



TELECOMMUNICATIONS MARKET IN A SMALL ECONOMY: IS THERE A NEED FOR PRICE CONTROL?

Mahendra Reddy

Dean, College of Business, Hospitality and Tourism Studies, Fiji National University, Fiji.

ABSTRACT

Telecommunications and ICT sector in general is one of the most rapidly growing sectors in the world. The state and level of the technological development of ICT infrastructure plays a very important and critical role in the growth and development of contemporary economies. Countries who do not have the required level and technology of ICT infrastructure are struggling to keep pace with the rapidly changing market economies and thus have difficulty in maintaining their competitive edge in the global market. In this paper, we examined whether network operators in Fiji's Telecommunications market held SMP and thus have been abusing their market power to the detriment of the economy. Based on the analysis presented in the paper, we can consider the cumulative effect of all the factors analyzed justifies the conclusion that the three network operators in Fiji, that operate in the mobile and fixed line voice call termination markets, hold SMP in relation to those networks, and such SMP will in all likelihood be maintained in the short to medium term. Given the disparity in the market share, with VFL having 76% of the market share in the mobile market and Digicel having 24% of the market share and TFL having the smallest number of fixed line subscribers, it is quite likely that market power could be abused should there not be a Price Control Order.

Keywords: Telecommunications Market, Substantial Market Power, Countervailing Power, Call Termination Rates, Imperfect Markets

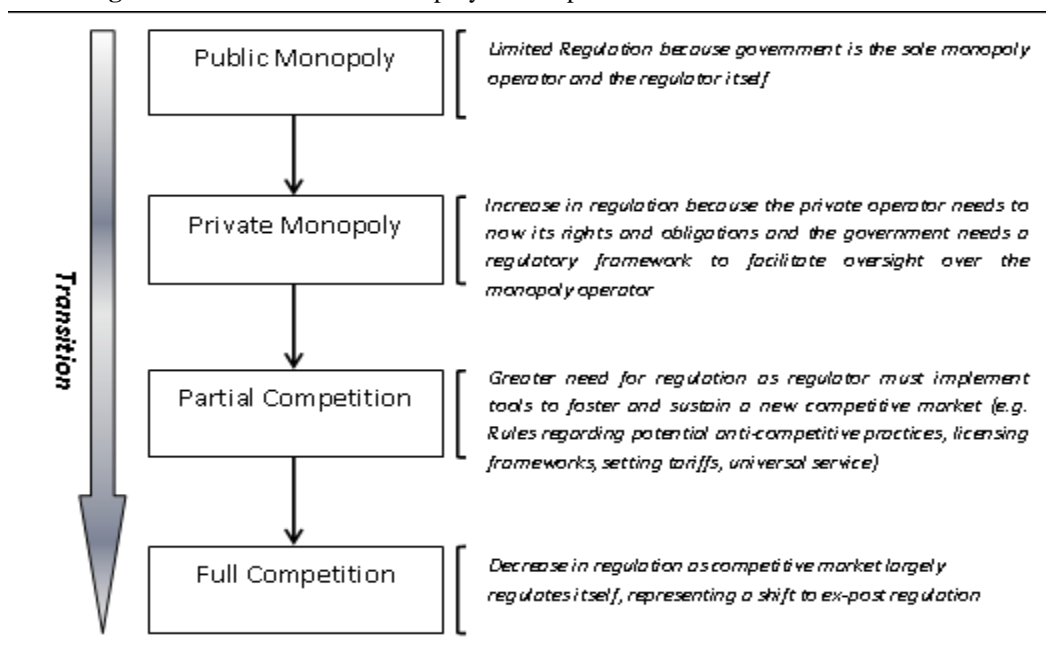
INTRODUCTION

The state and level of the technological development of telecommunications infrastructure plays a very important and critical role in the growth and development of contemporary economies. Telecommunications sector and the ICT sector in general offer a means for the poor nations to improve their socio economic conditions (Gani and Clemes, 2006; Mutula and Brakel, 2007). ICT's contribution to the development of emanates from its contribution to the development of a



knowledge economy which is now becoming a critical input for education and business efficiency. Countries who do not have the required level and technology of telecommunications infrastructure are struggling to keep pace with the rapidly changing market economies and thus have difficulty in maintaining their competitive edge in the global market (Low *et al.*, 2011). As a result, the past three decades have seen a remarkable transformation in the state and structure of the telecommunications market throughout the world (Commonwealth of the Bahamas, 2011). Innovations in the field include the introduction of fibre optics, the development and launch of new generation of networks and satellites, advancements in mobile communications with all these contributing to significant increases in transmission capacities, effective data services and substantial direct and indirect cost savings. All these reforms and developments in this sector have seen unprecedented growth in the industry as well as the economies. Prior to these, for the greater part of the twentieth century, telecommunications services were offered by the state via state monopolies. The rationale for state ownership rested on two assumptions: first, that the objective of a universal service could best be met through state ownership of services and products; and second, that the development of infrastructural services such as electricity, water and telecommunications could be most effectively fostered via government management and control. However, there were several shortcomings with state control, particularly inefficiency build up and the lack of business acumen setting in the departments. Gradually, as the market developed, the liberalization of the telecommunications sector saw a gradual corporatization and privatization of this sector (see Figure I).

Figure-1. Transition from Monopoly to Competition in Telecommunications Sector.

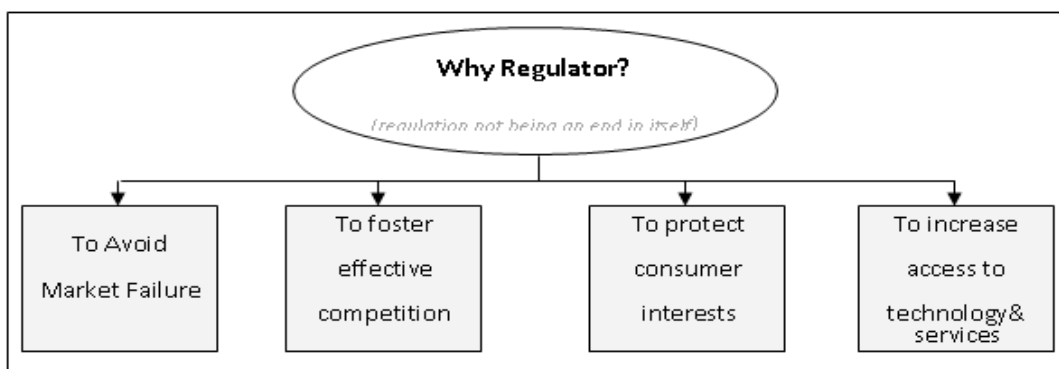


Source: ICT Regulation Tool Kit.



However, in small developing countries, the limitations of the market resulted in a shift from a state run monopoly to a private sector monopoly. Hence to avoid an abuse of market power, deal with market failure and externalities, which could be disastrous for economic growth, the telecommunications sector has always been subject to competition law and regulation either by government or by a separate Competition Authority (see Figure II). The change in policy generally towards greater competition has been viewed from a number of perspectives including the society, given the impact of this sector on the society.

Figure-2. Need for Independent Regulator.



Source: ICT Regulation Tool Kit.

In Fiji, the government acknowledges the critical role that the telecommunications sector is playing and has adopted a managed approach to open up the telecommunications sector. In presenting the 2012 National Budget, the Minister for Finance and Prime Minister stated that:

“Beginning in 2008, my Government moved aggressively to liberalize the telecommunications industry to give Fijians expanded access to the Internet. We removed exclusivities and monopolies; we put in place a transparent regulatory system; and we significantly reduced tariffs on telecommunications accessories and equipment. Recently, we launched Fiji’s national broadband policy—the first ever for a South Pacific island country. This is a definitive plan for the implementation and prioritization of broadband accessibility. In addition, we recently launched the first three tele-centres around Fiji, which will ensure improved access to information, education and will contribute to creating sustained livelihoods” (Ministry of Finance., 2011).

In this paper, we examine two key issues, firstly, we examine if, given the above changes, whether the telecom operators have substantial market power in the industry and secondly, if they have abused the substantial market power to the detriment of the telecommunications market, the individual households, the business sector and the economy in general. Based on the findings on the above two issues, recommendations will be made on whether to extend the Price Control Order for another term or not.

MARKET STRUCTURE

Prior to January 2007, Fiji had three telecommunications operators in Fiji. Vodafone (Fiji) Limited (“Vodafone”), a mobile network operator, Telecom Fiji Limited (“TFL”) a fixed line network operator and Fiji International Telecommunications Limited (“FINTEL”), the international gateway operator for voice and data. These three operators are also part of a Holding Company, Amalgamated Telecoms Holdings Limited (“ATH”). Vodafone Fiji Ltd is a joint venture between ATH (51%) and Vodafone International Holdings BV (49%). TFL is a 100% owned subsidiary of ATH. ATH had the rights to manage the Government’s 51% shareholding in FINTEL, which is a joint venture between the Government (51%) and Cable & Wireless (49%). On 17 January 2007, the Government concluded a Deed of Settlement with Amalgamated Telecoms Holdings Limited (“ATH”) and its related companies, namely Vodafone (Fiji) Limited (“Vodafone”), Telecom Fiji Limited (“TFL”) and Fiji International Telecommunications Limited (“FINTEL”), that liberalized the telecommunications sector in Fiji. The conclusion of the Deed of Settlement enabled the Government to license Digicel (Fiji) Limited (“Digicel”) to operate public cellular mobile telecommunications systems and associated networks and to provide public cellular mobile telecommunications services in Fiji. Digicel is part of the Digicel Group and it began commercially providing mobile telecommunications services from 1 October 2008, thereby effectively ending Vodafone’s fourteen year monopoly over its mobile telecommunications network in Fiji. Prior to Digicel’s entry, Vodafone launched Inkk Mobile Limited (“Inkk”) on its network. While Vodafone and Digicel have each deployed a national mobile network in Fiji, Inkk does not have its own mobile telecommunications network in Fiji. Vodafone and Digicel each operate a mobile telecommunications network based on the Global System for Mobile Communications (GSM) standard. Digicel and Vodafone each provide a full range of retail mobile telecommunications services, including offering users the ability to send and receive voice calls, text messages and data. Vodafone provides such services using a combination of 2.5G GPRS and 3G WCDMA technology, while Digicel provides them using 2.75G EDGE technology. Both operators subsidize to varying degrees mobile handsets, thereby promoting the affordability of handsets

In March, 2012, another major change in the market took place, which was the acquisition of 49% of the Cable & Wireless share in FINTEL by ATH. This now implies that ATH has effective total control of FINTEL and TFL and has controlling interest of Vodafone Fiji Ltd given that it has 51% of the shares of Vodafone Fiji Ltd.

Conceptual Framework of Voice Call Termination Services

Voice call termination services are a specific form of “interconnection” services, which are in turn a form of access to a fixed line or mobile operator network. The provision of voice call termination services enables users of one network to receive calls from users connected to another network.



The promotion of the long term interests of the end users of telecommunications services is best served by making the provision of domestic voice call termination services by operators the subject of *ex-ante* regulatory obligations. Call termination is essential when establishing communications between individual mobile network operators and between mobile operators and fixed network operators. Currently, due to the lack of demand or supply side substitutes for voice call termination on an individual network, the termination service for voice calls can only be supplied by the network operator connected to the called party. In Fiji, the prevailing charging system for the traffic exchange of voice calls is the CPP Principle. Under the CPP Principle, the calling party pays entirely for the call, and the wholesale termination rate paid by the originating operator is normally passed on to its end customer. The called party, on the other hand, is indifferent to the termination charge set by the network provider (*i.e.* the terminating operator), since the called party is not responsible for any payment related to the incoming calls. Therefore, there is little or no incentive to an end user changing network provider due to a possible increase in those charges. As a consequence of the CPP Principle charging mechanism and the lack of demand or supply substitutes for voice call termination on an individual network, operators have the ability to determine the level of mobile voice call termination charges for their respective networks, particularly in the absence of the existence of countervailing buyer power.

Many jurisdictions have witnessed significant competition problems emerge in the provision of wholesale voice call termination services. As a consequence, the provision of such services is subject to *ex-ante* regulation. For example, the provision of wholesale voice call termination services is regulated by national regulatory authorities in the majority, if not all, of the twenty seven Member States of the European Union. Voice call interconnection services are also regulated in Samoa, Papua New Guinea and Tonga, as well as New Zealand and Australia. In Fiji, following an extensive study in 2010, the voice call termination rates were brought under regulation for a period of three years. The Commission then was concerned with the level of the existing mobile and fixed line voice call termination rates which were excessive and discriminatory. Vodafone, for example, charged a much different call termination rate to TFL and Digicel for the same termination service for calls originating in Fiji. This difference was in excess of 200%. The concerns of the Commission were extenuated by ATH's common ownership of TFL and control of Vodafone and FINTEL. In the past, negotiations between fixed and mobile operators evolved differently, largely because termination between, for example, Vodafone and TFL, was an inter-group financial exchange, which meant that the primary targets of termination pricing were consumers. However, the liberalization of the marketplace and the emergence of Digicel and other new entrants in the termination market in Fiji has pushed the market into a new and critical phase where termination may be used as a strategic tool for raising costs, limiting competition and foreclosing the market. The situation now could be much worse given that ATH now has full control of FINTEL following its purchase of the remaining 49% shares. Several market participants



have also raised similar concerns regarding the existing interconnection regime in Fiji. For example, the principal new entrant, Digicel, has raised such concerns with the Commission as well as other carriers bringing in international voice traffic into Fiji such as VoiceNet IP. The prices for services supplied by operators at each level of the infrastructure industry are fed into the price of the end product, the efficiency and prices at each of the levels of the supply chain affect consumers and businesses. The multiplier effects are significant and affect national economic output and living standards. The Commission is further aware of a growing public dissatisfaction with the level of retail charges for calling between networks, particularly those between Vodafone and Digicel. The level of such charges has the ability to affect the calling behavior of users and their choice of network provider, as well as to result in inefficient outcomes, such as two handsets per user, and market foreclosure. The competition problems often limit the development of the market, to the detriment of end users in Fiji.

IDENTIFICATION AND REVIEW OF THE RELEVANT MARKET

Service Market Definition

In accordance with international regulatory best practice, the relevant markets are defined through the interaction of two different dimensions, namely: the product/service market and the geographic market. The objective of defining a product market is to identify all the products and/or services sufficiently exchangeable or replaceable. It will involve examining whether the objective characteristics of the service in question can satisfy the consumer's needs, especially in terms of prices, and the intended use to which the service will be put. The definition of the relevant product or service market begins with the grouping of products or services used by the consumers based on the similarities of their final purpose/use. These grouped products and services will be considered to fall within the same relevant product market if the behavior of the suppliers of the services is subject to the same type of competitive pressures, namely, in relation to price setting.

In this context, two main types of competitive constraints have been identified: (i) demand-side substitutability and (ii) supply-side substitutability. Both of these competitive constraints are examined when defining the product market. For example, the so-called 'hypothetical monopolist test' (also known as the 'SSNIP test' - small but significant non-transitory increase in price) is used when evaluating the existence of substitutability from both the supply and demand sides. The characteristics, intended use and pricing arrangements of wholesale and retail services are considerably different from a demand-perspective. Thus, there is a distinction between the services offered to users and those offered to other service providers or operators in the mobile telecommunications sector. The identification of a wholesale level is consistent with international best practice on the recognition of the function level at which products and/or services are traded.

VOICE CALL TERMINATION SERVICES AND SERVICE MARKET DEFINITION

Demand-side Substitutability

With regards to demand-side substitutability, a network operator wishing to terminate a call to another subscriber cannot terminate it on an alternative network. To do so would currently result in the completion of the call being unsuccessful. In essence, the need to direct traffic to a specific network ensures that there is no realistic demand-side substitute service available to an operator seeking to terminate a voice call on a particular network operator, be it a fixed line operator or a mobile operator.

Supply-side Substitutability

From the supply-side perspective, another network operator cannot terminate traffic as long as it does not have access to the user profile of the called mobile network, in particular those available in the SIM card. SIM cards would need to be re-programmable in order to have supply-side substitutability between voice call termination networks, but the technology is not currently available. This situation makes it impossible for an operator in whose network a given voice call originates to have the call terminated by an operator other than the one chosen by the called party. A fixed network operator is subject to the additional disadvantage that it does not currently have access to spectrum capacity and would, in any event, require a mobile telecommunications license and need to rollout out a mobile telecommunications network.

A strict analysis of demand and supply-side substitutability suggests that mobile voice call termination services on individual mobile networks might be the relevant market for *ex ante* regulatory purposes. However, the Commission also examined whether such a strict analysis accurately reflected the competitive dynamics of mobile voice call termination services. Specifically, the Commission further evaluated the extent to which the pricing of mobile voice call termination services was constrained by the choices of retail customers. In Fiji, the current pricing system for voice calls in mobile networks, regardless of the call originating from a mobile networks or a fixed network, translates into the application of the Calling Party Pays (“CPP Principle”). Under the CPP Principle, the calling party pays entirely for the call, and the wholesale termination rate paid by the originating operator is normally passed on to its end customer.

In turn, the operator of the network, chosen by the called party, on which the call is terminated, defines the termination rates associated with the voice calls in the mobile networks. In this system, there is a separation between who pays for the call and who chooses the network in which it is terminated (*i.e.*, the network responsible for establishing the termination price). Consequently, the overall effect of the CPP principle in the retail marketplace is that, whereas mobile networks have



an incentive to keep the prices of those services required and paid for by their customers to a level to attract and retain customers, they have less incentive to keep the prices of calls to mobiles low. This is because the callers cannot take their business elsewhere if dissatisfied as the caller has to use that network to reach that particular number.

Definition of Relevant Geographic Market

The relevant geographic market includes the area in which the undertakings are involved in the supply and demand of the relevant products or services and the area in which the conditions of competition are similar or sufficiently homogeneous and which can be distinguished from neighboring geographic areas.

In the telecommunications sector, the geographic scope of the relevant market has traditionally been determined by reference to two main criteria:

- (a) the area covered by a network; and
- (b) the existence of legal and other regulatory instruments.

Given that the relevant market is that for voice call termination on individual networks, the geographic scope of each relevant product market should correspond to the geographic coverage of each termination network. Vodafone, Digicel and TFL are licensed to deploy nationwide telecommunications networks (with Vodafone and Digicel only mobile and TFL only fixed line) in Fiji with no regional restrictions. Such licensing rights have been exploited by all these operators, with each deploying nationwide telecommunications networks in reality. We can then consider that the geographic dimension of the voice call termination market in the networks corresponds to the geographic reach of each of the networks under consideration.

Evaluation of the Levels of Existing or Likely Competition

In this section we examine the existence of a substantial degree of power in a market (“SDP”). Firms having SMP are considered to have the ability to set prices unilaterally. A SDP-designated operator often corresponds to a level of market power which allows it to act independently of competitors, suppliers and ultimately consumers.

An evaluation of SDP in a relevant market focuses on three principal factors, namely:

- actual competition from other participants already active in the relevant market, including barriers to expansion;
- potential competition from participants not already active in the relevant market but who are active in neighboring or other relevant markets, including barriers to entry; and
- customer behavior, including countervailing buying power.

Actual Competition: The identification of the voice call termination market on individual networks as liable to *ex-ante* regulation implies that only the mobile network operator owning a given



network can terminate calls on its network. Each mobile network operator therefore has a market share of 100%, measured both in terms of traffic and in terms of revenue, in the termination market on its network, meaning that each operator is, in practice, a monopolist in the provision of voice call termination on its network. This suggests that, in principle, each mobile network operator has SMP. However, even though every mobile network operator is a monopolist in the termination of voice calls on its own mobile network, whether or not every such operator has market power will depend on whether there exists any countervailing buying power that would render any price increase unprofitable.

Potential Competition: It can be considered that current technologies that do not permit the termination service in a given network to be provided by an entity other than the operator that owns the network in question, are barriers to any meaningful entry occurring in the termination market on the network of each mobile operator. The CPP Principle reinforces this effect, thereby contributing to consumers' insensitivity to the prices of calls that they receive and, in this way, to the termination price on the network to which they are subscribers. Only significant technological developments and/or changes in the behavior of consumers would bring about competition in this market. In conclusion, there are significant existing barriers to entry to the various voice call termination markets on the individual networks and, according to the information available, it cannot be foreseen that these barriers will be eliminated anytime within the next three years at least.

Countervailing Power: Countervailing buying power can mitigate the ability of even a monopolist to control their pricing. Countervailing buyer power is defined as the ability of larger customers within a reasonable timeframe to resort to credible alternatives if the supplier decides to increase prices or to deteriorate the conditions of delivery. Factoring in the various types of relationships between the relevant parties, we have broken down the analysis of countervailing buying power into three parts. First, countervailing power from the viewpoint of the retail customers is analyzed. Second, the countervailing powers of fixed network operators, in particular PTC, are analyzed followed by the analysis of other mobile network operators. Countervailing power of retail clients: Generally speaking, there are no buyers of retail mobile services with enough countervailing buyer power to influence mobile network operators when setting their voice call termination prices. This is mainly due to the use of the invoicing system based on the CPP principle. Countervailing power of TFL: The fixed network operator, TFL, is the leading wholesale buyer of the termination service of calls originating on the fixed network, and is responsible for a limited volume of voice traffic terminated on mobile networks. Consequently, if TFL had countervailing buying power and decided not to acquire the voice call termination service offered by a particular mobile network operator, it would in theory be able to restrict the freedom of a mobile network operator to set the price in question that resulted from its monopoly of the relevant product market. However, TFL has a limited customer base. Vodafone is the largest network operator in Fiji, with the largest



subscriber base. In addition, TFL is also a member of the ATH Group and therefore its countervailing buyer power against Vodafone is significantly undermined. It would also appear that TFL has been unable to exert countervailing buying power in relation to Digicel, which is independent of the ATH Group and a new entrant.

Countervailing power of mobile network operator: It can also be considered that the monopolistic position of each mobile network operator in the termination market on its network is not sufficient in itself to determine whether each individual operator holds a dominant position. Notwithstanding the 100% market shares in the relevant markets, the operators' capacity to act independently from their competitors, clients and consumers, and particularly their capacity to fix the conditions of the provision of their termination services, must also be evaluated. In this context, mobile operators might be prevented from acting independently from their competitor by virtue of any countervailing power arising from their mobile competitors.

A review of past negotiations in relation to the relevant market, where Digicel and Vodafone have set reciprocal prices and where any evolution of such pricing could not be imposed by any one party on the other, suggests that it is not clear whether Vodafone has sufficient countervailing power as buyers of voice call termination on the Digicel network to rule out the capacity of Digicel to act largely independently from its competitors, clients and consumers in the relevant market in question. Digicel has not presented convincing arguments demonstrating that it has sought unilaterally to reduce termination prices on its individual network and that its competitors have not prevented such action. Similarly, although Digicel is a significant buyer of termination services in the Vodafone network, Digicel does not have sufficient countervailing buying power on the Vodafone network to rule out the capacity of Vodafone to act largely independently from its competitors, clients and consumers on the relevant market. In light of the above, it is unclear whether any buyer of voice call termination services on individual mobile networks has sufficient countervailing buying power to offset the monopolist position of mobile network operators, and so prevent mobile network operators from acting independently from competitors, clients and consumers, particularly by charging prices for these services above the respective competitive level. The fact that regulatory restrictions covering voice call termination services on mobile networks have always been in operation reinforces this conclusion.

Abuse of Market Power

While all the three network operators have SMP in the wholesale market, the question that arises then is whether they are abusing their market power. The abuse of power could originate from three areas. First is the discriminatory application of termination rates, second is the "Off-net On-net retail rates" and third is the discriminatory application of billing methods and the retail rates for "Off-net On-net rates.



Termination Rates: In the wholesale market, the operators have abused their market power in the absence of the PCO. Given that TFL and VFL are both under ATH's control; they used to have a different wholesale termination rate between each other while the termination rates for calls originating from DFL's network were subject to a different rate, a substantially higher rate. Following the adoption of the Price Control Order, the termination rate to DFL and VFL were reduced and kept at the same rate. Similarly, the wholesale rate of calls termination in TFL's network was reduced and kept the same immaterial of whether it originates from DFL or VFL. This abuse of power in the wholesale market arose because of the substantially disparate market share amongst the three network operators.

With respect to market share, based on the 2012 (end of August) data submitted by the players in the sector, VFL has an estimated voice subscribers of 453,544 (75% in the mobile market) while DFL has 150,308 (25% of the mobile market). In the fixed line market, TFL has 138,944 voice subscribers. The market shares based on the number of active subscribers from 2010 to 2012 (August) is summarized in Table 1. Market shares for the period 2010 to August 2012 are provided in annexure 2.

Table-1. Market Share of Telco Players based on Active Subscribers

Player	Product Market	2010		2011		2012	
		Active Subscriber	Market Share %	Active Subscriber	Market Share %	Active Subscriber	Market Share %
TFL	Residential Market Share	87,395	15.11%	87,641	14.60%	88,022	13.77%
DFL	Residential Market Share	104,064	17.99%	113,615	18.93%	131,222	20.53%
VFL	Residential Market Share	387,000	66.90%	399,000	66.47%	420,000	65.70%
TFL	Commercial Market Share	50,368	56.97%	51,256	50.42%	50,922	49.68%
DFL	Commercial Market Share	11,050	12.50%	20,411	20.08%	18,570	18.12%
VFL	Commercial Market Share	27,000	30.54%	30,000	29.51%	33,000	32.20%
DFL	PBX Market Share	-	0.00%	266	100.00%	516	99.23%
VFL	PBX Market Share	-	0.00%	-	0.00%	4	0.77%
	Total Active Subscribers - TFL	137,763	20.66%	138,897	19.78%	138,944	18.72%
	DFL	115,114	17.26%	134,292	19.12%	150,308	20.25%
	VFL	414,000	62.08%	429,000	61.09%	453,004	61.03%
		666,877		702,189		742,256	

Source: Compiled by FCC based on Primary Data submitted by Telco's

Off Net-On Net Retail Rates: The disparity in the retail market is also the root cause of discriminatory off-net retail rates. Discriminatory off net rates are a tool used to discourage people calling from one network to another. For example, in the mobile market, the largest network operator, VFL, who has 75% of the subscribers, levies substantially very higher tariff rates for off-net calls as opposed to on-net calls thus discouraging callers from calling subscribers in the other network or vice versa. The Difference between the Off Net-On Net Retail rates is summarized in Table 2.



Table-2. Telecommunications Voice Traffic Retail Rates

Operator	13 January, 2010		22 October, 2011		30 September, 2012	
	Peak Hour (F\$/minute)	Off Peak Hour (F\$/minute)	Peak Hour (F\$/minute)	Off Peak Hour (F\$/minute)	Peak Hour (F\$/minute)	Off Peak Hour (F\$/minute)
<u>Vodafone Rates</u>						
Vodafone to Vodafone	0.50	0.36	0.44	0.36	0.44	0.36
Vodafone to Digicel	0.50	0.41	0.45	0.41	0.45	0.41
Vodafone to TFL	0.50	0.30	0.45	0.30	0.45	0.30
<u>Digicel Rates</u>						
Digicel to Digicel	0.50	0.35	0.36	0.36	0.42	0.36
Digicel to Vodafone	0.50	0.40	0.40	0.40	0.41	0.38
Digicel to TFL	0.50	0.40	0.40	0.40	0.40	0.40
<u>TFL Rates</u>						
TFL to Digicel	0.55	0.55	0.44	0.44	0.44	0.44
TFL to Vodafone	0.55	0.55	0.44	0.44	0.44	0.44

Source: Compiled by FCC based on Primary data obtained from published rates

The Commission has also noted that **the retail sector has failed to provide asymmetric response to the changes and movements in the wholesale sector.** This is a clear sign that the retail market has failed to pass the benefits derived through reduction in the wholesale rates to the households, businesses and consumers in general. The reduction in retail rates has not been done with immediate effect as has been in other jurisdictions where whole sale rates have been reduced.

Off Net-On Net Billing Method: The other discrimination undertaken by VFL is while on-net callers are billed on per 30 seconds (1 unit=30 seconds), the callers making off-net calls are billed on a per 60 seconds (minute) basis. This is clearly evident on Vodafone's advertised rates on its webpage (Refer annexure 1). Hence callers realize that calling the small group of handset holders of the other network would be very costly. The small group in the other network will also realize that given that a large number of their friends and family members are in the other network, they could make substantial savings from the lower retail on-net rates if they move to the other network. These cases are clear abuses of SMP in the retail market and hence make a strong case for the extension of the Price Control Order at least in the wholesale market.

CONCLUSION

In this paper, we examined whether network operators in Fiji's Telecommunications market held SMP and thus be abusing their market power to the detriment of the economy. Given the above analysis, we can consider the cumulative effect of all the factors analyzed justifies the conclusion that the three network operators in Fiji, that operate in the mobile and fixed line voice call



termination markets hold SMP in relation to those networks, and such SMP will in all likelihood be maintained in the short to medium term.

Given the disparity in the market share, with VFL having 76% of the market share in the mobile market and Digicel having 24% of the market share and TFL having the smallest number of fixed line subscribers, it is quite likely that market power could be abused should there not be a Price Control Order. Examining the business practices of the three operators both during the pre-PCO period and during the PCO period, it is clearly evident that some of the operators, having a substantial market share have abused their power. With the notably major change in the market occurring when ATH acquired FINTEL's remaining 49% share thus having total control, the lifting of the PCO from the wholesale market would be disastrous for the industry and thus the economy.

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Annexure 1: VFL's Off Net-On Net Billing Method

	On-Net	On-Net	Off-Net	Off-Net
	Prepay to Prepay	Prepay to Non-Prepay	Prepay to Fixed Line	Prepay to Other Mobile
Monday to Friday 7am to 5pm	\$0.22 / Unit	\$0.22 / Unit		
Monday to Friday 5pm to 7am	\$0.18 / Unit	\$0.18 / Unit		
Friday 5pm all weekend till 7am Monday	\$0.18 / Unit	\$0.18 / Unit		
Monday to Friday 7am to 7pm			\$0.45 / Min	\$0.45 / Min
Monday to Friday 7pm to 7am			\$0.30 / Min	\$0.41 / Min
Friday 7pm all weekend till 7am Monday			\$0.30 / Min	\$0.41 / Min
TXT Message	\$0.15 / 160 Characters	\$0.15 / 160 Characters		\$0.20 / 160 Characters
PXT Message	\$0.35 / VPXT	\$0.35 / VPXT		
Video PXT	\$0.99 / VPXT	\$0.99 / VPXT		

Note: A Unit = 30 Seconds

All rates are VAT inclusive

Annexure 2
Active Subscriber Base - Residential Mark et Share

Year	Residential - Active Subscriber (#)	Month												Total	Mkt Share	
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
TFL	Residential - Active Subscriber (#)	91,789	90,005	87,461	87,304	87,788	88,920	86,495	87,169	86,118	86,325	86,741	87,395			
	Residential - Volume (Mins)	5,046,099	4,661,555	5,079,120	4,671,449	5,431,482	5,231,087	5,278,835	4,915,618	4,961,927	4,903,744	4,362,546	4,805,630	59,350,114	6.86%	
	Residential - Active Subscriber (#)	182,021	156,297	144,661	137,145	138,368	130,846	123,175	119,513	119,366	119,249	118,647	104,064			
2010	DFL	Residential - Volume (Mins)	11,617,523	7,867,953	8,886,135	10,812,352	19,833,258	10,283,326	12,933,473	18,768,630	34,940,667	37,639,873	30,958,601	32,879,145	237,420,936	27.45%
	VFL	Residential - Active Subscriber (#)	520,000	518,000	510,000	506,000	495,000	482,000	477,000	474,000	467,000	447,000	381,000	387,000		
	Residential - Volume (Mins)	40,134,000	40,351,000	37,940,000	33,019,000	30,996,000	43,574,000	64,310,000	68,342,000	54,189,000	38,315,000	47,943,000	49,013,000	568,226,000	65.69%	
TFL	Residential - Active Subscriber (#)	87,572	87,736	87,647	87,819	88,104	85,274	88,352	86,125	85,901	86,344	86,933	87,641			
	Residential - Volume (Mins)	4,501,091	3,953,547	3,990,882	3,336,344	3,248,570	3,059,588	3,100,082	3,041,532	2,753,605	2,639,883	2,671,856	2,461,286	38,758,246	4.14%	
	Residential - Active Subscriber (#)	102,863	102,871	102,147	102,801	100,258	102,584	104,126	106,861	109,339	109,245	111,521	113,615			
2011	DFL	Residential - Volume (Mins)	32,772,453	25,900,765	23,819,361	12,207,386	14,947,006	16,646,990	31,547,388	34,637,345	31,361,766	32,000,671	31,006,201	32,010,255	318,857,387	34.06%
	VFL	Residential - Active Subscriber (#)	386,000	388,000	387,000	381,000	380,000	386,000	397,000	398,000	394,000	392,000	387,000	399,000		
	Residential - Volume (Mins)	41,049,000	32,067,000	37,940,000	34,897,000	46,920,000	45,112,000	50,895,000	86,906,000	42,758,000	42,855,000	42,447,000	74,602,000	578,448,000	61.80%	
TFL	Residential - Active Subscriber (#)	87,796	87,753	87,708	87,580	88,003	88,219	88,171	88,022	-	-	-	-			
	Residential - Volume (Mins)	2,543,711	2,531,701	2,609,686	2,507,382	2,679,076	2,574,117	2,632,174	2,621,165	-	-	-	-	20,699,011	3.22%	
	Residential - Active Subscriber (#)	114,716	115,932	116,807	117,582	123,774	122,098	128,582	131,222	-	-	-	-			
2012	DFL	Residential - Volume (Mins)	30,270,112	6,295,090	13,583,117	14,792,620	14,992,819	14,244,482	17,457,384	23,884,732	-	-	-	-	135,520,256	21.07%
	VFL	Residential - Active Subscriber (#)	399,000	399,000	400,000	400,000	406,000	408,000	413,000	420,000	-	-	-	-		
	Residential - Volume (Mins)	83,325,000	37,614,000	42,352,000	41,153,000	41,529,000	91,716,000	104,739,000	44,398,000	-	-	-	-	486,846,000	75.71%	
														643,065,267		

Annex 2 (cont....)

Active Subscriber Base - Commercial Market Share

Year		Month												Total	Mkt Share
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
2010	Commercial - Active Subscriber (#)	52,135	51,612	50,776	51,107	51,136	51,088	51,054	50,937	50,378	50,295	50,175	50,368		
	Commercial - Volume (Mins)	11,552,191	11,384,893	11,741,369	10,936,192	11,792,305	11,728,717	12,342,736	11,181,391	12,449,599	13,078,906	10,900,071	10,259,519	139,247,990	59.31%
	Commercial - Active Subscriber (#)	4,143	4,674	5,174	5,646	6,176	6,543	6,959	7,148	7,895	8,823	10,059	11,050		
2011	Commercial - Active Subscriber (#)	27,000	27,000	27,000	27,000	27,000	27,000	26,000	26,000	27,000	27,000	27,000	27,000		
	Commercial - Volume (Mins)	6,449,000	5,929,000	6,340,000	6,320,000	6,303,000	6,399,000	6,676,000	6,681,000	6,579,000	6,591,000	6,623,000	7,011,000	77,901,000	33.18%
	Commercial - Active Subscriber (#)	50,406	50,421	50,434	50,491	50,797	50,412	50,964	50,356	51,589	50,719	51,402	51,256		
2012	Commercial - Volume (Mins)	10,189,556	9,649,581	11,109,516	9,446,555	10,228,290	9,345,380	9,687,226	10,146,816	9,102,096	8,364,113	9,141,847	8,227,323	114,638,300	51.00%
	Commercial - Active Subscriber (#)	12,278	12,766	13,858	14,771	15,760	16,870	17,794	18,549	18,811	19,170	19,937	20,411		
	Commercial - Volume (Mins)	1,988,178	1,859,198	2,007,342	2,006,616	2,118,628	2,166,640	2,390,201	2,488,227	2,353,613	2,395,446	2,582,593	2,562,447	26,919,229	11.98%
2013	Commercial - Active Subscriber (#)	28,000	28,000	28,000	28,000	28,000	28,000	28,000	29,000	29,000	29,000	29,000	30,000		
	Commercial - Volume (Mins)	6,461,000	6,067,000	6,834,000	6,477,000	6,897,000	6,826,000	7,259,000	7,263,000	6,993,000	7,015,000	7,410,000	7,732,000	83,234,000	37.03%
	Commercial - Active Subscriber (#)	51,283	51,303	51,226	51,392	52,039	51,351	51,104	50,922	-	-	-	-		
2014	Commercial - Volume (Mins)	8,340,473	8,594,076	9,063,550	7,749,080	9,196,083	8,116,989	8,322,320	8,562,901	-	-	-	-	67,945,473	46.58%
	Commercial - Active Subscriber (#)	19,900	20,518	21,140	21,851	20,387	21,189	18,139	18,570	-	-	-	-		
	Commercial - Volume (Mins)	2,377,943	2,457,204	2,705,971	2,649,405	2,772,683	2,631,415	2,636,500	2,588,340	-	-	-	-	20,819,461	14.27%
2015	Commercial - Active Subscriber (#)	30,000	31,000	31,000	31,000	32,000	32,000	33,000	33,000	-	-	-	-		
	Commercial - Volume (Mins)	7,138,000	6,527,000	7,387,000	7,024,000	7,609,000	7,040,000	7,060,000	7,328,000	-	-	-	-	57,113,000	39.15%
	Commercial - Volume (Mins)	-	-	-	-	-	-	-	-	-	-	-	-	145,877,934	

Annex 2 (cont....)

Active Subscriber Base - PBAX Market Share

Year		Month												Total	Mkt Share
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
2011	PBAX - Active Subscriber (#)	22	27	38	49	57	54	61	92	155	189	254	266		
	PBAX - Volume (Mins)	35,548	40,772	54,915	64,146	69,646	83,242	112,297	106,068	116,030	154,248	294,078	272,650	1,403,640	100.00%
	PBAX - Active Subscriber (#)	-	-	-	-	-	-	-	-	-	-	-	-	-	
2012	PBAX - Volume (Mins)	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00%
	PBAX - Active Subscriber (#)	276	340	340	357	394	437	476	516	-	-	-	-		
	PBAX - Volume (Mins)	344,623	377,921	499,630	446,342	562,307	497,364	554,339	540,235	-	-	-	-	3,822,761	99.82%
2013	PBAX - Active Subscriber (#)	-	-	-	-	-	4	4	4	-	-	-	-		
	PBAX - Volume (Mins)	-	-	-	-	-	2,500	2,400	2,100	-	-	-	-	7,000	0.18%
	PBAX - Volume (Mins)	-	-	-	-	-	-	-	-	-	-	-	-	3,829,761	