

TITLE: IS THE CONTRACTION OF DEMAND AN EXCUSE FOR THE LAISSEZ FAIRE HR PRACTICES AT PROFESSIONAL SERVICES COMPANIES?

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Key words: human resources planning, knowledge management, training & development, business dynamics, consulting, strategic planning systems, professional firms.

SUMMARY

Companies based on selling knowledge identify their employees as critical capital, the basis for their competitive edge. However, in periods of contraction in the demand for projects, such companies require an instrument allowing them to assess the desirability of policies to retain such professionals on their workforce or otherwise. To this end, a dynamic simulation model was employed to study possible short-term and long-term repercussions of a contraction in demand on the number of professionals required by such a firm, and to evaluate policies which could mitigate the effects of a change in sector demand. The results of the analysis allowed us to demonstrate that a relatively lower investment in training could reduce the company's capacity for future growth. We also showed that lengthening the lead times before changing the firm's objectives, following a change in demand, improved the match between the number of professionals and the demand for them, thereby improving the organization's competitiveness.

Key words: human resources planning, professional services, training & development, business dynamics, consulting, strategic planning systems, professional firms.

Introduction

Professional service companies engaged in selling the "know-how" of their employees see a direct relationship between the value of their employees and the performance of their organization in the marketplace.

The value of a professional at this type of company is generally tied to three types of factors: a) historical (the value of their technical training, knowledge acquired, experience within the sector); b) current (ability to adapt to teamwork and the demands of projects and clients, flexibility, ability to solve problems and bring others on board in the problem-solving process); c) future (ability to take on new challenges, ability to acquire new skills and motivation to continue developing professionally, among others) (Cabrera & Cabrera, 2005; Teece, 2007).

In order for professionals to develop and contribute to an increase in the market value of their organization, it is essential that the most appropriate human resources policies be devised, in accordance with demand, competition and the specific characteristics of employees themselves, to create a "human capital advantage" (Boxall, 1996, López Cabrales, Pérez-Luño and Valle Cabrera, 2009, Minbaeva, 2008). A failure to do this could not only gradually devalue the organization, but also could do so suddenly through the undesired departure of those professionals most valued by the market (Martell, K. & Carroll, S. 1995; Subramony, M., 2009). Although professionals represent the main asset of such organizations, they are non-tied assets, in that they can leave the company of their own free will (Coff, 1999). If businesses could be sure of retaining their professional staff, they could be sure of recovering their investment in such employees (Cappelli, 2007, 1999, Bayer & Gann, 2006).

This is not, however, the case, and this professional value has a price. Salary costs represent the main burden on the profit and loss account at this type of company, dictating the price of

their services and, on occasion, their market competitiveness. Moreover, the training budget at this type of company ranges between 3% and 5% of overall salary payments (FEACO, 2009).

Administration of the professional career of their employees thus constitutes a delicate strategic issue for consultancy firms. Access to fewer trained, capable professionals than required by demand at any given time will reduce the company's reputation as being in a sound position to take on new commitments. Maintaining an excessive payroll of professionals without the corresponding volume of work will prove a burden on the organization's financial results, reducing its capacity for growth (Cappelli, P. and Crocker-Hefter, A., 1996).

This problem is exacerbated by the time delay involved in employee professional development (Größler & Zock, 2009). Despite the recent increase in the level of unemployment, companies have a structural shortfall of qualified experts and professionals, making it difficult to implement projects (Kunc, M., 2008).

Hence the fact that professional service companies, in particular consultancies, have gradually moved to a "make" system for human resources (Miles and Show, 1984), with companies recruiting inexperienced staff (junior consultants), and following up with a series of accelerated professional promotion practices, and intensive investment in training. In addition, the acquisition of experience gained in developing a range of projects allows junior consultants within 2-4 years of experience to become professionals (senior consultants) in possession of know-how or intellectual capital (Bontis, Chong and Richardson, 2000), which is recognized and valued by their company and its clients.

This model demands a long-term approach to training, in order to anticipate the organization's needs and so guarantee the flow of professionals demanded by the business. To this end, one must establish a talent planning system and administer recruitment, training and career development processes through a holistic overview.

However, the global economic difficulties seen in 2009 nullified the optimistic forecasts of previous years. Although there are no official data for the sector, initial research suggests a change in strategic behavior by companies, focusing on cost reduction, in particular in the budget dedicated to the recruitment and training of human resources, and a clear focus on short-term survival, even at the cost of long-term business health (Plunkett Research, 2010).

The destiny of professional service companies is closely tied to that of their business clients. A study of 700 companies in 13 European countries during the second half of 2008 revealed that 28% of the organizations surveyed had plans to reduce their workforce during 2009. Among these, big business, the typical clients of consultancy companies, was most prepared to give in to short-term economic pressures, while SMEs were more reluctant to consider significant short-term cutbacks (PricewaterhouseCoopers, 2009).

The widespread introduction of a cost-cutting policy led to a reduction in demand for consultants not previously forecast by such companies. We must therefore analyze the short-term and long-term repercussions which a contraction in demand could have on the human resources strategy at this type of company, while also considering possible policies which would help attenuate the effect of lower demand on organizations which base their competitive edge on the value of their professional staff.

The analysis had two fundamental objectives:

- A) Analyze the effect of a contraction in demand for consultancy services on the flow of professionals at this type of organization.
- B) Analyze the consequences of a change in policy on the flow of professionals and competitiveness of the company within the sector

In order to perform this analysis a system dynamic simulation model was employed (Sterman, 2000), reflecting the behavior of the flow of consultants between *junior* and *senior* categories,

based on recruitment, selection and professional development policies generally employed by companies within the sector (Calvo, N., 2008).

The rest of this paper is structured as follows. A background section describes the main human resources policies in the management consulting sector. The next section presents an overview of the simulation model and the scenarios investigated. After that, an analysis is developed to study the effects that a contraction in demand could have on the human resources strategy of these companies, considering possible policies which would help mitigate the effect of the presented scenarios. The paper closes with a discussion of the implications of a change of HR strategy for these companies, and a proposal of future lines of research.

Background

The different organizational structures of consultancy companies are the consequence of their ongoing adaptation to the external demand for their services. Given the nature of the business, with its focus on the implementation of projects, two overriding factors define the success of companies: (1) the quality of their professionals, and (2) their ability to make the consultancy services they provide profitable (United Nations, 1993).

Applying the resource-based view of the firm theory to the field of human resources would suggest that the benefits of learning can be generated through the internal development of the organization's strategic human resources (Penrose, 1958; Mahoney and Pandiani, 1992; Amit and Shoemaker, 1993), through identifying the internal skills and management talent of its employees, and the accumulation and development of these with a view to improving the company's internal efficiency. However, the development of strategic human resources often proves difficult to manage, given the complexity of social relationships and the complementarity caused by the differing contributions of human capital, in a state of constant development (Amit and Schoemaker, 1993).

For the human resources department at an organization to make an effective contribution to increasing the company's competitiveness, two conditions must apply: first, the organization must incorporate the necessary human skills to implement the strategy defined (Wright, McMahan, McCormick and Sherman, 1998), and secondly, it must guarantee that human resources programs and practices operate properly, in order effectively to implement the strategy (Wright and McMahan, 1992).

The definition of human resources practices as routines is seen as a dynamic capability of the organization (Teece, Pisano and Shuen, 1997), in that it defines its ability to understand, adapt, change and renew itself over time. Systems dynamics is capable of representing how employees flow through different organizational stages, according to hierarchical and training levels (Größler, A. & Zock, A., 2009), defined in this case as non-experienced junior, experienced junior, junior to be promoted and senior.

A thoroughgoing analysis of the sector, combined with a survey of senior managers at a number of consultancy firms, allowed us to identify important insights that were gathered as relevant factors in the management of professionals at consultancies:

- The existence of a project-based working system, requiring a flexible balance at all times between the external demands of clients and the supply of skilled professionals.
- The need to invest a greater quantity of resources than in other sectors in the recruitment and professional development of consultants, with the aim of accelerating the process of creating intellectual capital.
- The difficulty of maintaining the intellectual capital stored up in experienced (senior) consultants, given the increasing employability and high levels of expectation amongst such professionals.
- The high rates of voluntary departure during periods when demand stagnates, of trained junior consultants who have not been promoted.

- The internal difficulties generated where the demand for consultancy services is greater than the supply of qualified consultants in the organization, forcing companies to take on experienced professionals from the outside market, rather than promoting junior consultants internally.
- The influence exerted by the reputation of a consultancy company as a "knowledge organization" in the human resources practices of the organization, both in recruitment and selection and in the rate of departure of its professionals, and consequently the competitiveness of the company within the sector.

Once the most significant factors had been isolated, a series of policies was drawn up, based on a consensus with the experts consulted, defining the decision-making rules which govern the behavior of the model:

1. A consultancy's demand for projects is determined by external market factors (sector demand) and factors which determine the competitive edge of the organization within the sector (competitiveness of the company).
2. The process of recruiting consultants covers a time period from the point at which vacancies are generated until the point when the chosen candidate begins work.
3. The *make* human resources system (Miles and Show, 1984), most frequently used at management consultancy companies involves prioritizing internal promotion over the external hiring of experienced professionals.
4. The process of the professional development of junior consultants takes time, generally lasting between two and five years.
5. The promotion of junior consultants to senior category depends both on the existence of junior consultants available for promotion¹ and on the existence of vacancies at senior level.

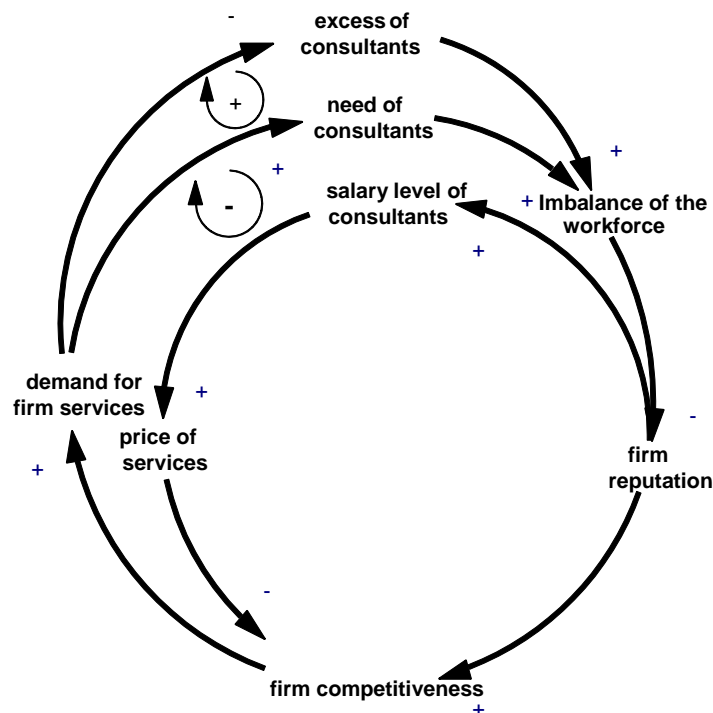
¹ The *junior promotion candidate subcategory* is confined to those consultants who have already acquired sufficient knowledge and experience in order to take on the functions and responsibilities of the higher (senior) category, but have not yet been formally promoted by the company.

6. The number of consultants leaving the company is influenced by such wide-ranging factors as its reputation, the relative salary level of the firm compared to others and excess workload.
7. The number of consultants made redundant is determined by the extent of an excess workforce compared with the demand for projects.

Model description & validation

Having isolated the most significant factors and policies, we undertook a causal analysis to explain graphically the relationship between the key variables, allowing for a more thorough understanding of how it functions, thereby serving as a baseline in devising a simulation model.

Figure 1. Causal diagram



This diagram reflects the overall issues faced by consultancy firms in managing the flow of professional staff. A growth in demand will increase the need for qualified consultants to

deliver the projects contracted, leading to a growing difference between the desired workforce and the existing workforce². A shortfall of the workforce is seen as one of the factors most negatively influencing the reputation of the company as a "knowledge organization", since it reflects a lack of sufficient intellectual capacity. In accordance with the opinion garnered from experts, the reputation of a consultancy firm is essentially conditioned by three factors: (1) the level of knowledge in place at the organization with regard to the sector, (2) the company's experience in the resolution of problems, and (3) any shortfall between the workforce and demand. A reduction in the organization's reputation will reduce the competitiveness of the company and hence the future demand for its services. As a result, an initial growth in demand will tend to fall, returning to a balanced situation (negative loop).

Meanwhile, a reduction in the demand for the company's services will lead to a drop in any workforce shortfall, increasing the company's reputation, and raising its competitiveness. This will lead to a future growth in the demand for the services of the organization relative to the market (positive loop).

The reputation of a company within the consultancy sector is the variable which, to the largest extent, determines the salary level of its consultants. Bearing in mind that salary costs represent the main component in the pricing of its services (United Nations, 1993), rising salaries will increase these prices, which has a negative influence on the company's competitiveness.

Having analyzed the situation through a conceptual understanding, we developed a dynamic simulation model capable of representing the impact of the policies at such organizations on their flow of professionals.

² Based on a balance point at which desired workforce = actual workforce.

The model simulates the flow of professionals at a consultancy, as a result of the HR policies most often employed, regarding recruitment and selection, professional development, promotion and the departure of professionals.

The factors identified as the most significant influences on decisions regarding the recruitment and selection of consultants were the percentage distribution of the workforce in terms of junior and senior categories, which will determine the level of intellectual capital offered by the company, and the choice of a make system of human resources (Miles and Show, 1984) rather than external hiring of experienced staff.

A distinction was made between the professional development of junior consultants and their promotion to senior consultant. Although it is often assumed that professional development is generally accompanied by promotion, the reality of the organizations consulted does not always guarantee this second part of the process. The average time required for a junior consultant without experience to acquire the necessary skills in order to perform the functions of the senior category varies between 2 and 5 years. However, this promotion will only take place if senior vacancies exist, which does not always coincide with the development flow of the professionals.

As for the departure of professionals, the outgoing flow of junior and senior consultants is the sum of the redundancies made in each category and the voluntary departures of consultants.

The figure for consultant redundancies will be the result of the company's decision to adjust its actual workforce to the number of consultants required.

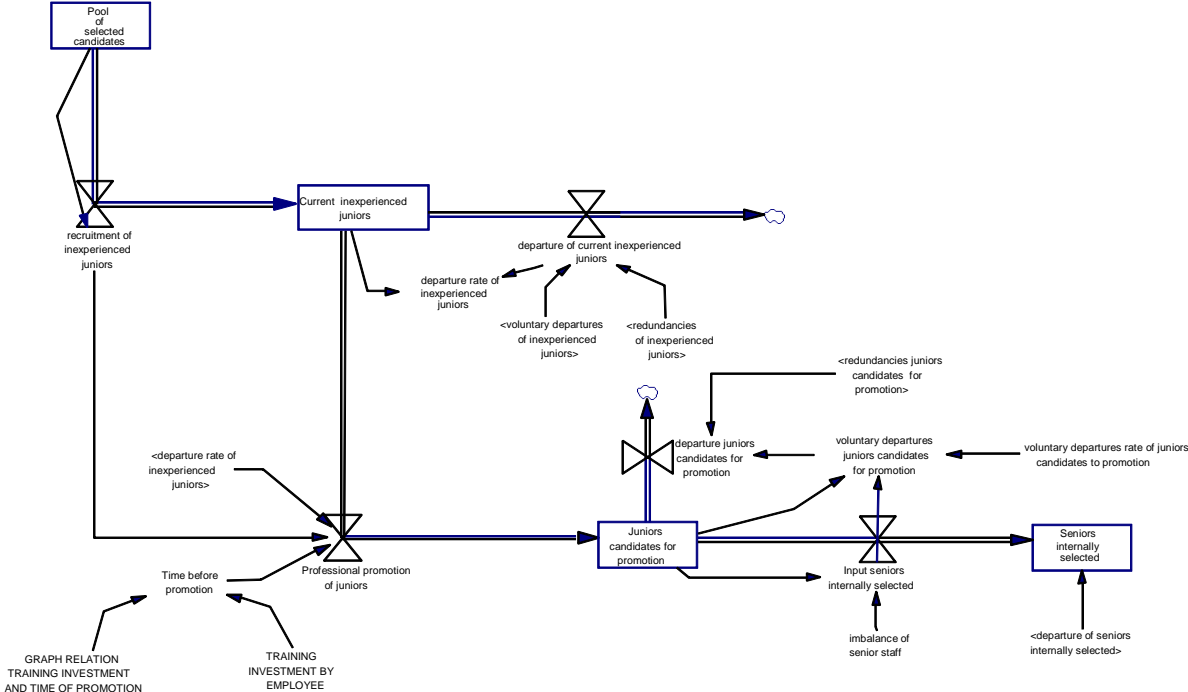
The flow of departures from the sub-category of junior consultant candidates for promotion, as well as being conditioned by the factors considered above, will also be influenced by the rate of promotions relative to the number of existing candidates. The greater the number of promotions, the lower the tendency of this category to depart.

Finally, with regard to the flow of demand for consultants, consultancy firms plan the number of consultants required in accordance with their demand forecast. The percentage allocation between junior and senior categories will be determined by the "knowledge organization" policy which each firm chooses. Despite the fact that overall demand in the sector is an external variable, clients may register a greater demand for projects from certain firms within the sector, rather than considering all organizations on an equal basis.

The company competitiveness variable explains the market share held by the company, and this determines its demand for consultants. Competitiveness is calculated using the service price and company reputation factors, bearing in mind that these have opposite effects on demand.

Perception of the number of junior and senior consultants required, in accordance with the percentage allocation established by the company, will then activate its consultant recruitment processes, promotion rate and redundancy flows.

Figure 2. Simplified structure of the model



To validate the model we used as reference the historical data related to the flow of consultants, obtained from the Cap Gemini consulting firm (1998-2005).

We used the module developed by Oliva (1995), based on the work of Sterman (1984). Oliva (1995) proposes model calibration –the process of estimating model parameters (structure) to obtain a match between observed and simulated structures and behaviors as a form of model testing. The mean square error (MSE) between simulated and actual series is decomposed into three components (Theil, 1966):

$$U^M = (\hat{S} - \bar{A})^2 / \text{MSE (I)}$$

$$U^S = (SS - SA)^2 / \text{MSE (II)}$$

$$U^C = 2(1 - r) SS SA / \text{MSE (III)}$$

Table 1. Statistical Test

n (months)	95
correlation coefficient R²	0.93081
Mean squared error (MSE)³	0.04445
Bias (U^M)	0.14400
Unequal variation (U^S)	0.00723
Unequal covariation (U^C)	0.84878

This statistical analysis let us verify how the model was able to replicate the behavior of the variables we wanted to study, so it can be used to test policy options under different scenarios.

Model analysis

Description of scenarios and definition of policies

The baseline scenario considered was one of STEADY GROWTH. In response to a mild growth of demand from clients, a strategy of higher investments in training and continuous internal promotions allowed a good adjustment of the number of consultants to match demand. During the last decade, this strategy has enabled successful companies in the

³ MSE = 1/n Σ |(S_t - A_t) / A_t|

consulting sector to maintain their competitive advantage, based on selling the knowledge of their professionals (Calvo, N., 2009).

Starting from the scenario at STEADY GROWTH, four behaviors of contraction in demand were defined for analysis, each with its own impact on the number of consultants needed by the firm (see Figure 3):

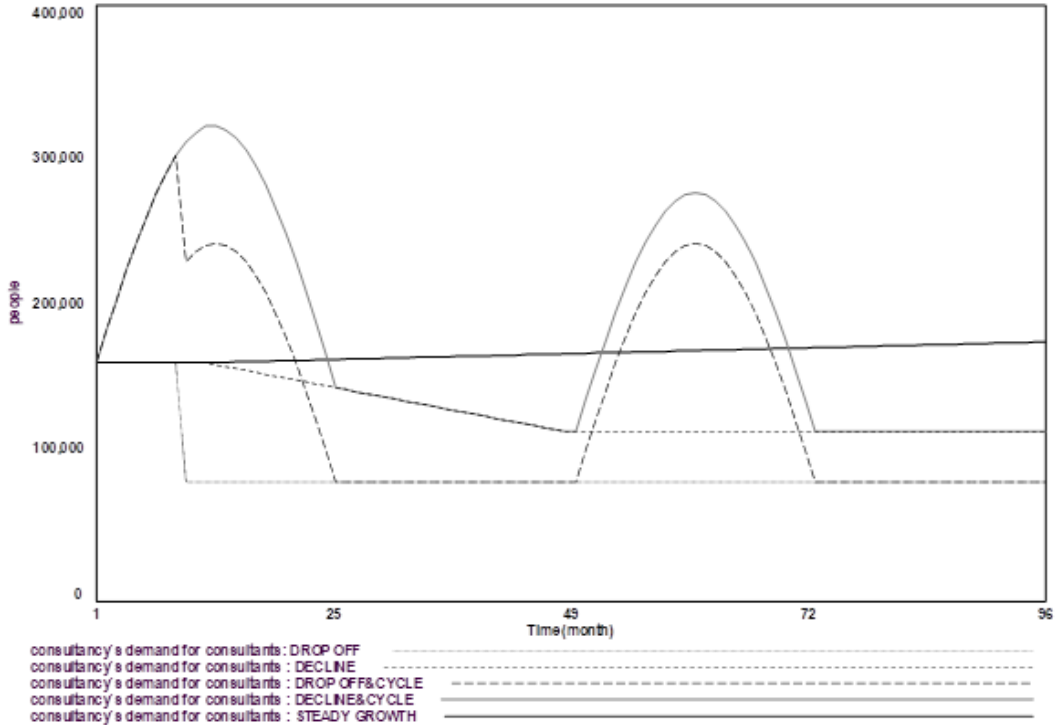
DROP-OFF IN DEMAND: an abrupt contraction in sector demand in the short term, with a constant reduced level maintained in the medium term.

DECLINE IN DEMAND: gradual and sustained contraction in sector demand in the short and medium terms.

DEMAND DROP-OFF/CYCLE: combination of an initial drop with cyclical resurgences in the sector demand.

DEMAND DECLINE/CYCLE: combination of a gradual decrease with a scenario of cyclical resurgences in the sector demand.

Figure 3. Consultancy's requirement for consultants



Having considered general policies and factors in the Background section, we specified three aspects of the BASELINE POLICY:

Organizational swiftness: the organization will react immediately to scenario changes, changing objectives and acting immediately, leaving no margin for prudence, with the aim of reacting before its competitors.

Make system for human resources: the promotion of employees within the organization is prioritized over the outside recruitment of senior consultants.

Investment in training: commitment to a level of investment in training higher than the average for the sector.

After applying the demand contraction scenarios with the baseline policy, we observed significant differences in the behavior of the flow of consultants with respect to the steady growth scenario.

Figure 4. Number of junior consultants

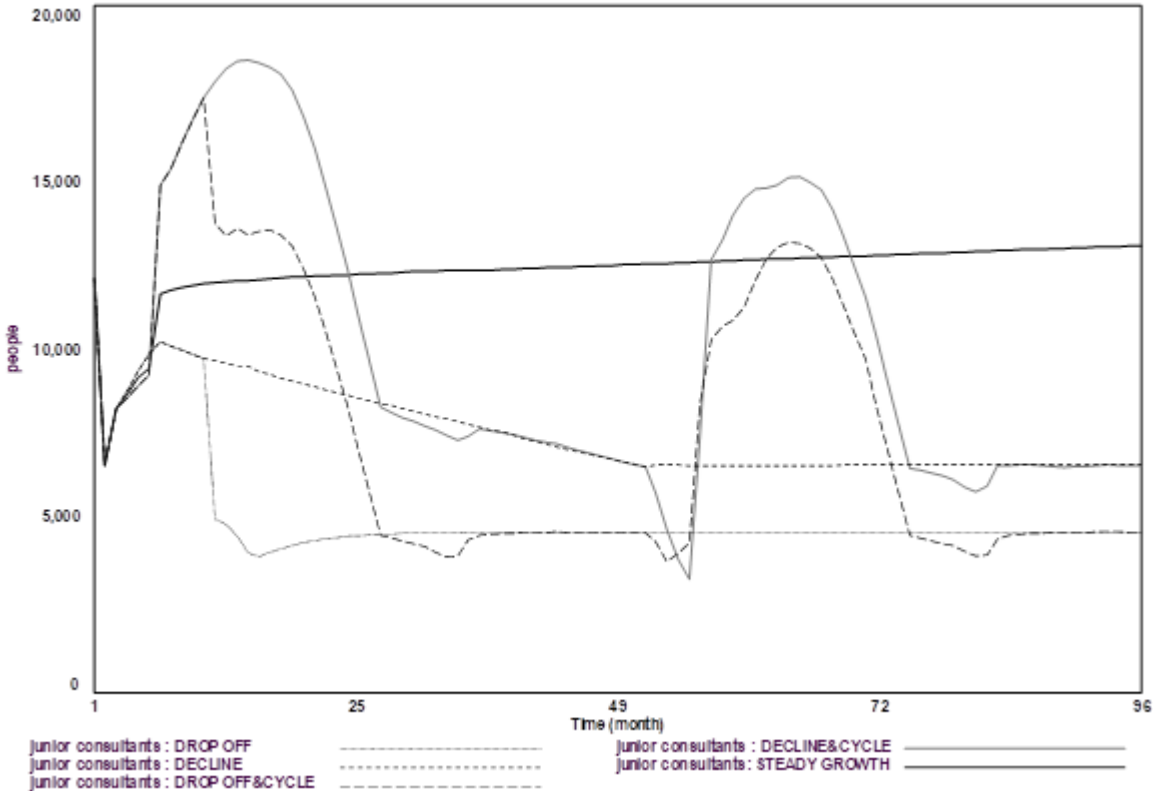
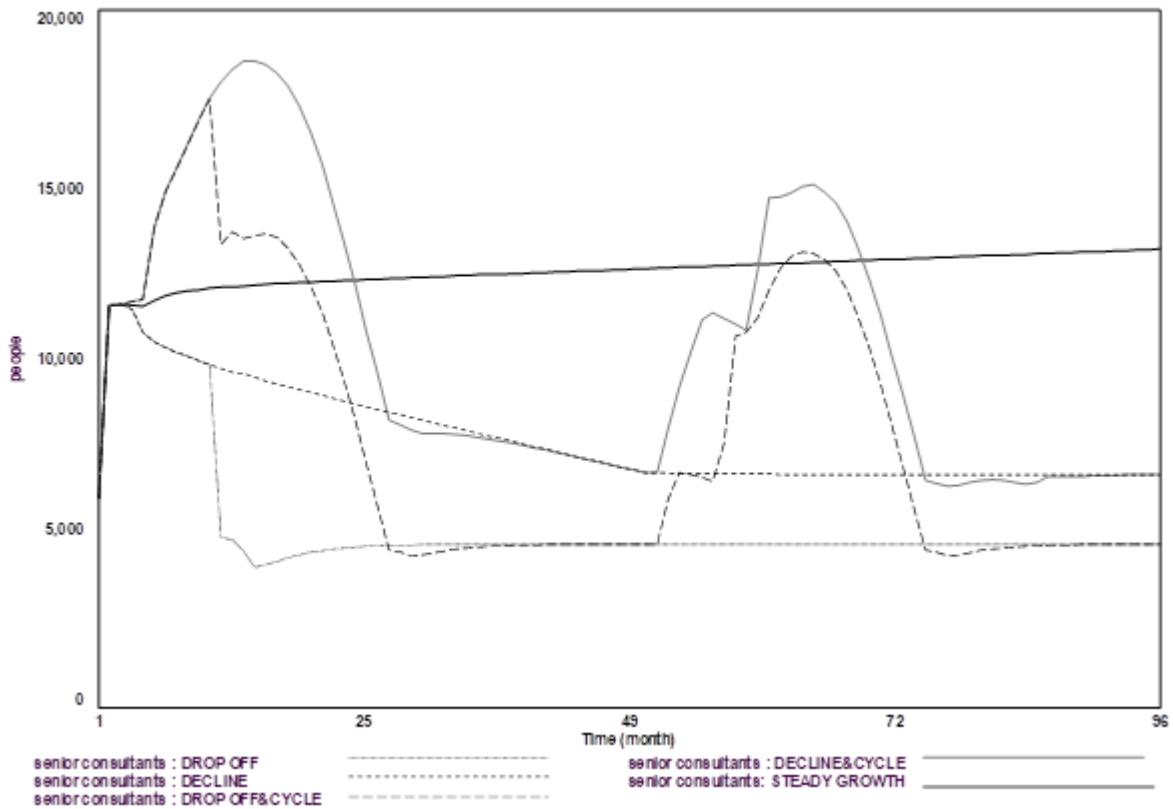


Figure 5. Number of senior consultants



As may be seen in Figures 4 and 5, both the sudden drop-off and the gradual decrease in the sector demand reduce the number of junior and senior consultants to such low levels that this does not allow the workforce to recover to growing levels in the future, not even in the event of cyclical resurgences in sector demand. The short-term intellectual decapitalization of the company leads to a lack of credibility with clients, in turn leading to a decline in demand for its services.

The behavior of the flow of consultants, however, differs between the sudden drop-off and gradual decline in demand scenarios (see Figures 6 and 7).

Figure 6. Departures of inexperienced junior consultants

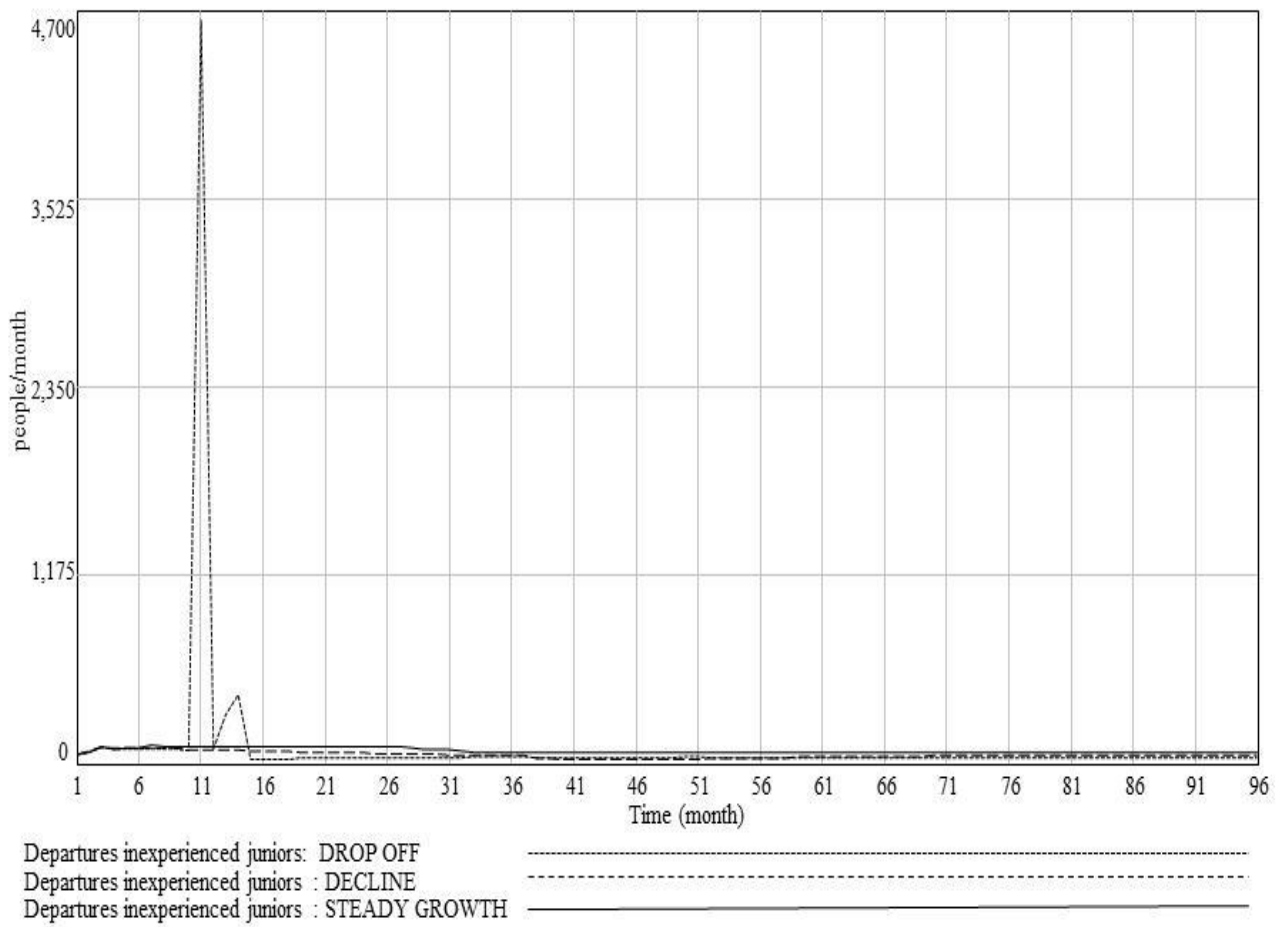
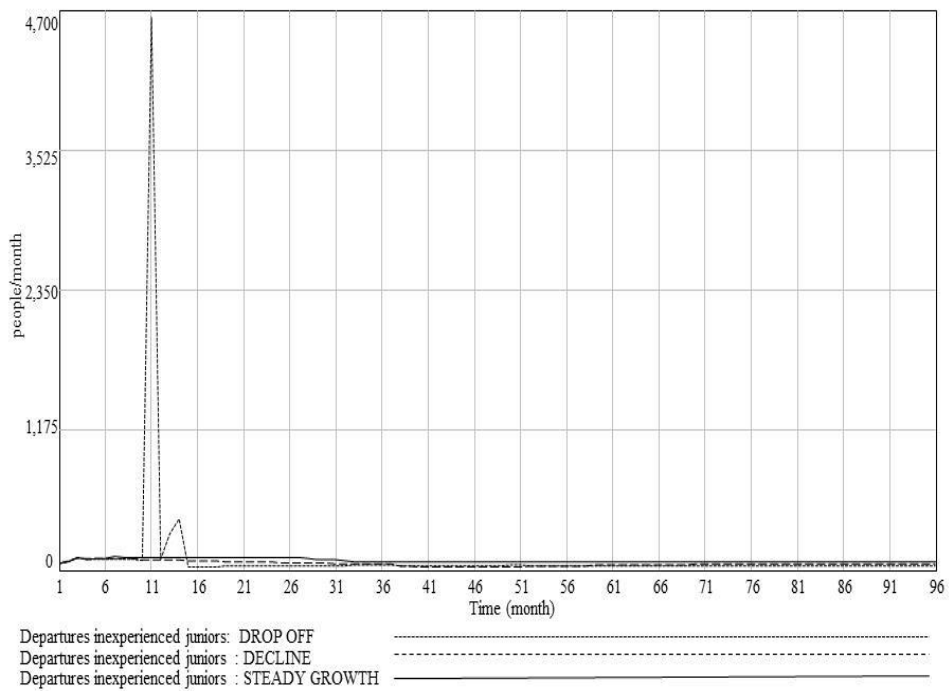


Figure 7. Departures of junior promotion candidate consultants



A progressive decrease in the demand from clients does not significantly impact on the departure of junior consultants during their initial years at the company, but rather departure is seen above all among junior promotion candidate consultants, who probably represent the organization's most profitable professionals. It is they who possess the knowledge and skills to handle the implementation of projects, while maintaining lower salary levels in accordance with their level of skills. Traditionally, in growing scenarios, consulting firms have solved this problem by matching the professional development of such employees to their promotion. If this is not fulfilled, as can happen in a decline scenario, there will be an increase in the departure of junior promotion candidate consultants. When they are lost, the company does not recover its investment in their training, while competitors have the opportunity to exploit this, thereby reducing the firm's competitive edge.

However, a sudden drop-off in the sector demand for consultants does lead to faster departure of inexperienced junior consultants, which makes it impossible to generate a pool of experienced consultants who can be promoted. If growth resumes (cycle scenarios), this situation will force the company to turn to the market for recruitment of senior consultants. The time-lag in filling senior consultant vacancies can reduce the company's knowledge base, along with its capability to the projects, making it less attractive to the market (see Figure 8).

Figure 8. Senior consultants internally promoted

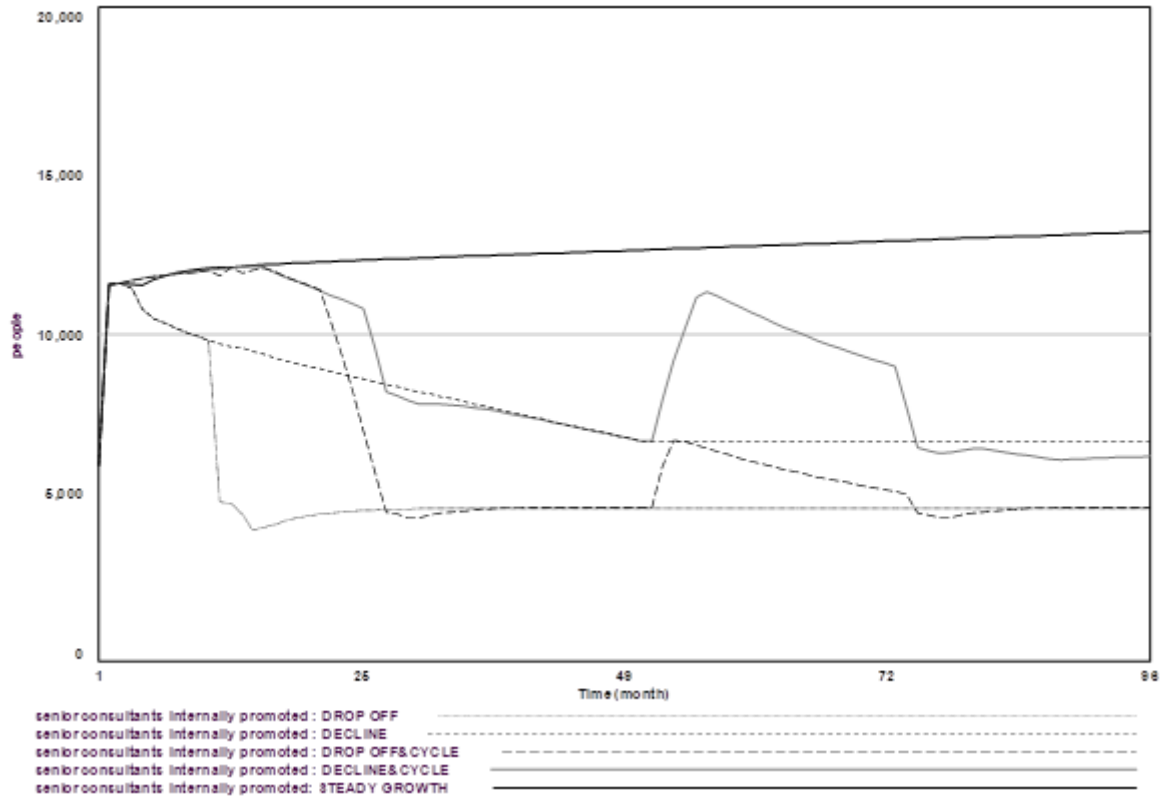
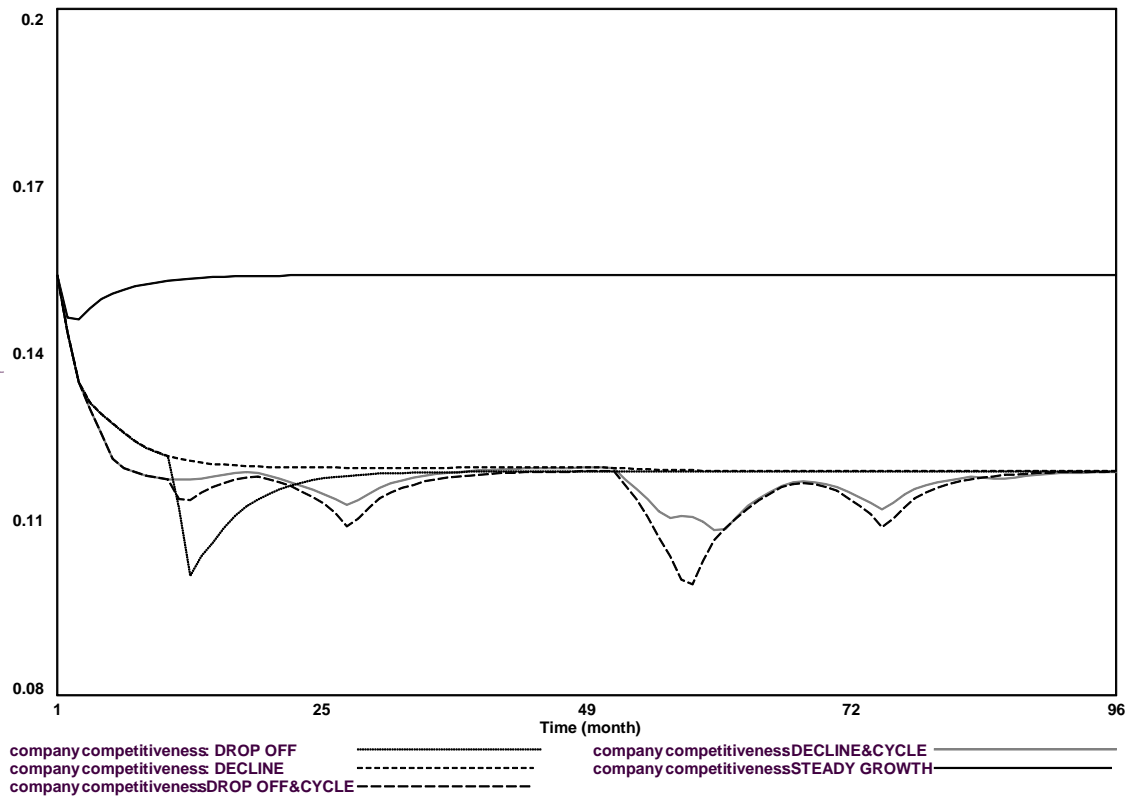


Figure 9. Company competitiveness



As a result of the analysis of the scenarios for contraction in sector demand, we may state that a reduction in demand leads to imbalance in the number of consultants between junior and senior categories, which may reduce the capacity of the company to deal with short-term recoveries in demand.

Analysis of alternative policies.

An analysis of the demand contraction scenarios, employing the baseline policy, reflects a short-term situation far from desirable for consultancy organizations. If such companies wish to continue basing their competitive edge on the value of their professionals, they must modify certain policies. In particular, their policies should recognize the delays between

taking actions and realizing their full consequences, if they are to better manage the organizational consequences of a demand contraction (Rahamandad et al., 2009).

In order to test the impact of such a change, the effects of applying two types of policy to each of the proposed scenarios were analyzed:

Aggressive Policy

Organizational flexibility: highly sensitive changes to objectives and decisions. As in the baseline policy, the organization will react immediately to scenario changes, changing its objectives and immediately implementing actions.

Investment in training: similar to the sector average. The organization is no longer aiming to stand out from its competitors through greater efforts dedicated to professional training and development. A contraction in sector demand does not allow for generation of the senior vacancies foreseen by the company, which may frustrate junior promotion candidate consultants. A level of investment in training similar to the sector average allows the professional development time of these employees to be matched to that of the competition, thereby preventing better-trained professionals from leaving the organization for competitors through a lack of short-term promotion prospects. By reducing the relative level of investment in training, the period for promotion from junior to senior consultant is lengthened, thereby avoiding the build-up of a stock of junior promotion candidate consultants with no genuine chance of advancement.

Prudent Policy

Organizational flexibility: limited sensitivity changes to objectives, but highly sensitive changes to decisions. The organization will delay its reaction to changes in sector demand, but will rapidly implement decisions taken internally.

Investment in training: as under the previous policy, a level of investment in training per employee similar to the sector average is maintained.

Table 2. Policies reflecting varied sensitivity of objectives and decisions to demand

Adjustment and Average time (ADT, AVT) /Policies	Aggressive (month)	Prudent (month)
ADT recruitment non experienced juniors	1	1
ADT selection non experienced juniors	1	1
ADT redundancies manag. juniors	1	1
ADT hiring internal seniors	1	1
ADT recruitment seniors	1	1
ADT selection seniors	1	1
ADT redundancies man. internal seniors	1	1
ADT redundancies man. external seniors	1	1
AVT hiring juniors	1	4
AVT selection non experienced juniors	1	2
AVT selection seniors	1	4
AVT staff adjustment	1	4
AVT prof. development juniors	1	2
AVT promotion internal seniors	1	2
AVT overwork management juniors	1	4
AVT overwork management seniors	1	4
AVT demand adjustment	1	4

These parameter choices reflect, on the one hand, the current discussion at senior management level as to the desirability or otherwise of waiting before reacting to negative economic forecasts, and on the other, the existence of real actions at this type of company to freeze training budgets and not compete by offering consultants a more accelerated professional development. The basis of this policy lies in the fear of taking on board intellectual capital greater than required, and an attempt to slow down the professional careers of consultants with the aim of not frustrating their prospects for advancement if sufficient vacancies do not exist.

Once this change in policy has been applied to the demand contraction scenarios, we find a change in the flow of consultants.

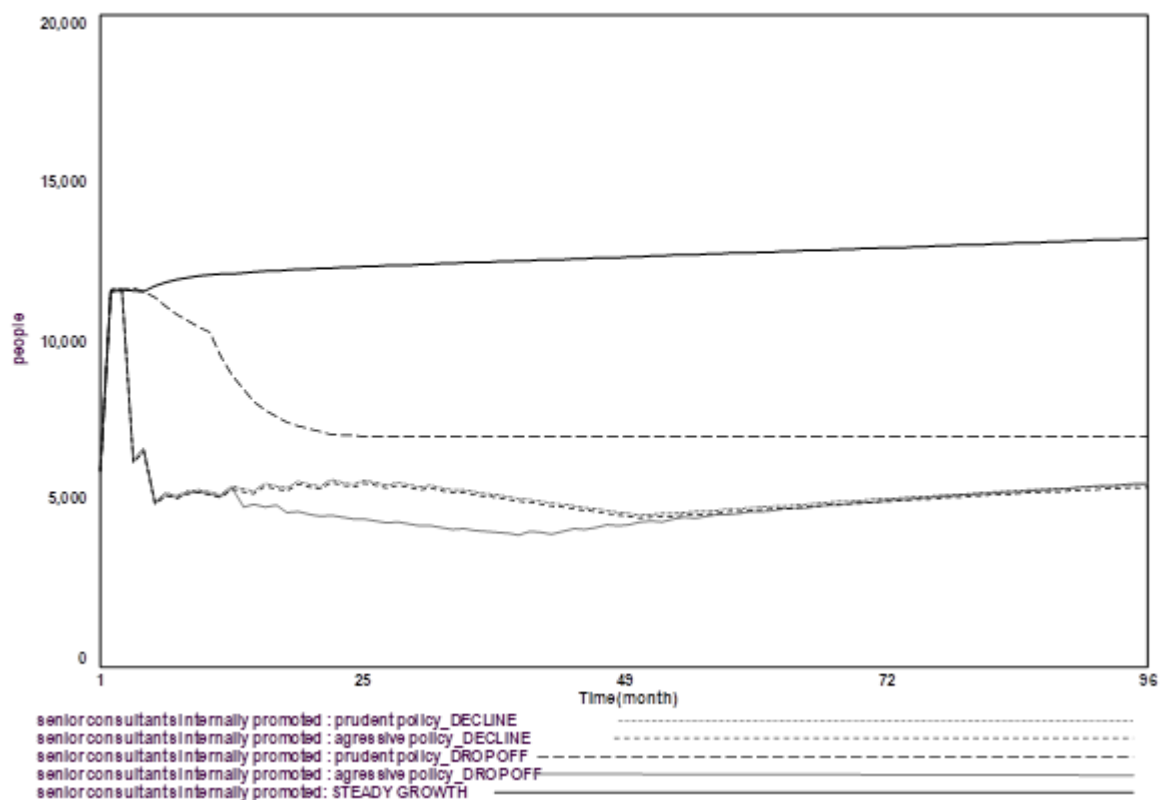
Demand Drop-off Scenario

In a scenario of an abrupt drop in sector demand for consultants, a prudent policy will allow the organization a certain waiting time before taking decisions to adjust the flow of consultants to the shift in demand. This delay allows the flow of consultants to adapt to the changing number of senior vacancies, avoiding the need for the company to turn to external hiring of seniors to solve the absence of sufficient in-house candidates.

Declining Demand Scenario

In the case of a gradual decrease in demand, the downturn in the number of consultants also occurs more slowly, although the final level for both scenarios is similar in the medium term.

Figure 10. Senior consultants internally promoted

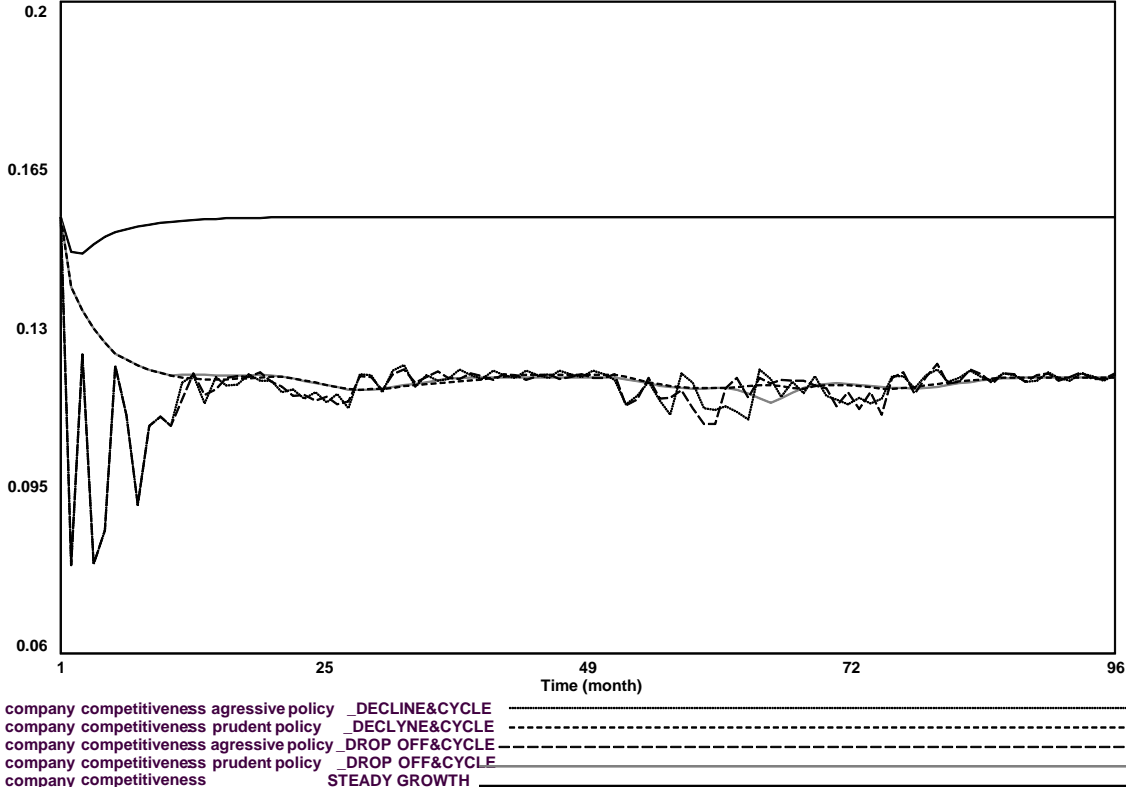


Cyclical Demand & Steady Growth Scenarios

Lastly, applying the alternative policies to two scenarios, combining an initial drop-off or gradual decline in demand with subsequent cyclical behavior (Demand Drop-off and Demand

Decline/Cycle), leads to a decline in the company's competitiveness and a loss of market share.

Figure 11. Company competitiveness



Discussion

By way of conclusion, we find that policies of reduced investment in training cut down a consulting firm's capacity for future growth. A contraction in demand should not justify a change in professional development policy at companies which base their competitive edge on the knowledge and experience of their professionals.

Secondly, in responding to a change in demand, prudence in the form of longer lead times when adapting to such a change can improve the match between the number and experience

of professionals and demand for their services, improving the organization's competitiveness in comparison with those competitors reacting immediately to market conditions.

Finally, the future extension of this analysis for intensive knowledge companies (policies comparison and evaluation of economic consequences in the consultancy sector) will allow development of the system dynamic methodology as a useful instrument in support of executive decision-making in the field of strategic human resources management.

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