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# TRENDS IN EMPLOYMENT AND HRM PRACTICES: THE INFLUENCE OF NEW TECHNOLOGIES

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# FRAMEWORK

- **The adoption of new technologies and/or the increase of automation has led to a reduction of jobs in more traditional fields and to the emergence of new professional jobs.**
- **Technological changes, automatization and robotics require less labour but more qualified labour (Ali et al, 2014), and they contribute to the extinction of a considerable number of job posts.**
- **This is one of the reasons (not the only) that in Portugal the unemployment rate was less than 4%, in 2001, rising to values higher than 16% after 2010 (Centeno, 2013). And, lately there are very mild signs that show that unemployment is regressing.**

# FRAMEWORK

- **In smaller firms that depend upon intense and low paid labour the appeal of new technologies could have both positive and negative consequences. Positive, because they could eventually gain more “profit” if they modernised the companies because it would enable them to produce more in less time with less people. Negative, because it would lead to unemployment of these workers (loss of job posts), as well as to the vulnerability of these companies for not investing in qualified labour .**
- **Nowadays, the decrease in non-qualified labour needs has been counterbalanced by the increase in needs for qualified labour to conceive and manage the new equipment. The readjustment of HRM practices that has been happening in bigger companies is in part a result of automation.**

# FRAMEWORK

- New instruments that facilitate human resource management were developed (Ali et al, 2014) and monitoring is then changed to frameworks that are adapted to the organizations' new reality.
- Small to medium companies often cannot access the instruments to face the new reality. Even though they are still the organizations that generate more jobs (Ali et al, 2014) they lack critical mass, capacity for effective planning and defining strategies of work sustainability.
- Even though little information is available regarding human resources management in SME in Portugal, some recent studies note that  $\frac{2}{3}$  do not do human resources planning - though most of them develop some practices in what comes to recruitment and selection (Melo and Machado, 2014).
- Most HRM practices in SME are informal, and training is mostly on-the-job with little planning and training evaluation.

# METHODOLOGY

- In order to accomplish our aim we analysed the following:
- Macro perspective: the projections by the National Statistics Institute between the period of 2012 and 2027 (Instituto Nacional de Estadística, 2014) which predict 3 cenarios:
  1. the high scenario assumes an optimistic evolution for fertility, mortality and migrations. This means moderate increase in birth, increase in life expectancy and positive net migration with higher immigrants than emigrants;
  2. the central scenario assumes that birth rate increases more modestly, life expectancy increases slightly and net migration is again positive;
  3. the low scenario assumes that fertility rate are similar to the current ones (1.3 per woman), mortality is line with present values and net migrations also similar to the negative net migration rates that are currently seen.

# METHODOLOGY

- Micro perspective: multiple case study research.

<b>Variables</b>	<b>Dimensions</b>
<b>1. Organizational Factors</b>	<b>Activity; History; Structure; Culture; Production Process; Work Organization; HR Characteristics</b>
<b>2. HRM function</b>	<b>HR Department's position in organizational structure; Role of HR Manager; Competencies and skills of HR professionals;</b>
<b>3. HRM practices</b>	<b>Reception or Organizational entry; R&amp;S; Performance Assessment; Career Management; Innovative work practices (existence and level of formalization &amp; process)</b>

# METHODOLOGY

- **Micro perspective: multiple case study research.**
  - **Interviews (HRD); questionnaires to workers; documental analysis and observation.**
  - **Qualitative and quantitative analysis (descriptive statistics)**
  - **Technology and knowledge-intensive firms**

# RESULTS

- **From a macro perspective the labour market is under two distinct pressures:**
  - the reduction of job posts;
  - the increase in population aging and the decreased number of births makes the workers hard to replace.
- **The tendency has been to increase retirement age for the sake of sustainability. This is tightly connected to the increase in life expectancy, the diminishing active population and the lack of labour that replaces the ones who leave the job market. In addition, youth available to take up free spaces in the job market and replace those who are retiring are insufficient in number.**
- **This tendency is predicted to worsen over the next years being that they are a reflection of the births of the last five years of the 20th century.**
- **In Portugal, considering the data from the National Statistics Institute between the period of 2012 and 2027 predicting a high, a central and a low scenario (Instituto Nacional de Estatística, 2014) , there will be a high decrease of the current unemployment rates and an increase in difficulty in finding labour. This can lead to individuals to stay in the job market longer and an increase in work costs.**

# RESULTS

Cases	Case 1	Case 2	Case 3	Case 4	Case 5
<b>Type/Activity</b>	Family firm (production of molds)	Japanese (production of components)	German (transports and logistics)	Portuguese (software production)	Portuguese - global (software production)
<b>Work Organization</b>	Individual (machinery)	Lean (assembly line; individualized)/ just-in-time	Lean (team work)/ just-in-time	Autonomous work groups	Autonomous work groups – use of “agile methodologies” SCRUM”
<b>Human Resources</b>	Predominantly male; high and elementary school level; permanent contract	Predominantly female; elementary school level; permanent contract	Predominantly male;Elementary school level; permanent contract	Predominantly male;university graduates; temporary	Predominantly male;university graduates; permanent contract
<b>HRM model (Pichault &amp;Schoenaers, 2003)</b>	Arbitrary model	Codifying model	Codifying model	Value Model	Value Model
<b>Conceptualization of Human Capital (Lepak &amp; Snell, 1999)</b>	Development	Contract	Contract	Aquisition	Aquisition

# FINAL CONSIDERATIONS

- Demographic data (projections) show a tendency to reduce job posts, but on the other hand, the demographic pressure makes the workers hard to replace, which has reflections in the employment/unemployment rate.
- At an organisational level most practices are adopted by institutional isomorphism (DiMaggio and Powell, 1983). Legal requirements and Quality certification play an important role in the adoption of more advanced HRM practices.
- Practices are shaped by both external and internal factors, namely sector of activity and type of firm, however there is an overall tendency to adopt more flexible organisational structures combined with more advanced in HRM practices-