122758
13	Diamond House	49000	615	8.9	52	0	1	Review Score	10279.2168
14	Europe Hotel	56000	525	8.6	47	0	1	# of rooms	69.797731
15	Hotel Ararat	40000	1130	8	50	0	1	Chain	20905.0803
16	Royal Plaza	53000	815	8.8	84	0	1	Shuttle	7564.52145
17	Hyatt Place	84000	575	8.9	95	1	1		
18	Double Tree by H	63000	1150	7.9	176	1	0		P-value
19	Imperial Palace	45000	1090	9.1	77	0	0	Intercept	0.16106509
20	Metropol	57000	1350	8.3	109	0	1	Location	0.0008823
21	Hotel Shirak	33000	725	7	100	0	1	Review Score	0.01049244
22	Cascade Hotel	42000	1080	8.7	25	0	1	# of rooms	0.11643872
23	Panorama Resor	42700	1760	8.8	82	0	1	Chain	0.0035315
24	Nare Hotel	30000	2010	8.7	30	0	1	Shuttle	0.1545223
25	Delux Hotel	23000	2450	8.8	25	0	1		
26	Forum Hotel	38250	1200	9.2	23	0	0		
27	Hrazdan Hotel	35000	1240	8	77	0	1		
28	Caucasus Hotel	25000	8780	9	46	0	1		
29	Nova Hotel Yere	39000	560	8.6	37	0	1		
30	Artsakh Hotel	40000	3400	9.1	36	0	1		
31	Nairi Hotel	38000	1840	7.6	120	0	1		
32	Aviatrans Hotel	45000	90	8.6	90	0	0		
33	Silachi Hotel	30000	1360	8.1	70	0	0		
34	Regineh Hotel	31450	1600	9.2	57	0	1		
35	Venice Hotel	25000	3500	8.8	50	0	1		
36	Baden-Baden Ho	25000	7500	8.3	30	0	1		
37	Olympia Hotel	28000	4200	7.6	30	0	1		

IBIS: Filling the Longstanding Gap of Armenian Tourism Cluster

Final Step: Price Identification, Finding Best Proportion of Relevant Costs

#	Hotels	Price (Standard Room)	Stars	Distance from Center	Review Score	# of rooms	Average Cost		
1	Hotel National	71000	5	430	8.5	75	7000		SUMMARY OUTPUT
2	Royal Tulip Grand Hotel	69000	5	105	9	104	35000		
3	Paris Hotel	54000	4	390	9.1	65	15000		<i>Regression Statistics</i>
4	Hotel Republica	76000	4	535	9.2	56	10000	Multiple R	0.803799
5	Erebuni Hotel	38000	4	540	8.9	38	6000	R Square	0.646093
6	Tufenkian Historic Yerevan Hotel	77000	4	515	9.1	82	8000	Adj R Square	0.589011
7	Opera Suite Hotel	61000	4	930	9.3	101	18000	Standard Error	10680.1
8	Best Western Congress Hotel	55000	4	815	8.4	126	26000	Observations	37
9	North Avenue Hotel	62000	4	15	8.9	24	8000		
10	Ani Plaza Hotel	46000	4	475	8.3	262	21000		
11	Minotel Barsam Suites	42000	4	815	8.8	50	12000		<i>Coefficients</i>
12	Marriott Armenia	75000	4	465	8	259	29000	Intercept	-27939.3
13	Diamond House Hotel Yerevan	49000	4	615	8.9	52	11000	Stars	9922.637
14	Europe Hotel	56000	4	525	8.6	47	6000	Location	-3.99384
15	Hotel Ararat	40000	4	1130	8	50	13000	Review Score	3967.77
16	Royal Plaza	53000	4	815	8.8	84	11000	# of rooms	35.517
17	Hyatt Place	84000	4	575	8.9	95	35000	Sum	0.51716
18	Double Tree by Hilton	63000	4	1150	7.9	176	26000		
19	Imperial Palace	45000	4	1090	9.1	77	12000		<i>P-value</i>
20	Metropol	57000	4	1350	8.3	109	15000	Intercept	0.408106
21	Hotel Shirak	33000	3	725	7	100	13000	Stars	0.009109
22	Cascade Hotel	42000	3	1080	8.7	25	4000	Location	0.000481
23	Panorama Resort&Suites	42700	3	1760	8.8	82	9000	Review Score	0.343376
24	Nare Hotel	30000	3	2010	8.7	30	9000	# of rooms	0.460438
25	Delux Hotel	23000	3	2450	8.8	25	9000	Sum	0.115209
26	Forum Hotel	38250	4	1200	9.2	23	9000		
27	Hrazdan Hotel	35000	3	1240	8	77	8000		
28	Caucasus Hotel	25000	5	8780	9	46	15000		
29	Nova Hotel Yerevan	39000	4	560	8.6	37	6000		
30	Artsakh Hotel	40000	4	3400	9.1	36	14000		
31	Nairi Hotel	38000	3	1840	7.6	120	12000		
32	Aviatrans Hotel	45000	4	90	8.6	90	12000		
33	Silachi Hotel	30000	3	1360	8.1	70	10000		
34	Regineh Hotel	31450	3	1600	9.2	57	13000		
35	Venice Hotel	25000	3	3500	8.8	50	13000		
36	Baden-Baden Hotel	25000	3	7500	8.3	30	10000		
37	Olympia Hotel	28000	3	4200	7.6	30	13000		
	Ibis Hotel (Prospected)	58394.54419	3	15	8.6	255	26000		

Organizations' Web Pages

Avenue Consulting Group at www.avenueconsulting.am

Central Intelligence Agency at www.cia.gov

Doing Business at www.doingbusiness.org

Global SPC: Invest in Armenia at www.investinarmenia.am

Ministry of Economy of the Republic of Armenia at www.mineconomy.am

National Statistical Services of the Republic of Armenia at www.armstat.am

Observatory of Economic Complexity at www.atlas.media.mit.edu

Organization for Economic Co-operation and Development (OECD) at www.oecd.org

United Nations Development Programme at www.undp.org

World Bank (WB) at www.worldbank.org

World Economic Forum (WEF) at www.weforum.org