

Ventos da Mudança: o Futuro Chegou ao Sector Saúde Winds of Change: the Future has Arrived at the Health Sector

Jorge Vasconcellos e Sá
E-mail: associates@vasconcellosesa.com

Resumo

Uma vasta corrente de literatura tem salientado a aceleração da mudança desde o início do milénio, a qual pode ser sintetizada em oito tendências principais:

- Duas referentes à procura no mercado: *diminuição do segmento de baixo preço e fragmentação de mercados*;
- Duas do lado da oferta: *diminuição do ciclo de vida dos serviços/ produtos/modelos e a segunda revolução industrial (robotização)*; e
- Quatro tendências relacionadas com a concorrência: *desregulamentação; liberalização; globalização; e concorrência transnacional*.

Estas oito tendências do meio ambiente, tendo começado por alguns sectores, estendem agora o seu impacto a outros, inclusive o sector da saúde.

E com profundas implicações. Quer em como as organizações de saúde são geridas *internamente*, quer *externamente*, isto é, na sua adaptação estratégica ao meio ambiente.

Palavras-chave: Necessidades e Procura de Cuidados de Saúde; Política de Saúde; Prestação de Cuidados de Saúde; Reforma dos Serviços de Saúde; Saúde Pública

Introduction

Since the beginning of the millennium eight major environmental trends are being felt across the globe (Fig. 1).

And so health organizations have, as any other type, two and only two options: *adapt* and consequently change a risk into an opportunity. Or try to hide and see competition, by taking advantage of these trends, push them into the *fringes* of the market, if not totally *out* of it.

Abstract

A large body of literature has stressed the acceleration of change since the beginning of the millennium. And such a change can be summarized in eight major trends:

- Two pertaining to the market demand: *decrease of the low price segment and market fragmentation*;
- Two on the supply side: *shortening of the service/product/model life cycle and the second industrial revolution (robotization)*;
- And four trends related to competition: *deregulation; liberalization; globalization; and transnational competition*.

As frequently happens, these environmental trends started with an impact in some sectors, only to reach others now, including the health sector.

It follows profound implications on how health organizations are increasingly managed, both internally and externally, that is in their strategic adaptation to environment.

Keywords: Delivery of Health Care; Health Care Reform; Health Policy; Health Services Needs and Demand; Public Health

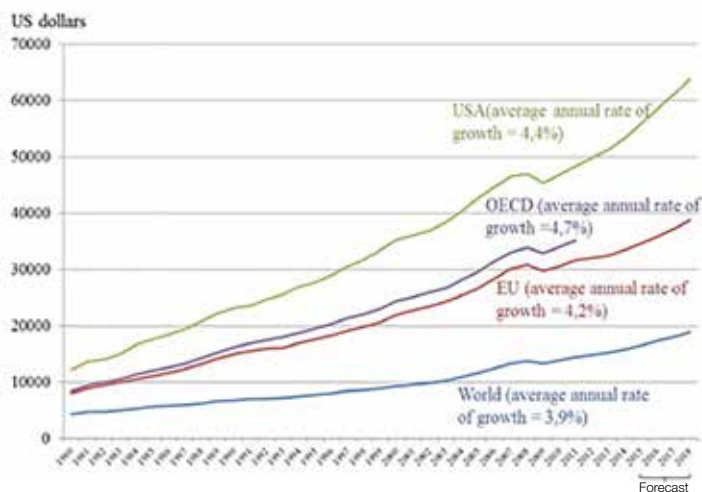
The eight major change trends since the beginning of the millennium				
Trends	Areas	Demand	Supply	Market Competition
1. Decrease of the low-price segment		✓		
2. Market fragmentation		✓		
3. 2 nd Industrial Revolution			✓	
4. Shortening of service/product/model life cycle			✓	
5. Deregulation				✓
6. Liberalization of global trade				✓
6.1 World trade Organisation				✓
6.2 Economic blocks				✓
7. Market globalization				✓
8. Transnational competition				✓

Note: ✓ indicates the area each trend belongs to.

Figure 1: The eight major change trends since the beginning of the millennium

MBA Drucker School / PhD Columbia University / Jean Monnet Chair
Professor at Swiss Business School / AESE (IESE) / University of Lisbon, Lisbon, Portugal

GDP per capital PPP (US dollars)



Source: International Monetary Fund Database, October 2015
Organisation for Economic Co-operation and Development (OECD) Database, November 2015

Figure 2: GDP per capital PPP (US dollars)

The end result is that, as societies become wealthier, the percentage of patients, whose main supplier selection criteria is the price (cost), decreases.

Not that price is totally irrelevant. Not that price is no longer the primary concern for some. But simply that with increasing purchasing power, more and more clients can afford to select health organizations based on other variables than cost: *quality* (of medical treatment, service, installations, etc.); and/or *delivery* (speed or/and 24h availability).

To be sure, there are some organizations which still opt for becoming the “*low costs*” of the health sector with pre-fabricated buildings, restricted air-conditioning, simplification of procedures and around the clock facilities utilization, what enables them to offer heart surgery operations at 800 dollars³ and medical consultations at 25 euros⁴ in hospitals and (walk-in) clinics.⁵

But other hospitals and clinics, generalist or specialized, can now attract luxury patients, both nationals and foreign. NY Presbyterian,⁶ Fortis,⁷ AB Ventures,⁸ Moffit,⁹ Cedars-Sinai,⁶ David Drew¹⁰ are all examples of service providers to patients who pay between 1.000 and 1.500 dollars a day for a room, 2.400 for suites, have access to coffee and food courts, state-of-the-art wellness centers, play area for children, chefs and butlers serving mouth-watering menus and dispose of ancillary services such as massage therapies, meditation and beauty consultations.

Also the robes, the deluxe accommodations, the panoramic views, the marble baths, the lounges to relax in, are all proper of five or six star hotels, to attract a multitude of clients who communicate in a babel of languages.

Market fragmentation

When one adds to the purchasing power, 1) the increasing quality in the treatment of some chronic diseases, 2) the aging factor and 3) the breakthroughs in technology, the end result is market fragmentation: that is, an *ever greater differentiation of clients' demand and suppliers' offerings*.

As the best seller *Microtrends*¹¹ puts it, “the world is being pulled apart by an intricate maze of choices, involving very small (but nevertheless extremely profitable, due to high direct margins and worldwide numbers) percentages of the general population. There is a niching of the world, meaning that there is not one, but three, four, five, hundreds worlds”.

The answer to such a rising freedom of choice, increasing individuality, is that in health (just as in many other industries from airlines to distribution), there is not one, but many types of labs: tier 2, quest diagnostics, physician operated, hospital outreach, independent, hospital inpatient, outside the hospital, as well as several other niches (Fig. 3). And in hospitals there is also an increasing specialization, illustrated by the Bascom Palmer Eye Institute (Miami), the MD Anderson Cancer Centre (Houston), the Fairview University Children's Hospital (Minnesota), the Hospital for Specialty Surgery (in orthopedics, New York) or the Minnesota Cystic Fibrosis Center and the Memorial Sloan Kettering Cancer Center in New York.

The second industrial revolution (robotization)

The generalization of the use of robots has had a major impact, to start with, in factories. Here, replacing labour and being far more flexible than standard machinery, they allow for companies to supply a large diversity of models and build-to-order products and services, without a great increase in the cost or time of delivery.

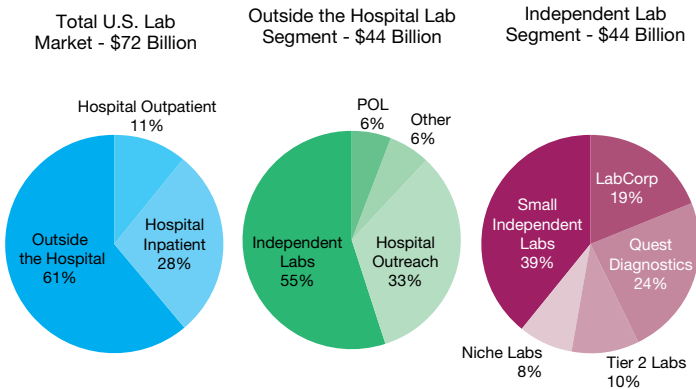
It is so that Toyota¹² in Japan offers “custom made” cars from three factories according to hundreds of clients specification regarding the interior, the front, the colour, the type and texture of seats, the wheels, etc. Time to delivery? Five days.

And Custom Foot, a shoe company¹³ in the USA, offers its “mass customization” through an electronic scanner, which measures the length and width of the feet and then within two weeks customized shoes arrive at the customer home at the price of 140 dollars (against the previous traditional price of 500 dollars for handmade shoes).

The same is happening all around the globe in a large cross section of industries from shampooing, to toothpaste, to cough medicines, to computers, to all kinds of electrical equipment from brown goods to white goods for the kitchen, as companies are offering more models and build to order options, without – as before – demanding sharp increases in prices or time of delivery.

And then of course that in health, robots are also having a transversal impact in the treatment of heart surgery, cancer or rehabilitation, both to patients with impairments due to spinal cord injuries or partial paralysis caused by strokes. For instance the four-armed cyborgs, baptized Da Vinci, help surgeons conquer lung cancer and allows for patients to leave hospitals just two days after major surgeries.¹⁴

A snapshot of the US Lab Market



Source: AACC (American Association for Clinical Chemistry) - February 2013 Laboratory News: Volume 39, Number 2

Figure 3: A snapshot of the US Lab Market

The shortening of the service/product/model life cycle

And also as figure four indicates, there are three main reasons for that, the first of which is pure and simply technical progress with a major impact on e.g. the evolution of all types of models, be they pacemakers or blood glucose monitors (Fig. 5).

Then, and paradoxically, another major cause of the shortening of product life cycle is that many extremely useful innovations in daily life are... technically simple. What is extremely difficult since there is nothing as complex as a simple thing (Bernard Shaw).

Indeed, as Peter Drucker, the founder of modern management pointed out, that the key to great innovations is not to try to be brilliant, but to be simple.¹⁵ Before the appearance of the small band-aids for minor cuts, one had to go through a cumbersome series of tasks which included obtaining a roll of gaze, cutting it, placing it around the wound and finally tightening the gaze with adhesive. Four tasks now replaced by one.

The pens created by Novo Nordisk to replace syringes in the administration of insulin¹⁶ are another example of simplicity as the greatest of all sophistications (Leonardo da Vinci), or simplicity as complexity solved (Constantin Brancusi).

Or still, the Balloon Embolectomy Catheter¹⁷ is another great illustration of simple innovations resulting in powerful medical breakthroughs. This innovation pioneering minimally invasive vascular surgery, extended life saving procedures to ten's of millions of people. A third cause of the shortening of the life cycles, is that innovations can respect to any one of the four sides of an innovation square: the product/service; or the client; or the need; or still the location (see cause number three in figure four).

Product/service innovations are exemplified by hospitals moving away from a sick into healthy environments.

North Hawaii Community Hospital,¹⁸ e.g., created a "total healing

environment", a place to get well, instead of a place to be sick. Here patients can select the artwork that goes on the walls, while every room opens to a courtyard garden.

The Memorial Health System in Springfield, Illinois, offers a rehabilitation center where patients can experience real-world situations such as cooking, grocery shopping, and practicing golf, as well as other sports. It is believed that these experiences can further prepare patients to return home and give them the confidence to succeed.

And in California, the Fresno Surgery Center provides a non-hospital setting, which helps patients heal faster. Thus, rooms feel like home, meals taste as if coming from exquisite restaurants, and management is trained by the Ritz-Carlton to provide exceptional, personalized attention. Patients are called "guests", and family members, are invited to stay overnight whenever they want.

Another example is Starbright World, a company co-chaired by Steven Spielberg and General H. Norman Schwartzkopf (allied commander of the first Iraq war), which offers a "virtual-reality play space" that allows children in hospitals around the country to interact with others. Using high-speed networks: they can play games with each other, share experiences with procedures, learn about each other's illnesses, and make new friends.

And then of course, just as a new product can lead to licensing, new services open the door to franchising, which is becoming a boom in healthcare.¹⁹

However, it is also possible to have client or/and need or/and location innovations, while the product/service remains essentially at large, the same.

Gillette had in the nineties a huge market share: 36%. Nevertheless it asked itself: what were the major type of non-clients? Answer: the women. The solution was a new brand called Gillette Sensor that women use in depilation. And the result? Within three months, the brand Gillette Sensor for women represented 50% of all sales of refillable razors.

Sometimes still, both the product/service and the client remain, but now they serve a different need. Kleenex, e.g., repositioned its paper tissue from a cotton substitute for women to take out

Shortening of product/service/model life cycle

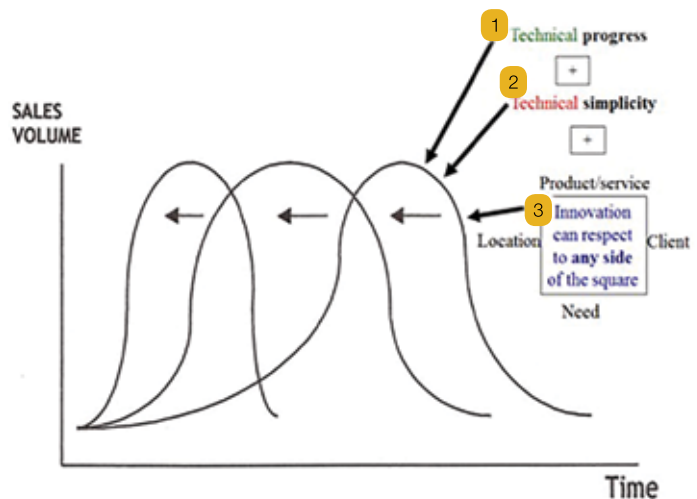
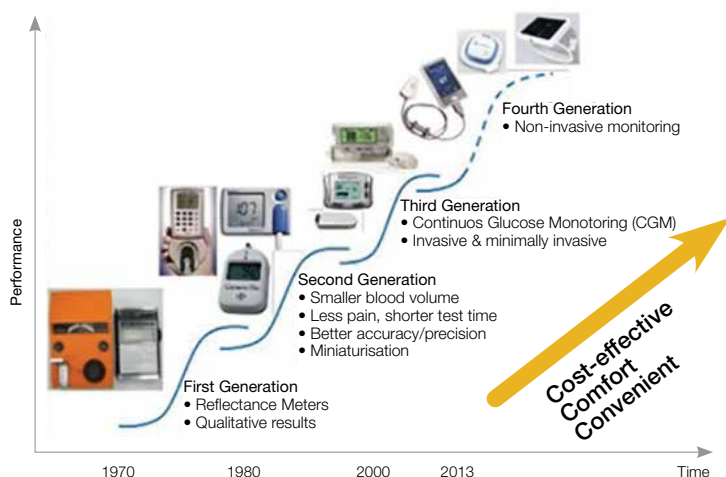


Figure 4: Shortening of product/service/model life cycle

Evolution of blood glucose monitor



Source: National University of Singapore

Figure 5: Evolution of blood glucose monitor

make-up at night, into a handkerchief replacement to be used in everyday situations, including when having colds.²⁰

Minute Clinic is a major USA chain whose success is due to focusing on speed (not quality, not global service, not price, not anything else), under the simple assumption that one thing patients lack, when burning with fever, or under pain, is... patience. Thus the company slogan: "you're sick, we're quick".

Finally many significant innovations respect, not the product/service, not the client, not the need, but the location. Be it

- 1) *distribution channels*,
- 2) *time location* or
- 3) *physical location*.

ATMs and small supermarkets at gas stations are examples of the *former*. As they are the clinics that Lusíadas, a major Iberian hospital and clinics group, has in shopping malls. Just as Base, another major Iberian group, but now of diagnostics. Or Jerónimo Martins, which diversified from supermarkets to health clinics also in shopping malls. Still, Sonae, a major distributor entered the health sector by opening a clinic in the soccer stadium of a major European club (Porto).

Major banks (e.g. Intesa Sanpaolo) keeping its branches open until 22:00 in work days and up to 15:00 in Saturdays, convenience stores and labs operating 24h around the clock are examples of *time location innovations*.

And *new physical* locations are illustrated by washing, tire replacement and car repair shops located at the parking lots of major department stores or clinical analysis performed at home, again a service offered by several diagnostic groups and hospitals.

Deregulation

The breaking down of barriers to the internal mobility of organizations, is the 5th environmental trend.

Take the financial sector. In the past, investment banking, commercial banking and insurance were legally bound to be separated activities. Today, by opposition, one speaks of bank insurance, global service and "financial supermarkets". And other industry organizations (Sears, Kroger, Eastern, etc.) which formerly could not enter into the sector, are now major financial players.

By the same token we see Walmart (the number one distributor in the world) creating The Clinic at Walmart under the slogan of easy access to affordable family healthcare, only to be followed by governments incentivating private investment in health, the acquisition of community and other hospitals, and joint ventures between private and non-profit hospitals of the so-called social sector.²¹

Not to mention of course, the public private partnerships, who in some countries grow at an yearly rate of over 12% (Fig. 6), as well as the generalized deregulation in the activities of pharmacies, both in terms of ownership, and several restrictions to competition, such as: distance among them, captive market in terms of population, etc. The appearance of parapharmacies is still another example of deregulation.

Trade liberalization

Under the auspices of the World Trade Organization (formerly the GATT),²² the world has been loosening its trade barriers (tariffs, quotas, technical requirements) both among countries and economic blocks. While these enlarge externally and liberalize internally.

And it is precisely this trade liberalization which explains (in part) the euro crisis. With the decrease in trade barriers many southern European industries could not compete with imports from the Far-East and so exports declined and imports boomed in some European countries. An external deficit resulted. And which was financed until the creditors lost heart, forcing the IMF (International Monetary Fund), ECB (European Central Bank) and the European Commission to jump in.

In health, trade liberalization has been pursued under the World Health Organization umbrella which has been pushing fifty countries to several commitments in four main areas:

Cross-border supply enabling patients and doctors via interactive audio, visual and data communication to consult with physicians in different countries. Typical examples include Internet consultation, diagnosis, treatment and medical education.

Then, consumption abroad usually covers incidents when patients seek treatment abroad or are abroad when they need treatment.

Still, there is the foreign commercial presence, that is the opening up of the health sector to foreign companies, allowing them to invest in health operations, health management and health insurance.

And finally the movement of persons (individuals not companies) under the edge of contracts.

It should be noted that trade liberalization means not only greater diversity and higher quality but also lower costs, due to economies of scale and experience benefits brought in by larger markets. An example is the already mentioned Narayana chain of hospitals which performs heart surgery at 800 dollars.³

As the president³ (Devi Shetty) explains in its dealings with suppliers, "the hospital group works like a large supermarket, buying expensive

Joint Ventures Between Private and Public Sectors
(example: Portugal)

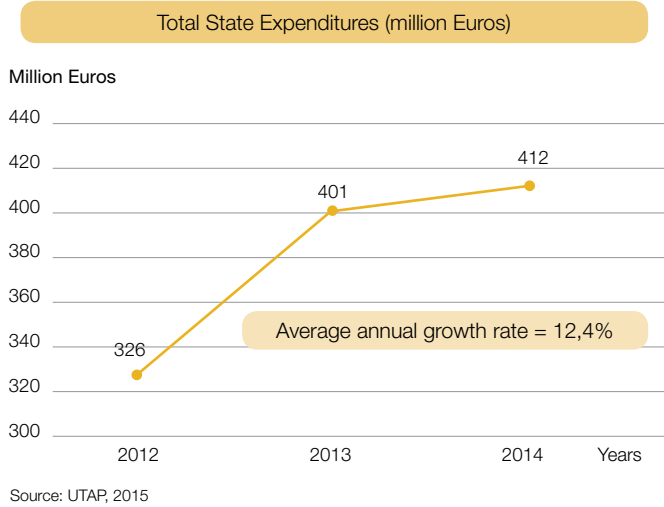


Figure 6: Joint ventures between private and public sector (example Portugal)

items such as heart valves in bulk". Then it runs the operation theatres from early morning to late at night, six days a week, as if "inspired by a low-cost airlines which keep their planes in the air as much as possible. Still each of the surgeons does up to four operations a day, whereas western counterparts might do a handful of operations a week". Only to conclude that "We realized that as you do numbers, your results get better and your cost goes down".

Global markets

Globalization is not only a much used but also *abused* term and nevertheless it has a very precise meaning, as it was first introduced by the former professor at Harvard, T. Levitt.

It means not deregulation, neither liberalization of commerce, nor the formation of economic blocks (analyzed before), nor still transnational competition (to be discussed next). But simply homogeneity across the globe. Regardless of geography, homogeneity in some market segments or niches.

Global markets stands for that across different geographic areas there is a *certain* type of client/user, which is willing to buy the *same* type of product and is responsive to the *same* type of promotion: be it advertising, using the net, or whatever (Fig. 7).

Thus, the worldwide campaigns of Vodafone (How are you?), Nescafé (I can see clearly now), or of Marlboro (with the image of a cowboy and under the slogan: come to Marlboro country).

What allows for global markets is the increasing homogeneity among users, regardless of their geographic location and that is a direct consequence of the world becoming "shorter": *as we move from my village is the world to the world is my village*. And that on its turn is a straightforward implication of lower costs and higher speed in air-travel, the improvement in communications (mobiles, skype, zoom), greater exposure to similar information (cable, net, etc.), freer trade and deregulation.

What does that mean for health? Four things.

First, the wellness tourism (a 500 billion dollars activity),²³ that is, travel associated with the pursuit or maintaining or enhancing one's personal well-being, which includes check-ups, SPA treatments, medical advice on various topics from dietary concerns to sport activities, rest in luxury outlets and a little bit of sightseeing.

The clients of wellness tourism are not sick. Rather they wish to prevent becoming so. And thus it is to be distinguished from a second aspect of globalization: attracting foreign patients on health tourism, a 100 billion dollars business, which grows at a 12% year rate.²⁴

Today, and across the world, be they generalist or specialized, hospitals such as the Herzliya Medical Center, the Portland Hospital, the Paley Institute, or the Miyata Eye Hospital, to name just a few, occupy half of their beds with foreigners who grow at rates of 5-10% per year.²⁵⁻²⁸

A third aspect of global markets is expansion abroad. Here the medical facilities "travel", not the patient comes to them.²⁹

And so it is practically impossible not to be confronted daily with such news, be it Dubai's Abraaj Group buying majority stakes in India's Care Hospitals.³⁰ or Singapore's Temasek Holdings expanding abroad.³¹

The fourth and last aspect of globalization in health is, naturally, telemedicine, a 30 billion dollars activity which having tripled since 2010,³² has several worldwide leaders such as the US based Remote Medical International or the Swiss Medgate.

Transnational competition

Organizations always had advantages of doing things internally (greater control, lower transaction costs in time and effort) and externally (using suppliers whose specialization endows them with lower costs and greater quality).

And so, some tasks get done internally and others are outsourced. However, the death of distance (due to the technological revolution), the global markets (increasing homogeneity) and the global village (a term first coined by the Canadian sociologist McLuhan) made today possible greater access to suppliers in distant geographical areas, improving the range of choices in terms of (lower) cost, (higher) quality, (more) speed and still allowing for (better) control. Consequently there is at present a *shift towards the advantages of subcontracting versus doing the things internally*.

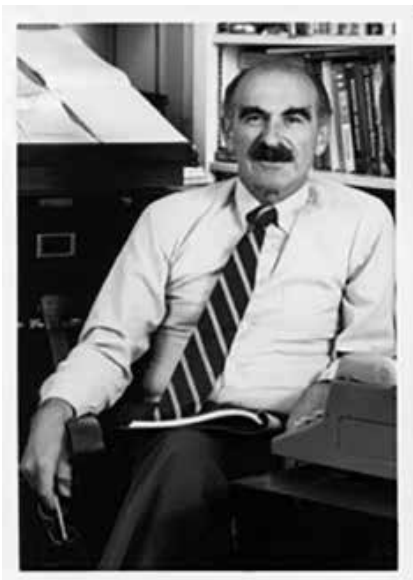
That does not mean, of course, that nothing gets done internally. But rather that many of the tasks which are not front office (in direct contact with the client/patient), but belong to back office, tend to be outsourced to specialists. *Because my back office is someone else's front office* (Peter Drucker).

And by outsourcing one has more free time to focus on what creates value to the clients, besides all other benefits of Fig. 8:

1. Cost,
2. Quality and
3. Speed, always with
4. Greater control.

Thus organizations increasingly externalize many *accessory functions* such as catering, hygiene, security, maintenance, etc.; as well as many *support* departments (finance, accounting, wage processing, information technology); and even several tasks pertaining to the *main chain value*: transportation specialists such as Luis Simões take care of everything for multinationals such as Nestlé, Procter & Gamble, etc., from getting the products out of their factories to putting them in the shelves of supermarkets and United Parcel Service manages the transportation and service (repairs) of Toshiba, HP, Nike.com, etc.

Global markets (=homogeneity)



Theodore Levitt
(Harvard)
1925-2006

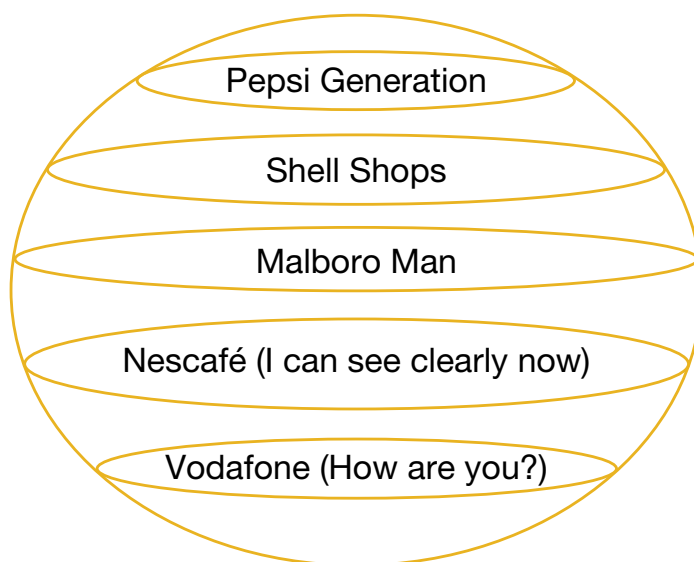


Figure 7: Global markets

Across all types of industries (hotels, automobiles, footwear, municipalities) organizations are changing from doing to doing. From manufacturing to mindfacturing, where control is less financial (ownership) and more a consequence of several types of alliances: long term contracts, consortiums, joint ventures, or commercial agreements. Simply put: they change from being federations into confederations.

And in limit they become virtual companies. Robert Ayling, e.g., former president of British Airways used to say that for an airline company there are only four critical functions:

1. Pilot;
2. Cabin crew;
3. Route planning; and
4. Marketing.

Everything else can and should be subcontracted.

In healthcare, transnational competition (geographic vertical disintegration) assumes as elsewhere the three basic forms of first subcontracting the back office, be it information technology,³³ data management,³⁴ etc.

Then some technical assistance services such as medical transcription are also increasingly outsourced (e.g. Health Scribble is an Indian based company serving American doctors in a 10 billion dollars business where 40% is subcontracted).³⁵

And finally even, some core competence areas, including hospitality services, diagnostic imaging, dialysis services, among others are also externalized. It has been reported a 30 to 60% cost decrease in these areas, besides of course, freeing the physicians and other health technicians to focus on the patient long term relation and expansion to other services.³⁶

Conclusion

Fig. 9 lists the eight major environmental trends, since the start of the millennium, and calls attention to the fact that those trends pull organizations into two opposite directions: on one hand increasing differentiation; and on the other greater focus.

The *decrease in the percentage* of clients who choose a service provider mostly based on *price*, together with *market fragmentation*, increases the range of possibilities, alternative paths, organizations may follow.

Then *mass customization (robotization)*, the *shortening of the product/service life cycle* and *deregulation* makes greater differentiation easier for companies.

But then still, *liberalization, globalization* and *transnational competition*, all incentivate focus. And so, health as any other type of organizations can now change from geographic specialization and services diversification, into geographic diversification and services specialization: attracting patients/clients of many nationalities because of excellence in a few set of specialities.

And so, in the beginning of this new millennium, organizations must confront one of four basic choices:

1. Globalize (that is specialize in *one or few* services across geographic areas);
2. Glocalize, meaning the above, but with *minor* adaptations imposed by geography;
3. Internationalize, which means to go a step further and *adapting more thoroughly to the regional, specific*, demands of geography, offering to each one a different set of services; or
4. Localize (remain local), *specializing* in geography and offering a global service.

Which path to choose, has to do with the analysis of a different set of (five) variables far beyond the scope of the present article. They are:

1. What are the organization's *strengths*?;
2. The *critical success factors* of the various activities?;
3. The *synergy* among them?;
4. The level of *competition* in various services and geographic areas?; and
5. The *attractiveness* (sales volume multiplied by direct margin multiplied by rate of growth)?

In any case, to choose correctly the path to follow is absolutely critical. As *competition* increases in the health sector, so does the *responsibility* of making the right choices. For the patients. For the shareholders. And for all stakeholders: the community; the employees; the suppliers; the distributors and even the government.

Power always goes with responsibility. And the increase in the former makes the latter ever greater. And so, and as has been said, *not to be competitive is almost being guilty*. ■

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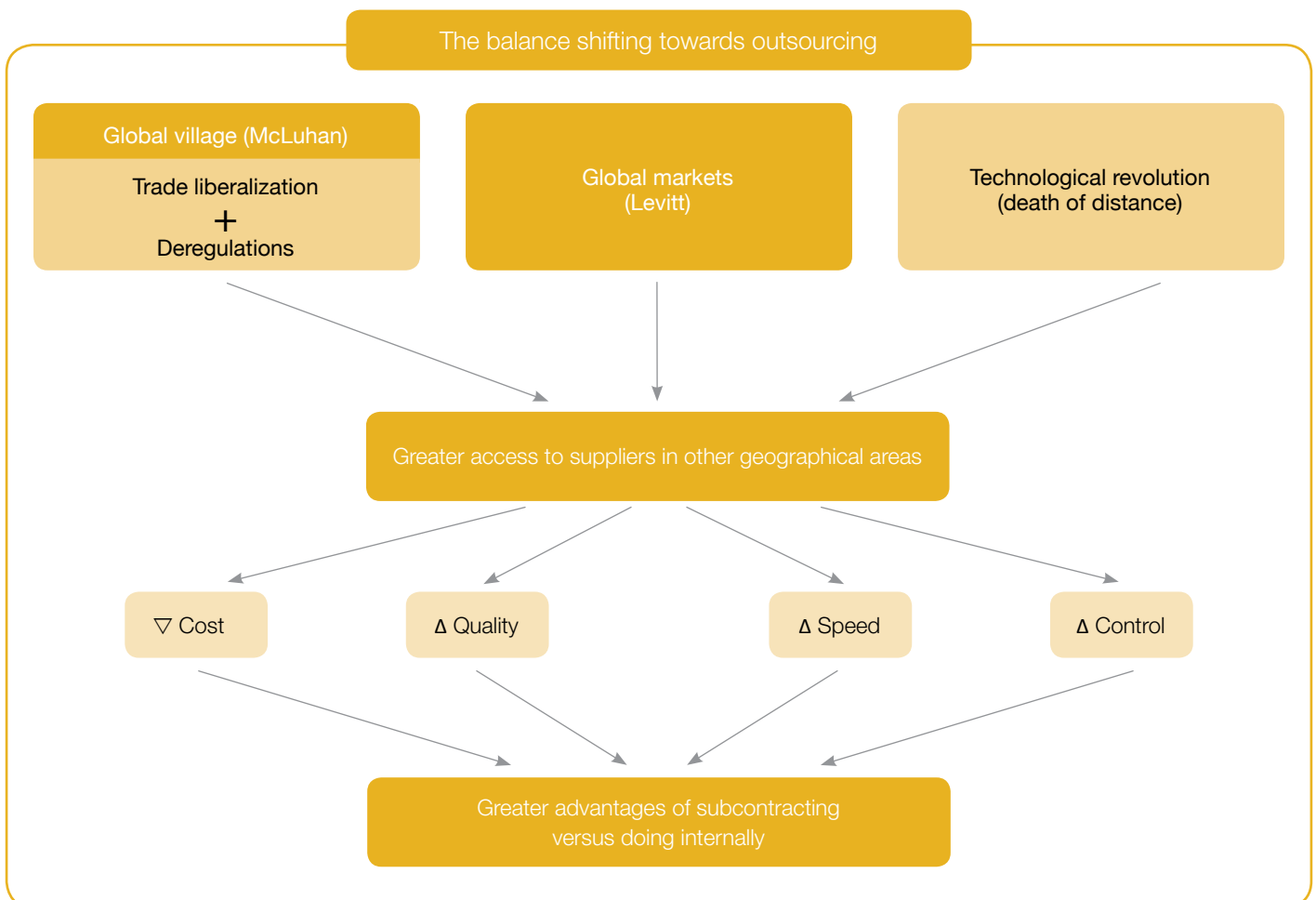


Figure 8: The balance shifting towards outsourcing

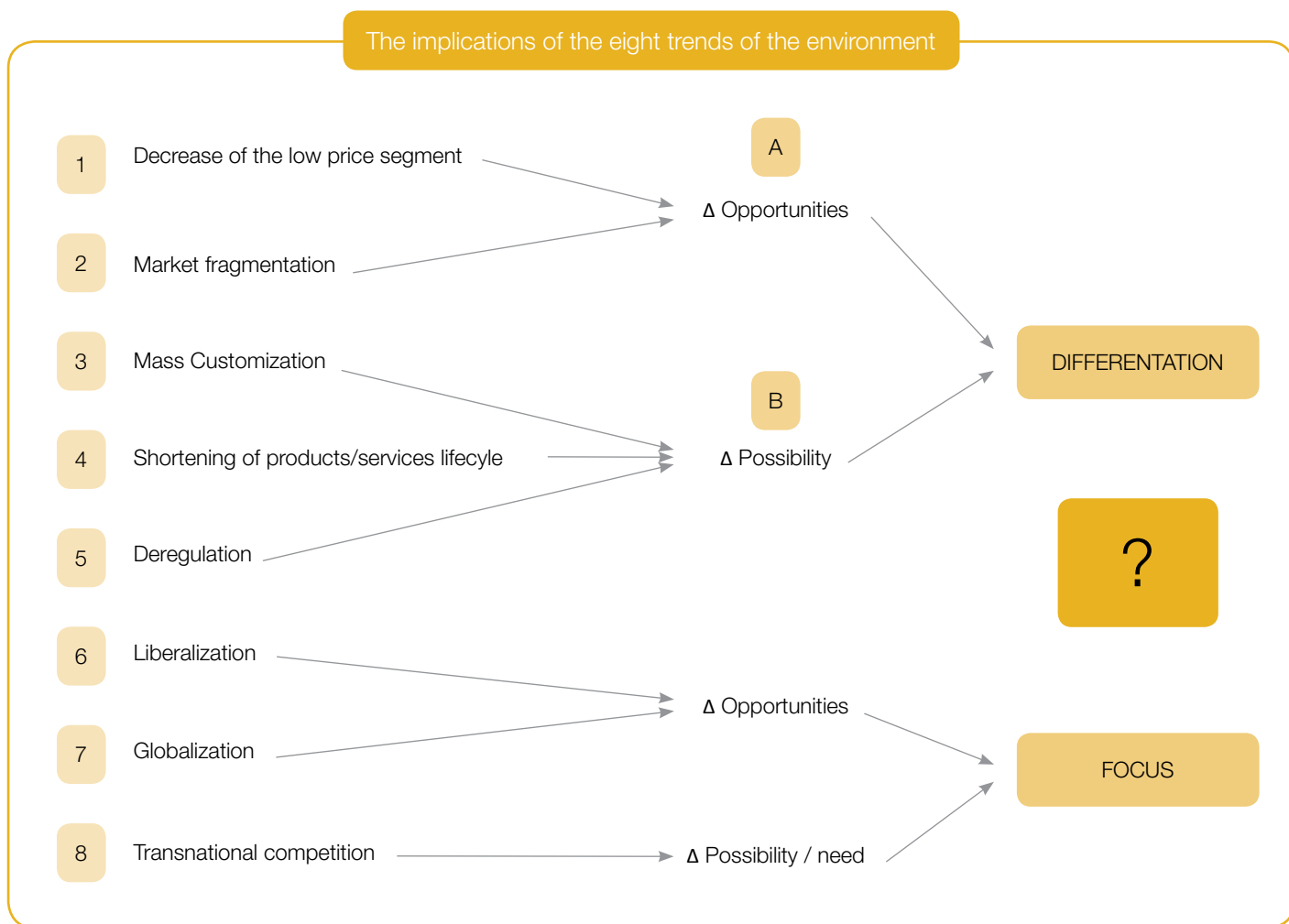


Figure 9: The implications of the eight trends of the environment

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