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Corporate Policy in Mexico During the Porfirian Age: The Telephone Companies, 1881-1905

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Abstract

In Mexico City, in the heyday of the Porfirio Díaz's regime (1877-1911), a telephone system was developed by a private carrier, whose parent company was American Bell Telephone Company, which grew into a privately owned monopoly that served a clientele made up mostly of businessmen and government institutions. This essay tries to explain the company's corporate policies to grow and profit in this incipient market, as well of the municipal council to regulate its operations till 1903, when its administrative powers were taken away by the federal government.

Key words: telephone, policy, companies, Mexico, city council.

Le système téléphonique du Ville du Mexico fut développé par une compagnie particulière pour servir un marché conformé sur tout par entrepreneurs et des bureaux du gouvernement.

Puisque le marché était dominé une seul compagnie américaine, un monopole fut un problème que le mairie dû opposer au moins jusqu'au le Loi de 1903 qui éliminé ses attributions d'administration des affaires urbaines.

Paroles: Téléphone, Mexique, politiques corporatifs, services publics.

Foreword

What can we reasonably learn about the corporate policy of the Mexican Telephone Company during its first years? Preciously little I think. So, this essay will deal with this topic by relying on sparse information and resorting to a little imagination. What I am trying to do here is to ponder a bit about the entrepreneurial experience in nineteenth century Mexico, and its “buddingly” national economy, through the example of a private company.

I must emphasize that the Mexican Telephone Company has been a superficially researched firm. The motive of this neglect escapes me. Yet I think that they can be summarised in the fact that it left very few traces of its existence. Barely some institutional documents are safeguarded in the Federal District Historic Archives in Mexico City. Its corporate records have apparently either disappeared or its whereabouts have not been disclosed.

Since I wish to analyse corporate policy it have to describe what this might be. I understand Policy as basically the array of “intentional” means through which individuals and collective players resort to in order to persuade or force other players into following certain rules or behavioural patterns as well as to attain collective or institutional goals. Policy is carried out through the exercise of power. In this particular case, power as a private company wielded it, especially one that had the advantage of possessing the technological know-how necessary to enjoy an almost absolute control over its particular field: *Telephony*.

Further, the firm ran on an organizational structure both centralized and elastic, mainly made possible by the technology itself through a corollary: the telephone network, at least in those spaces wherein the regional reach of the system could be exploited. It must be

stated that national telephone networks wouldn't appear for many years, although the organizational and technical groundwork was laid down in the final years of the nineteenth century.

I will explain some of the strategies or procedures through which the company sought to impose its supremacy on the field of social relationships whereupon society exchanges goods and services, namely the market. Of course, Mexican Telephone Company's commercial interest was restricted to looking for solvent-enough subscribers that would use the product and the service it provided voluntarily. It also intended to create conditions through which it could operate with the greatest advantage and the least friction possible. Finally, I deem necessary to ponder upon how the company was able to overcome the hindrances set by Mexico City's specific circumstances, especially its harsh relationship with the city authorities and with the population at large, which were reluctant to accept the telephone system. Unsurprisingly, these actions shaped the firm's structure and the final outcome of its history.

The Telephone Market at the Outset of the Mexican Telephone Company

The Mexican Telephone Company was inaugurated in early 1882, after a year and a half building up its network. It operated with Western Electric equipment designed by the American Bell Telephone Company's Mechanic Department, as well as with assorted supplies acquired in the Mexican market, chiefly wooden poles obtained from Mexico City's hinterland. It was introduced to the public through a booklet announcing its determination to communicate merchants and businessmen alike. Interestingly enough, not a word about the price (Lipartito nd, 23; MTC 1882).¹

As the only document the company published to approach what would eventually be its public, it provides a window through which we can study the profile of its future potential. Two features: first and foremost, the firm sought out businessmen, merchants, economic players thus. Secondly, it tried to appeal to them through a message that their acute sense of power would find attractive: Here and there it spoke of the possibility of overseeing employees and garnering supplies at once. It promised, in a word, to expand the reach and scope of their markets.

According to some capital city's newspapers, Mexican Telephone Company would charge a "hefty" monthly fee. So the company might have well wished to achieve a prompt return on its investment out of solvent customers (Cárdenas 1987). A peculiarity of the Mexican market in 1881 stands out. A customer resorts usually to a service for a specific timeframe and in a more or less sporadic fashion. Mextelco, from the outset, sets its market up to compel its customers to depend on it for communicating among themselves through the system. What the company was offering, therefore, was an instrument for command and for the circulation of capital on behalf of the business community. It was, of course, the exclusive property of the firm and what it controlled accordingly was the access to it. As a result, it's interesting how it was capable of enticing consumers into becoming subscribers.

That they should have recognized the future advantage of telephony would be asking too much of the people of this period. Nineteenth-century telephones were actually quite inefficient and the networks' reach was very limited indeed. In those years so to spur interest and henceforth to convince individuals into adopting the devices, many changes in the structure of the economic organizations and in the mindsets of the players had to take place. Later on, the potential market had to demand the services of a company which didn't

sell but *leased* its devices for a monthly rate it set up without any hindrance other than the market's puny resistance.

Meant for businessmen and liberal professionals, and above all for business corporations, offices and institutions, telephone companies—in Mexico and elsewhere around the world—could charge a very high rate for the service. For thirty years, in the former country fees increased from 5.50 to 8.33 pesos, although we must take the steady devaluation of the Mexican currency into consideration as well as the inflation rate in major urban centers.²

The fact that the first phone lines were set up in San Martín Texmelucan, in Puebla State, in the early 1880s, and that some of the landed estates surrounding Mexico City were wired to the Mextelco network shortly, cannot hide the other fact that the telephone system was an urban phenomenon circumscribed to the country's main industrial cities. This development can be perceived even within the urban centers. We still lack a full-scale research on the Mexican telephone networks, but if we examine the 1891 Mextelco phonebook and compare its contents with those published afterwards, we can observe the patterns of distribution within Mexico City. The American enterprise erected its party lines across some of the downtown streets and avenues, over wood and iron poles, which spread out from its central exchange, staffed by American executives and a Mexican mostly female workforce, located at 6½ Santa Isabel Street. This tendency lasted for many years. It can be said that the network radiated from there (AHDF tme 1885; Cuchí 2000: 117-158).³

Considering the country's socioeconomic environment, market expansion might have been checked by space and commercial constraints. If costs were huge, if the service was therefore expensive, and the population was mostly poor and thus totally uninterested in it, inevitably the market was to be restricted to a very small number of actual clients. The

market should have had evolved thus in conjunction with the expansion of the network across the city's streets. The network then served the downtown districts mostly, linking offices and factories. With such a narrow usefulness, limited to personal services, managing logistics and conveying orders, the service's appeal must have ran counter to the unattractiveness of the device for anything other than as office hardware. In fact, it's surprising the growth of the service during this period given how hard it was to exploit the market, especially in view of the favourable conditions Mexican Telephone Company faced at its inception.⁴

The Corporate Strategies of the Mexican Telephone Company

Back to the beginning. Seemingly Mexican Telephone Company wasn't the first or the only corporation in the 1880s to operate a phone system nationwide. Matamoros and maybe Puebla had some exchanges in operation; at the same time, at the Federal District the national government soon saw the usefulness of having its own system in place to serve the police. However, the distinction of this company lies in its commercial character and in the way it was able to maintain itself as the paramount telephone carrier, in spite of everything.

I dare to state, along with Thorstein Veblen, a smart observer of the time's budding consortiums, that attaining a monopoly was the firm's primordial goal (1904, chap. 3, 11-12). Accordingly, owning the patents of Alexander Graham Bell's invention was a crucial asset. These, and those American Bell purchased in the wake of the settlement ending the 1878 suit against Western Union, were recognized by the Mexican state (Farley nd, II, 2; MTC 1882, 2). They were likewise ratified by a ruling from a Federal District court in 1888 that settled the suit Mextelco brought against the G. Lohse glassware company. This firm wasn't the only one daring enough to sell telephones. As no law forbade this—and the

Mexican Constitution specifically barred monopolies—, it argued that Mextelco couldn't enjoy any commercial privilege since it impinged upon freedom of commerce. Moreover, the defendant claimed the plaintiff had no exclusive right to Bell's invention, because it wasn't its own. The judge nevertheless dismissed this argument and so Mextelco prevailed (MTC 1888). As result, the American firm in Mexico gained total control over telephony, the technology that made the system functional, on grounds of patent rights. Hence, this ruling assured its domination over the telephone market. Only Mextelco, at least in Mexico City, could thereby obtain Bell telephone equipment and use it. This strategy was pursued by American Bell branches all over the world with assorted success. Let's describe it a bit using the Canadian example.

American Bell decided to enter the Canadian economy for the obvious reason it was close to the United States, where telephone systems were expanding like anywhere in the world, especially after the first exchange was tested successfully in New Haven, Connecticut. In 1879, C. F. Sise crossed the border to set up the first Bell central exchange in Montreal.⁵ Soon afterwards he pursued the same aggressive market control strategy, called "killing the competition." Although being quite profitable, it caused a great deal of conflict with whomever wished to operate networks in small towns, or invest in a low-cost service—which Bell Telephone Company of Canada refused to provide—, and, particularly, with the municipalities which soon had to face the complaints of their citizens concerning Bell's abuses and its disregard for private property. And as in the United States, Bell soon discovered and effectively embraced the idea that only through a monopolic organization could the phone market be structured. However, as long as Bell's patents were in force the firm was capable of easily protecting its market share, though here and there systems began to appear servicing small markets at a low cost that would survive despite

the giant's unrelenting opposition and its predatory practices (Martin 1991, 29; Lipartito nd).

Competing against either Mextelco or against any other Bell branch wasn't easy, thus. The only option would have had been to develop a different technology. Western Union tried to do so early on, but this project was undone by Bell's legal victory—it might have made a nationwide telephone network in the United States feasible at a very early date, as Western Union had the resources, the means and the expertise to turn its vast telegraph network into a telephonic one, and to run it as a “natural monopoly.” Only in France it was possible to develop a viable telephony. With foresight, the French state constructed phone networks in many major cities, systems to serve the government and the economic players. And yet, in spite of the functionality of the Ader technology, it could neither be exported nor compete with Bell's, although they were somewhat equivalent (Brault 1889). By the mid-1890s this option was abandoned and the Société Générale des Téléphones chose to import Bell apparatuses, which thereafter became the “normal” telephony.

Consequently there might have been no other way than to play rough. In 1880 Bell founded a subsidiary in Stockholm, where it soon resorted to the usual Bell tricks to prevail upon its rivals and control the Swedish market: exclusive patents, high prices and a monopoly on technology. When, having seen an appealing market, businessman Henrik Tore Cedergren attempted to compete through a similar system that would render a low-cost service, Western Electric refused to sell equipment to the Stockholm General Telephone Company. Cedergren had to resort to a telegraph manufacturer, Lars Magnus Ericsson, who began to copy Bell apparatuses and improve them anon. By 1884 Stockholms Bell was in serious trouble (Kuuse 1977, I, 4-5).⁶

The Mexican economy lacked the capital and the technology to challenge the Bell telephony. But the country had by then an authoritarian government eager to have and use telephones and in due course a business elite interested in this invention in order to reform its management methods and integrate their organizations in a more centralized fashion. These were the years of the Porfirian age (1877-1911), of liberal reforms and capitalistic development.⁷ Naturally the big Mexico City corporations would sign on to the Mexican Telephone Company service. They doubtless had the economy of scale to do it, despite the market's strictures and maybe the fact that like in Canada and the United States potential subscribers in Mexico City might have feared eavesdroppers in the party lines.⁸ Yet, because one of the main corollaries of a monopoly, having a single provider, is that Mextelco would be capable of fixing prices at whim, so, there was no option initially. As well, to the conditions of the Mexican market there were the proclivities of the corporation's American shareholders, more interested in high short-term profits than in a long-term dominance based on quality service and easy consumer access to the system.

This strategy would of course have had to face stiff resistance sooner or later. Seemingly, the problem ended up becoming political. Abusing the law for private gain resulted in confrontation and so it became evident that developing a substitute telephone system would in the interest of the Mexico City economy as a whole, its business structures and its government. Arguments such as the trouble of having similar incompatible networks, or cut-throat competition that could reduce profit margins dramatically, or otherwise in favour of a supposedly rational telephone monopoly, could stand against the desire of some individuals of getting into the action.

Municipal Regulation and the Issue of Competition

The argument that opened the debate concerning the telephone market in the Mexico City municipal council sessions between September 1890 and mid-1891 was how poor the service rendered by Mexican Telephone Company was. According to alderman Ignacio de la Torre y Mier, subscribers were complaining about induction, cross-talk, noise on the line, sluggish connections and the rudeness of the operators. He demanded the city council cancel Mextelco's contract. He didn't recommend setting up an open market, only replacing the firm. However, he started a chain of events (AHDF tme 1890).

Bell's patents expired in 1894. Maybe it was thought that conditions were ripe for giving the city a more modern telephone system, or at least one served by a more pliant company, for Mextelco, among other things, had been extremely reluctant to withdraw its poles from the streets and substitute its aerial network for an underground arrangement. Hence, the E. & E. Ascorve hardware store saw the opportunity in 1891 of setting forth a telephone service, and it found sympathetic listeners among the aldermen of the municipal Police Commission (AHDF tt 1891a, 1891b).

In fact, it wasn't the first time the municipal council granted permits to several forthcoming investors. The first municipal permit was given in July of 1881 to one A. G. Greenwood, certainly an agent of the Continental Telephone Company, who sold his concession to American Bell, as previously agreed (AHDF tt 1881). This permit was crucial to Mextelco's incorporation. At the same time, however, Adolfo Hoff, maybe a local trader, filed for a permit. The terms of his project are unknown, making an assessment impossible. Besides, nothing was left of this endeavour, as neither did those put forward by J. Schliemann and J. Gutiérrez y Compañía to the city council between 1883 and 1884 (Cuchí 1997, 2005).

Perhaps they lacked a suitable financial footing. In those years financial institutions were newborn in Mexico; also, the economy crumbled in 1884 in the wake of the budget crisis at the end of General Manuel Gonzalez's tenure. For Mexican Telephone Company the path was nonetheless cleared. Without any rival in the field, it could set up its lines freely and sometimes counter any economic player that dared to establish an alternative service. No one could act like Cedergren. When funeral parlour entrepreneur Eusebio Gayosso built a small private network, Mextelco took him to court (AHDF tt 1887a, b, c).

The Ascorve system could have been an option. What happened? There's a possibility they built up their network, yet at the turn of the century the company was devoted to trading in electric hardware. Maybe it wasn't able to acquire telephone equipment cheaply. Actually only Mextelco and its authorized retailers could deal in telephones. Perhaps Ascorve couldn't underwrite its operation and the ensuing risk was too high. The fact is that, in spite of the opportunity municipal support entailed to set forth a competing system, and despite the timely expiration of the Bell patents, Mextelco ruled supreme.

Apparently, the suffering of the average subscriber was avoided by some few millionaires. Most of the Mextelco clientele never requested they be disconnected even though it ran counter to their own interests. The lack of real cost-effective technological options notwithstanding some merchants began installing phone lines for a few select customers. What's interesting is the timing. Beside they could no longer be subject to Mextelco's reprisals, some traders could now become involved in the market because they seemingly enjoyed the support of the Mexico City municipal council and its ruling elite.⁹

That year, 1894, the city council was being "colonized" by a clique in quest for political dominance. They were called "the Scientists" and they were close to the then finance minister José Yves Limantour and accordingly close to President Porfirio Díaz. Up to a

point, for council chairmen such as Sebastián Camacho, Miguel S. Macedo and Guillermo Landa y Escandón, the revered capital city council was a political stepping stone towards more profit-making and powerful heights. What's more, of course, a place wherein they could take care of their immediate interests. I cannot posit that they intervened in the telephone market in order to exploit it in their sole benefit, yet they did so with regard to the electric tramway business. What they actually did was to run a city government that granted telephone concession permits haphazardly, from 1895 onwards, albeit with some restrictions like, for instance, banning the planting of poles as well as imposing obligations like reporting on the itinerary of planned lines. Mextelco, who protested the Ascorve venture in 1892, knew all the same it had nothing to fear (Rodríguez 1996; Cuchí 1999, 265-303).

Meanwhile, in the United States a process that would echo Mextelco's dominance in Mexico City and nationwide was in progress. The opening of the American market, much broader in scale, was characterised by cutthroat competition between various carrier companies which as a result dominated some regions thereby destroying the business's profit-making potential. Those companies were nevertheless too small to conquer a wider market. The most they could do was to deprive American Bell of its former supremacy, at least temporarily. The key was the possibility of servicing a small low-paying customer base. Regional competition thus allowed it, as well as the fact that most of the country's economic output and markets were then regional in scope. Indeed they lacked the technical expertise and the infrastructural platform to encompass wider regions and thus think big.

When many firms were finally ruined, thereby impairing service in many strategic regions, it became appropriate the resurgence of the big carrier company American Bell, whose long-distance branch, American Telephone & Telegraph, had invested heavily in

long-distance trunk lines linking several formerly isolated networks and exchanges. Exploiting this service, after 1900, AT&T was at last able to set up a potentially nationwide system. The ensuing collapse of local carriers soon forced the United States government to intervene on anti-trust grounds. Under a threat to go the same way as Standard Oil, AT&T, which had taken over Western Union Telegraph and recapitalized due to J. P. Morgan, decided to negotiate a restatement of monopolistic conditions arguing that what was more convenient to the United States was a national communication system operated rationally by a single company with government approval and oversight (Lipartito nd, 29-33; Farley nd, II, 6).

The situation in Mexico, however, didn't left much room for manoeuvring. The Mexican market was characterised by its being too thinly spread out and for catering too much to oligarchic interests and needs. Therefore, Mextelco could have been forced to pursue a three folded strategy. First, when carrying on with the monopoly after 1894 became impossible, the company opted to strengthen the prestige of its brand name. Fortunately for Mextelco, its likely rivals were incapable of constructing the infrastructure necessary to built up a workable alternative. Mextelco, thus, was still operating as always, with high prices and a convenient technology, towards the turn of the century. But in the 1890s demand slowly began to shrink. The phone company might lower its rates in order to encourage access to its network and win over more customers.¹⁰ It didn't do so. Maybe the investment had had been excessive and the market was then no longer as profitable. Despite the building of new high-income neighbourhoods, Mextelco was hesitant to install new lines there. Definitely, the service was still oriented towards the downtown offices and not for serving households. This can also be seen in the patterns and growth rates of the capital city's system. The most densely connected zone moved from the center to the south-

western suburbs between 1885 and 1902, while its growth rate slowed a bit in those years. At first, the network grew enormously, but between 1891 and 1902 the pace began to slack considerably and maybe it didn't recover until the 1906-1911 period (Cuchí 2000 2005).

In the meantime, the company maybe felt obliged to diversify its services. Relatively soon, possibly in 1888, Mextelco showed it could render services other than telephone connections. In that year, Pedro Hunter introduced the first telephone book in the capital city. By 1891 it began to appear in monthly issues. A lot more than a register of names, it published advertisements which are quite useful for a political and commercial urban center like Mexico City. It was seemingly a very cost-effective deal, unlike the long-distance service, whose main problem would have been the slack demand, especially as it competed with the public and private telegraph services. In effect, some of Mextelco's long-distance lines in Jalisco state were disconnected for unprofitability.

Therefore, Mextelco had to expand beyond its natural borders. Like in Canada, since it couldn't invest directly, it bought other networks. In 1893 it took over the Northern and the Center telephone companies—about whom very little is known—which were added to its systems located at Mexico City, Monterrey, Puebla, and ten other cities. The policy, however, never aimed at creating eventually a single nationwide network like the AT&T and the Bell consortium were doing in the United States. Mextelco would rather “colonize” separately, case by case, every city and region within reach. When it saw that a certain area wasn't able to sustain a telephone business at a profit, as Campeche in 1896, it chose to close down the exchange.¹¹

Subsequently, towards the 1900s there was telephone service only where it already existed, actually or potentially, not just the likelihood but the certainty of turning out a profit. Maybe the narrowness of demand discouraged any other likely carrier from setting

up a more efficient and cheaper service. As other projects, like Ascorve's and others —the National Mexican Telephone Company, for example—,¹² were approved by the municipal authorities perhaps to sponsor competition, the American Bell branches were gaining a real brand power, in spite of the notoriously substandard service. It was an easy-to-recognize firm, the synonym of “telephone service,” with the necessary know-how within a world of newcomers. There would be no contest then till Josef Sizenstatter came to the fore in 1903.

The reason for his trip to Mexico was to do the bidding of an “English Syndicate” wishing to invest in a telephone system in Mexico City. His identity remains somewhat a mystery, and in any case Great Britain didn't have a phone company with expertise abroad. What it is known about this character is that he worked in Sweden for Stockholms Bell and witnessed its demise. His visit was brief: after obtaining a couple of contracts in Mexico he booked passage to London and contacted Henrik Tore Cedergren through the Ericsson agent there (AHDF tme 1903a 1903b; Kuuse 1977, I, 183).

By this time, the Stockholm General Telephone Company had effectively merged with the now mighty telephone manufacturer, L. M. Ericsson and Company. Two years later, Mexikanska Telefon AB Ericsson started laying the groundwork for a network to rival Mextelco's. Meanwhile, the pioneering American company was closed temporarily whilst it restructured itself along with the entire Mexico City phone market. There would be competition at last (Kuuse 1977, 186).

The Telephone Cartel in Mexico City

In 1905 the Mexican Telephone Company was transferred or sold to Boston Telephone Company, perhaps as part of the restructuring process of the nearly broke American Telephone and Telegraph. The branch was renamed Mexican Telephone and Telegraph

Company. It would draw its predecessor's small empire together and through a one million dollar injection of cash it would erect the underground cable network as well as face the tremendous 1905 financial crisis (Cárdenas 1987, 49; Ceceña 1991, 93). Being a newcomer, it might have been expected that Ericsson wouldn't constitute a threat.

Yet, why was Mextelco abandoned?

The firm's expectations as it arrived in Mexico can be inferred from the booklet it published at the inception of the service. It promised to provide to the business and trade community a fast and reliable means of communication that would ease business activity and the oversight of the workforce. It backed its credibility by arguing that its technological know-how was exclusive (MTC 1881). Mextelco represented American Bell, and American Bell was telephony.

The news was received unenthusiastically at first. Especially the new invention was disparaged by some newspapers. It was feared that the network would cause traffic jams and, worst still, it would be harmful to the population. Henceforth, political problems began ever since the municipal council granted an *individual* permit to A. G. Greenwood—surely ignoring his links to Continental Telephone Company—, on the condition that he build an underground network. The transfer to Mexican Telephone Company was not informed to the government until 1883, after the municipality demanded an explanation and that the poles be removed from the streets. For the first time, the company had to resort to its solicitor. Genaro Raigosa requested the terms of the Greenwood concession be reinterpreted in Mextelco's favour, appealing to the evident usefulness of the existing but illegal network. It also exploited loopholes in the regulatory framework, limited to a federal decree which only sorted out federal and local jurisdictions. Mextelco was able to save its infrastructure although official recognition had to wait till 1885.¹³

Thus, the telephone market was the outcome of the imposition of Mextelco's telephony upon the city. And in the end this resulted in a myriad of problems, which deteriorated every time the company had to renew its contract. Although it was always capable of bargaining its terms favourably and that the contracts' tenure were extended first to six years, then to twelve, and in 1903 to thirty, the city council grasped these opportunities to wrest some concessions. In 1885, for instance, it compelled Mextelco to promise to construct an underground system, in 1890 it forced management to invest in replacing iron wires for cables, and in 1899 it enacted regulations on street poles that obliged Mextelco to identify its poles with a painted red band as well as it mandated specifications regarding height and other features (AHDF tme 1890; AHDF pp 1899b).¹⁴

The need to contemporise with regard to the network forced Mextelco to spend heavily in response to extraeconomic pressures. Facing slack demand and slow growth the least it needed was to have to build an inconvenient network. At first, the high rates it imposed enabled it to finance the service at a profit. In fact, between 1882 and 1892 Mextelco built most of its network on downtown Mexico City. The cost, according to manager David Hobart, was huge, though: 700 thousand dollars (AHDF tme 1891). The phone company may have balked at the authorities' wish to condition its stay in the market to a triviality—such as the city's aesthetics—, especially when there wasn't any serious alternative. So it was again successful, even though it had to pay for its victory. It was short-lived: following 1894 its expansion efforts slowed down as the market became glutted.

Unfortunately Mextelco's financial reports are unknown, at least in full.¹⁵ The only obvious fact is the way the network expanded before 1902. Throughout the final decade of the nineteenth century the pace of growth slackened as well as the spatial development. However, this coincided with the replacement of the wires, the construction of a number of

underground ducts underneath some major downtown avenues, the merging with some independent companies and with the inception of technical innovations like the metallic circuit, the duplex lines and the multiple-magneto switchboard. This expansion might have been a result of a growth in demand, yet after examining Mextelco's clientele we have to dismiss this. In 1891 the network was spread across over six hundred buildings; by 1902 the number barely surpassed one thousand. It can be seen, nonetheless, an increase in the number of professions available by phone. In any case, telephone coverage, which can be examined thanks to Mextelco's 1891 subscriber list and the *Directorio general de la ciudad de México (The Mexico City General Register)* published by Ruhland & Ahlschier in 1902, was circumscribed mostly to high-density areas, like alongside 8th East avenue, where there were 48 connected buildings; in other streets, like the North and South streets axis—from Santiago square to Niño Perdido causeway—there were 31 buildings in total; actually most of the streets had up to ten lines.¹⁶

This can be interpreted in many ways. Firstly, it might have been the unexpected result of having erected a phone network in a city whose main political and economic activities were concentrated in a few downtown streets. Furthermore, on the other hand, company policy led it to seek solvent demand wherever it was, although it had to ponder upon the convenience of expanding into the newly-built neighbourhoods given the high operation costs. In effect, the suburbs, namely in the new Cuauhtémoc and Juárez quarters, basically residential in character, saw phone lines belatedly, and by 1902 phone connections at the Santa María de la Ribera and San Rafael quarters were scant. However, secondly, this reveals what could have been the way Mextelco was able to finance its service. I dare say that the American phone company employed the income earned through subscriptions in high-density areas to offset operation costs in low-density ones. In one word, the former

were subsidizing the latter. Only in this way Mextelco could have sustained such a service with an expensive network, maybe too big for such a small market.

The billing arrangement is interesting in itself. Mextelco charged its customers a fixed monthly rate for a telephone apparatus and a single line. And such scheme, it must be pointed out, was continued by Ericsson and Mexican Telephone and Telegraph after 1907. What is interesting, too, is that the phone companies never attempted in their residential and business service what they employed in their public phones since the early 1900s.¹⁷ These businesses charged a sum per call according to time spent. This enabled companies to adapt their capitalization to the intensity of the communications traffic. Didn't they do it for managerial reasons? I don't know. That Sizenstatter recommended it in 1904 underscores its feasibility (AHDF tme 1904).¹⁸ Had it resulted in additional costs? Or, did they fear it would scare their customers off? The most reasonable motive must have been that similarly to the network cost structure, Mextelco was subsidizing those subscribers that weren't using their lines much with the traffic generated by those who couldn't stop calling for business or pleasure.

In any case, it's likely that Mextelco's dividends might have not been as high as they should have been, and this might have influenced the restructuring process undergone by the company between 1904 and 1905. This was preceded by three events. The start of the twentieth century took the Mexican economy in the midst of a financial crisis caused in part by a low in commodity prices, high public spending—despite Mr Limantour's budget surpluses—and the constant devaluation of the Mexican currency, which preceded the country's entrance into the gold standard. Mextelco would have been able to cope with this situation had it not been to its dependency on commodities valued in hard currency, and because it had been forced to invest unexpectedly. In 1899 the phone network sustained

heavy damage due to heavy late summer rains; in 1901 it was notified that the entire block in which its main exchange laid would be demolished in order to build the new national theatre. The move must have been extremely expensive, so much that the company's politically well-connected barrister Pablo Martínez del Río referred to it as the reason for it being unable to spend on the underground network the city council had been insisting on as a condition to renew its contract. Meanwhile, the city council was debating a project for an underground system which would oblige electric power utility and communication companies to introduce its cables. Even though Mextelco collaborated in the investigation on its practicability, in the early months of 1903 it saw its contract renegotiation deadlocked. This coincided with Sitzenstatter's proposal (AHDF pp 1899c; AHDF tme 1902; AHDF tt 1901b, AHDF tt 1902c) ...¹⁹ A dwindling profit rate and an economy in decline compelled the parties involved to reconsider.²⁰

Did the Americans fear Ericsson then? It seems unlikely. The Swedish enterprise lacked expertise in operating a service of this sort, at least in America. Mextelco might have been abandoned because in the long run it was no longer as profitable in the short term as when it was incorporated. It needed fresh capital and a more flexible organisation. So Mexican Telephone and Telegraph Company received new funds to face up the competition. In a certain sense, Ericsson was good to the American firm. The possibility of having two rival services might have helped expand the Mexico City telephone market. By 1910 Ericsson and Mexico Telephone and Telegraph alike tripled the telephone coverage in the city. The American company had taken over the local exchanges and kept them in operation. The years thereafter created new opportunities for growth. By 1908 it accomplished its first surplus in Mexico (Cárdenas 1987, 49).²¹ In part, it can be explained by the management's actions as well as by the fact that the telephone system had by now been admitted as an

indispensable asset and a fundamental means to transmit information and communicate people.

Afterword

Mexican Telephone Company operated with great success on the stage it attempted to influence. It can be said that in fact during the period of late nineteenth and early twentieth century it created the urban telephone market from scratch. It then shaped it through a series of ways and means, strategy in a word, which the managers pursued in order to achieve the ultimate goal: a long-lasting supremacy upon the urban and commercial fields in such a way that it forestalled efforts by whichever economic players to penetrate the newborn electric communications business.

Such strategies, which made over Mextelco's corporate policies, in turn determined the firm's relationship with the municipal authority, which in regard to the telephone market acted as the first veritable regulating agency to enforce a rudimentary legal framework upon an often abusive enterprise. The futility of the struggle to regulate the American company, or at least to entice it into collaborating, would partly led supposedly to a penchant for introducing business alternatives which at the end couldn't match Bell "brand name power." Actually no one was able to break through Mextelco's stronghold at least before Ericsson's arrival.

Victory came very late. The end-result was the formation of a cartel which, in a sense, made a more or less competitive market possible, at least initially. The reason for both players not to adopt an oligopolistic policy might have been the increasing, albeit belated, appeal telephony must have had among the city's businessmen and other customers. If they did so henceforth it was because of the conditions engendered by the 1910 crisis. Maker of

the telephone market's monopolistic structure, Mextelco's corporate policy left, in any case, a legacy still evident in that even today a private or public telephone system which is not an irradiating, single, authoritarian centre, dispensing benefits and ruling the expectations of industrial society alike, is unthinkable.

Abbreviations

Archivo Histórico del Distrito Federal	AHDF
Teléfonos y Telégrafos	tt
Teléfonos. Mexicana y Ericsson	tme
Policía. Postes	pp
Archivo Legislativo y Memoria Histórica del Senado de la República	ALMHS
Compañía Telefónica de México	MTC

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- File. 17, doc. 1 1887a Martín to Mexico City Municipal Council, September 14.

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- Exp. 17, doc. 1 1887c Iglesias to Mexico City Municipal Council, 21 October.
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October.
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Municipal Council, 20 December.
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Municipal Council, 20 November.
- File. 3, doc. 1 1890 Ignacio de la Torre to Mexico City Municipal Council, 19
September.
- File. 3, doc. 12 1891 David Hobart to Mexico City Municipal Council, 20 March.
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- ¹ This department was afterwards reorganized as Bell Laboratories, now known as Lucent Technologies.
- ² Respecting the monthly fees, see MTC (1987, nd). In a phone bill sent to the then director of the National High School Vidal Castañeda y Nájera, one can read that it was for 6.50 pesos. By 1908 prices rose to over 8 pesos. It must be stressed that throughout the entire period, the Mexican peso lost over half its value. The value of silver influenced it internationally. In 1890 one peso bought 83 US cents. By 1894 parity was set at 51 US cents per peso, 40% devaluation. By 1900 one peso purchased 48 American cents. Two years later, the peso reached bottom: 39 cents; Bátiz & Canudas in Cardoso (1988, 425).
- ³ As to the extension of Mextelco network at the outset, see Cuchí (2000, 117-158; 2005).
- ⁴ Julien Brault pointed out to how unenthusiastically telephony was received in Mexico: Brault (1890, 276).
- ⁵ It was originally named Dominion Telegraph Company (Martin 1991).
- ⁶ It would later be sold to its Swedish rival.
- ⁷ It refers to an oligarchic regime centered around the figure of powerful *caudillo*, General Porfirio Díaz, who ruled Mexico from 1877 to 1880 and from 1884 to 1911, when it was toppled by a revolution.
- ⁸ In Canada at least privacy was a big issue (Martin 1991).
- ⁹ Between 1894 and 1901, Eusebio Baranda, J. Edward Torbert, Guillermo Larsen, Luis Rivero and Teóduo Baz erected phone lines for select clients.
- ¹⁰ As, in effect, Bell Telephone Company of Canada usually did; Martin (1991).
- ¹¹ In effect, besides the Federal District system, the Mexican Telephone Company ran carrier companies in Guadalajara, Puebla, Oaxaca, Veracruz, Mérida, Progreso, Guanajuato, León, Querétaro, Zacatecas, San Luis Potosí, Monterrey and Saltillo, an expansion made possible perhaps by a strategy of acquiring local carriers; Cárdenas (1986, 38-40). In 1908 the Mexican Telephone and Telegraph Company owned branches in Guadalajara, León, Monterrey, Mérida, Progreso, Querétaro, Saltillo, San Luis Potosí, Tampico and Veracruz; (AHDF tt 1910). It must be stated that these branches operated isolated networks since long-distances lines were underused and underdeveloped during this period, maybe due to high operation costs, unprofitability and incapability of overcoming geographic obstacles.
- ¹² This was fostered by former Mextelco manager J. Edward Torbert; Cuchí (1996, 46-48). Moreover, other projects, those of Prince H. Look and Albert E. Worswick, must be considered (AHDF tt 1901a 1902b).
- ¹³ See Reglamento de Ferrocarriles, Telégrafos y Teléfonos, 16 December 1881, in Sabas & Murguía (1870-ss, XXXVIII, 346-347); Cuchí (1997, 58-80).
- ¹⁴ Respecting the labelling of the telephone poles, see AHDF pp 1899a; number of poles: according to AHDF pp 1898, they totalled 542; by 1901 there were 590 (AHDF pp 1900). By 1903 there were more than 600.
- ¹⁵ In 1889 the company had some 80 subscribers in Mexico City which maybe generated 52,800 pesos in earnings per year. If we take into consideration the said peso devaluation, the capital city network must have had to render huge profits in order to pay over these investments. Cárdenas state that profits totalled 12 100.19 dollars in that year. Furthermore, the value of the workforce was valued 346,727.36 pesos; 20,460.94 pesos were spent in commodities annually and 106 pesos in transportation. By 1894, however, profits had decreased to 11,379 pesos and expenses were totalling 58,000, barely less than what the 904 telephones set up across the city were making that same year; Cárdenas (1987, 37 & 40) is based on a report by C. A. McLachlan, that on a 2 pesos to 1 dollar parity.
- ¹⁶ Street names have changed since then. Yet, all of these lines were located in present-day downtown Mexico City, in what is now called the Historic Center.
- ¹⁷ Mextelco had eight throughout the Federal District in 1902; Ericsson eleven in 1910; respectively, Ruhland & Ahlschier (1902, 365); Ericsson (1910, 202).
- ¹⁸ Effectively, the Chamber of Commerce charged by time for the use of its telephone: Ruhland & Ahlschier (1902, 638). In Switzerland one call cost 5 centimes to the subscriber and 10 to a non-client per *five minute* call; in Germany, the state company charged 250 francs for traffic on a 2 kilometre line and a 62.50 overprice for every kilometre; in Luxemburg credit was for 80 francs (Brault 1890, 241 & 249).
- ¹⁹ The company had to move its main exchange to 8 Arcos de San Agustín Street.
- ²⁰ My doubts notwithstanding, Cárdenas's information for the 1890s could sustain declining profit rates, despite the increase in investments. In the last five years of the century, exchanges were shutdown, two American inspectors were fired and manager Menzies had to bargain with the finance ministry a tax cut. Mextelco, this, had to stop paying dividends to its stockholders in the wake of the 1900-1903 financial crisis. Profits would rise again alter 1904, when it surpassed the 100,000 pesos barrier, yet the firm was reorganizing then. The rise in costs might have been caused by constant investment in infrastructure caused in turn by an

increase in demand not only by the competition but, too, by the demands of the political authorities, at least in Mexico City; Cardenas (1987, 44 & 49).

²¹ In 1909 its solicitor, Salvador M. Cansino, obtained for Mexican Telephone and Telegraph Company a government permit to issue bonds. This contract can be found at the Archives of the Mexican Senate, “Aprobación del contrato de la Compañía Telefónica y Telegráfica Mexicana para emitir garantías de su concesión y propiedades, bonos y obligaciones” (ALMHS 1908-1910). Also see Cámara de Senadores (1910, 330-331).