CENTRAL AMERICAN MEDIA: A COMPARATIVE STUDY OF MEDIA INDUSTRIES IN GUATEMALA, NICARAGUA, HONDURAS, EL SALVADOR, AND COSTA RICA

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The five countries that lie on the isthmus connecting North and South America have endured a past of colonialism, civil war, and natural disaster. As these countries evolve in the 21st century, growing economies and political peace provide a promising outlook for the citizens of these nations. The media industries in these nations have varying levels of development which are explored in this thesis. Using Michael Porter's 1990 framework and a case study methodology, this thesis explores the differences and similarities of media industries in Guatemala, El Salvador, Honduras, Nicaragua and Costa Rica, and what may be done to ensure future success in an increasingly global world.

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TABLE OF CONTENTS

LIST OF TABLES AND ILLUSTRATIONS

Page

Tables

Figures

CHAPTER 1

INTRODUCTION

Central America consists of several small countries placed on the isthmus between North and South America. This region and its citizens have endured countless challenges and hardships throughout their existence, starting with the invasion and colonization by Spain in the 16^{th} century, to civil wars and political unrest throughout much of the 20^{th} century. The region is one of the poorest in the world. According to the Central Intelligence Agency (CIA) World Fact Book (2007), these five countries rank mostly in the bottom half on the international economic chart. However, with peace and relative stability throughout the region, Central America may be on its way to providing a better life for its citizens. By looking at the Human Development Index (HDI), a combination of literacy, education, and economic data, all countries have displayed consistent growth since 1975 (United Nations [UN], 2007). All are now considered in the Medium Human Development category or higher. These data are intended to show not only economic development, but also an aggregate display of the quality of life for citizens of these nations. The HDI is ranked on a scale between zero being the lowest, and one being the highest. All nations are assigned an HDI value, then ranked and divided into three development categories of low, medium, and high. The medium development category consists of HDI values between 0.502 and 0.798. High human development ratings start at an HDI value of 0.8. Costa Rica is the only nation in Central America to obtain the status of high human development with an HDI value of 0.846; ranking 48th of the 177 nations included in the index. Table 1 displays these trends.

Table 1

Human Development Index Growth

	1975	1980	1985	1990	1995	2000	2005
Costa Rica	0.746	0.772	0.774	0.794	0.814	0.83	0.846
El Salvador	0.595	0.59	0.611	0.653	0.692	0.716	0.735
Nicaragua	0.583	0.593	0.601	0.61	0.637	0.671	0.71
Honduras	0.528	0.578	0.611	0.634	0.653	0.668	0.7
Guatemala	0.514	0.55	0.566	0.592	0.626	0.667	0.689

Source: United Nations (2007).

Central America is comparable both in size and population to the state of California. All are now civilian democracies with the most recent transition occurring in Guatemala in 1996. Other similarities include a racial mix of Mestizo (European and indigenous mix) and an indigenous population mostly of Mayan descent. Civil war plagued this region throughout the 20th century with the most devastating political conflicts in Nicaragua, El Salvador, and Guatemala (Booth, Wade, & Walker, 2006).

The most influential recent development within the region is the enactment of the Central American Free Trade Agreement (CAFTA). This agreement with the United States is hoped to stimulate the economies within this region by reducing tariffs on agricultural goods, as well as encourage foreign investment within these nations (United States Trade Representative, 2004). All countries, except Costa Rica, implemented this agreement in 2006. The agreement has had mixed reviews from the people of Central America, and the effects of this agreement are yet to be identified. It is speculated that this agreement will attract foreign direct investment and increase exports, but will do little to aid the rural and urban poor (Washington Office on Latin America, 2007).

To provide a better life, income and wealth for individuals must correspond with a growing economy. The political landscape must remain stable and provide leaders who will generate productive legislation for success in this globalizing world. One vital way for nations to succeed in this respect is through information and education. Citizens need to be aware of the workings of their government, as well as the world outside of their country. The way to disseminate this information is through the media. A successful media industry can provide the necessary information to individuals regarding issues of government and world affairs (Rockwell & Janus, 2003). In addition, a successful media industry can aid in the education of individuals and provide entertainment, which may improve the quality of life for its consumers. Additionally, as a media industry grows, more jobs may be created further stimulating the economy and demand.

Media Within the Region

Media industries have been in Central America for some time in varying capacities. Newspapers were initially the only real form of national and even regional information, but many of these papers have had a rough past operating due to wars and oppressive governmental regimes. Some are openly political, while others portray an unbiased approach (Rockwell & Janus, 2003). For example, Nicaragua's Radio Ya was started by the liberal Sandinista party. This radio station continues to be openly biased as a mouthpiece for the party. In contrast, Costa Rica, with its long time separation of government and media, maintains a number of successful media enterprises that display little political bias (Rockwell & Janus, 2003).

Literacy rates are low throughout parts of the region. For example, only 69.1% of Guatemala's population is literate (UN, 2007). Also, there are complications dealing with the physical delivery of papers due to rugged terrain and primitive transportation routes. Because of these two factors, radio has become the preferred media throughout the region. Radios are relatively cheap, and the need for electricity is not necessary if batteries are accessible. Delivery is obtainable regardless of terrain, and there is a social aspect that enables large numbers of individuals to be exposed at once. However, compared to more developed countries, the dissemination of radios in this region is still low (Rockwell & Janus, 2003).

Television remains relatively low in consumption compared to developed nations. Much of this is due to low incomes. Many individuals in this region do not have electricity, or the ability to purchase a television set. For this reason, television offerings have historically been sparse and reserved for those few in the higher classes and urban areas. However, this is changing with low cost television receivers and the increase of wages. Computers and Internet access remain low in the region. As of 2004, computers per 1,000 inhabitants ranged from a high of 219 in Costa Rica to a low of 16 in Honduras (UN, 2007). Public Internet cafes can be found throughout the region, but most citizens do not have the ways and means to embrace computers (Rockwell & Janus, 2003).

The five nations that will be examined have similar colonial histories, being ruled as one region by Spain in the 1820s and 1830s. Additionally, there have been multiple collaborative efforts to combine these nations along political and economic lines, although nothing besides a level of trade agreements have been officially decided on. However, with similar indigenous and colonial histories, as well as multiple revolutions that have simultaneously occurred in the region, these five countries hold many similarities and an overall sense of being a Central American. Belize is technically part of the region, but with independence from Great Britain being fairly recent in 1981, and a population that speaks mostly English, this nation will be excluded from analysis. Panama, though bordering Costa Rica, identifies more with its South American neighbors than Central America. As a part of Columbia until the early 20th century, Panama has developed differently than the rest of Central America (Booth, Wade, & Walker, 2006).

Although these countries share a similar colonial history, they do differ in their degrees of development in politics, economics, and media (Booth, Wade, & Walker, 2006; Rockwell & Janus, 2003). Costa Rica has maintained a relatively successful newspaper and radio industry since the 1950s, contrasted to Guatemala which still struggles to develop and maintain successful media enterprises (Rockwell & Janus, 2003).

Central American Media by Country

A brief examination of the media industries in each of the five nations is provided below. These explanations show that there are both similar and different aspects that exist among the media industries in each of these nations. However, these summaries do not provide a comparative explanation for the variances or general successes of the media industries.

Guatemala

This is the largest country in the study by population. Another unique characteristic of this nation is its large indigenous population. About 40% of the country is of Mayan indigenous heritage, many of whom speak only their native language. This unique language barrier creates programming issues within Guatemala unlike the rest of the region. There is a limited amount of rural Mayan programming on the radio, but little in other mediums such a print and television.

Guatemala is also the newest democracy in Central America, with a democratic government being in place since 1996. Due to a lack of airwave regulation throughout its civil war, the radio waves have become over saturated with about 300 radio stations in the country

(CIA, 2007). Many of these are repeater stations originating in Guatemala City. Because of this oversaturation, the audience is highly segmented.

Radio is the most popular form of media with 98% of the population having regular access. Few individuals own a television receiver. Due to low Spanish literacy rates, rugged terrain, and few with disposable incomes, newspaper circulation and readership are low. Fewer than 3% of the population read the newspaper daily. In fact, there is only one paper that is distributed outside of the capital.

The media is controlled by a small number of elites. Twelve families and two business groups control all television, most radio, and all but one newspaper. A Mexican, Angel Gonzales Gonzales, controls much of the media in Guatemala. As of 2003, Gonzales controlled 21 radio stations, four of the five national television stations (the fifth being the government's), and most of the cinemas in the region. Gonzales has a relationship with the Mexican television giant, Televisa, which is where most Guatemalan programming originates.

El Salvador

El Salvador is the most densely populated country in the region. After decades of civil unrest, El Salvador has maintained a democracy since 1992. However, an oligarchy, known as the 12 families, is still believed to run most of the country, including the media. Wealth is unevenly distributed, although this is hoped to change with economic reforms and a rising middle class.

During the civil war, the media was perceived to be corrupt and biased, and although perceptions have improved since the war, censorship remains a concern within this relatively new democracy. Like Guatemala, a very small percentage obtain information from the newspaper (around 7%), and radio is the most popular form of media. As of 1997, there were only 5 television stations. However, due to its small land mass and highly concentrated population, these 5 channels do reach the majority of citizens. In 2005, there were approximately 200 radio stations in the region, some of which are repeater stations.

Honduras

Honduras has maintained a peaceful democracy since 1982. Prior to this date, the country was ruled by military dictators. However, unlike Guatemala, Nicaragua, and El Salvador, these governments acknowledged the importance and necessity to care for their population by respecting basic human rights and needs. Although it has been and remains to be one of the poorest countries in the region, the population maintained relative peace throughout the 20th century.

Like its neighbors, the media is owned by a small number of stakeholders making the system oligarchic instead of democratic. Five families make up the majority of media control. Known as the Turkos because of their Arabic heritage, this group of families obtained their wealth through entrepreneurship and investments in industries including the media. In addition to media ownership, these families are also heavily involved in politics, which results in a relatively biased media. Reporters often censor themselves to retain their jobs. Radio is the most popular form of media in this region and television consumption is low.

Nicaragua

Nicaragua's political woes are known to many US citizens because of the large amount of involvement the US had during their civil war. Nicaragua is now a peaceful democracy and has been since 1990. Nicaragua suffers from low incomes and poor land distribution, but the economy is growing and a promising future may be in store. As the least densely populated country in the region, there exist several areas that are disconnected from the rest of the country, such as the eastern coast.

There are two important families in Nicaraguan media who were also influential in Nicaraguan politics. The Chamorros and Sacasas own most of the newspaper holdings and much of the radio and television properties as well. Nicaragua is a politically passionate and charged nation. Rockwell and Janus (2003) perceive that the media's number one objective is carrying out the agendas of their political affiliations, rather than generating profits or informing the public.

Similar to Guatemala, the lack of governmental control over airwaves has resulted in an oversaturation of radio broadcasts. Newspapers have existed for a long time in Nicaragua, and have had a rocky past due to sabotage and censorship. However, with only two thirds of the population literate, and the wide spread popularity of radio, Nicaragua's newspapers enjoy only modest circulation numbers.

Costa Rica

Costa Rica is often referred to as the exception. With peace since the mid-1900s, there have been no recent political struggles. Additionally, Costa Rica's government has actively pursued social programs that benefit all citizens of the nation such as education and medical care. Because of this, there is a 96% literacy rate. Although the country's wealth comes from similar means as the rest of the region (agricultural exports and cheap manufacturing), the government has distributed this wealth in a much more productive manner, dissolved its military, and increased tourism to give its citizens a higher quality of living than their neighbors.

Costa Rica's democratic success is mirrored in the success of their media. A press freedom law was passed in 1835; so the press has developed without government assertion and control. Newspaper circulation is much higher in Costa Rica. This can be attributed to higher incomes and literacy rates. Radio is still the most popular form of media with 98% of the population exposed daily. Television is readily available to 90% of the population; this is by far the highest in the region. Most media is owned by 3 different groups. The Pecado Cozza and Jimenez families are long time elites. Gonzales of Mexico, the same individual who owns media in Guatemala, is the third largest media owner in Costa Rica. These groups are not directly tied to the government and do not have a history of repression; therefore, it is in the media's interest to appeal to the population and not political parties. Additionally, ad spending in Costa Rica is much higher than the rest of the region. Because profit is obtained through advertising, it is vital for these media owners to appeal to their audience, instead of governments, to survive. *La Nacion*, the newspaper with the highest circulation in the country, obtained an estimated $56 million in advertising revenues in 2000. This number is more than double the ad spending in Nicaragua's entire media market and equal to El Salvador's.

One concern of Costa Ricans (and other Central American countries to an extent) is the opening of their media to foreign investors. Already two of the largest media holders are foreign, Gonzales from Mexico and a Canadian company which owns one of the popular newspapers. There exists a concern that content will shy away from issues relevant to Costa Ricans and instead concentrate on more generic and international issues.

Comparing Media Industries across Nations

To examine the strengths and weaknesses of media industries, as well as compare and contrast various aspects across nations, an appropriate framework is necessary. Michael Porter developed such a framework with the publication of *The Competitive Advantage of Nations* (1990). Porter conducted a major study examining industries in multiple countries that possessed a worldwide competitive advantage, such as, the success of Hollywood and the film industry in the United States. These findings lead to the development of a framework that Porter (1990) called “the diamond.” This framework provides four categories for examining an industry at the national level. When applying this framework, discoveries in the success or shortcomings of an industry can be identified and analyzed. By identifying these aspects among multiple countries, Porter’s framework provides an opportunity for comparison of industries across nations.

Literature Review

Theoretical Framework

The Competitive Advantage of Nations (Porter, 1990) examined ten countries and industries within those countries, especially those industries that seemingly offer an international competitive advantage. The main thesis of the project was to answer the question: “Why do firms based in particular nations achieve international success in distinct segments and industries?” (Porter, 1998, p. 18). Over thirty researchers conducted this large-scale investigation. Each nation was examined in two parts. First was to identify successful industries within these countries using various methods such as statistical data, supplementary published sources, and field interviews (Porter, 1998). The unit of analysis was either a narrowly defined industry or industry segment. The second part of the study was to examine the history of competition within these industries "to understand the dynamic process by which competitive advantage was created" (Porter, 1998, p. 25). Particular successful industries, within the ten nations, were examined to lead to discoveries about how and why certain industries obtain and sustain a competitive advantage. By analyzing these case studies, Porter obtained "a broad cross-section of both successful and unsuccessful industries in each nation" (Porter, 1998, p. 29). By performing this two-step approach, *The Competitive Advantage of Nations* provides a more comprehensive analysis of competitive industries than had previously been performed.

The Diamond

Through analysis and investigation, Porter (1990) developed a framework referred to as the diamond. This diamond examines four key variables that contribute to the establishment and sustainability of international competitive advantage (Grant, 1991). These variables are placed into a diamond shape to illustrate how they interact and affect each other.

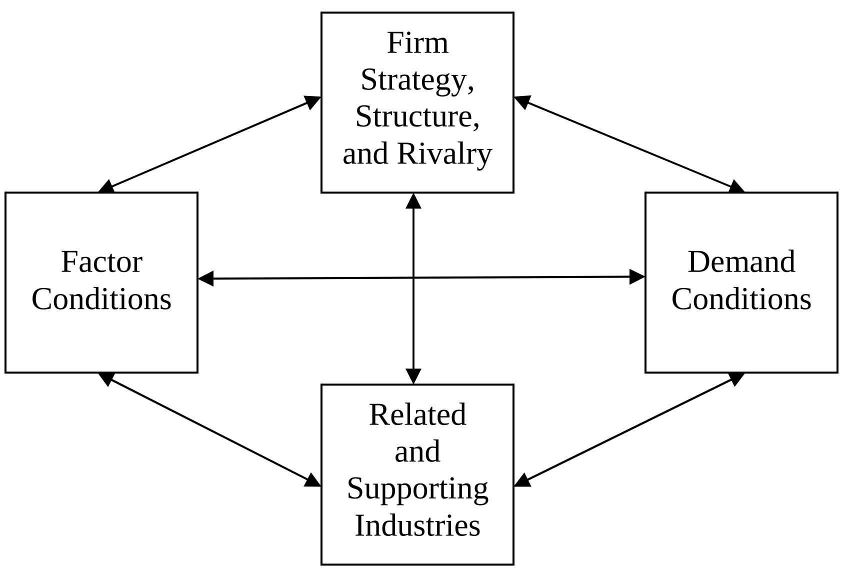

Figure 1. The diamond model. *Source*: Porter (1990) p.77

The first variable is factor conditions. Porter explains that in today's world, factor conditions are no longer inherited but created. Examples of this are scientific research and skilled labor. "To support competitive advantage, a factor must be highly specialized to an industry's particular needs…and they require sustained investment to create" (Porter, 1990, p. 78). If a country wants to dominate an industry, it first must create factors specific to the industry, and then continue to develop to sustain its advantage (Porter, 1990). Porter also explains that some factors initially thought to be disadvantages can result in an advantageous factor condition because it spawns innovation. In a country where labor costs are low, there is not much need to invest in creating a system that requires fewer individuals. In Central America, coffee and bananas are harvested in much the same way they were fifty years ago. To convert a disadvantage into an advantage, two things must occur. First, the country's industry must be informed of the issue and realize that this issue will eventually spread to other nations, and also, there needs to be favorable conditions elsewhere within the diamond (Porter, 1990).

Related and supporting industries is the second variable in Porter's diamond. According to Porter, these industries must also be competitive at an international level. A strong domestic supplier can provide efficient, fast, and cost effective materials. Also, it is advantageous for the flow of ideas and communication, which can result in the creation of innovations.

The third variable is demand conditions. "The composition and character of the home market usually has a disproportionate effect on how companies perceive, interpret, and respond to buyer needs" (Porter, 1990, p. 79). A country that has high domestic demand is going to be better prepared, have more resources and needs for innovation, and an early start regarding changes in the industry, more so than those that are nationally disconnected from an industry. The size of a domestic industry also positively corresponds to the amount of attention that is paid to the industry, both by consumers and governments. Industries with a demanding public are able to anticipate and resolve issues before they cause an issue on an international scale.

The fourth and final variable in the diamond is firm strategy, structure, and rivalry. “National circumstances and context create strong tendencies in how companies are created, organized, and managed, as well as what the nature of domestic rivalry will be” (Porter, 1990, p. 81). There is no one management strategy that is more beneficial than another; it is dependent both on the industry, and the country in which it operates. In addition to management style, motivation and education at the individual level can affect competitive advantage. Certain countries excel in certain areas, and the encouragement and continued education of individuals in these fields can help sustain competitive advantage. Finally, strong local rivals are a condition that affects industries. When rivals exist in close proximity, the need for innovation is constant. Porter (1990) actually argues that this is the most important aspect of the diamond because of the powerful stimulating effects it has on all other variables.

Porter goes on to define the role of government as an indirect aid to industries. “There are some simple, basic principles that governments should embrace to play the proper supportive role for national competitiveness: encourage change, promote domestic rivalry, (and) stimulate innovation” (Porter, 1990, p. 87).

Chance is also a factor that Porter claims can affect competitive advantage, either positively or negatively depending on the situation. A natural disaster in one area could disrupt the competitive advantage of a nation’s industry, while giving another nation a lucky advantage as a result. Central America is prone to hurricanes, earthquakes, and land slides. When one nation’s banana crop is destroyed by a hurricane, a less affected country can step into the market as demand increases.

Government and chance lay outside the diamond. They can affect competitive advantage in many ways but exist outside of the industries themselves, and therefore, must be evaluated outside of the interconnected diamond.

Competitive Advantage

Following Porter's publication, this broad framework has been applied in a variety of empirical studies. Many different countries have been examined, not only to discover what makes some worldwide competitive leaders in certain industries, but also to research what positive and negative elements a nation's industry possesses. By applying this framework to a developing or even struggling industry, discoveries can be made as to why it is not successful, and also, where it ranks when comparing that industry to other nations.

Different studies in a variety of academic fields have employed Porter's diamond. Many of the studies chose a particular industry within a country and concentrated on identifying variables that contribute to its success. Bridwell and Kuo (2005) performed a comparative analysis of computer industries in China and Taiwan using Porter's framework. In addition to a comparative approach, the possibility of combining resources and industries within these nations is also tested. The authors conclude that government policies will be the greatest indicator of the continued success of these industries. O'Malley and O'Gorman (2001) examined the success of the Irish software industry. They concluded that success can be attributed to a combination of factors in every area of Porter's diamond, but also found that foreign owned companies within Ireland have had a positive effect in the indigenous firms' competitive advantages.

This broad framework has additionally been used to analyze and compare organizations within the same industry, and to examine what variables contribute to a successful organization.

Curran (2001) uniquely employs Porter's diamond to university geography departments in the United Kingdom. The author concludes that departments that focus on innovation and increasing investments are the most successful in producing research.

Another way in which the diamond model has been used is to assess many industries within one nation, not to compare, but to obtain an overall picture of what industries and industry segments are a nation's strengths and also weaknesses. Chobanyan and Leigh (2006) applied Porter's theory to multiple industry clusters within the nation of Armenia. The researchers concluded that there are no conditions conducive to continued economic growth and recommend the creation of governmental policies that encourage foreign investment.

Ketels (2006) assesses Porter's theory and summarizes the works that have been performed since the publishing of *The Competitive Advantage of Nations*. Ketels praises Porter's theory for its wide variety of applications as well as its ability to be flexible and helpful to practitioners. Ketels also provides examples of practitioners and governments as well as researchers who have found value in applying the diamond to their respective industries and nations.

There has been one study that has applied this theory to a media industry. Lee and Chan-Olmstead (2004) conducted a comparative study on the broadband Internet industries of the United States and South Korea. South Korea, though not the most economically advanced nation, dominates the world in the ratio of broadband subscribers. The study applied Porter's framework by conducting case studies of the two nations and determined that the differences in broadband development can "be explained by a combination of policy, consumer demands, and supporting/related technologies issues" (Lee & Chan-Olmstead, 2004, p. 649).

While this theory mostly concentrates on world leaders within a given industry, the framework can be used to evaluate industries and countries at various stages of development. Fraser and Wresch (2005) use Porter's theory and apply it to e-commerce companies in five Caribbean nations. These nations are not known for being national competitors in any industry, and their size and lack of economic development prevent them from being so anytime soon. The authors used a methodology of intensive interviews to gain knowledge of several businesses that compete in online sales of both products and services. The authors found that business conditions were often favorable, but government agencies, niche target markets, the banking sector, and the lack of competition all hinder continued success. This makes the chance for competing with large nations that currently thrive in e-commerce difficult.

By providing such a broad and flexible framework, the theory of national competitive advantage enables the researcher to discover a variety of factors that may contribute to the success or failure of certain industries. Also, by keeping a scope at the national level and an industry as a whole, a great deal of information can be discovered, especially within industries and nations where little knowledge regarding certain industries is known.

So why is this a good fit for examining the media in Central America? Porter's theory poses a flexible framework that can be applied to any industry and country. Even though it is mostly used to study international leaders in a given industry, it can help diagnose the strengths and weaknesses within any country and industry. These small, poorly developed countries have only recently begun to develop established media industries due to the lack of technological development and the lack of a market. However, with all five countries at peace, and new technology spreading rapidly across the region, the investigation of possible competitive advantages within these industries could provide insight within and across Central America's media.

Central America

There have been a small number of works that concentrate solely on Central American media. Most notably is Rockwell and Janus' publication *Media Power in Central America* (2003). This book first analyzes each country's media system and provides a history of its development. From there, the book goes on to compare the media across these nations and looks into issues such as the effects of censorship, democracy, and corruption. This book examines the media from a journalistic perspective.

Additionally, Rockwell performed a comparative analysis of Central American media systems and corruption levels. The author found that media systems within Central America must reduce the levels of corruption and partisanship. By creating a more honest and less biased method of conducting matters, Rockwell believes that the media can positively contribute to the further development of democracy and the rule of law (Rockwell, 2004).

Besides these two studies, several works in other scholarly fields have published studies examining countries within Central America, but mostly have concentrated on examining political structures, poverty, agriculture, and relations with the United States (Booth, Wade, & Walker, 2006). Because there is little research previously conducted regarding the media industries in Central America, it is of interest to examine a variety of aspects to reveal information about what affects the success and shortcomings of these industries. To draw relevant conclusions to these issues, two research questions are addressed.

Research Questions

Research Question 1: How do Central America's media industries differ and how are they similar in terms of attributes of the diamond?

Research Question 2: What aspects contribute to competitive advantages within media industries in these countries?

Organization of the Study

The methodology for this study is explained in Chapter 2. This chapter operationally explains the steps taken to conduct this study. Data collection and analysis were then performed following the process explained in the methodology chapter. Spreadsheets were compiled in the collection phase and analyzed to provide discussions and conclusions in response to the research questions. This thesis is a comparative study; therefore, all five nations were compared side by side within each determinant, followed by an aggregate comparative analysis of the completed diamonds.

In the discussion section in Chapter 4, the data in each determinant are examined and explained. Differences and similarities are identified using the ratio and per capita data. Also, country specific data in relation to the regional average were examined. Data that varied greatly from the mean were especially of interest. These outlying numbers provide valuable information when drawing conclusions regarding unique strengths and weaknesses within individual nations.

The discussion section presents each determinant separately and discusses the data for each nation. Certain data of interest will be explained in depth. For example, if all five nations have a similar literacy ratio, then there are no specific strengths or weaknesses that could be attributed in this comparative analysis. However, Costa Rica does have a higher literacy rate than the other nations in the region; this sort of occurrence is identified in the discussion section.

A qualitative analysis of government and chance events was then performed. Acts of the government that affected the competitive environment either positively or negatively were identified using the news and government resources mentioned in the data collection section.

Chance events will be similarly analyzed. Information regarding chance events related to natural disasters and acts of violence against media professionals were identified. Both types of chance events are perceived to have a negative effect on competitive advantage.

Following the discussion section will be the conclusions. Porter explains that all aspects of the diamond are related and influence each other. The researcher will investigate all of the information and data analysis to answer the research questions. Not only will specific outliers determined in the discussion section be explained, but specific strengths and weaknesses of each nation's diamond will be prescribed. The conclusion section answers the research questions, and provides information regarding the importance of these findings to both Central American and other media industries in developing nations. Additionally, limitations and future research suggestions are found in the conclusion chapter.

CHAPTER 2

METHODOLOGY

The research questions stated in Chapter 1 are addressed using a case study methodology. The case study method has been used in previous studies when testing Porter's diamond (Chobanyan & Lee, 2006; Lee & Chan-Olmstead, 2004). The method was also used by Porter himself when developing the framework for competitive advantage (Porter, 1998). For this thesis, a case is defined as a media industry, including television, radio, newspaper, and computer industries at the national level. These four sectors are combined to analyze each nation's media industry, and to allow for comparisons across the region.

"A case uses as many data sources as possible to systematically investigate individuals, groups, organizations, or events" (Wimmer & Dominick, 2006, p.136). There is little consolidated information on Central America and its media, and this method allows for the examination of a wide variety of evidence from multiple sources. For this thesis, a case (or unit of analysis) is defined as a media industry including television, radio, and newspaper in a Central American nation.

Competitive advantage is measured in this study. Competitive advantage is defined as attributes that contribute to the success of a media industry. These attributes are defined by four interconnected determinants, government and chance events. The operational definition is explained in the following data collection section.

Data Collection

Data were gathered from a variety of reputable sources (see Table 2), and then combined to reveal an overall interpretation of each determinant. The factor conditions determinant is a general look at the health and well being of a nation and its ability as a whole to create and sustain successful industries. By examining basic factor conditions such as literacy, and gross domestic product (GDP), the capacity by which a nation can provide citizens who are able to consume media is revealed. By combining these basic factors with more advanced factor conditions such as gross educational enrollment, and mobile telephone and Internet users, an idea for what factor conditions exist that both benefit and harm the media industry can be discussed. This aspect of the diamond is not industry specific; therefore, it is important to examine the factor conditions' relationship with the other four determinants before drawing any conclusions about the media industries in particular.

Related and supporting industries are important to provide the equipment needed to consume media. These include the retailers and distributors of media equipment and electricity. Because of this, the dissemination of receivers and the circulation of newspapers were examined. Those nations with high penetration rates have successful sales and distribution of media equipment, which in turn encourages media industries to strive for quality, and also allows for increased competition. Both quality and competition contribute to increased competitive advantage. The United Nations World Statistics Pocketbook (United Nations Secretariat, 2005) provides data on television and newspaper dissemination, and the International Bank for Reconstruction and Development (2005) publishes data on the ownership of radios and computers.

Other data to consider within the related and supporting industries determinant are the availability of electricity. Electricity is not required for all media, but the success of this related industry provides consumers the ability to use media such as computers and televisions. The World Resources Institute (2008) provides worldwide data on electricity availability.

Consumer demand conditions were analyzed by first looking at the economic well being of the society including literacy and income. The United Nation's Human Development Index (UN, 2007) provides data on these nations regarding the overall well being of a nation's citizens. The higher the Human Development Index (UN, 2007), the more able their citizens are to consume media which encourages a more competitive media environment. Freedom of the media (accessed through the Reporters Without Borders 2007 annual report on Press Freedom) is another factor that affects demand for media. In a nation where the media is corrupt and biased, individuals may not seek the media for information, which can result in a lack of motivation needed to innovate, compete, and serve consumers. The press freedom data are important to this determinant because it describes the ability of the media to provide for its consumers. Finally, the amount of time per week spent with newspaper, television, radio, and computers were examined. When investigating the quality, not necessarily the quantity of media, it is valuable to look at how much time people are willing to engage with media. A population that spends large amounts of time with media promotes the need for more programming and growth. These data were obtained from the Strategy Research Corporation's 2003 Latin American Market Planning Report.

Data regarding firm structure, strategy, and rivalry were gathered using information available in the CIA World Fact Book (2007). The number of television and radio stations was investigated. These numbers provided an idea of how much competition exists within the media industries in each nation. More stations in a nation may result in more competition. Also, a greater number of stations provide more content for consumers when using media. The higher the number of different media enterprises in these countries, the higher the competitive advantage when compared to nations with few media offerings.

Data regarding the government and chance aspects that indirectly affect the four determinants of the diamond were obtained through information published by the World Bank (2008), and the CIA World Fact Book (2007). Additionally, Reporters Without Borders (2007) reports incidents of violence, censorship, and government activities related to press freedom. Reports of chance events, such as natural and technological disasters, were obtained through the Emergency Events Database (Centre for Research on the Epidemiology of Disasters [CRED], 2008). Events that occurred from 2003 through 2007 were considered. This qualitative aspect of the study provides additional explanations on why the media in certain nations are more successful than others. Government regulation is especially important to media industries because these industries often require regulatory involvement from the government. Allocation of broadcast airwaves and the coordination of cable and internet infrastructure are two examples of duties often assumed by a nation's government.

The quantitative data from the collection phase were then compiled in a spreadsheet. The data that were provided in absolute numbers were converted into ratios for the purpose of comparison across nations. Following the compilation of these tables, a row calculating the mean of all data areas were then included. These averages assisted in the analysis phase by providing insight to where each nation ranks in regards to the regional mean.

Since the data come from a number of different sources, the dates that this data were compiled and published varies (see Table 2). The most recent data available were used. Data were collected between the dates of January 17, 2008 to April 10, 2008. All data were accessed electronically either through the website of the organization who published the information or through the LexisNexis statistical database. Following the collection of all data, analysis is required to answer the research questions of this thesis.

Case studies are often criticized for their lack of generalization ability. To combat this criticism, Porter's diamond, a well acknowledged theory that has already been applied to many nations was used. Also, this study used data that can be obtained for most nations in the world. This study could easily be replicated to comparatively investigate media diamonds in other nations throughout the world. This study may also provide insight regarding media industries in other developing nations who share similar economic and/or population size. Since media industries as a whole have never been examined using Porter's model, this study hopes to provide information and results that can be used within any media industry regardless of what country it exists in.

The case study approach provided the opportunity to use information from multiple sources. Now that the process of data collection and analysis has been explained, a comparative discussion of each determinant, government, and chance events follows in Chapter 3.

Table 2

Determinant Data Sources and Dates

Advanced Factor Conditions (data measuring the health and wellbeing of a nation)	Literacy	United Nations Human Development Index	2005
	GDP per Capita	CIA World Fact Book	2007
	Combined Primary, Secondary and Tertiary Gross Enrollment Ratio	United Nations Human Development Index	2005
	Mobile Telephones	CIA World Fact Book	2006
	Internet Users-El Salvador	CIA World Fact Book	2005
	Internet Users-All Others	CIA World Fact Book	2006
Related and Supporting Industries (measures the distribution of technology, receivers, and electricity needed to consume media)	Television Receivers (per 1,000 inhabitants)	United Nations World Statistics Pocketbook	2004
	Radio Receivers (per 1,000 inhabitants)	International Bank for Reconstruction and Development World Development Indicators	1997-2003
	Computers (per 1,000 inhabitants)	International Bank for Reconstruction and Development World Development Indicators	2003
	Newspaper Circulation (per 1,000 inhabitants)	United Nations World Statistics Pocketbook	2004
	Access to Electricity (percent of population)	World Resources Institute Energy and Resources	2000
Consumer Demand Conditions (data to measure both the size and quality of a nation's media consumer base)	Human Development Index	United Nations Human Development Index	2005
	Press Freedom Index	Reporters Without Borders	2007
	Use of Media, Average Hours per Week with Newspaper, Internet, Television, and Radio	Strategy Research Corp. 2003 Latin American Market Planning Report	2002
Firm Strategy, Structure, and Rivalry (data for the total number of broadcast stations measures rivalry)	Television Stations-Costa Rica	CIA World Fact Book	2002
	Television Stations-All Others	CIA World Fact Book	1997
	Radio Stations-Costa Rica	CIA World Fact Book	2002
	Radio Stations-El Salvador	CIA World Fact Book	2005
	Radio Stations-Guatemala	CIA World Fact Book	2000
	Radio Stations-All Others	CIA World Fact Book	1998
Government and Chance	Legislation and Regulation	World Bank	2008
	Natural Disasters	International Emergencies Database	2008
	Violence Against Reporters	Reporters Without Borders	2007

CHAPTER 3

DATA ANALYSIS

In this chapter, the data analysis for the study is presented. This section is divided into six sections, one for each determinant of the diamond, plus separate sections analyzing government and chance issues. Within each section, there are five subsections explaining the data for each country, and a table displaying the data that were collected. Following these subsections is a comparative analysis for each determinant. The final chapter of this thesis follows by combining all aspects of the diamond to address the research questions stated in Chapter 1.

Factor Conditions

Factor conditions are divided into two categories, advanced and basic factor conditions. Basic factor conditions are factors, not necessarily specific to a media industry, that provide insight into the general health of the market. A more educated and profitable nation can provide more opportunities for an industry, including media, to create and sustain competitive advantage. To measure basic factor conditions, GDP per capita, literacy, and combined primary, secondary, and tertiary enrollment are examined. In addition to these basic factors, more advanced factors specific to media are examined. This includes the number of mobile phones and Internet users in each nation. By examining these advanced factors in conjunction with the basic factor conditions, an overall picture of each nation's factor conditions is revealed.

Table 3

Advanced Factor Conditions

	Population	Literacy	GDP/ Capita	Combined Primary, Secondary and Tertiary Enrollment Ratio	Total number of mobile telephones	Total number of Internet users	Mobile telephones/ population	Internet Users (% of population)
Costa Rica	4,133,884	94.9%	13,500	73.0%	1,444,000	1,214,000	34.93%	29.37%
El Salvador	6,948,073	80.6%	5,200	70.4%	3,852,000	637,000	55.44%	9.17%
Guatemala	12,728,111	69.1%	5,400	67.3%	7,179,000	1,320,000	56.40%	10.37%
Honduras	7,483,763	80.0%	3,300	71.2%	2,241,000	337,300	29.94%	4.51%
Nicaragua	5,675,356	76.7%	3,200	70.6%	1,830,000	155,000	32.24%	2.73%
Averages		80.3%	6,120	70.5%			41.79%	11.23%

Source: CIA World Fact Book; United Nations Human Development Index

Costa Rica

The three factors that stand out for Costa Rica in this determinant are GDP per capita, literacy rate, and the percentage of Internet users. Costa Rica's GDP per capita is more than double all other nations in the region. This number shows that Costa Rica as a nation has a more productive economy than other nations in the region. Additionally, almost 95% of Costa Ricans are literate. A literate public is able to read newspaper and computer content. Porter (1990) emphasizes the importance of an educated consumer base that demands a quality product. Interestingly, although Costa Rica has the highest percentage of academic enrollment, this lead is only by a few percentage points. The gap between literacy rates and enrollment could perhaps be explained by the instability that all other nations in the region have faced in the later part of the twentieth century. Now that these other nations are improving their economy, they are also increasing their enrollment, something Costa Rica has achieved for some time. The low literacy rates in the other nations may be attributed to an older less educated population, yet the similarities in enrollment takes into account the large young populations in the region who are now getting the opportunity to be educated.

Almost 30% of Costa Ricans use the Internet. Because of this, Costa Rica has a competitive advantage in computer technology. There are fewer mobile phones in Costa Rica than any other nation in the region, and when this number is divided by the population, it falls in the middle, yet much closer to the bottom compared to El Salvador and Guatemala, who have over a 50% penetration rate. This may be explained by the higher penetration rate of landline telephony compared to other nations that may have actually skipped that step almost completely. Regardless of the reason, mobile phones are an increasingly important part of the media industry, especially as individuals begin to use phones for activities other than basic communication such as accessing entertainment and information via a mobile phone.

El Salvador

El Salvador has the second highest literacy rate and third highest GDP per capita of the region. However, the difference between GDP and literacy in El Salvador and the lowest ranked nation in the region (excluding Costa Rica) is small. So, no real evidence of a competitive advantage can be revealed here. The rates of combined educational enrollment are close as well. Because of the similar data, it is determined that none of these nations hold a significant competitive advantage regarding an educated public.

Guatemala and El Salvador have similar data for GDP per capita, mobile phones and Internet users. The GDP's of both these nations, while significantly behind Costa Rica are much better than Honduras and Nicaragua. Also, both of these nations have over a 50% penetration of mobile phones. El Salvador and Guatemala also have similar rates of Internet users, around 10%. Although El Salvador is slightly lower in both of these categories than Guatemala, literacy rates and educational enrollment are somewhat higher than Guatemala.

Guatemala

Several aspects of Guatemala's factor conditions are discussed above because of the similarities to El Salvador. However, there are some things to point out here. Although Guatemala has the second highest GDP per capita, its literacy rate and educational enrollment are the lowest in the region. Guatemala may generate money in its economy, but this money is not spent educating the public. This lack of emphasis on education is a disadvantage.

However, Guatemala does have the highest penetration of mobile phones and the second highest rate of Internet users. Yet, in absolute terms, there are actually more internet users in Guatemala than in Costa Rica. There are also more than seven million mobile phones in the nation. So, even though Guatemala may have the least educated public, it has the largest market in terms of potential consumers, which is a competitive advantage over the other nations.

Honduras

Honduras is a poor nation with few promising factor conditions. While literacy rates and educational enrollment are about average for the region, their GDP per capita is much below average, although not quite as low as Nicaragua. Honduras also has below average rates of mobile phone penetration and Internet users. This nation may be second to Nicaragua in the percentage of Internet users, but there are still less than 5% of Hondurans who use the Internet. This is a competitive disadvantage because there are such few consumers, it is difficult to gain revenues or provide a competitive environment.

Nicaragua

While Nicaragua does not rank last in every category, it ranks below average across all variables. Additionally, with the second smallest population in the region, Nicaragua lacks success in all factor conditions when compared to the other Central American nations. This is especially present in the number of Internet users which is less than 3% of the nation. With such a small number of Internet users, there is little opportunity to build an industry.

Related and Supporting Industries

These industries are important to the success and sustainability of the media. Successful related and supporting industries increase communication as well as encourage innovation and quality for combined success. Related and supporting industries include the sale and dissemination of media equipment, which are necessary to consume media yet not created by media, and also the availability of electricity, which is important for television reception and computer use. It is assumed that the higher the dissemination of these devices and electricity means a larger consumer base which encourages media companies to compete and innovate, both of which lead to competitive advantage. Table 4 displays the data that were collected for this determinant.

Table 4

Related and Supporting Industries

	Television Receivers (per 1000)	Radio Receivers (per 1000)	Computers (per 1000)	Newspapers (per 1000)	Access to Electricity (% of population)
Costa Rica	144	816	197.2	94	95.7
El Salvador	679	481	25.2	28	70.8
Guatemala	61	79	14.4	33	66.7
Honduras	96	411	13.6	55	54.5
Nicaragua	68	270	27.9	30	48
Average	209.6	411.4	55.7	48	67.1

Source: International Bank for Reconstruction and Development, United Nations World Statistics Pocketbook, and World Resources Institute

Nicaragua

Nicaragua struggles in this aspect of the diamond. When looking at the dissemination of devices, this nation falls behind the average in every aspect (see Table 3). Regarding the availability of television and radio receivers, as well as the number of newspapers, it ranks fourth of fifth. In newspaper circulation however, the bottom three nations, Nicaragua, El Salvador, and Guatemala, are very close in number. In terms of computer availability, Nicaragua ranks second, yet still below average due to Costa Rica having more than seven times the number of computers. Finally, Nicaragua has fewer homes with electricity than any other country in the region. While this may not effect the saturation of newspapers and even radios (because of the widespread availability of battery operated radios and radios in motor vehicles) this does affect the ability to watch television or use a computer. It also provides some insight as to both the infrastructure of the nation and the economic well being of a population. However, both of these ideas are explored in other determinants. Of the related and supporting industries determinant, Nicaragua ranks the lowest overall.

Costa Rica

Costa Rica has more successful related and supporting industries than the other nations. It ranks highest in all data gathered for this determinant except for the dissemination of television receivers in which El Salvador has an impressive lead in the region. The vast majority of Costa Ricans own a radio and has electricity available. The other determinants, while high compared to the rest of the region, are still relatively low when looking at the entire population. Small percentages of the population actually have a television, computer, or newspaper available to them. To conclude, Costa Rica, while having successful related industries in electricity availability and radio receiver distribution, still experiences little success in other related and supporting industries such as television, newspaper and computer dissemination.

El Salvador

El Salvador stands apart in regards to television receiver ownership. Over two thirds of the population has a television. The second highest data come from Costa Rica which has about 15% dissemination. From this one variable, it leads the researcher to believe that the television industry in El Salvador has a great competitive advantage over the rest of the region because the majority of citizens own a television creating a diverse and large consumer base. Almost half of El Salvadorans also own a radio which is second only to Costa Rica. El Salvador has a small number of people with computer access, ranking third of the five, but computer dissemination is low throughout the region. El Salvador has the smallest newspaper readership of any of the nations. This could be related to the widespread availability of televisions. Two thirds of the population has access to electricity. While this is the second highest in the region, it is still not an incredibly high number which leaves a good percentage of the population without the option for televisions and computers. One very interesting aspect is that there is a greater ratio of televisions than there are individuals with available electricity. Perhaps there are many El Salvadorian businesses and homes with multiple televisions.

Honduras

Honduras, while not quite as low as Nicaragua in most areas, remains mostly below the regional average. However, there are a couple of promising aspects to point out regarding related and supporting industries in Honduras. About a tenth of the population has a television and 40% have a radio. These low numbers are not reminiscent of healthy related television and radio sales and distribution industries. Interestingly, it does have the second higher newspaper readership in the region, but with only 55 newspapers to every 1,000 Hondurans, it is still low enough to be discouraging when thinking about the success of a newspaper industry. Computer dissemination is lower in Honduras than any other nation in the region, but not by a large amount. About half of the country has electricity which does not reflect a healthy electric industry.

Guatemala

Guatemala has fewer televisions than any other nation, and aside from Nicaragua (who has only slightly higher television dissemination) it also falls behind Costa Rica, El Salvador, and Honduras. Guatemala is also impressively low when it comes to the dissemination of radio receivers. Unlike television, Guatemala stands alone in its low radio receiver ownership. Less than 10% of the population owns a radio, which is significantly below the regional average of 40%. While Guatemala is not last in the dissemination of computers and newspapers, and the availability of electricity, the numbers remain grim with small numbers of the population interacting with newspapers and computers, and a third of the population remains without electricity.

Consumer Demand Conditions

Consumers are vital to a media industry. They not only produce revenues for media organizations through subscriptions, they also provide a commodity that media companies can sell to advertisers. It is generally accepted that the more readers/viewers/listeners that a media enterprise has, the more it may demand in advertising dollars. However, Porter (1990) explains that size is not the only consumer demand condition that is important. In fact, Porter (1990) states that the quality of the home demand is more important. Quality consumers demand quality products which can spawn innovation and a healthy competitive environment where companies compete to see who can better serve consumers. Population size is addressed in the factor conditions determinant and ownership statistics are discussed in the related and supporting industries determinant. Because size is addressed elsewhere, and Porter emphasizes the superior importance of quality over size, this determinant will examine three sets of data to determine the quality of the consumer demand conditions within each nation.

Table 5

Consumer Demand Conditions

	HDI Rank	2005 HDI	Press Freedom Index Rank	Hours per week spent with media 2002			
				Newspaper	Television	Radio	Internet
Costa Rica	48	0.846	21	4.1	15.7	18.9	4
El Salvador	103	0.735	64	3.6	13.9	13.7	0.9
Guatemala	118	0.689	104	3.6	18.4	27	1.7
Honduras	115	0.700	87	3.5	14.9	18.1	1.6
Nicaragua	110	0.710	47	4.1	16.9	15.9	2.7
Averages		0.736		3.8	16.0	18.7	2.2

Source: United Nations Human Development Index; Reporters Without Borders Press Freedom Index; Strategy Research Corp. Latin American Market Planning Report

The United Nations' Human Development Index (HDI) ranks nations regarding the overall health and well-being of a nation. The variables used to determine an index rank include country level data on literacy, education, and GDP. As discussed in Chapter 1, every Central American nation has continually improved its HDI score over the past 30 years (see Table 1). To assist in determining the quality of the home market, the most recent score and rank of each nation's HDI are examined. A home market with a high HDI will contain citizens who are literate, educated, have a high purchasing power, a healthy economy, and superior physical health. All of these factors contribute to a consumer base with a demand for media companies to offer higher quality products.

Reporters Without Borders (2007) publishes an index monitoring press freedom. By covering events within each nation, Reporters Without Borders (2007) determines how free media industries are to report on activities. This index can help in determining the level of quality demand in the home market by examining just how free the press is. A free press will be able to produce higher quality products for consumers while low press freedom may result in a home market that does not have the ability to consume quality content.

Finally, Strategy Research Corp. (2003) published a report containing data regarding the amount of time media users spent with different media platforms. A consumer base that spends a large amount of time with media may perceive that their media provides quality content worth spending time with. Conversely, those that spend little time with media may perceive that the media does not produce content worth following.

Costa Rica

Costa Rica has more favorable consumer demand conditions compared to other Central American nations. Costa Rica's HDI rank is the only nation in this study to be considered in the high development category. All others are considered in the medium development category. Costa Ricans are better able to purchase and consume media due to higher development levels. They also have more spending power, and a more stable economy to give their citizenry an improved ability to be consumers. This gives media companies a better product to sell to advertisers.

Costa Rica also has the highest Press Freedom rank in the region. In fact, it is high for the entire world, ranking above even the United States with a rank of 21 out of the 169 nations included in the index (see Table 5). Due to a free press, the Costa Rican media industry is allowed to produce relevant and quality content.

Costa Rica is near average when it comes to time spent with television, radio, and newspapers. Time spent with a computer is significantly higher than other nations in the region. This could be explained by the comparatively higher dissemination of computers and Internet access, as well as a more educated and wealthier public. By spending more time on the computer, demand for more and higher quality content is created. This can also open the door for greater competition and innovation, both of which contribute to competitive advantage.

El Salvador

El Salvador has the second highest HDI rank in the region, although this nation is still considered in the medium human development category, and a distant second to Costa Rica. Therefore, consumers in El Salvador, while more developed than other nations in the region, still may not provide a strong enough human development rank for a quality demanding consumer base.

El Salvadorans have a somewhat free press. While this nation has endured a history of violence, Reporters Without Borders (2007) reports that El Salvador has a satisfactory situation regarding press freedom. Reporters Without Borders (2007) stated that one reporter was killed in 2007, but there is no proof that it was directly related to their work as journalists. While El Salvador ranks behind Nicaragua and Costa Rica in regards to press freedom, consumers are still privileged to relatively free reporting by the media creating a satisfactory environment regarding consumer demand. This coupled with a decent HDI rank gives El Salvador a competitive advantage compared to other nations (excluding Costa Rica) in the region.

The time spent with media data do not reinforce the relatively favorable conditions revealed in the HDI and Press Freedom Indexes. In fact, El Salvadorans' time spent with media ranks below the regional average in all four platforms. While time spent with newspaper and television is not significantly below the average, the time spent with radio and Internet is. The low amount of time spent with television is surprising considering the high dissemination of receivers examined in the related and supporting industries determinant. Time spent with computes is also low, but so is computer dissemination. The average number of hours during a week spent with radio is also the lowest in the region, contrasted with its relatively high dissemination of receivers (see Related and Supporting Industries). Time spent with media may be low due to poor quality content, or a lack of diverse options. So, although El Salvador ranks above average in human development and press freedom, something keeps Salvadorans from spending an extended amount of time with media. A lack of time spent with media does not encourage quality or an increased amount of content leading to a competitive disadvantage.

Guatemala

Guatemala is lacking in several aspects of consumer demand conditions. This nation has the lowest HDI ranking and the worst reported state of press freedom in the region (Reporters Without Borders, 2007; United Nations, 2007). This low ranking of press freedom is contributed to the death of two reporters, in addition to other problems that prevent the press from reporting freely. Guatemala is the only nation in the region to be considered in the Noticeable Problems category of the Press Freedom rankings (Reporters Without Borders, 2007).

In contrast, more time is spent with television and radio than any other nation in the region. Therefore, even though the press may not be as free, and consumers may not be as well off, they are willing to spend large amounts of time with television and radio. Time spent with radio averages 27 hours per week; almost four hours per day. With so much time being spent with these media, a higher quality and more demanding public may exist which can in turn encourage innovation in programming and competition for this long-term audience which leads to competitive advantage.

Honduras

Honduras does not rank far behind Guatemala in terms of HDI and press freedom. Poor living conditions and a perceived corrupt government who directly interferes with the media is the reason for these low scores. Although they are about average in time spent with television, radio, and newspaper, this does not contribute enough to increase the quality and size of the consumer base in comparison to other nations in the region. Because little promising data are apparent in this determinant, it is concluded that Honduras has the lowest consumer demand conditions in the region. However, as Porter (1990) reinforces, it is important to consider the diamond in its entirety before drawing conclusions on the overall status of competitive advantage.

Nicaragua

Nicaragua's consumer demand conditions show both advantages and disadvantages. Nicaragua's HDI is third behind El Salvador and Costa Rica. Because of the low level of human development, Nicaragua lacks in its ability to provide a consumer base that is economically able to support a media industry and one that is educated and healthy enough to demand quality.

Nicaragua's press freedom rank, on the other hand, ranks second to Costa Rica. Although it is still considered in the satisfactory level of press freedom, Reporters Without Borders (2007) reported no incidents of violence against media professionals in 2007. This favorable ranking reveals that the press in Nicaragua is free to report which can encourage a quality consumer base.

The average amount of time that Nicaraguans spend with media also provides both data that contribute to consumer demand conditions, and data that run counter to the success of the media industry. Time spent with newspapers is equal to Costa Rica. Also, time spent with computers is second to Costa Rica, yet much higher than the other three nations in this region. These numbers perhaps reveal that print and textual information in Nicaragua is valued, and those that engage with these media are dedicated. The amount of time spent with television is also above average second only to Guatemala. However, radio listening is second to the bottom and below the regional average. However, neither television or radio use is especially high nor low enough to draw any conclusions regarding consumer demand conditions.

Firm Strategy, Structure, and Rivalry

Management and strategy are vital to a firm and industry success. Firms with poor management practices and low quality personnel will be unable to properly serve consumers, and may not possess the necessary motivations and incentives to produce quality and innovative products. Additionally, Porter (1990) states that some of the strongest empirical findings from the initial research on the diamond were the association between domestic rivalry and the persistence of competitive advantage. For this study's analysis of firm strategy, structure, and rivalry, the CIA World Fact Book's (2007) data on the number of television and radio stations are examined. These numbers indicate the amount of rivalry present in the nation, in addition to how many options are available for consumers. Data regarding firm strategy and structure were not found and is therefore not measured. This issue is considered a limitation for this study.

Table 6

Firm Strategy, Structure, and Rivalry

	Television Stations	AM Radio Stations	FM Radio Stations
Costa Rica	20	65	51
El Salvador	5	52	144
Guatemala	26	130	487
Honduras	11	241	53
Nicaragua	3	63	32

Source: CIA World Fact Book

Costa Rica

Costa Rica has the second largest number of television stations. However, due to its smaller population, the number of television stations per capita is higher in Costa Rica. Regarding the number of radio stations, Costa Rica is second to last. There are a couple of possible explanations for this. One is the small size of the nation, both in population and land mass. Not as many radio stations are needed to reach the entire nation. Additionally, Costa Rica does not suffer from over the saturation of the radio waves due to a lack of government regulation which often leads to interference. Also, due to the increased number of television options, radio stations may not be valued as they are in other, less technology-rich nations.

El Salvador

This densely populated nation only has five television stations. This is especially interesting considering the higher number of television receivers available as noted in the consumer demand determinant. Something in El Salvador hinders this nation from growing the number of television stations. Little competitive advantage can be created due to the small number of potential rivals. El Salvador does have a large number of FM stations second only to Guatemala suggesting rivalry is probably strong which can contribute to competitive advantage.

Guatemala

This nation has more television stations than any other nation in the region. Due to its large population, there are more potential viewers than in other nations in the region. More options create more rivalry which can lead to greater competitive advantage by encouraging competition, innovation, and quality content. Guatemala also has more radio stations than any other nation in the region. This reinforces the competitive advantage of the television industry, but it must be considered that significant interference may exist. Regardless of interference issues, more station options encourage a highly competitive industry.

Honduras

Honduras has eleven television stations. While this is not as many as Guatemala and Costa Rica, this amount of stations can provide an environment for rivalry and competition to exist. Additionally, there are a good number of radio stations available throughout the nation. One interesting observation is the large number of AM stations, especially when compared to the number of FM stations in the nation.

Nicaragua

Nicaragua only has three television stations. Although this nation has the smallest population in the region, three television stations does not contain the level of rivalry compared to other nations. There are also a smaller number of radio stations than other nations in the study. Because of the lack of broadcasting options, Nicaragua does not have the rivalry needed to create and sustain a competitive advantage.

Government and Chance

Porter (1998) emphasizes the importance of government on the diamond. There are both potential benefits and hindrances that a government can have on the competitive advantage of an industry. Also, certain events, out of the control of individuals, industries, and governments may also have either positive or negative effects on competitive advantage. There are certain issues present within all Central American nations that are considered in this section. How these situations are handled is where competitive advantage is gained or lost.

Due to their close proximity, there are some chance events that affect the region as a whole. Each nation struggles to control drug trafficking and cultivation. Placed between Colombia and the United States, drugs, violence and gang activity are present in the entire region. Violence against media professionals is especially disadvantageous to the competitive advantage of a media industry. Also, all of Central America is prone to a variety of natural disasters. Hurricanes, mud slides, floods, earthquakes, and volcanic eruptions are all possible within Central America. Natural disasters can profoundly affect industries including the media. These events can harm the physical infrastructure of the media by destroying roadways or cables. There is no way to predict these occurrences, but there are varying levels of reaction and assistance when disaster strikes. These differences are explored below.

Costa Rica

Costa Rica enjoys the most stable government and economy of the region, yet is still quite poor. Costa Rica's economic development into microprocessor manufacturing and exporting, as well as its successful tourism industry, have assisted in creating a more stable economic environment than other nations in the area, who still rely heavily on agricultural exports.

According to the World Bank (2008), President Oscar Arias, who took office in May 2006, has vowed to combat the growing discrepancy in incomes and slow economic growth through several institutional, infrastructure, and economic reforms.
Additionally, "the Arias administration views universal secondary education combined with reforms to and investment in infrastructure, telecommunications, and energy as primary drivers for increasing Costa Rica's competitiveness and creating jobs for poverty reduction" (World Bank, 2008, ¶ 5). While the effects of these promises have yet to be realized, Costa Rica's proactive government has produced several initiatives that if carried out correctly, will provide significant competitive advantage.

According to the Emergency Events Database (CRED, 2008), 34,543 Costa Ricans were affected by disasters from 2003-2007. Most of the damage was due to flooding; however, wind storms and earthquakes caused damage as well. This number is far below the rest of the region. Because of the low numbers, yet similar geographic location and climate, Costa Rica must be have an infrastructure that can handle disastrous events including a media that can inform the public and save lives.

El Salvador

Following their civil war in the 1980s, El Salvador's government has made many economic reforms to encourage investment, privatize industry, and improve its level of competitiveness (World Bank, 2008). Remittances have been disseminated throughout the population through 2006 and 2007. This money has resulted in a boost in consumption. However, crime and violence have hindered the continued implementation and success of these governmental and economic incentives.

The government is taking action to improve their economy through incentives in economic diversification and privatization of certain industries, including telecommunications and electricity industries. In late 2006, El Salvador's government signed a $461 million compact intended to both stimulate growth and reduce poverty by increasing education, enterprise development, and transportation infrastructure. El Salvador's government has made steps to increase competitive advantage through legislation (World Bank, 2008).

Crime and violence is high in El Salvador. Gangs are a sincere consideration when investigating this nation. For example, Reporters Without Borders (2007) reported the death of a radio personality in 2007. It was later suspected that gang members, whom the journalist regularly covered, were to blame for the murder. Chance events such as gang violence against media professionals are a disadvantage to the competitiveness of an industry. Additionally, a freelance reporter was arrested for violating anti-terrorism laws in 2007. While the government makes laws that hinder reporting, it will be difficult to build and sustain an active media industry that operates separate of the government (Reporters Without Borders, 2007).

Additionally, El Salvador has suffered from a number of natural and technological disasters over the past five years. From 2003-2007, 147,046 citizens were affected by some sort of disaster (CRED, 2008). The majority of these incidents are attributed to a wind storm and epidemic. Information and education often disseminated through media may have reduced these numbers.

Guatemala

Guatemala continues to suffer from the unequal distribution of income and resources. The government is combating this and a past of corruption by encouraging transparency and legitimacy. The government is also encouraging privately-led growth and investment in human capital. These initiatives, if carried out appropriately and effectively, may result in a competitive strength. Although Guatemala's GDP is higher than other nations in the region, social indicators remain low. This indicates that there is an ineffective distribution of wealth and income. While wealth continues to be concentrated with a few, the spread and growth of a media industry cannot be achieved (World Bank, 2008).

The number of deaths due to natural and technological disasters is far higher than in any other nation. Almost half a million people were affected by disasters from 2003-2007. The bulk of these were due to wind storms. However, Guatemala's faulty infrastructure is seen in the number of deaths that resulted from these disasters. While Honduras had a similar number of people affected, the death toll in Guatemala was 1,733 compared to Honduras' 283 (CRED, 2008).

The shortcomings in Guatemala's social structure are also pointed out by the World Bank (2008). Per capita GDP, education, and poverty are much higher in Guatemala than other nations of similar economic levels. The relationship between money and society must be mended before competitive advantage in any industry, including the media, can be gained.

However, with the enactment of CAFTA and a more appealing investment climate, GDP is rising. It is now the government's job to translate these successes into competitive advantage, starting with the basic health and well being of their consumers.

Additionally, Guatemala is not a safe place for reporters. In 2007 alone, two media professionals were killed, and another was threatened with guns after reporting a traffic accident. There were also threats called in to a television station, two armed attacks on a radio station, and one kidnapping of a reporter. There were by far more incidents of violence against media professionals in Guatemala than any other nation in the region. The unsafe environment and the government's lack of involvement, are seen as a weakness in the Guatemalan media industry (Reporters Without Borders, 2007).

Honduras

Honduras benefits from the most diversified economy in the region. Both agriculture and manufacturing are valuable industries in Honduras. However, poverty remains high in the region, as well as a large disparity in incomes (World Bank, 2008). Honduras was devastated in 1998 by Hurricane Mitch. Following this great loss of life and income, Honduras implemented a program to help combat an occurrence like this from happening again. While Honduras remains poor, the most recent hurricane claimed far fewer lives indicating improvement in disaster awareness and response.

Over the past five years, Honduras has had almost half of million citizens affected by disasters. The most devastating events have been due to both drought and flood, with 283 deaths attributed to these disasters. While there is a strain on any nation when disaster strikes, the ability of a nation to respond and prevent the translation to death is a promising attribute to the nation's infrastructure, including the media's ability to inform the public (CRED, 2008).

Reporters Without Borders (2007) acknowledges a poor relationship between the president and the media. Media professionals claim that the president tries to control the media. Two reporters were severely threatened, and one was killed. A poor relationship between the government and media industry, an unsafe environment for reporters, and incidents of censorship by the government all prevent the Honduran media industry from building a sustainable media industry.

Nicaragua

Since 2001, Nicaragua has seen moderate continuous growth in its economy, as well as a low level of inflation. According to the World Bank (2008), President Ortega's main objectives are stabilizing the economy and reducing poverty. Additionally, creating a positive investment environment in the private sector and the development of small and medium businesses are issues that Ortega intends to address in his term. The sustainment of quality social programs to improve the overall well-being of citizens is a priority as well. While no specific issues regarding the media are addressed, all of these programs, if implemented appropriately, can all contribute to competitive advantage in the media industry.

Flooding and windstorms were the most devastating events that occurred in Nicaragua from 2003-2007 affecting 233, 138 people. Also, 278 deaths were reported. Honduras had almost twice as many citizens affected, yet about equal numbers of deaths. Nicaragua falls short in saving the lives of its citizens through disaster relief (CRED, 2008).

Reporters Without Borders (2007) reported no explicit threats to media professionals over the past three years. Along with Costa Rica, these two nations seem to provide a more stable and free environment for the media to operate separate from the government or other organizations such as gangs who can pose a threat to the media. Although Nicaragua has its share of problems, the free press is a potential strength. A safe media industry can encourage quality investigative reporting of value to citizens, and encourage investment both by domestic and international firms by offering a safe environment for media companies.

CHAPTER 4

DISCUSSION

This chapter first reviews the findings from the data analysis. Next, the contributions to the literature and theory of competitive advantage are discussed. The discussion chapter then presents some of the limitations that were encountered during this study, followed by suggestions for future research. A final section then answers the two research questions posed in Chapter 2.

Discussion of Findings

Factor Conditions

Costa Rica displays a number of competitive advantages in the factor conditions determinant. With a high GDP per capita, literacy rate, and internet users, Costa Rica has more superior factor conditions than any other Central American nation. Guatemala ranks behind Costa Rica. Although this nation lacks in education, its high rates of mobile phone penetration and internet users is an advantage for Guatemala. This is especially apparent when the population is considered. The market of both existing and potential consumers is larger than any other nation in the region. El Salvador has many of the same advantages as Guatemala, and a more educated citizenry. However, because it is about half the size of Guatemala and has a slightly lower GDP, it ranks lower. Honduras and Nicaragua rank at the bottom in the factor conditions determinant. Honduras does rank slightly above Nicaragua because of its higher numbers in all variables except mobile phone penetration. Both of these nations suffer competitive disadvantages due to their lack of a developed citizenry and economy.

Related and Supporting Industries

Nicaragua, Guatemala, and Honduras show significant shortcomings in all data analyzed in this determinant. El Salvador also has many problems similar to Nicaragua, Honduras, and Guatemala; however, the high dissemination of television receivers provides a possible competitive advantage when compared to other nations in the region.

Costa Rica is the highest in most data analyzed within this determinant. This nation has many reasons for a healthier environment. It is concluded that Costa Rica has the strongest related and supporting industries determinant due to its above average rank in all areas except for television receivers.

Consumer Demand Conditions

Due to its high rankings of press freedom and human development, Costa Rica provides an environment that encourages high consumer demand conditions. Additionally, citizens spend much more time on computers in Costa Rica than any other nation in the region. This coupled with their regionally high levels of computer dissemination reveal a competitive advantage for Costa Rica in the consumer demand determinant.

Honduras displays the lowest levels of consumer demand conditions due to its shortcomings in human development and amount of time spent with media. This is further reinforced in other aspects of the diamond due to its small population and low dissemination of receivers. Guatemala, however, is not far in front of Honduras regarding consumer demand conditions. Although time spent with television and radio is high, human development and press freedom are low. This contributes to a consumer base that does not demand quality.

El Salvador and Nicaragua display promising aspects as well as shortcomings in this determinant. While both show decent levels of press freedom and human development, they both fall short of Costa Rica. El Salvadorans reported shorter amounts of time spent with all media compared to Nicaragua. Therefore, even though El Salvador may have a higher human development score, their shortcomings in time spent with media and press freedom puts this nation behind Nicaragua when examining consumer demand conditions alone.

Firm Strategy, Structure, and Rivalry

Guatemala contains more broadcast options than any other nation in Central America. While some of this can be attributed to its large size, Porter (1990) emphasizes that the larger the number of entities competing for consumers contributes to competitive advantage. While interference on the airwaves may exist due to a large number of FM stations, this may further encourage rivalry and competition.

Second to Guatemala regarding television stations is Costa Rica, whose success can be attributed to a more economically successful population which is explored in other determinants. Regarding the number of radio stations in a nation, Honduras contains a large number of AM stations. Because of the large number of options, competition and rivalry is likely for so many stations to compete for such a small potential audience. Honduras also has the third largest number of broadcast television stations. Although they are third and well behind Guatemala and Costa Rica, eleven stations in this small nation fosters a competitive environment.

El Salvador is lacking in television broadcast options, yet not as much as Nicaragua. Additionally, due to its large number of radio stations in a densely populated area, a competitive environment in radio likely exists. Nicaragua lacks both in the number of television and radio stations. Nicaragua suffers in many aspects of the diamond and this determinant is no exception.

Government and Chance Events

Governments in some of these nations, such as Costa Rica, El Salvador and Guatemala, have enacted policies and plans to encourage the development and sustainability of industries including the media, while some nations still suffer from controlling governments such as Honduras. Nicaragua lays somewhere in the middle with little specific proposed legislation and a new administration; yet, the media is relatively free giving some competitive advantage.

Natural and technological disasters have affected every nation in the region, but the degrees of damage vary. Over the past five years, Guatemala has seen a significant disadvantage due to the large number of deaths from natural disasters. Honduras, on the other hand, has been able to avoid devastation and death. These events and issues lay outside the interconnected diamond created by Porter, yet affect all determinants.

Conclusion

The first research question is answered by comparatively analyzing each determinant of the diamond in addition to government and chance events. Following this comparative discussion, the second research question is answered by combining all determinants for each nation, and discussing which findings contribute to competitive advantage.

Research Question 1

As discussed throughout Chapter 1, there are many societal, geographic, and historical similarities among the five nations included in this study. One purpose of this study was to determine what similarities and differences exist within the media industries of these nations.

Costa Rica's differences are initially seen in the factor conditions. Not only are Costa Ricans more financially stable and better educated, there are also more computer users per capita. One similar factor condition for the remaining four nations is seen in the dissemination of mobile phones. Other similar factor conditions in these four nations include poor education statistics and low numbers of internet users.

These four nations also show a number of similar findings regarding the related and supporting industries determinant and consumer demand conditions. Costa Rica again stands alone with higher numbers in the majority of data in these determinants.

Costa Rica displays some similarities with other nations regarding firm strategy, structure, and rivalry. Guatemala and Costa Rica, in fact, display more similarities than the other three nations in this determinant.

El Salvador, Guatemala, and Costa Rica all have governments that have planned legislation to assist in the improvement of the competitive industrial environment including the media. No evidence was found that Honduras and Nicaragua have similar legislation in effect. Nicaragua and Costa Rica do share a higher level of press freedom than other nations, and Guatemala stands alone in its poor rank of press freedom. All nations have been affected by natural disasters. Honduras differentiates itself regarding chance events because of the large difference between the number of people affected and the number that perished.

Research Question 2

Costa Rica has many attributes that contribute to the competitive advantage of its media industry, especially when compared to the other four nations in the region. Not only are the citizens of this nation wealthier and more educated than the rest of Central America, they also have higher disseminations of receivers, and users of media. While computer dissemination and users are well below the majority, they are higher than the rest of the region, giving Costa Rica an advance start to create a competitive advantage online. Additionally, high press freedom, a proactive government, and low levels of deaths from disasters contribute to competitive advantage.

El Salvador enjoys a high dissemination of television receivers and a slightly better educated population than all nations except Costa Rica. El Salvador also has higher numbers of human development that contribute to competitive advantage by providing higher quality consumers of media. El Salvador does have a large number of radio stations which encourages competition that leads to competitive advantage.

Guatemala's large population contributes to competitive advantage of the media industry by providing a larger existing and potential market than any other Central American nation. Additionally, the number of television stations, mobile phones, GDP per capita, and time spent with media are all comparatively high in Guatemala. While these data may contribute to competitive advantage, low press freedom, an uneducated public, and a large number of lives lost due to disaster are high and subtracts from competitive advantage.

Honduras reveals little data that contribute to competitive advantage. Aside from a comparatively large number of radio and television stations, no other data within the diamond contribute to the competitive advantage of the media industry in Honduras. One promising piece of information was found in the number of people that were affected, yet did not die from disastrous events. This may contribute to competitive advantage by keeping citizens alive through education and information; two things that build competitive advantage in a media industry.

Nicaragua, like Honduras, has few findings that contribute to competitive advantage. However, the high number of mobile phone users encourages competitive advantage through a well connected population that may even use mobile phones for information and entertainment. An early high dissemination such as this contributes to innovation and competition that builds competitive advantage.

The conclusions above provide an overall snapshot of the strengths and weaknesses of media industries in Central America. Also, this study illustrated what attributes contribute to competitive advantages in each nation. By examining strengths, weaknesses, and competitive advantage, Porter's diamond is affirmed to be an affective framework for examining industries, including the media, in small developing nations such as those in Central America.

Contributions to the Literature

Porter's diamond provided an appropriate framework to analyze the media industries for this study. While there were limitations, described below, the diamond was effective in answering the research questions. The flexibility of the diamond made the application to a media industry achievable without modifications to the theory. Following analysis, it is determined that the theory of competitive advantage defined by Porter (1990) using the diamond framework is a helpful and applicable tool in examining the media industries of small developing nations such as those in Central America. This study not only contributes to the theory of competitive advantage, but also to the small body of work dedicated to media in Central America. This analysis provides the first comparative country-level examination of Central American media industries and competitive advantage.

Limitations

While this study does use statistical data from reputable sources, there are some limitations that occurred. Some data were collected up to ten years ago (see Table 2). Because these numbers are dated, and media industries and technology evolve rapidly, these data may not provide the most accurate picture. However, the data used are the most recent available to the researcher.

Another limitation was found in the firm strategy, structure, and rivalry determinant. Little information was found regarding ownership and management. There was also no information regarding competition online. While rivalry was measured by the number of television and radio stations, these data did not fully measure firm strategy and structure. Future research and data are needed to expand the understanding of this determinant.

Directions for Further Research

There has been little research produced regarding Central American media, and this thesis is only a start to understanding how these nations and their media industries are structured. As noted above by the limitations, steps may be taken to combat these issues. First, timely data would be of great assistance to provide an updated and more relevant investigation. Also, more data such as online content producers and domestic websites would provide further insight into the growing computer and online industries in these nations.

Finally, additional information collected both from consumers and media professionals in these nations would be valuable. While this study provides an initial understanding of media industries in these nations, further information gathered directly from these nations could provide insight to future research.

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