



Teaching case

Market consolidation in the telecommunication sector: will LIME survive?

Paul A Golding, Vanesa M Tennant

University of Technology, Jamaica, W.I.

Correspondence:

PA Golding, University of Technology, 237 Old Hope Road, Kingston 6, Jamaica, W.I.

Tel: (876) 970-5370;

Fax: (876) 702-3033;

E-mail: pgolding@utech.edu.jm

Abstract

This teaching case presents a situation confronting Garfield Sinclair, the Managing Director of LIME Jamaica, a telecommunication provider, in March 2011, learning of a possible swap deal between the market leader, Digicel and its closest rival Claro (LIME's two biggest competitors). The unexpected deal threatens to create a new monopoly in the Jamaican telecommunications market. Ironically, LIME held a monopoly position in Jamaica until 2000, when new licenses were offered in the country. Now, LIME's very existence is threatened and Sinclair must decide what to do. This case supports debate on whether the telecommunications industry is a natural monopoly, and can serve as a vehicle that improves students' understanding of the complex interplay among technology, business strategy and the law.

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Introduction

At 6 a.m. on 11 March 2011, Garfield Sinclair's chauffeur handed him two daily newspapers as he slipped into his black Mercedes Benz. Sinclair, the Managing Director of LIME Jamaica since October 2010, preferred to reach his office early, as it gave him time to contemplate and get his day started before his staff arrived at 8 a.m. As his chauffeur navigated the sparse early morning traffic, Sinclair opened the newspaper. *The Gleaner* headline read, *Digicel to acquire Claro Jamaica*. *The Observer* declared *Digicel set to acquire Claro*. Digicel and Claro were LIME's two biggest competitors. Garfield Sinclair uttered a familiar expletive: 'Oh, f%\$@!' This was a worst-case scenario. Powering on his phone, Sinclair saw several missed calls and messages, including one from his Chairman Chris Dehring. This last call made Sinclair contemplate his future. His predecessors had come and gone rapidly: Errald Miller (2003), Gary Barrow (2004), Jacqueline Holding (2005), Rodney Davis (2007), Philip Green (2008) and Geoff Houston (2010).

The car stopped and the chauffeur opened the door, interrupting Sinclair's thoughts; they had arrived at his office. Before becoming LIME's managing director Garfield Sinclair was President and Chief Operating Officer at an investment

house in Kingston, Jamaica. A 20-year business veteran, he now wondered: if a Claro-Digicel merger was finalized, how much longer would he last as LIME MD? He needed to decide how to block or delay the merger and how to quickly refocus LIME strategy.

Telecommunications background: the road to GATS and BATS

Telephone networks were built starting in the late nineteenth century, requiring massive initial capital investments and novel technical standards to make complex 'natural monopolies.' Nearly all countries had a single national provider responsible for building networks, running wires to households and developing the switching and interconnection technologies that made long-distance calls possible. As a consequence, governments in North America, Western Europe and many other countries required providers to provide universal service. At the same time, government regulators set call rates, with the mandate to keep the telecom provider financially solvent, while continuing to invest in improved call quality and new technologies. In many countries, long-distance calls were priced to subsidize local calling, and to

support unprofitable network expansion under the universal access model (Daemrich *et al.*, 2012).

In 1984, the United States government forced the divestiture of telecom giant American Telephone & Telegraph AT&T, thereby creating competition in the market for long distance services and telecommunications equipment. In 1985, the United Kingdom and Japan followed the US's lead. New Zealand (1989) Australia (1991) and Canada (1993) gradually embraced competition in their telecommunications sectors (Wilson, 2000; Braunstein *et al.*, 1999; Cowhey and Klimenko, 2001).

Three global developments accelerated other countries' moves to deregulate telecommunications: digital technologies, telecom companies' search for new markets and developing countries' search for paths to economic growth. While land-line telephone networks were initially based on analog technologies, powerful and inexpensive digital communication technologies were introduced in the twentieth century, forcing a major re-examination of the opportunity costs of protecting traditional telecommunications equipment and service suppliers. Companies from industrialized countries such as the USA, UK and Japan were especially impatient to secure market access. As digital competitors entered newly liberalized countries, the incumbent phone companies began looking to foreign markets for new growth opportunities, and the World Trade Organization (WTO) helped reduce various market barriers and local regulatory uncertainties. Meanwhile, research reported that investment in telecommunications infrastructure was a strong predictor of national economic growth (Madden and Savage (1998)). Thus, leaders of many developing countries saw the liberalization of their local telecommunications market as an avenue for economic development.

It was within this context that in 1997 a General Agreement on Trade in Services (GATS) was reached. The 69 countries that signed GATS represented over 90% of the world's basic telecommunications revenues. GATS established binding multilateral rules, covering market access and national treatment of foreign services suppliers and government regulations of trade of services (Sherman, 1997), and included an Annex on telecommunications and a Protocol regarding basic telecommunications services. This 'Fourth Protocol' was referred to as the Basic Agreement on Trade in Telecommunication Services (BATS). Article II of BATS gave foreign suppliers an opportunity to build network infrastructures, issue licenses and compete through a non-discriminatory 'most favoured nation' principle (MFN). In keeping with the Agreement, WTO countries were required to implement licensing regimes, which would grant market access to operators from WTO member countries on terms 'no less favourable' than terms applicable to operators from 'any other country.'

Prior to BATS, Jamaica's telecommunications market was similar to those in other developing countries. Cable and Wireless Jamaica (C&WJ), a subsidiary of British-based Cable and Wireless Communications PLC, and the single network provider in Jamaica, had a natural monopoly. C&WJ traced its history to a series of telecom companies established in Britain in the 1860s. In the nineteenth century the company started operating in several British Caribbean colonies, including Jamaica.¹ The Government of Jamaica (GoJ) had granted C&WJ licenses until 2013, guaranteeing the company a specified return on their investments.

During the late twentieth century C&WJ encountered two major problems, which threatened their monopoly status. First, they were unable to satisfy demand for landlines, with a waiting list of approximately 217,000. Second, the Internet was growing rapidly, and Internet Service Providers (ISPs) were offering Internet-based phone calls that bypassed the C&WJ network. C&WJ argued that their licenses granted them a monopoly over all telecommunications services. The GoJ counter-argued that the licenses granted C&WJ a monopoly on fixed and wired telephone services, but did not include wireless services. The Government and C&WJ settled their legal battle out of court in September 1999, with C&WJ agreeing that full competition would develop in the Jamaican telecommunications market over a period of 3 years. This aspect of the Agreement between the two parties resulted in the liberalization of Jamaica's telecommunications market and fulfilled the GoJ's commitment to provide a new BATS-compliant Telecommunications Act 2000 to replace the 1893 Act (Roberts-Brown & Golding, 2013). The new act included the following provisions:

1. Issuing of new licenses to C&WJ.
2. Phased liberalization process, over a 3-year period, commencing March 2000. During this phase-in period, bypass of C&WJ's international network would be illegal.
3. Competition would be immediately allowed in the mobile market and the market for provision of Customer Premises Equipment (CPE).

Deregulation of the Jamaican telecommunications sector

Liberalization of Jamaican telecommunications commenced with the granting of two new carrier licenses for the provision of domestic mobile voice, data and information services, awarded on the basis of auctions held in December 1999 and January 2000. The auctions contributed US\$92.5 million to the Jamaican treasury (nearly US\$40 per capita). Each mobile entrant used a different technology for its mobile network:

- C&WJ, which had offered mobile services in Jamaica since 1991, first chose to use Time Division Multi-access (TDMA). In 2003 C&WJ switched from TDMA to Global System for Mobile (GSM), but operated on both TDMA and GSM platforms until early 2007.
- Mossel (operating under the trade name 'Digicel') commenced service in April 2001, using GSM Communications (however, Digicel operated on different frequencies than C&WJ).
- Later in 2001, Oceanic Digital Jamaica (now Claro) commenced operation, deploying a third telecom technology: Code Division Multi-access (CDMA).

The Jamaican Spectrum Management Authority (SMA) allocated wireless spectrum. Each company was allocated frequencies in both the 850–900 MHz bands and 1800–1900 MHz bands. The lower bands were preferred. After the initial allocation, the SMA announced that only higher bands would be allocated in future (see Table 1). The lower bands of 850 MHz and 900 MHz were preferred to higher bands because, among other things, cell sites that operated on the lower bands covered a wider area. A single cell site that operated on lower bands covered an area of approximately 800 square miles, whereas it would take three cell sites at

Table 1 Mobile Communications in Jamaica

Overview of the mobile technology systems running on each network			
Network	Claro/MiPhone	LIME/C&WJ	Digicel
System	CDMA/GSM/LTE	GSM/LTE	GSM/WiMaX
GPRS/UMTS	Yes	Yes	GPRS
Frequency	800/1900 MHz	800/1900 MHz	900/1800 MHz

Source: A Review of the Jamaican Telecommunications Sector (2007), Fair Trading Commission (FTC) and Office of Utilities Regulation.

Texting rates (in \$) for LIME, Digicel and Claro

Destination	Claro/MiPhone	LIME/C&WJ	Digicel
To own network	0.03	0.03	0.03
To other networks	To LIME - 0.03, To Digicel - 0.05	0.05	0.05
To Caribbean/Int'l	0.07	0.07	0.07

Sources: www.digicelgroup.com, www.time4lime.com, and Claro Customer Care Centre. N.B.: Claro also offered an 'OMG' texting package with a subscription cost of US\$0.11. The 'OMG' package allows subscribers to send the next 100 text messages for that day free.

Market share (in %) based on subscriber, voice and cell

	Claro/MiPhone	LIME/C&WJ	Digicel
Subscriber	10.3	26.4	62.8
Voice	3.3	43.7	52.4
Cell	38.2	19.1	42.7

Subscriber base as at 30th June 2009. Source: Office of Utilities Regulation.

Composite of the mobile telecommunications used by the three main players, rate for text and market share based on subscriber, voice traffic, and cell sites and coverage.

1800 MHz to cover the same area. According to SMA, a properly built 1900 MHz system would work as well as a properly built 850 MHz system, but it would cost significantly more to deploy and operate.

Full liberalization was completed on 1 March 2003, making Jamaica the first English-speaking Caribbean Island to liberalize telecommunications. With deregulation came high demand for new telecommunications licenses. From 2001 to 2005, about 200 entities received nearly 400 licenses to provide services in areas such as: International Service Providers (Internet), Domestic Carriers, International Voice and Data Transmitters, ISP Cable Providers and Domestic Voice. The mortality rate was high; by 2011 about 20 of those firms (10%) were operational, and several were in different forms than when they applied for licenses. Most of the others never got beyond the drawing board; some tried and failed, others consolidated and still others were continuing to research the market to identify profitable niches for their service offerings.

Jamaica country profile

Jamaica, a small Caribbean island located 90 miles south of Cuba, was a study in contrast. The island was known for its beauty, political stability and plentiful resources, in the form of

bauxite and sugar.² It was also well-known for its strong sense of self-identity, expressed through music, food and a rich cultural mix. Jamaicans were proud of luminaries such as the Black Nationalist Marcus Garvey and musician Bob Marley. Jamaicans were also proud of their country's religious heritage. The island was the birthplace of Rastafarianism, a religious movement that venerated the former Ethiopian emperor Haile Selassie. Once regarded as a revolutionary threat, Rastafarianism became a global cultural force, reflected in its art and music. However, poverty, crime and corruption were widespread in Jamaica. Transparency International's Corruption Perceptions Index (CPI), published annually, ranked countries by their perceived levels of corruption, as determined by expert assessments and opinion surveys. A score of 10 indicated least corrupt; a score of 1 indicated most corrupt.³ The 2011 CPI rankings gave Jamaica a score of 3.3, ranking Jamaica 86 out of 182 countries. In 10 years, Jamaica had never achieved a CPI score higher than 4.0.

Since achieving independence in 1962 Jamaica's economy had grown very slowly, with its Gross Domestic Product (GDP) growth in 2000 at 0.9% and its 2011 GDP growth at 1.3%.⁴ Jamaica's debt-to-GDP ratio was nearly 130% in 2011, and prospects for growth in the economy were not favorable. Despite these dreary figures, the Telecommunications sector was buoyant. In the years since liberalization, this sector's

contribution to GDP growth had steadily increased, improving by 99.7% between 1999 and 2004.

A yearlong ethnographic study of mobile phone use in Jamaica was conducted in 2004 by Daniel Miller⁵ who found that – especially among lower-income individuals and households with extremely low earnings from employment, entrepreneurial activity and sales – what really mattered was the financial support received from those friends and family that 'have it.' Seventy percent of low-income urban Jamaican households received money from others, including family members, boyfriends and partners, baby-fathers and friends in Jamaica and abroad. Many Jamaicans used their cell phones to request remittance from family or friends overseas. Indeed, remittance inflows were Jamaica's major source of foreign exchange. Remittance flows in 2010 represented approximately more than 10% of Jamaica's GDP. Inflows for 2011 were projected at about US\$2 billion.⁶ Remittances came from USA (58%), UK (16%), Canada (11%) and the Cayman Islands (6%), which is where most of the Jamaican Diaspora resided.

The Jamaican market

Services provided by Jamaican telecommunications providers fell into three main categories: voice, data and video. The voice segment was subdivided into landline and cellular. The cellular segment included both prepaid (97.5%) and post-paid (2.5%) subscribers. Subscribers of mobile services were typically young; well-informed; more likely to communicate via mobile, rather than fixed-line telephone service; driven primarily by coverage and calling charges when selecting providers; and unwilling to enter into long-term contractual arrangements.⁷ As was true in many other countries, Jamaica's mobile penetration rate was more than 100% (more than one mobile phone per citizen). There were three main suppliers of voice services: LIME, Digicel and Claro.

LIME

LIME's parent company, C&WJ, had been operating in Jamaica for over 140 years and employed 1400 persons. C&WJ was publicly held, with approximately 2500 shareholders.⁸ Unlike competitors, C&WJ was a full-service telecommunications provider, offering landline, Internet and cellular service. In 2000, C&WJ had a 100% share of the cellular market. The company had struggled in the new liberalized market and found it difficult to distance itself from its monopolistic past, when many Jamaicans saw it as arrogant and unresponsive to customer needs. With the opening and expansion of the market, C&WJ's market share fell to 26.2% in 2004 and 19.7% in 2006. The rapid decline coincided with rapid turnover at the helm. The managing director was replaced almost every year: Errald Miller (2003), Gary Barrow (2004), Jacqueline Holding (2005) and Rodney Davis (2007). From 2007 to 2008, the company's net loss attributable to stockholders more than doubled, from US\$232 million to US\$47.67 million (US\$1 = J\$88).

On 31 October 2008, C&WJ embarked on a new strategy that included corporate rebranding in 13 Caribbean markets. Its new name, LIME (Landline, Internet, Mobile and Entertainment), was supposed to project an image of freshness. Executives hoped the name would convey a company on the cutting edge, in contrast to C&WJ's stodgy and lumbering

persona. However, the name change was met with cynicism from many customers. One captured the general mood with the comment: *This is just another attempt to dress up the emperor in new clothes, even as everyone knows the emperor has long lost the respect of the people he once led.*

LIME introduced innovative new mobile services in hopes of gaining market share. With help from Ericsson, the company spent US\$30 million to upgrade its wireless network to 3G, in order to offer video conferencing calls, multimedia e-mails, faster transfer of files and TV streaming. In September 2010 LIME announced it would double its marketing spend, then at nearly US\$6 million. In November 2010, with its new network completed, LIME launched the Caribbean's first mobile television service in Jamaica, with premium digital channels such as CNN, ESPN, Sportsmax, NBC, Hype TV and the Cartoon Network Channel. More channels, including a pay-per-view offering, were subsequently added.

In 2011, landline contributed about 45% to company revenues but this market was declining as customers gave up their landlines in favor of cellular phones. A 2008 survey indicated the extent of the decline: 97% of companies had a fixed line, of which 99% indicated LIME as their service provider. Only 27% of households had fixed lines, down from 59% in 2002. Seventy-four percent of households had mobile phones only, while 2% had fixed line only.

LIME's mobile division, the most profitable, contributed about 25% to its revenue but lagged behind market leader Digicel. The Internet division contributed about 20% to company revenue. A recent study indicated that only 24% of the Jamaican population had daily access to Internet at home. LIME lost US\$34 million in 2010. Garfield Sinclair knew they would lose more than US\$65 million in 2011 (see Table 2).

Digicel

Digicel was a privately held firm owned by Denis O'Brien, a Boston College-educated Irishman with a reported net worth of about US\$4 billion, making him the second richest man in his home country. O'Brien maintained a base in Jamaica and considered Jamaica Digicel's home country. In April 2001, when Digicel launched GSM mobile service in Jamaica, the company had expected to reach the 100,000 customer plateau by the end of its first year in operation. It actually hit the mark in 100 days. Never in the country's history had such tremendous growth been seen in a telecommunications network. Digicel broke record after record, on its way to surpassing LIME as the mobile provider with the largest customer base on the island. It took about 13 months to reach the 400,000 customer mark; it had taken LIME about 10 years to reach that number.

Digicel's strategy included affordable phones, a user-friendly approach and mass marketing. The company subsidized handsets, allowing low-income users to sign up with low initial cost. Low-income users were more likely to subscribe to pre-paid mobile service, rather than post-paid mobile or fixed line service. The company led the market in innovative ways of adding credit to a mobile account, such as phone-to-phone transfers and credit purchases via automated banking machines. Persons living abroad could purchase credit on behalf of their friends and relatives in Jamaica.⁹

Digicel's brand building campaigns succeeded in making its name synonymous with Jamaican sports and musical events.

Table 2 Audited Financial Statement for Fiscal Year Ended 31 March 2011 (US\$000)

	2011	2010	2009	2008	2007
Ordinary stock – Issued	191,107	191,107	191,107	191,107	191,107
Shareholders' equity	65,774	135,625	174,857	166,994	229,907
Market capitalization	40,133	84,087	85,998	149,064	189,196
Borrowings	235,135	165,398	144,708	115,735	84,092
Capital investment	69,726	46,190	57,292	69,400	46,328
Total assets	405,946	397,257	426,053	402,315	456,206
PROFIT AND LOSS ACCOUNT					
Turnover	236,227	235,525	249,919	260,164	280,463
(Loss)/Profit before tax	(51,397)	(64,439)	(4199)	(84,004)	(35,651)
Net(Loss)/Profit attributable to stockholders	(69,449)	(38,502)	(3441)	(47,667)	(23,338)
Dividends	—	—	—	5733	7644
IMPORTANT RATIOS					
Debt to equity (%)	357	122	83	69	36
Return on equity (%)	(106)	(28)	(2)	(29)	(10)
(Loss) earning per stock (c)	(36.34)	(20.15)	(1.80)	(24.94)	12.20
Closing share price	0.21	0.44	0.45	0.78	0.99
Price earnings ratio	(0.58)	(2.18)	(25.00)	(3.13)	8.11

Source: LIME Annual Report 2011.

Abridged audited financial statements for LIME covering period 2007–2011.

Table 3 On/Off Network Call Charges for Claro, LIME and Digicel

Destination	Claro rates (per s) (\$)	LIME rates (per min) (\$)		Digicel rates (per s) (\$)	
	Peak/Off peak	Day	Evening	Peak	Off peak
LIME fixed-line	0.08	0.01	0.01	0.14	0.11
Flow fixed-line	0.08	0.08	0.08	0.20	0.18
LIME mobile	0.08	0.08	0.08	0.20	0.18
Digicel	0.14	0.08	0.08	0.11	0.09
Claro	0.08	0.08	0.08	0.20	0.18

Peak: Daily 6:00 a.m., to 5:59 p.m. Off-peak: Daily 6:00 p.m. to 5:59 a.m. and all day on weekends.

Sources: http://www.flowjamaica.com/index.php?option=com_content&task=view&id=40&Itemid=138, <http://www.time4lime.com/content/5/section/9/category/140/472>.

Call termination rates among the three major players.

By 2010 Digicel had more than 2.1 million Jamaican customers (in a country with a population of 2.8 million), giving it a Jamaican mobile market share of approximately 76%. With an island-wide network of more than 1000 cellular towers spread across all 14 parishes, Digicel had firmly established itself as the mobile provider with the premier network coverage across the country. Jamaicans living in rural areas finally had a genuine option for mobile communications.

Like LIME, Digicel pushed trivia and game-based questions to customers' phones; each text response attracted a premium charge of up to US\$0.28. Digicel's top-rated TV program 'Digicel Rising Stars,' launched in 2004, was Jamaica's first live televised talent search. By 2010 it was the most popular local show on Jamaican TV. Viewers could vote each week for their favorite contestant as many times as they wished; the contestant with the fewest votes was eliminated. Digicel did not disclose how many votes each contestant received, but it was thought to be a very large number.

In 2011, Digicel charged from US\$0.12 to US\$0.20 for cross-network calls, while LIME and Claro each charged US\$0.14. To avoid high cross-network charges many Jamaicans owned two or three phones, one for each network. LIME argued that high cross-network charges were a burden on telecommunications customers; because they penalized customers for calling other networks (see Table 3).

Buoyed by its success in Jamaica, Digicel expanded into the Caribbean and Central America, becoming the fastest-growing telecommunications company in the region. By 2010 it operated in 23 territories, with a turnover of more than US\$1 billion. Digicel began building a US\$65 million global headquarters in downtown Kingston (Jamaica's capital city, in the Prime Minister's (PM) political constituency) to house 1000 employees. Politicians and real estate agents hoped it would be a catalyst for growth and renewal in the downtown business district, which had been blighted by urban flight. Consistent with the company's global commitment to green



initiatives, the new Digicel headquarters was touted as the most environment-friendly major office building in the Caribbean, making use of solar power, wind power and geothermal cooling systems. By comparison, LIME's contribution to the environment was to provide general tips on its web site about going green.

Claro/MiPhone

Claro started operations in 2001; its owners were Centennial Communications (51% share) and Oceanic Digital Communications (49% share). In late 2002, Centennial sold its 51% share to Oceanic for an undisclosed sum (rumored to be \$1) and the company was rebranded 'MiPhone.' A new management team was hired, consisting mostly of North American executives. The company lagged behind Digicel and LIME and did not provide coverage outside the main metropolitan areas. To build out its network island-wide, the company secured a loan of US\$30 million. However, the project was plagued by inefficiencies, cost overruns and slow approvals from Parish Councils (elected local government officials responsible for, among other things, building regulations) to erect cell towers. MiPhone was only able to establish itself in major towns across the country.

In 2007, after rebranding and refocusing on the small niche of mobile users, MiPhone sold its operations to America Movil (the fourth largest network operator in the world and largest corporation in Latin America), for US\$70 million. At that time, MiPhone had about 100,000 customers and also operated as a reseller, offering virtual mobile network operations licenses to companies including MegaPhone, World Phone, Peoples Telecom and Gotel Communications. Carlos Slim, reportedly the world's richest person, owned America Movil with 2010 assets of US\$74 billion (Ody, 2011). The company provided fixed-line, wireless cellular telecommunications services and broadband services under the Telcel, Claro, Comcel, Porta, Codetel and PRT names.

Although Claro and Digicel purchased their mobile licenses at the same time, their strategies differed. Digicel's market entry was immediate, with Irish principals on the ground in Jamaica and personally involved in negotiations regarding interconnection fees, spectrum allocation and other regulatory matters. Claro's market entry was delayed; they initially did not have a presence in Jamaica and instead relied on local lawyers to engage in discussions with the Office of Utilities Regulation (OUR) and other entities. The two companies also took different approaches to rollout of cell sites: Digicel expanded island-wide, while Claro concentrated on the major metropolitan areas of Kingston, St. Andrew and Portmore. Their technology choices also differed: Digicel opted to use GSM, which is widely used in Europe, while Claro initially opted for CDMA, a USA standard. While the ownership structure of Digicel remained stable, Claro changed ownership several times.

Claro's entry into Jamaica was much anticipated. Industry sources indicated that its entrance into Jamaica was a response to Digicel's entry into El Salvador and Honduras. Reporting on Claro's Jamaica launch, *The Gleaner* reported: *Claro Jamaica CEO Alejandro Gutierrez indicated that Jamaica would be the launch pad for the United States and United Kingdom. According to Gutierrez, the company planned to be number one in the Jamaican market within 3 years* (see Table 4).

Claro undertook a massive network expansion plan to take on Digicel and LIME. It replaced its CDMA platform with third-generation GSM, in an effort to reduce customer-switching costs (Digicel and LIME were on a GSM platform. For a customer to switch from GSM to CDMA, a new handset was required, whereas to switch from one GSM carrier to another, a customer only needed to purchase a SIM card). Claro's 3G mobile service was introduced in 2008. This change gave Claro the ability to offer video calling, which neither Digicel nor LIME could offer on their 2G platforms. In June 2009 LIME launched its 3G platform in the capital city of Kingston, with plans for an 18-month phased rollout to other parishes, at a cost of approximately US\$40 million. Digicel did not upgrade its 2G platform; however, to encourage customers not to switch networks it dramatically dropped its on-net charges, first when Claro introduced its 3G service and again when LIME did likewise.

On a global scale, Claro's parent (America Movil) reportedly had 225 million subscribers worldwide, having added 8.2 million subscribers in the last quarter of 2010.

Competition intensifies: aggressive advertising

Even before Claro's entry, infrastructure upgrades had a positive impact on the sector. 2005 revenues for LIME and Digicel were 65% higher than in 2001. Between 1999 and 2004 the sector's contribution to economic growth, as measured by GDP, had increased by 99.7%.¹⁰

A critical success factor for Claro's strategy was expansion in its countrywide network coverage. Claro and Digicel were at loggerheads over interconnection rates for a cell tower sharing arrangement. In February 2009, Parish Councils in St. Mary, St. Catherine, St. Thomas, St. James and Kingston complained to the Central Government that Claro was erecting cell towers without necessary council approvals (*The Gleaner*, 2009). Companies entering the market needed first to apply for a service provider license and a spectrum license. Claro's purchase of MiPhone included the acquisition of both the service provider and spectrum licenses. After obtaining two licenses a new entrant would then be required to apply for permits from the National Environmental and Planning Agency (NEPA) to erect cellular towers. NEPA would conduct an electromagnetic analysis, evaluate the aesthetics of the proposed tower, and very importantly, hold consultations with citizens' associations in the communities where the towers were slated to be erected. Citizens' association could be very effective in preventing the erection of cellular towers in their community. After NEPA's approval, a new entrant would apply for construction permits from parish councils/local government.

In July 2009, LIME and Claro signed a deal to share cell tower sites. The companies said that a long-term contract required that each company provide a matching number of cell towers across the island, which would increase the overall coverage footprint of both mobile providers. Claro, with 470 cell towers island-wide, had planned to build as many as 610. LIME preferred not to reveal how many towers it had. Digicel had 1200 towers. Industry analysts noted that Digicel had little to gain from a tower sharing agreement, as it already boasted island-wide coverage.

In 2009, Claro claimed it had overtaken LIME as the second largest cellular company, but this claim was later disputed Sheil

Table 4 Three Major Telecommunications Players in the Region

<i>Caribbean region</i>			
	<i>LIME</i>	<i>Digicel</i>	<i>American Movil/Claro</i>
Anguilla	✓	✓	
Antigua Barbuda	✓	✓	
Aruba	✓	✓	
Barbados	✓	✓	
Bermuda	✓	✓	
Bonaire	✓	✓	
British Virgin Islands	✓	✓	
Cayman Islands	✓	✓	
Curacao	✓	✓	
Dominica	✓	✓	
Dominican Republic	✓		✓
Grenada	✓	✓	
Guadeloupe	✓	✓	
Haiti	✓	✓	
Jamaica	✓	✓	✓
Martinique	✓	✓	
Montserrat	✓		✓
Puerto Rico	✓		✓
St. Kitts and Nevis	✓	✓	
St. Lucia	✓	✓	
St. Vincent and the Grenadines	✓	✓	
Turks and Caicos	✓	✓	
Trinidad and Tobago	✓	✓	
<i>Central America region</i>			
	<i>LIME</i>	<i>Digicel</i>	<i>American Movil/Claro</i>
El Salvador		✓	✓
Guatemala		✓	✓
Honduras		✓	✓
Nicaragua	✓	✓	
Panama	✓		
<i>South America region</i>			
	<i>LIME</i>	<i>Digicel</i>	<i>American Movil/Claro</i>
Argentina			✓
Brazil			✓
Chile			✓
Columbia			✓
Ecuador		✓	
French Guyana		✓	
Guyana			✓
Paraguay			✓
Peru		✓	
Suriname			✓
Uruguay			✓

Sources: Spectrum Management Authority (SMA), www.claro.com, www.digicelgroup.com, www.time4lime.com
 The footprints of the three major players in the Caribbean, Central America and South America.

(2009). In June 2010, Claro announced it would invest US\$300 million over a 12-month period to boost its network capacity. The plan was to use the hefty investment in infrastructure to increase its market share by 20%. The stated goal by Claro was to gain market leadership from Digicel by 2012. Between 2008 and 2010, the company opened 261 distribution locations across the country, including a flagship US\$205 K customer access center at its head office in Kingston.

From 2009 to 2010, the three major players spent heavily on promotional activities, outdoor advertisements and television

commercials. Jamaican advertising was typically British, polite and conservative, but Claro brought a confrontational, attack-style of advertising to the Jamaican market, a style more typical of a USA general election campaign. For example, Claro used branding and colors similar to, and made clear reference, Digicel in its advertising. Claro painted Digicel as old, misleading and overpriced in their call charges to customers. Competitors responded quickly to each other's attack advertisements. Before Claro's entry into the market, this belligerent style was unheard of in Jamaica. Claro's most

Table 5 Generations of Cellular

Attribute	2G	3G	4G
Speed	9.6–14.4 Kbps	Up to 2 Mbps	20–100 Mbps
Technology	D-AMPS, CDMA, TDMA, GSM	UMTS, W-CDMA, CDMA2000	WiMAX, LTE
Frequency	800 MHz or 1.9 GHz	1.6–2.5 GHz	2–8 GHz
Telecoms method	Circuit	Circuit/Packet	Packet
Features/Data services	Telephone	Global roaming	Video streaming
	Email	Web	TV broadcast
	SMS	Mobile videoconferencing	Video calls
		Video phone/mail	Enhanced gaming
		Remote education	Location services
		Mobile TV	High-speed tele-working
		Digital catalogue shopping	Real-time finance info
		Remote medical diagnosis	
		Advanced car navigation	

Sources: http://www.itu.int/ITU-D/tech/events/2006/Algiers2006/Additional%20contributions/Algiers_Presentation_AddContrib_STabbane.pdf, http://www.itu.int/osg/spu/ni/3G/workshop/Briefing_paper.PDF.

The evolution of the cellular networks from second generation to fourth generation and the features associated with each.

catchy advertisement was the Christmas 2010 television advertisement campaign 'Clarorific is so Swaggerific.'

Text messaging rates were also an area of competition. Claro offered 'OMG.' For US\$0.11,¹¹ a customer could send 100 text messages for 1 day. Digicel countered with their 'Gimme Five' promotion: customers' first five text messages cost US\$0.03 each and the next 100 texts that day were free (see Table 1). Despite the competitive moves by Claro and LIME, Digicel continued to increase its share of the market.

3G vs 4G controversy

In September 2010, Digicel advertisements touted WiMax as a fourth-generation (4G) standard, which would deliver affordable broadband wireless Internet access to all areas of Jamaica. Both Claro and LIME had already started promoting a 3G standard (Long-term Evolution) based on GSM. LIME filed a formal complaint to the Fair Trading Commission (FTC), accusing Digicel of misrepresenting its WiMax broadband technology as 4G. Referring to the International Telecommunication Union (ITU) (charged with establishing and defining telecommunications standards), LIME argued that a 4G standard would not be finalized until early 2012 (Edwards, 2010); therefore action should be taken against Digicel for false advertising. The suggested redress included mandatory publication of a clarification, retraction or apology in as prominent a manner as the 4G advertisement that was published; cessation of all advertisements proclaiming to be 4G until such time as the ITU would confirm the relevant standards; and to grant redress to consumers who were misled by the deceptive advertisement. Digicel counter-accused LIME of sour grapes, and suggested that LIME's claim smacked of desperation. They noted that companies including Sprint in the USA, P1 in Malaysia, Clearwire in Spain and Yota in Russia, all referred to WiMax as 4G (Edwards, 2010) in their marketing (see Table 5).

Mobile termination rates

A phone call between subscribers in two different networks usually meant that both networks required a payment for

carrying the call. Globally, the most common arrangement for this was 'calling party pays,' meaning that the originator of a call paid the full cost. The network from which a call originated was charged by the network on which the call terminated (this was the 'termination charge'). Lack of price regulation meant that an operator could, *de facto*, block interconnection by imposing excessive pricing. Regulators in the UK, Germany, New Zealand and Israel intended to or had started to cut termination rates in their respective markets, in order to increase competition. In summer 2010, Digicel lost a long running legal fight over regulatory control of interconnection/termination rates. The company unsuccessfully argued in the Jamaican Court of Appeal that the OUR lacked the authority to regulate termination rates. Digicel also lost its appeal to the UK's Privy Council (which acted as Jamaica's highest court). LIME and Claro welcomed the Privy Council's decision, but Digicel continued to argue that call termination rates should not be regulated. Digicel contended that competition was the best form of regulation.

The Claro–Digicel deal

Garfield Sinclair learned that the deal reported in the papers would, if consummated, allow Claro and Digicel to enter into a swap exercise: Digicel would sell its businesses in Honduras and El Salvador to Claro's parent company (American Movil), and Claro would sell its Jamaican holdings to Digicel (Cunningham, 2011). Digicel Jamaica would acquire all the assets of Claro Jamaica, including its telecommunications license, spectrum and a cash payment speculated to be US\$355 million. The deal was expected to have the greatest impact in Jamaica, where Digicel's subscriber base would move from 2.1 million to approximately 2.79 million, compared with LIME's 757,000 subscribers.

The announcement was surprising, unexpected and Garfield Sinclair knew it would reverberate throughout the Caribbean and Latin American region. Many market watchers were surprised, since they had thought that the relationship between Claro and LIME was amicable, and both used similar 3G technology. The predominant view of the public was that

Claro had come to Jamaica to attack Digicel, so that Digicel would exit Honduras and El Salvador. According to *Wireless Intelligence* figures, in El Salvador, the combination of the America Movil (Claro) and Digicel business would create a new market leader with 3.64 million subscribers, overtaking current number one Millicom, with 2.73 million. In third place in that market was Telefonica's Movistar, with 1.45 million subscribers. In Honduras, America Movil would become a strengthened number two with 2.62 million subscribers, second to Millicom's 4.45 million.

Digicel had 11.5 million subscribers worldwide. The press release on the Claro/Digicel sale indicated that the sale was subject to the approval of regulators in each affected country. In Jamaica, the FTC and the OUR (Sorkin *et al.*, 2011) would have regulatory oversight.

Jamaica's regulatory environment

One requirement of GATS/BATS was the appointment of Independent Regulators. Signatories to BATS were required to bring their regulatory practices into compliance with WTO trade rules, which stated that domestic regulation measures must be administered in a reasonable objective and impartial manner, using judicial, arbitral or administrative tribunals or procedures, along with appropriate remedies for administrative decisions affecting trade in services (Sherman, 1997). The two regulatory bodies pertinent to the Claro/Digicel deal were the OUR and the FTC.

The OUR

The OUR was established in 1995 by an Act of Parliament to regulate the operations of utility companies. Section 4 of the Telecommunications Act 2000, stipulated that OUR shall regulate telecommunications in accordance with the Act, and for the purpose of the Office will, *inter-alia*, (1) promote the interest of customers, while having due regard for the interest of carriers and service providers and (2) promote competition among carriers and service providers. According to Section 5 of the same Act, issues of substantial competitive significance that fell within the functions of the FTC under the Fair Competition Act (FCA) were to be referred to the FTC. The OUR, therefore, referred the issue to the FTC.

The FTC

The FTC was the administrative body responsible for implementing the FCA¹² of 1993, to ensure that the benefits of competition were unhindered by anti-competitive activity.¹³ The objectives of the Act were to:

- encourage competition in the conduct of trade and business in Jamaica;
- ensure that all legitimate business enterprises have an equal opportunity to participate in the Jamaican economy;
- provide consumers with better products and services and a wide range of choices at the best possible prices.

To protect consumers and achieve these objectives, the FCA prohibited agreements that substantially lessened competition and the abuse of a dominant position, and imposed fines on transgressors. Practices that were specifically prohibited were resale price maintenance, tied selling, price fixing, collusion and cartels, and bid rigging. FCA Section 19 stated: *For the*

purposes of this Act, an enterprise holds a dominant position in a market if by itself or together with an interconnected company, it occupies such a position of economic strength as will enable it to operate in the market without effective constraints from its competitors or potential competitors (Jamaica Fair Trading Commission, 1993). Section 20, listing six prohibited anti-competitive activities, did not include mergers, acquisition or monopoly (Jamaica Fair Trading Commission, 1993). The maximum fine that could be imposed on an entity, under FCA Section 47, was US\$59,000. The maximum fine for an individual was US\$11,800 per act.

The analysis

By mid-afternoon Garfield Sinclair sat at his desk in deep contemplation. He had met with his team, including Kamina Johnson-Smith (Senior Legal and Regulatory Counsel), Stephen Price (Head of Retail) and Marcia Smith (Chief Analyst). Garfield summarized the facts he knew thus far.

Kamina Johnson-Smith had noted that FTC's ability to act on the Claro-Digicel swap deal was constrained by Jamaican competition laws. The FCA of 1993 was silent on mergers, acquisition and monopolies. Even if a successful ruling could be obtained via the FCA, the maximum fine of US\$11,800 for each violation was hardly a deterrent in a transaction of this magnitude. On the basis of her reading of the regulations governing the OUR, they had no jurisdiction on this matter from a competition perspective.

Another option was to ask the Supreme Court to block the acquisition, based on international anti-competition rules. The court, however, was likely to argue that the FTC had statutory jurisdiction and that the courts could not tell the FTC how to exercise its statutory discretion.

Yet another option was to lobby the portfolio minister responsible for telecommunication, the PM, who would make the final decision on the deal. Garfield noted that Digicel had invested US\$65 million to build its new headquarters and had spent US\$1 million to refurbish the main farmers market in Jamaica, both located in the PM's constituency. The PM would be advised by the OUR, and the FTC.

Sinclair knew that his superiors at Cable and Wireless Plc in London expected him to devise an appropriate response to the proposed merger. He sighed, planted his head in the palm of his hands and said 'I need to report to HQ before day's end.'

Notes

- 1 Cable and Wireless Communications Past and Present: <http://www.cwc.com/live/past-present/our-history.html>, downloaded 5 September 2013.
- 2 Jamaica Country profile, <http://www.bbc.co.uk/news/world-latin-america-18784061>.
- 3 <http://www.jamaicaobserver.com/latestnews/jamaica-still-perceived-as-corrupt#ixzz2g7bl2xV2>.
- 4 https://www.google.com/jm/search?q=alleging&ie=utf-8&oe=utf-8&rls=org.mozilla:en-US:official&client=firefox-a&gws_rd=cr&ei=cPNFUojBB4jQ8wTfm4GwBw#q=jamaica+gdp+growth&rls=org.mozilla:en-US%3Aofficial.
- 5 http://www.ucl.ac.uk/anthropology/people/academic_staff/d_miller/mil-9.

- 6 <http://jamaica-gleaner.com/gleaner/20130823/business/business7.html>.
- 7 Investigation into the acquisition of Oceanic Digital (Jamaica) Limited by Digicel Jamaica Limited pursuant to section 17 of the Fair Competition Act, Case # 6997-11. Website: www.jftc.gov.jm.
- 8 Cell phone war: LIME feeling Digicel/Claro squeeze: *Jamaica Observer*, 21 March 2011.
- 9 A Review of the Jamaican Telecommunications Sector (2007), Prepared by the Fair Trading Commission (FTC) and Office of Utilities Regulation.
- 10 https://www.google.com.jm/search?q=alleging&ie=utf-8&oe=utf-8&rls=org.mozilla:en-US:official&client=firefox-a&gws_rd=cr&ei=cPNFUojBB4jQ8wTfm4GwBw#q=jamaica+gdp+growth&rls=org.mozilla:en-US%3Aofficial.
- 11 US\$1 equivalent to J\$88.
- 12 Fair Trading Commission, <http://www.jftc.com/AboutUs/FunctionsAndPower.aspx>.
- 13 Fair Trading Commission, <http://www.jftc.com/Legislation/TheFairCompetitionAct.aspx>.

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About the Authors

Paul A. Golding, DBA, is an associate professor and Dean of the College of Business and Management at the University of Technology, Jamaica. He has also served the University as Head of the School of Computing and Information Technology. He has authored publications in several journals including the *Journal of Information Systems Education*, *International Journal of Internet Protocol Technology*, and the *International Journal of Multimedia and Ubiquitous Engineering*. He is a contributor to one of Jamaica's leading print media, the *Gleaner*. His current research interest includes energy management technologies, the use of technology to teach deaf students, telecommunications and mobile commerce, radio frequency identification (RFID) performance testing and implementation and the use of 3D virtual teaching methods.

Vanessa M. Tennant, Ph.D., is a lecturer at the School of Computing and Information Technology at the University of Technology, Jamaica. She holds a Doctor of Philosophy in Accounting and Information Systems from University of Canterbury in New Zealand and also a Master of Philosophy in Information Systems from the University of Technology, Jamaica. Her research interests include use and impact of information systems/technologies, radio frequency identification and telecommunications. Her research has been published in leading international journals and conferences in the information systems field.

GLOSSARY

Terms	Definition
AT&T	American Telephone and Telegraph
BATS	Basic Agreement and Trade in Telecommunication Services
CDMA	Code Division Multiple Access, a technology for digital transmission of radio signals, based on spread spectrum techniques, where each voice or data call uses the whole radio band, and is assigned a unique code
CDMA2000	A third-generation digital cellular standard, based on Qualcomm technology
CPE	Customer Premises Equipment; any terminal and associated equipment located at a subscriber's premises and connected with a carrier's telecommunication channel at the demarcation point
C&WJ	Cable and Wireless Jamaica
D-AMPS	Digital-Advanced Mobile Phone Service, a digital version of AMPS (Advanced Mobile Phone Service), the original analog standard for cellular telephone service for most countries in the 2G era. D-AMPS adds TDMA to get three channels for each AMPS channel, tripling the number of calls that can be handled on a channel
FCA	Fair Competition Act, promulgated in 1993 to ensure that the benefits of competition in Jamaica are unhindered by anti-competitive activity
FTC	Federal Trade Commission, an independent agency of the United States government, established in 1914 to promote consumer protection and eliminate and prevent anticompetitive business practices, such as coercive monopoly
GATS	General Agreement on Trade in Service, effective in 1995. GATS constitute the legal framework through which WTO Members progressively liberalize trade in services
GDP	Gross Domestic Product, market value of all officially recognized final goods and services produced within a country in a year
GOJ	Government of Jamaica
GPRS	General Packet Radio Service, a packet-based wireless communication services with data rates from 56 to 114 Kbps and continuous connection to the Internet for mobile phone and computer users
ISP	Internet Service Provider
LIME	Land, Internet, Mobile and Entertainment, the new moniker for Cable & Wireless Jamaica Limited
LTE	Long-Term Evolution, a 4G wireless communications standard developed by the 3rd Generation Partnership Project (3 GPP) to provide up to 10x the speeds of 3G networks for mobile devices, such as smartphones, tablets, netbooks and notebooks. 4G (LTE) promises mobile data rates of over 100 Mbps and improved performance, especially lower latency
MFN	Most Favoured Nation
NEPA	National Environmental and Planning Agency, responsible to promote sustainable development by ensuring protection of the environment and orderly development in Jamaica
OUR	Office of Utilities Regulation, Jamaica's independent utilities regulator, established by an Act of Parliament in 1995 and operational beginning in January 1997
SMA	Spectrum Management Authority, the national regulator for the radio frequency spectrum and an advisory body to the Minister with principal responsibility for telecommunications who is responsible for regulation of the spectrum under the Telecommunications Act, 2000
TDMA	Time Division Multiple Access, a digital cellular technology that divides frequency into time slots
GSM	Global System for Mobile communications, a European-developed digital mobile cellular standard. GSM is the most widespread 2G digital mobile cellular standard, available in over 170 countries worldwide
ITV	Internet Television: Television distributed through the internet
UMTS	Universal Mobile Telecommunications System, a voice and high-speed data technology that is part of the International Telecommunication Union's IMT-2000 family of third-generation wireless standards
WiMAX	Worldwide Interoperability for Microwave Access, a wireless digital communications system intended for 'metropolitan area networks'. WiMAX can provide broadband wireless access up to 30 miles (50 km) for fixed stations, and 3-10 miles (5-15 km) for mobile stations
W-CDMA	Wideband Code Division Multiple Access, a third-generation mobile standard, under the IMT-2000 banner
WTO	World Trade Organization, which deals with the global rules of trade between nations. Its main function is to ensure that trade flows smoothly, predictably and freely
VMNO	Virtual Mobile Network Operator, use of the infrastructure of an existing (license-owning) telecoms network operator
3G	Third generation of mobile phone mobile communication technology standards
4G	Fourth generation of mobile phone mobile communication technology standards
Δ	2 Alpha Order