



# People Analytics

How organisations operating in Greece use HRM data

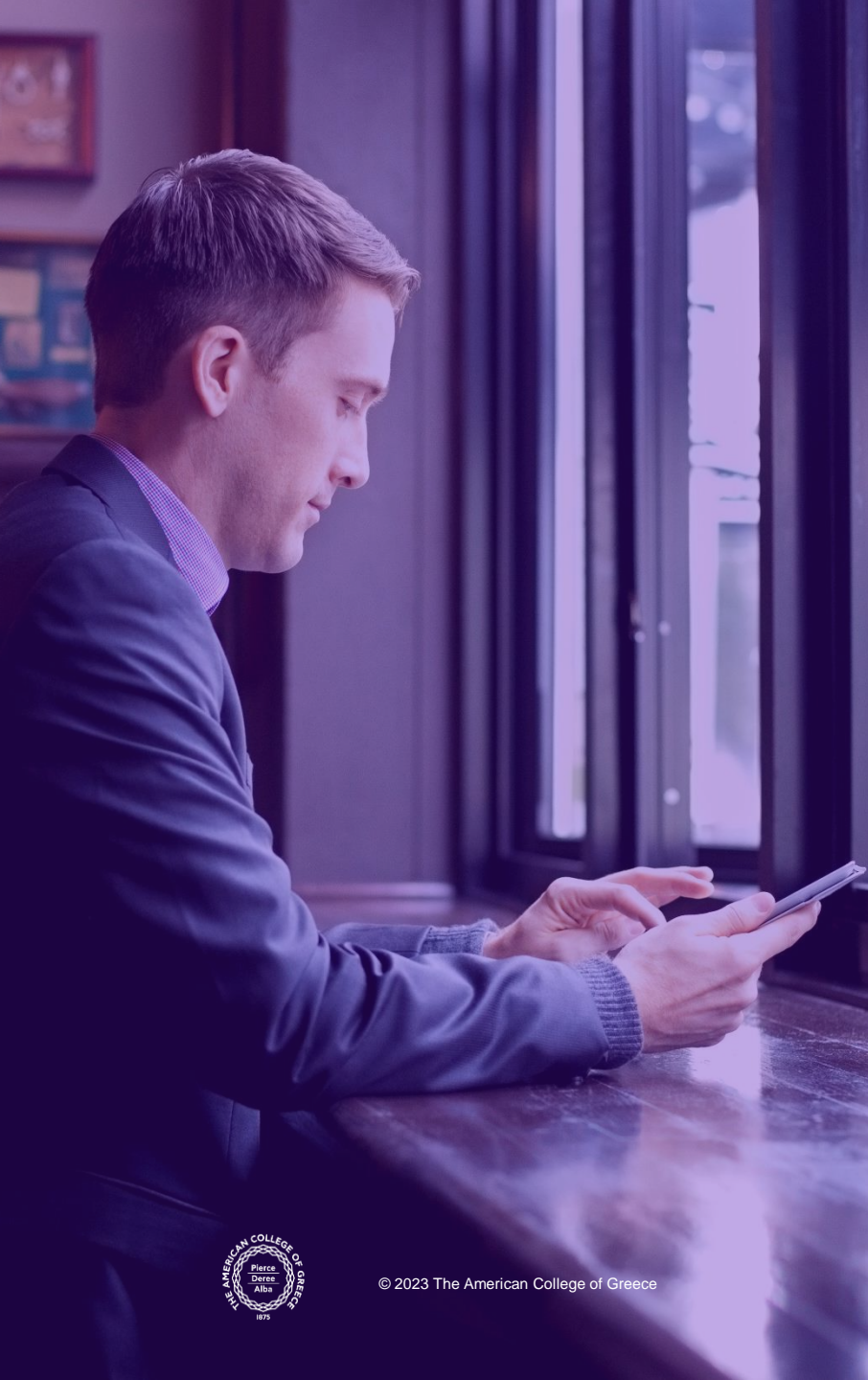
Research and Analysis

May 2023



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# Overview (1/2)

This study focuses on the use of people analytics by organisations operating in Greece. People analytics refer to the practice of collecting and processing data about people and businesses in order for an organisation to achieve its goals.

Based on a sample of 107 organisations, the following main conclusions can be drawn:

1. People Analytics are predominantly used for the following three reasons: making better business decisions, strengthening the data-driven management model, and improving people management.
2. The three key challenges in using people analytics relate to complex computational processes, management of large volumes of data, and lack of relevant resources.
3. People Analytics are predominantly used in the function areas of pay and benefits, performance management, and employee engagement, and less in the area of diversity and inclusion.
4. The big picture reveals that organisations are engaging in descriptive analyses and are using basic HRM tools and information systems.
5. In a nutshell, organisations can be classified into 4 levels of people analytics maturity. Higher maturity includes advanced types of analysis along with sophisticated tools and information systems. Thus, the study identified basic users (24% of organisations), rising users (39%), advanced users (23%), and a small percentage of pioneers (13%).

# Overview (2/2)

6. More mature in People Analytics organisations display higher organisational and financial performance, as well as more effective HRM.
7. The adoption of people analytics requires senior management support, people analytics competencies on the part of HRM practitioners, and a data-driven culture. However, what seems to set pioneers apart from other users is their investment in IT infrastructure and a full alignment between their HRM and business strategies.

## Acknowledgments

**The research team wishes to acknowledge the generous support of the Research, Technology, and Innovation Network and ACG 150.**



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# Research objectives and the adopted methodology

# Research objectives

- Map the extent to which organisations operating in Greece have adopted people analytics.
- Identify the factors influencing the adoption of people analytics.
- Map the impact of people analytics on a set of business efficiency indicators.
- Repeat the survey every two years to record the relevant advancement of the field.



# Survey methodology (1/4)

The questionnaire included 74 items derived from international literature and which covered the following areas:

1. Reasons for using people analytics and challenges in their use (2 questions)
2. Use of people analytics tools and technologies (14 questions)
3. Factors influencing the use of people analytics (35 questions)
4. Impact of people analytics on organisations (13 questions)
5. Demographic questions (10 questions)

Data was collected by means of a questionnaire between May and July 2021. The questionnaire was sent to senior HRM executives who are considered better placed to provide information on the level of utilisation of people analytics. Professional networking tools were also used.

Most questions were answered on a five-point scale (namely 1 = strongly disagree... 5 = strongly agree, or 1 = not at all...5 = to a very large extent).

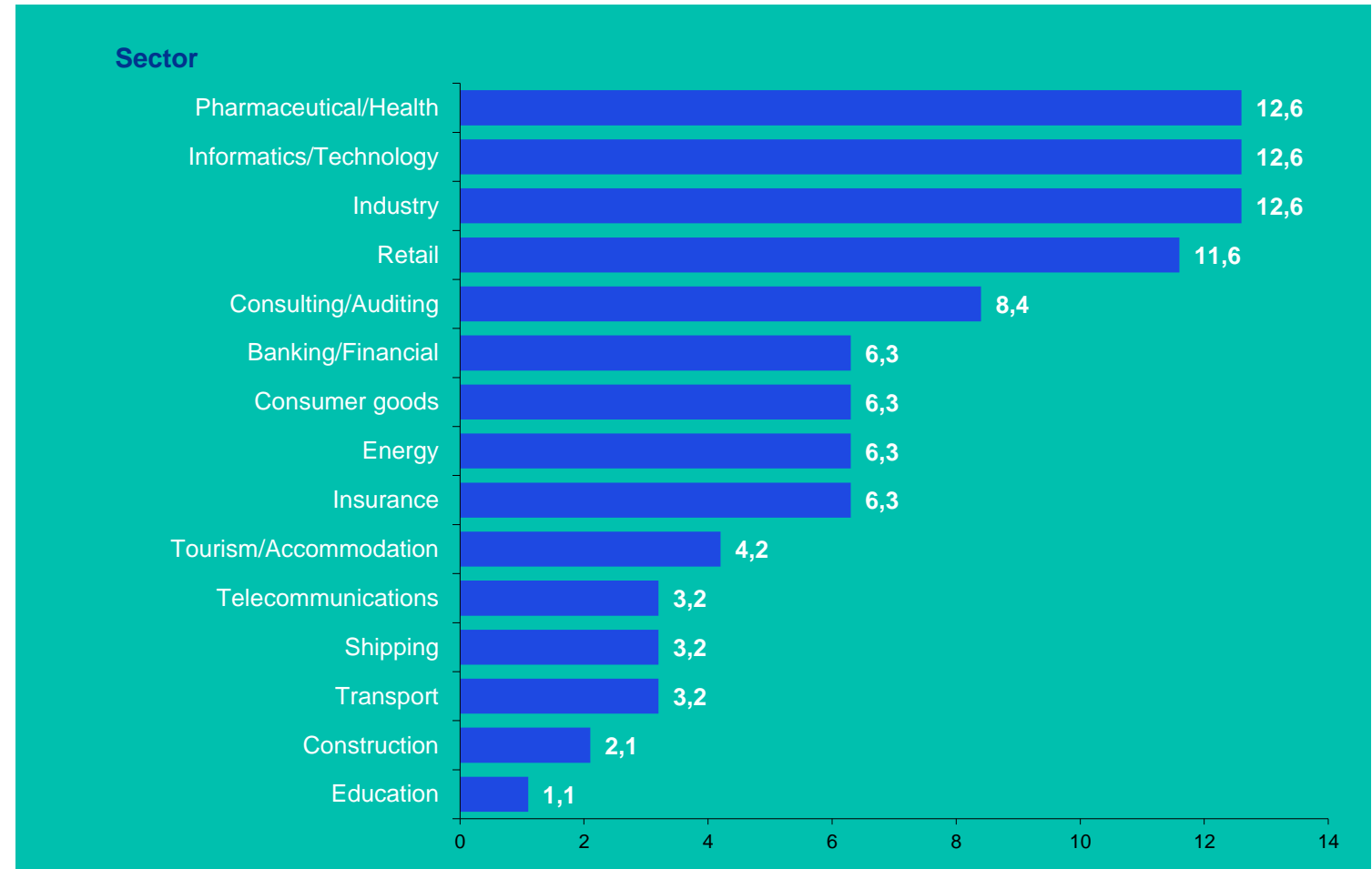
This research project received Ethics approval by the Research Ethics Committee of the American College of Greece; it was conducted in a manner that fully protects the anonymity of participants.



# Survey methodology (2/4)

A total of 107 organisations, representing a fairly wide range of business activity, participated in the survey.

Given that people analytics is still at an embryonic stage in Greece, this sample of 107 organisations that responded to the survey is considered to be extremely satisfactory.



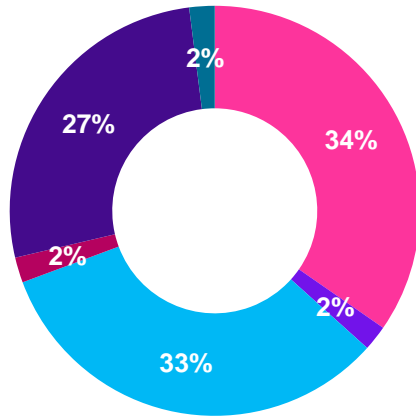


# Survey methodology (3/4)

The sample is split almost evenly into 3 categories of organisations – subsidiaries of multinational organisations, unlisted LLCs or SAs, and listed LLCs or SAs.

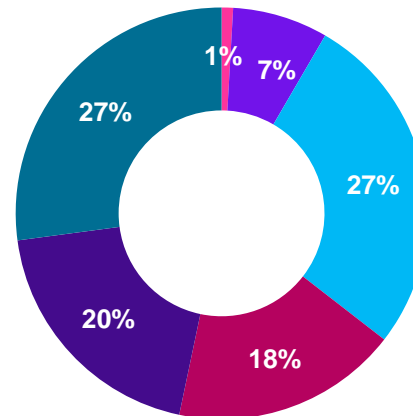
**2/3 of the sample** consists of **large organisations**, with over **250 employees**

Type of business ownership



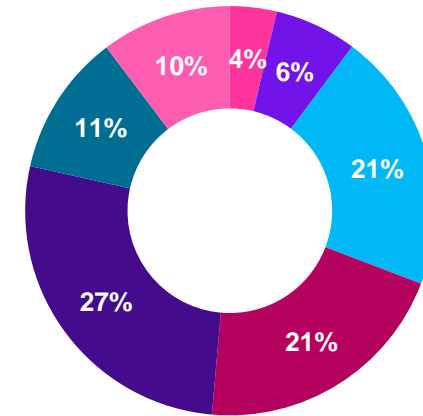
- Subsidiary of multinational enterprise
- PCC
- Listed LLC or SA
- Partnership (GP, LP, etc.)
- Unlisted LLC or SA
- Sole proprietorship

Number of employees



- 0-10
- 11-50
- 51-250
- 251-500
- 501-1500
- >1500

Annual turnover



- ≤ € 2 m
- ≤ € 10 m
- ≤ € 50 m
- € 50.1 - 100 m
- € 100.1 - 500 m
- € 500.1 - 1000 m
- > € 1 bn

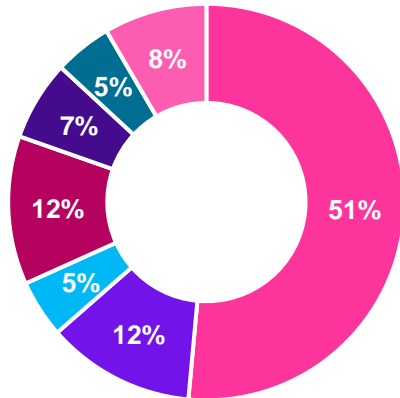


# Survey methodology (4/4)

The majority of respondents are HR Directors and hold a postgraduate degree.

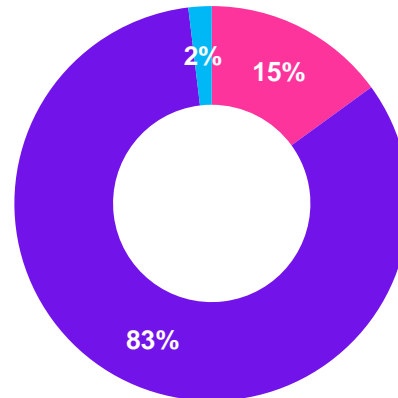
The percentage of female respondents is slightly higher than that of male respondents.

Management level



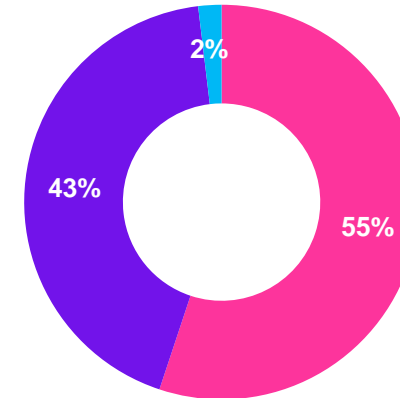
- HR Director
- HR Business Partner
- HR Consultant
- HR Manager
- HR Specialist
- HR Assistant
- HR Secretary

Education



- Bachelor's
- Master's
- PhD

Gender



- Female
- Male
- Prefer not to respond
- Non-binary



# The big picture of People Analytics

# What are People Analytics used for?

Practitioners were asked to express the three main reasons why they use people analytics.

The results are consistent with the existing literature in that they highlight the need to improve decision-making as the most decisive reason for using people analytics.

It is evident that people analytics meet the needs of both HRM practitioners and executives for better documentation, prioritisation and improvement of the required investment in terms of human resources. This, in turn, helps HRM practitioners make better decisions and gain their rightful place at the table of strategic decision-making.

## The three most important reasons for using People Analytics



# Where do organisations get their data from?

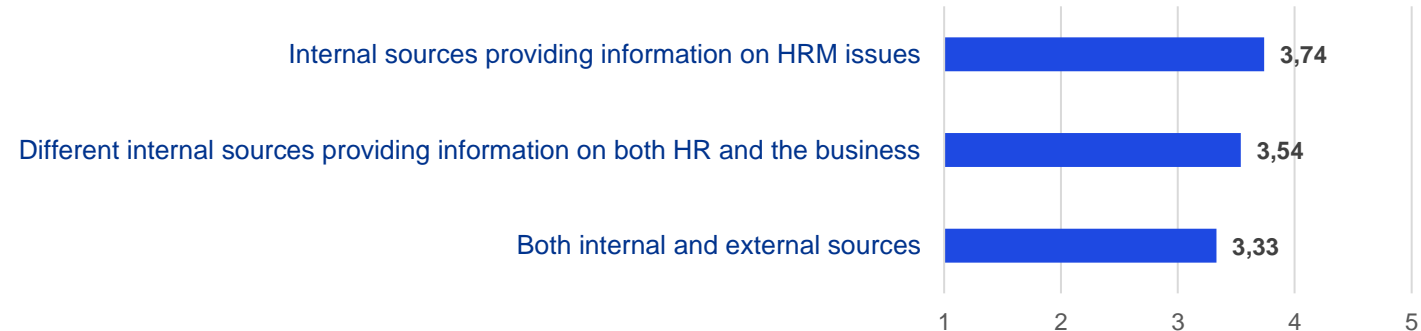
A key question focuses on the data sources that organisations use in order to utilise people analytics.

Three main data sources were analysed:

- (a) internal data derived from the organisation's HRM systems,
- (b) internal data derived from the organisation's business systems (e.g., financial data); and
- (c) data from external sources.

An MIT study (see Ransbothan & Kiron, 2018) reveals that organisations that are mature in their use of people analytics utilise data from multiple sources, both internal and external. Data is collected, among other sources, from traditional employee satisfaction and engagement surveys, HR management systems – recruitment and selection, performance management, etc. –, HRM information systems, organisation ERP and CRM systems, social networks, email metadata, artificial intelligence systems, and many other sources.

## Data sources



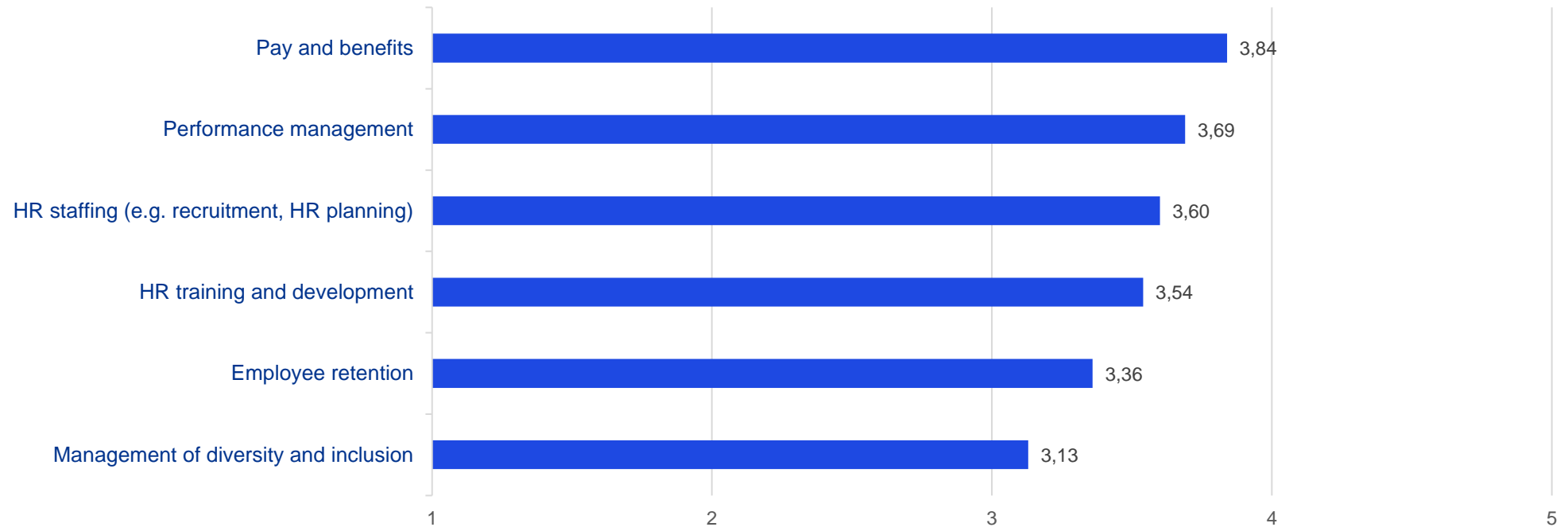
1 = not at all, 2 = to a small extent, 3 = to a moderate extent, 4 = to a large extent, 5 = to a very large extent

# Which HRM functions are affected by People Analytics?

Practitioners were asked if they regularly use people analytics before making decisions in seven HRM areas.

The greatest use of people analytics is observed in the area of pay and benefits, performance management and employee engagement.

Which HRM functions are affected by the use of People Analytics on the part of organisations?



1 = not at all, 2 = to a small extent, 3 = to a moderate extent, 4 = to a large extent, 5 = to a very large extent



# What kind of analytics are carried out?

Organisations analyse HRM data in different ways.

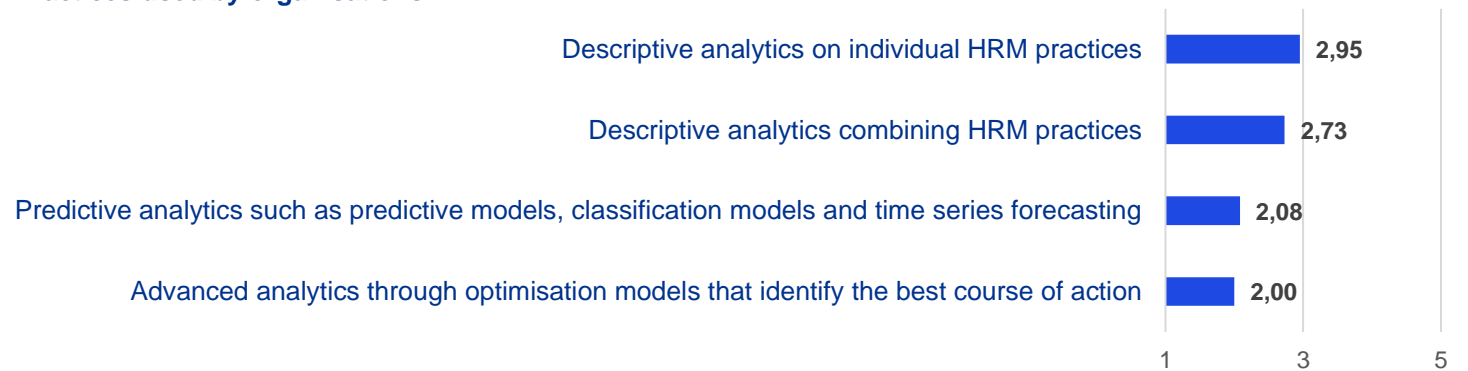
Most organisations in our sample use descriptive analytics of individual HRM practices. One such example is the descriptive analytics performed on recruitment processes or voluntary redundancy processes.

Equally extensive, although to a slightly lesser extent, is the use of descriptive analytics that combines different HRM practices, such as the analytics correlating recruitment data with voluntary resignation data to understand the profile of resigning employees.

Predictive analytics, which aims at forecasting, is used to a lesser extent. Indicatively, such analytics is used to answer questions such as: 'which employees are most likely to resign?' or 'what is the profile of the ideal candidate for a particular job?'

Finally, prescriptive analytics, which involves optimisation models that suggest different courses of action depending on possible scenarios, is used to an even lesser extent. An indicative question here would be: 'which incentive programmes contribute to improving the quality of our products?'

## Practices used by organisations



1 = not at all, 2 = to a small extent, 3 = to a moderate extent, 4 = to a large extent, 5 = to a very large extent



# What tools and information systems are used?

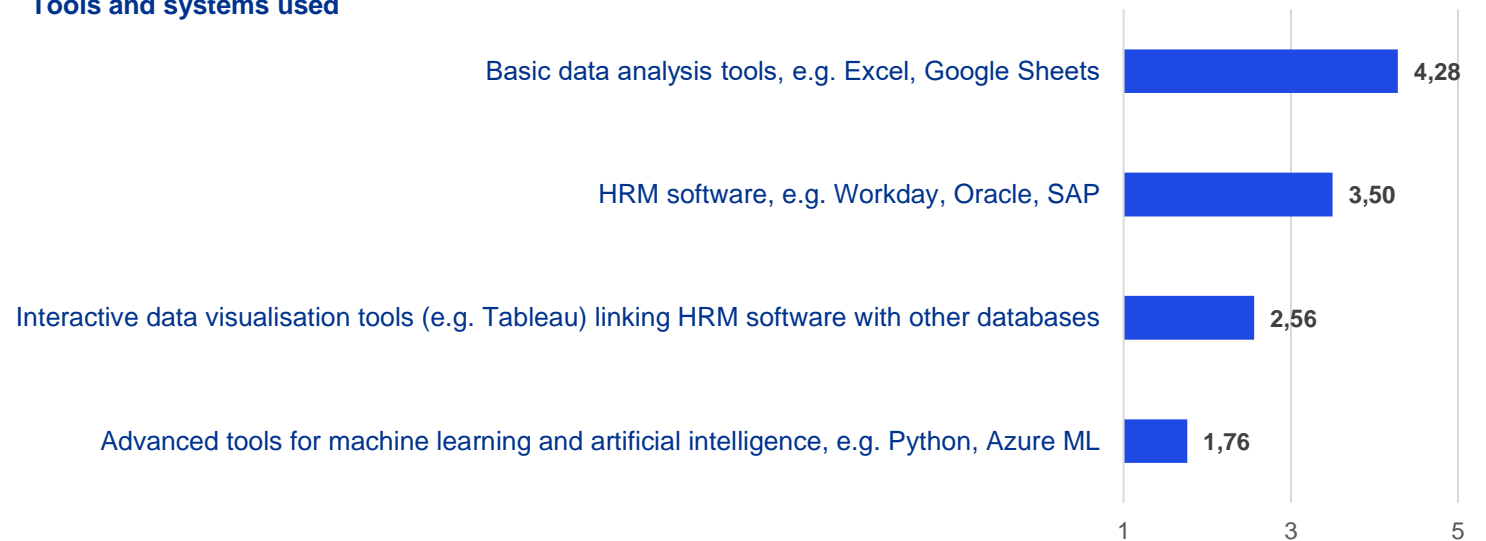
There are different tools and information systems available to organisations for the management and analysis of their HRM data.

There is extensive use of basic data analysis tools, such as Excel, as well as HRM information systems that provide data in a more organised

way for the purposes of analytics and from several HRM areas.

There is clearly less use of interactive visualisation tools or advanced tools for machine learning and artificial intelligence purposes.

## Tools and systems used



1 = not at all, 2 = to a small extent, 3 = to a moderate extent, 4 = to a large extent, 5 = to a very large extent



# What are the challenges in using People Analytics?

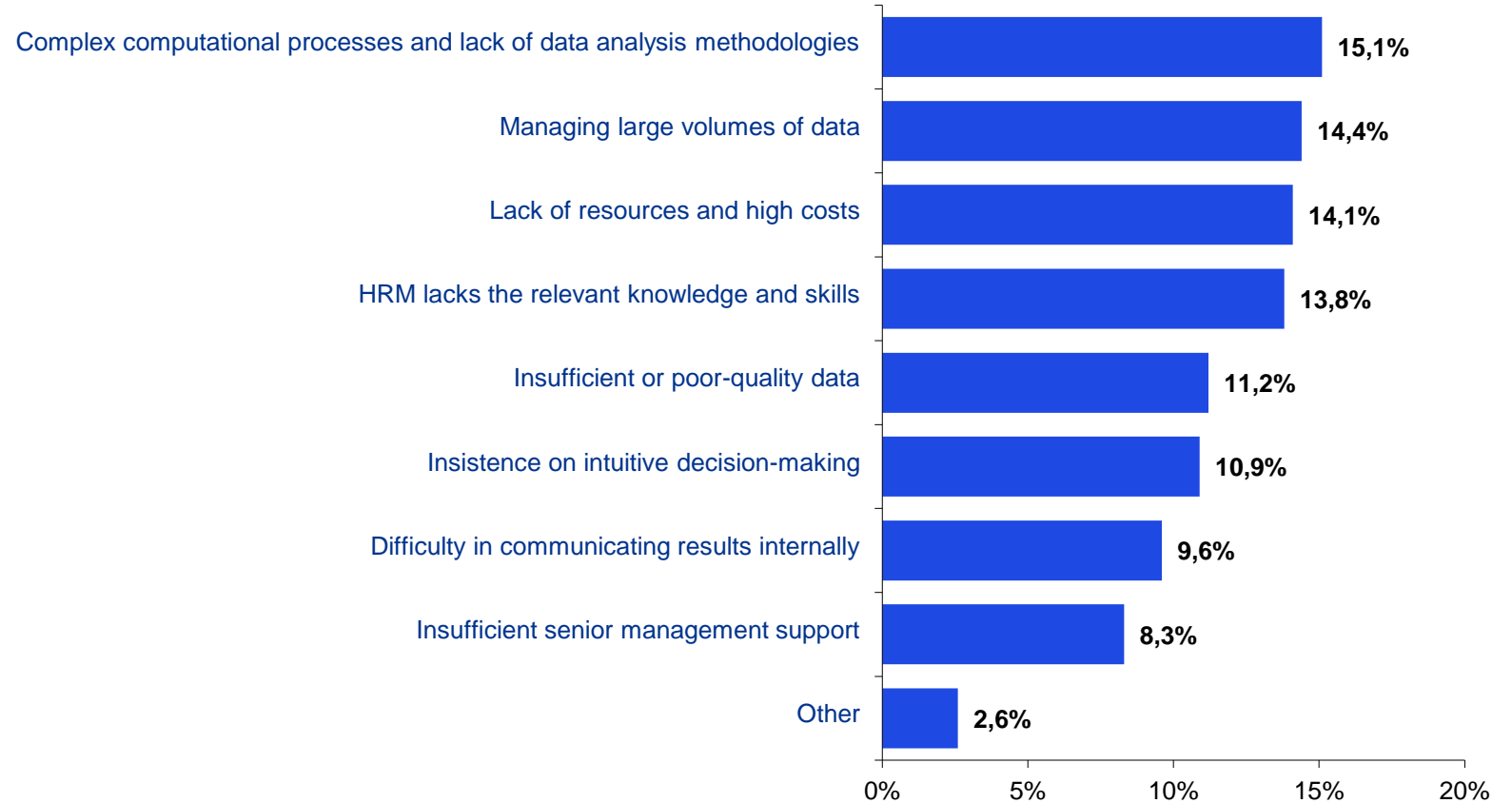
There is no doubt that there are also significant challenges that need to be addressed in order to make progress in this area.

The challenges observed in relation to Greek organisations have also been observed in other countries and surveys.

Marker and Boudreau (2017) point to the lack of appropriate data analysis and processing skills among HRM practitioners as the most important challenge to people analytics adoption. This fact not only contributes to limiting the involvement of HRM practitioners in strategic management but also to the risk of "misusing" mathematical models in a way that misinterprets the nature and characteristics of human capital.

Consequently, it is necessary to ensure that HRM practitioners develop appropriate analytics competencies and that they collaborate effectively with other departments of their organisation.

## The three biggest challenges in using HR analytics



# People Analytics Maturity

# People Analytics maturity of organisations

The analysis of data revealed statistically significant differences between organisations in terms of people analytics.

For a more accurate analysis and presentation of the data, organisations were grouped into four categories, corresponding to four levels of people analytics maturity. These groupings were derived from the responses given by organisations to a series of questions assessing:

- the types of analytics implemented
- the analysis tools and information systems

The 4 levels of maturity in people analytics

- Basic users (26 organisations)
- Rising users (42 organisations)
- Advanced users (25 organisations)
- Pioneers (14 organisations)

People analytics maturity is linked to the use of:

Descriptive analytics, but especially to the use of predictive analytics and multi-scenario optimisation models on large databases (prescriptive analytics)

HR applications, but especially to the use of interactive visualisation tools linking various databases, and advanced tools using machine learning and artificial intelligence.

These four levels of maturity allow not only for a ranking of organisations but also for proposals regarding their development.



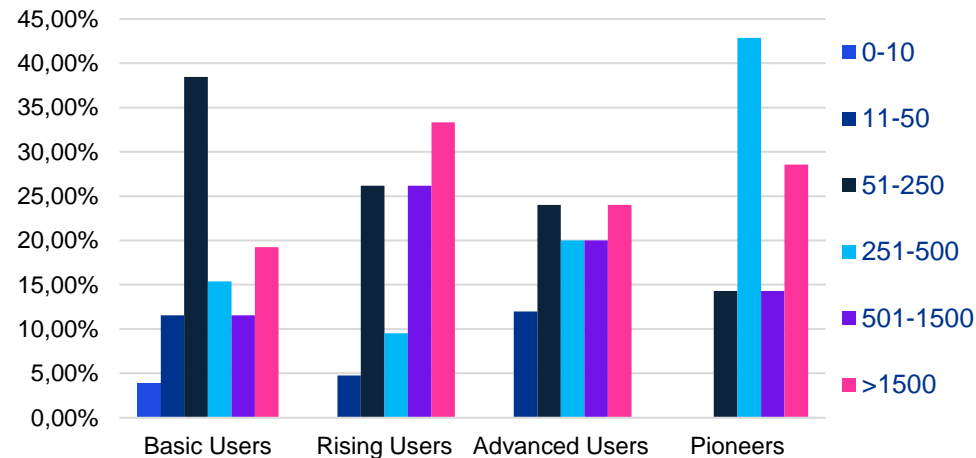
# Maturity levels & demographics

Comparing the demographics of organisations, it is not surprising that the highest level of maturity in people analytics is found in larger organisations and subsidiaries of multinational organisations; nevertheless, a certain number of small and – more so – medium-sized organisations (36%) also seem to display a high level of people analytics maturity.

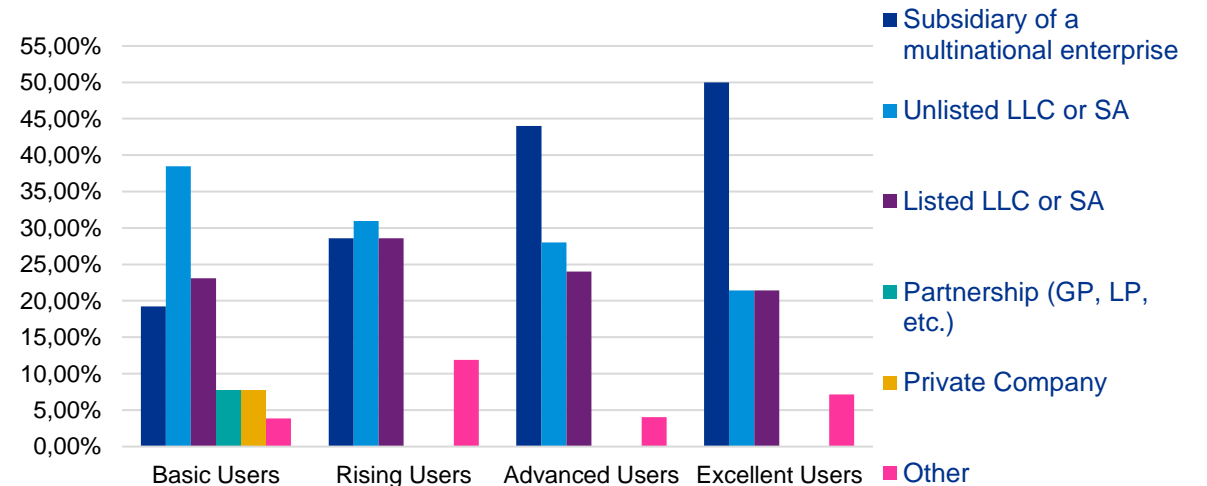
It should be noted that:

- **Basic users are organisations of all sizes**, mainly medium-sized, unlisted LLCs or SAs.
- **Rising users are almost evenly split** between listed and unlisted subsidiaries of multinationals.
- **Advanced users include a large percentage of subsidiaries of multinationals** (44%).
- **Pioneers are large organisations** (85%, >250), subsidiaries of multinationals (50%).

Number of Employees



Type of Business Management

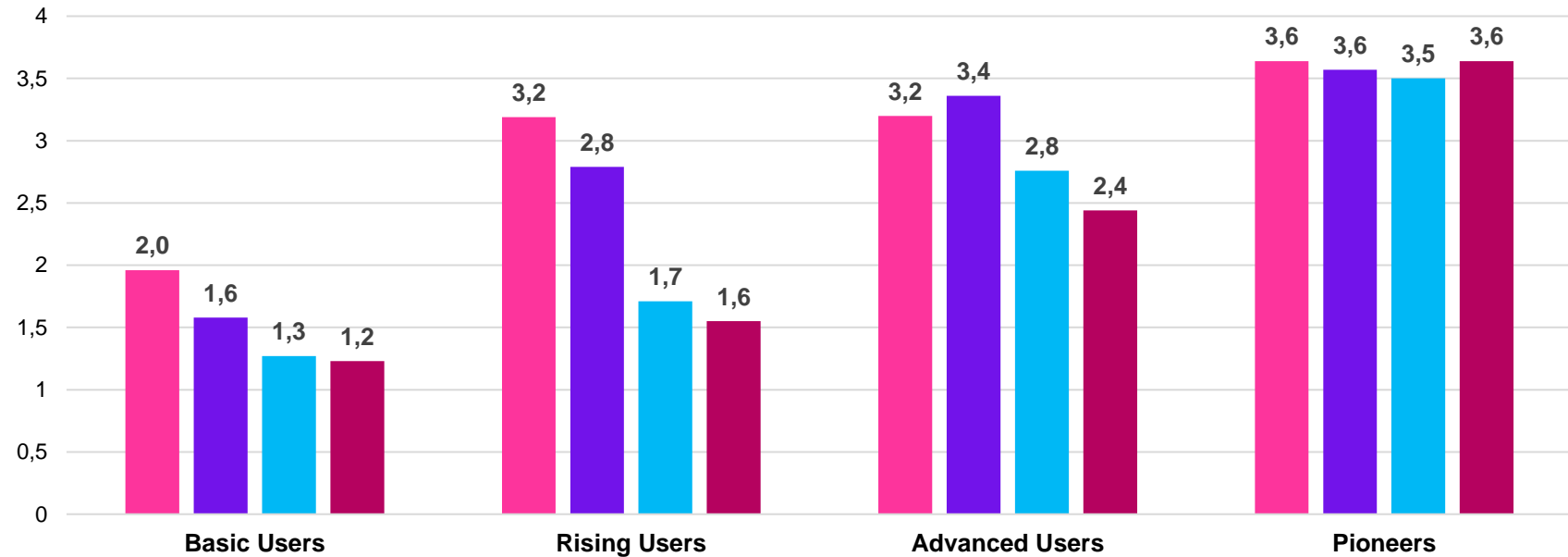


# Types of analytics

**Basic** users practically only use descriptive analytics and only to a small extent.

**Rising** users analyse both individual and combined data from different practices.

**Advanced** users also use predictive models, while **pioneers** implement all types of analytics to a fairly large extent.



- Descriptive analytics on individual HRM practices
- Descriptive analytics combining HRM practices (e.g. recruitment data combined with employee performance data)
- Predictive analytics such as predictive models, classification models and time series forecasting
- Advanced analytics through optimisation models that identify the best course of action

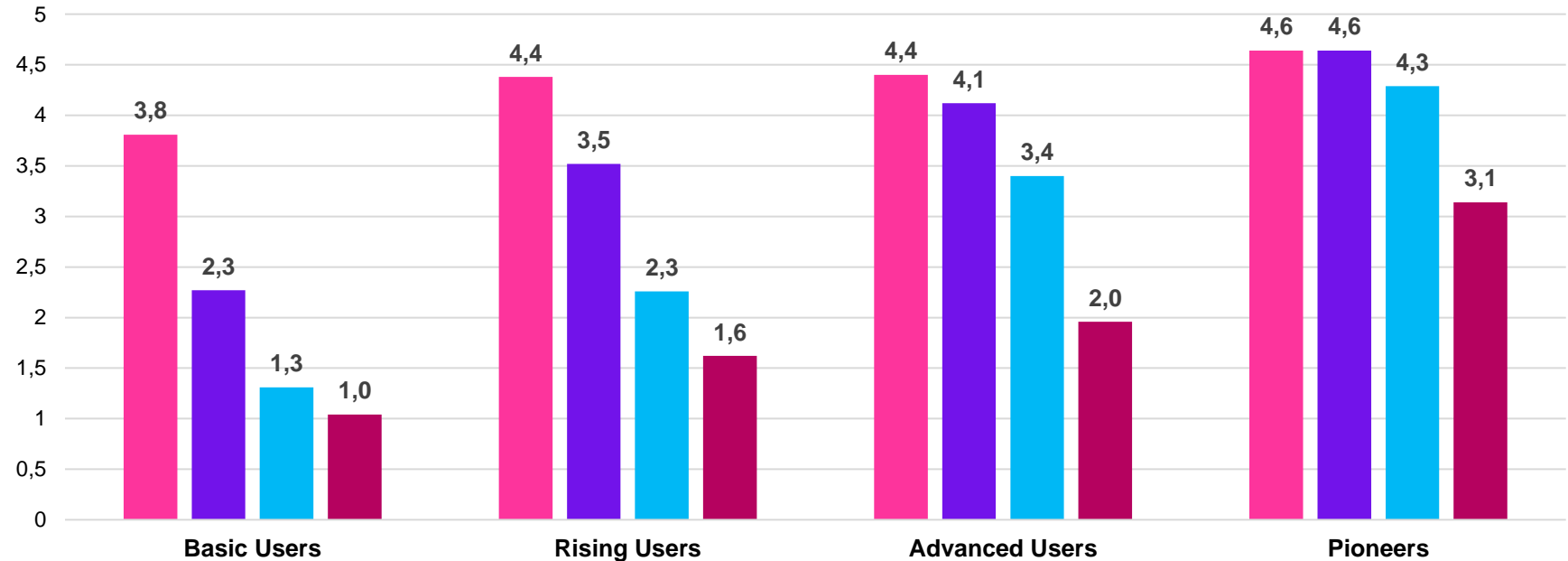
# Tools and information systems

**Basic** users almost exclusively use basic data analysis tools.

**Rising** users also make greater use of information systems.

**Advanced** users combine HRM tools with other databases.

**Pioneers** use all available tools and do so to a great extent, with the exception of machine learning and artificial intelligence, the use of which seems to be limited even in these organisations.



■ Basic data analysis tools (e.g. Excel, Google Sheets)

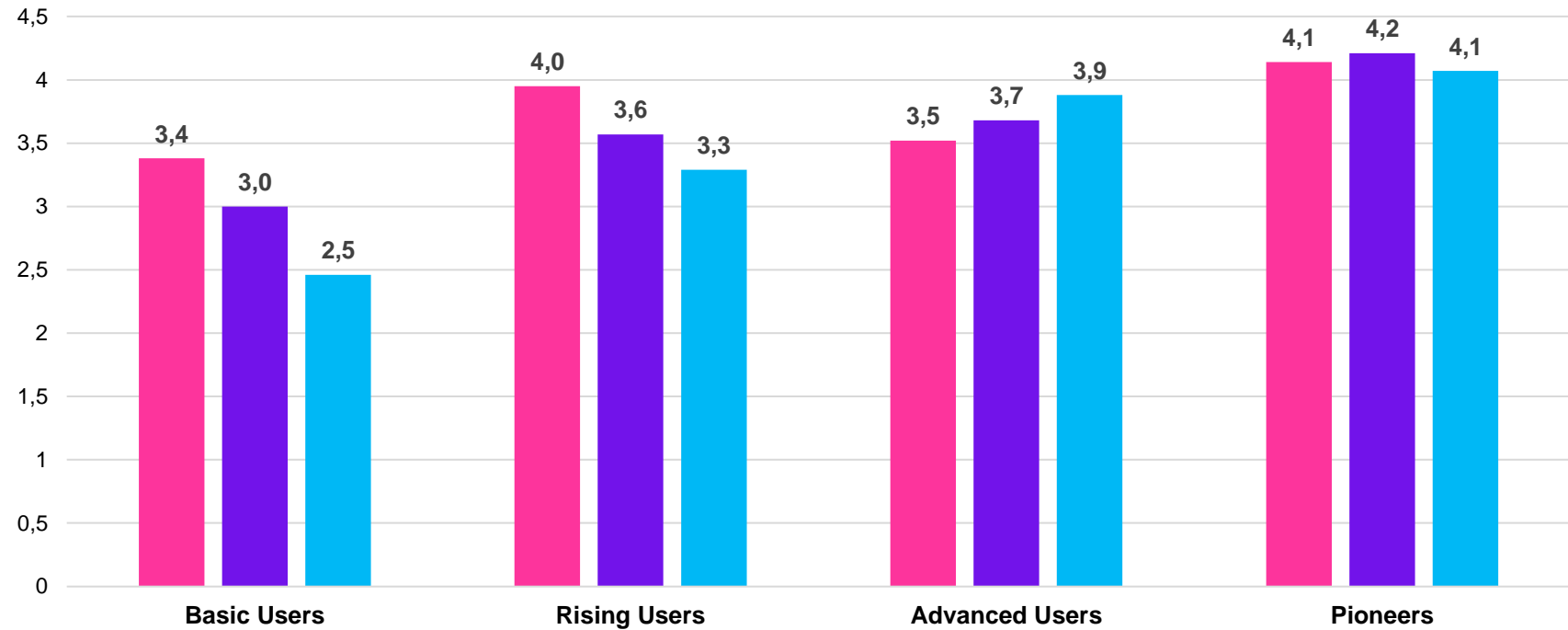
■ HRM software (e.g. Workday, Oracle, SAP)

■ Interactive data visualisation tools (e.g. Tableau) linking HRM software with other databases

■ Advanced tools for machine learning and artificial intelligence (e.g. Python, Azure ML)

# Data sources

The results of the survey showed that **pioneers** use all **three data sources** to a significantly greater extent compared to the other organisations. The main difference is that they also use external data sources for their analysis.



- Internal sources providing information on HRM issues
- Different internal sources providing information on both HR and the business
- Both internal and external sources

# People Analytics and decision-making

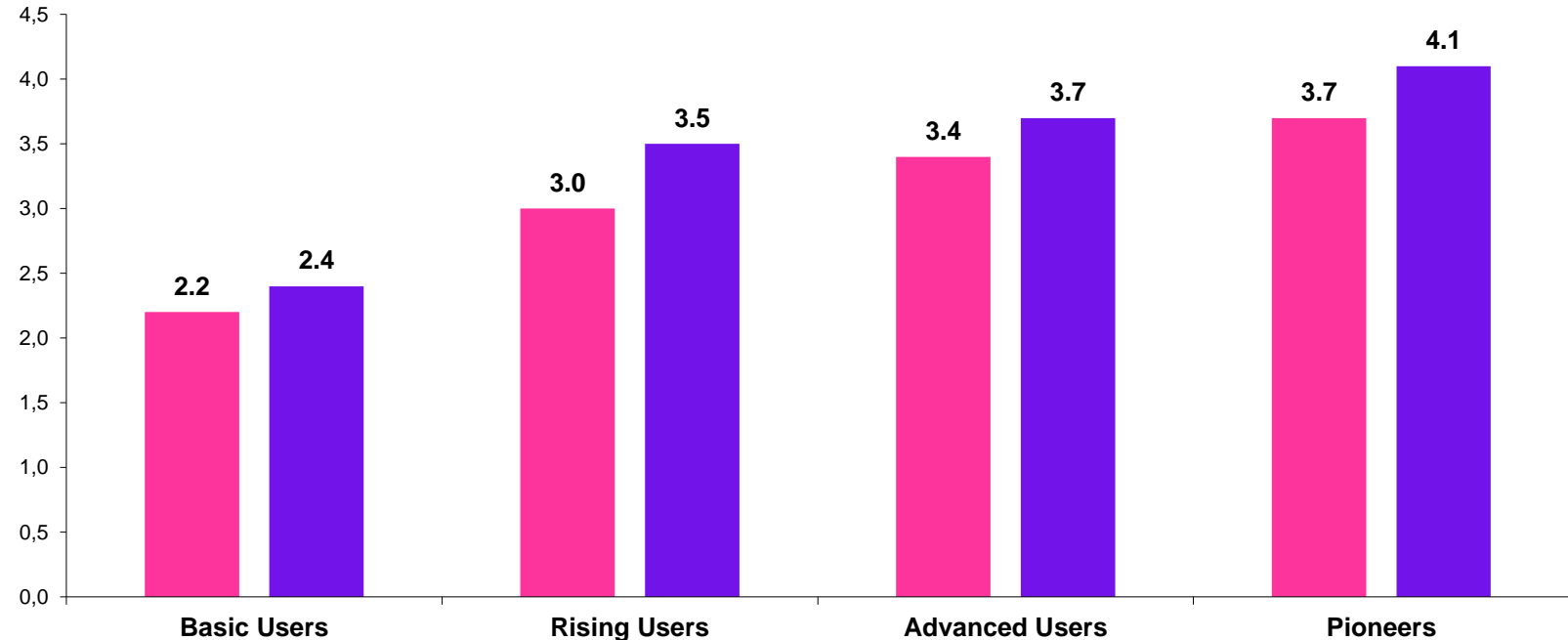
The use of people analytics in strategy and broader decision-making becomes stronger from one level of maturity to the next.

This is so to a great extent in the case of pioneers, while basic users do not seem to really consider people analytics in decision making.

It is therefore evident that the greatest value created by people analytics emerges where such analytics is used to improve an organisation's strategic decisions.

Consequently, the goal of those involved in people analytics should be to continuously explore and solve challenges related to business outcomes and strategic management of organisations.

Use of HRM analytics for reasoning and decision-making



- Almost everyone in our organisation uses findings based on people analytics to support decisions with human resources
- In meetings on strategy, we reason based on data derived from people analytics



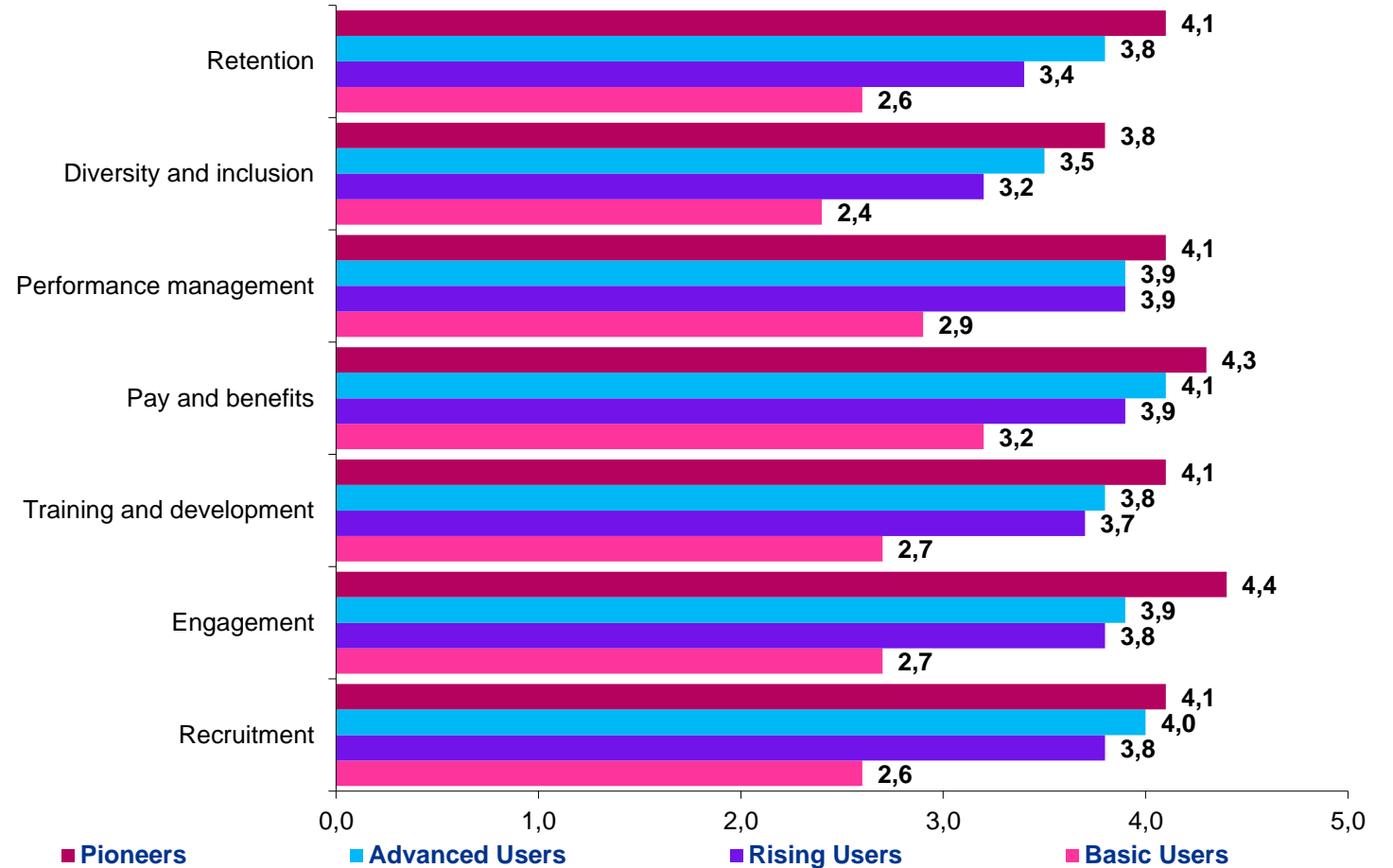
# People Analytics in HRM functions

A prerequisite for making decisions based on people analytics is the analysis of different HRM functions.

Basic users fall well behind other users in the use of people analytics in all functions.

Overall, the use of people analytics in all functions is stronger from one level of maturity to the next.

Use of analytics per HRM area



# The impact of People Analytics on outcomes

# The impact of People Analytics on business outcomes

Relevant studies, such as McCartney and Fu (2022), Marler and Boudreau (2017), Minbaeva (2018), Schiemann, Seibert and Blankenship (2018), and Levenson (2018) document the impact of people analytics on important business outcome indicators, such as revenue, profitability, customer satisfaction as well as a reduced resignation rate.

The results of this study are consistent with the international literature.

We focused on 3 outcomes:

- perceived organisational performance (compared to the competition)
- perceived financial performance (compared to the competition)
- effectiveness of HRM executives

Our data show that even though, depending on the organisations' maturity level, there are differences in their perceived organisational and financial performance as well as their HRM effectiveness, such differences are not that significant.

This may primarily be due to the fact that no comparison of objective performance indicators (hard data) was made, but instead participants were asked to assess their organisation's performance compared to the competition and thus social desirability bias may have come into play. Furthermore, this is possibly because organisations have not yet developed the use of people analytics to such an extent that it is reflected in their organisational performance.



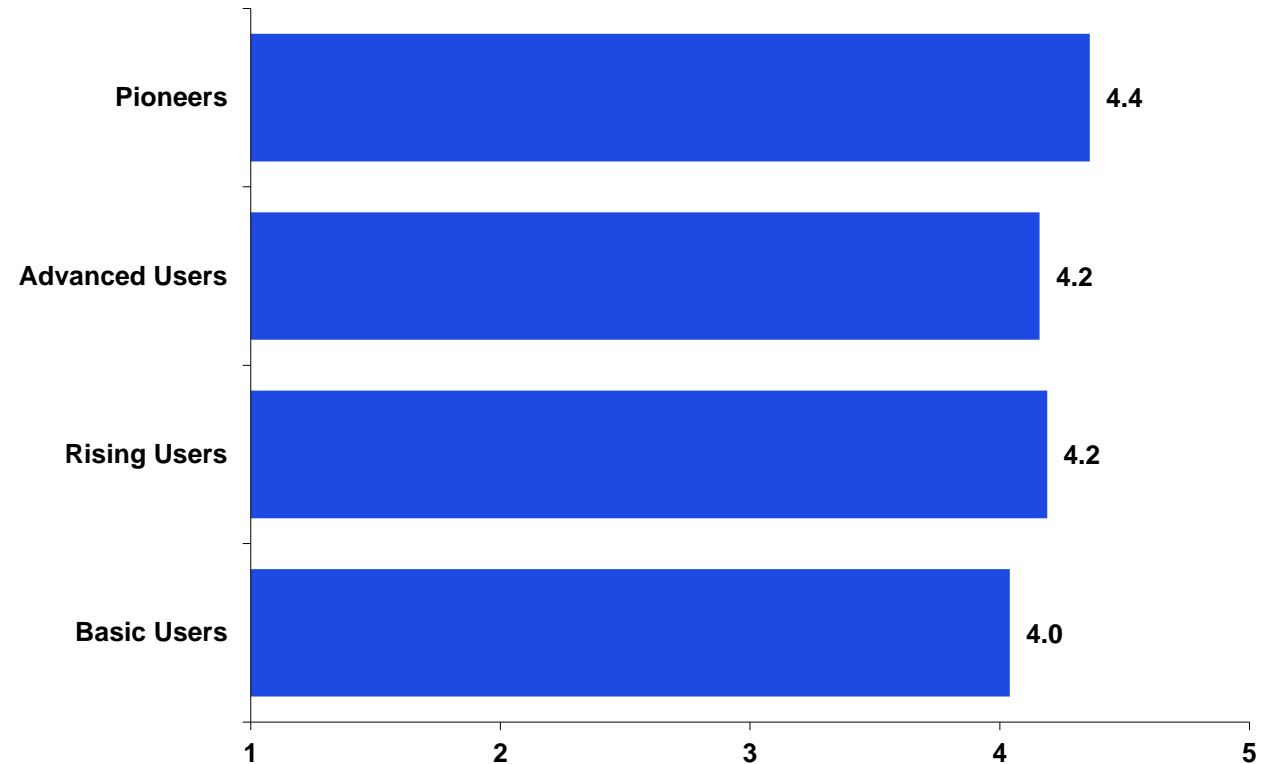
# Organisational performance compared to the competition

Practitioners were asked about their organisation's performance compared to the performance of organisations in the respective industry in terms of:

- the quality of products and services;
- the development of new products and services;
- customer satisfaction; and
- retention of employees.

Surprisingly, the results show that all enterprises perform above the industry average! This is because the sample comprises outstanding organisations or because some practitioners overestimate the performance of their organisation. Undoubtedly, comparative responses should be interpreted with caution, even though they are considered to be reliable indicators. Based on the estimates, the more mature the level of use, the higher the perceived performance.

Perceived organisational performance compared to the competition



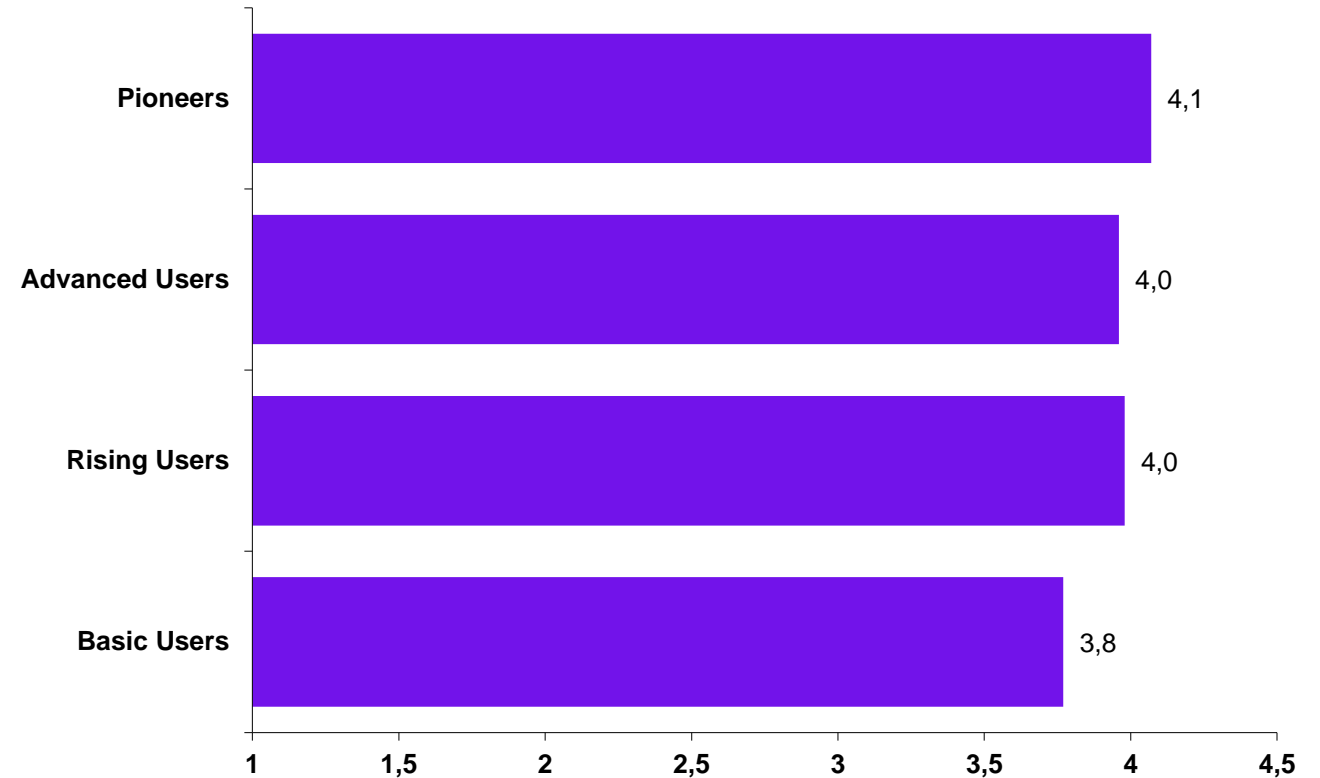
1 = well below industry average, 2 = below industry average, 3 = same as industry average, 4 = above industry average, 5 = well above industry average

# Financial performance compared to the competition

The adoption and use of people analytics also seems to correlate with high performance in terms of sales growth, profitability and market share.

As in the case of perceived organisational performance, in terms of financial performance basic users also seem to underperform compared to the other organisations.

Perceived financial performance compared to the competition



1 = well below industry average, 2 = below industry average, 3 = same as industry average, 4 = above industry average, 5 = well above industry average

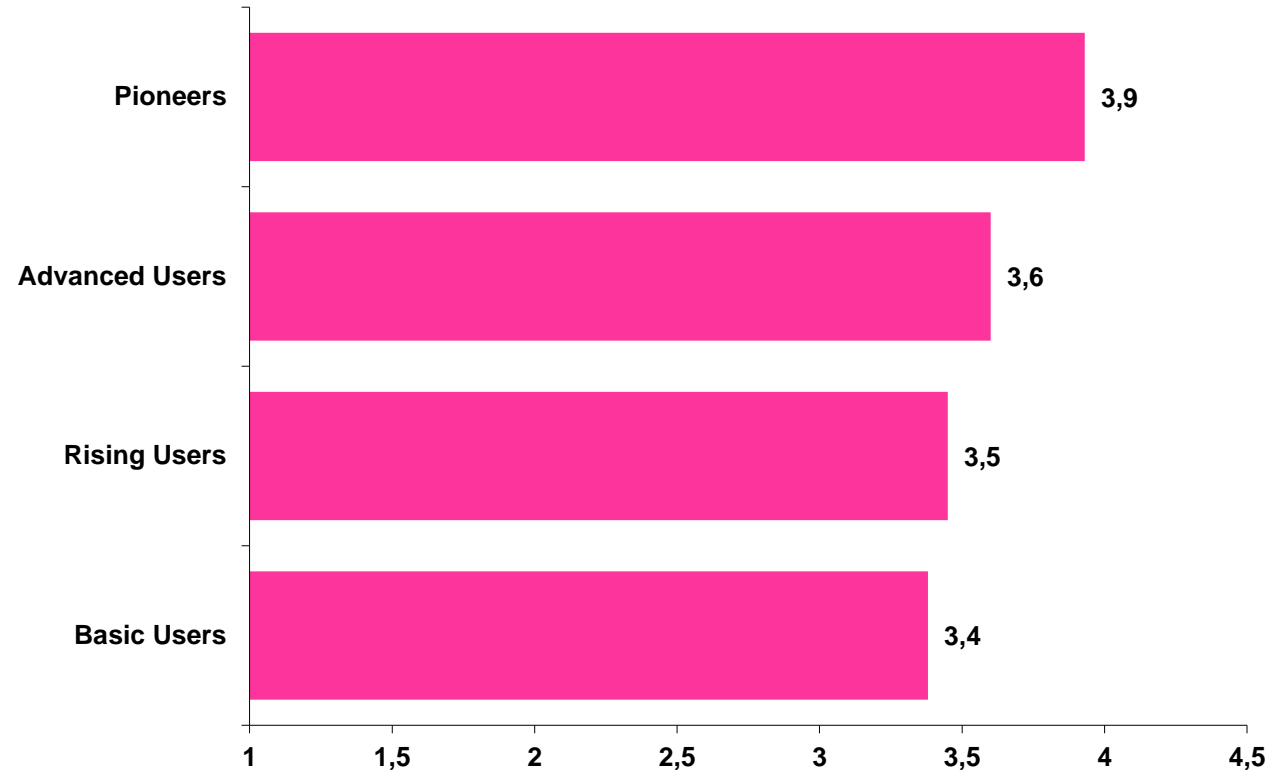
# Effectiveness of HRM executives

Practitioners were asked to assess HRM effectiveness, and in particular to what extent

- they consider that the HRM department is performing their job in the way they would like it to
- their expectations have been met in terms of the roles and responsibilities of the HRM department
- they would change the way the HRM department operates.

The results show fairly high levels of HRM effectiveness, with minor differences based on the level of maturity of use, in the expected direction.

Effectiveness of HRM executives



1 = well below industry average, 2 = below industry average, 3 = same as industry average, 4 = above industry average, 5 = well above industry average

# Factors driving the use of People Analytics

# Senior management support

The supportive attitude of senior management is considered a prerequisite for organisations to reach higher levels of HRM analytics maturity.

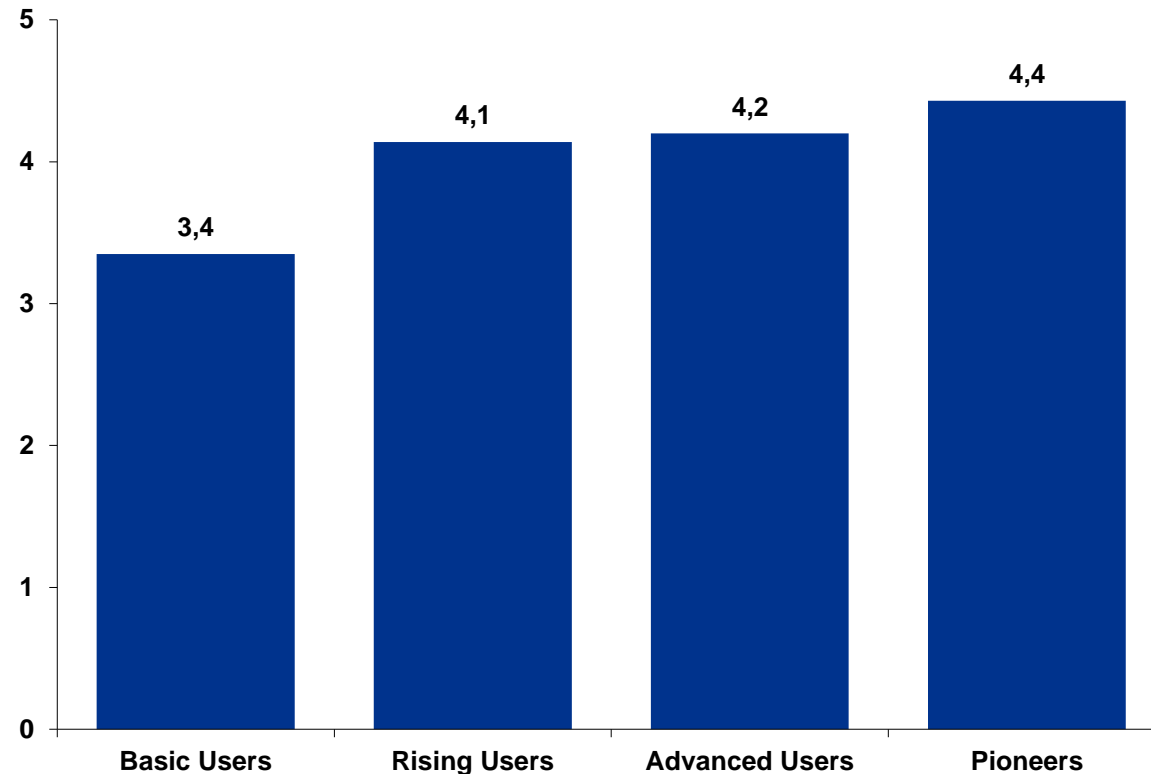
Practitioners of organisations at the highest levels of maturity believe that **senior management** is not only positively inclined towards analytics, but also:

- **promotes its use as a competitive advantage** and
- **seeks quantitative analytics before making major decisions** on HRM issues.

As shown in the study of Chen and Nath (2018), in analytics-mature organisations top managers rely on the use of analytics in their strategic and business decisions, making strategic plans for the integration of analytics with their business needs.

People analytics is therefore not used on an ad hoc basis, but rather on the basis of strategic planning.

Senior management support



1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree



# Alignment between the HRM and business strategies

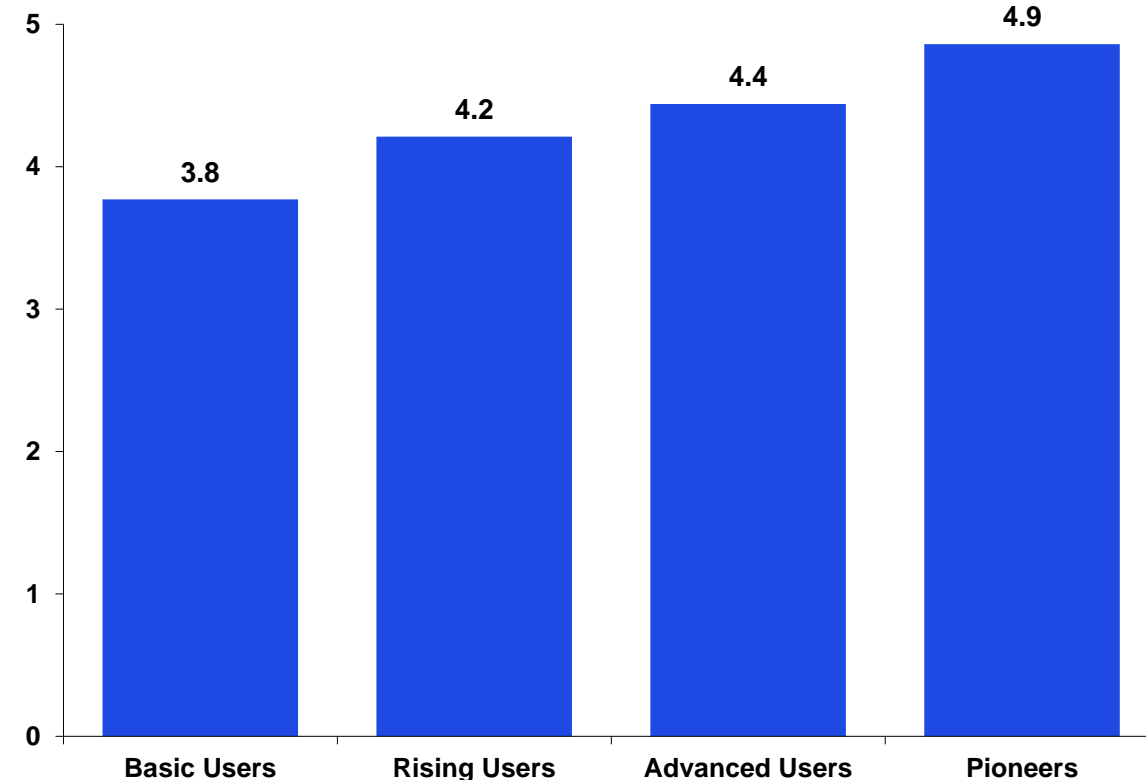
Another prerequisite for the adoption and use of HRM analytics is the alignment between the HRM and business strategy.

An interesting observation with respect to **pioneers** is that HRM:

- is considered to be an important partner for management
- supports the business strategy
- is actively involved in the strategic planning process
- is taken seriously by the senior management of the relevant enterprises
- is an agent of organisational change.

**A high degree of alignment** between the HRM and business strategy is **also observed in the other organisations** in the sample.

Alignment between HRM and business strategy



1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree

# HRM analytics competencies of HRM practitioners

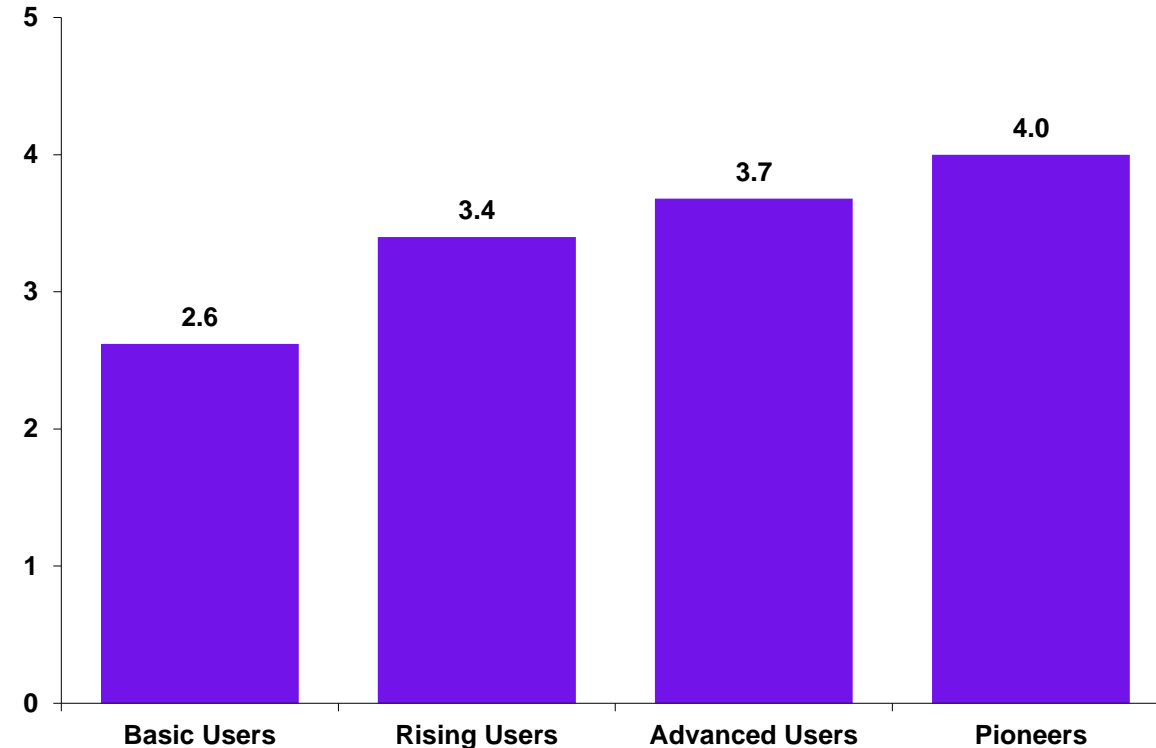
The people analytics competencies of HRM practitioners are an important differentiator for organisations.

Several scholars argue that the competencies of HRM practitioners are a barrier to the effective adoption of HRM analytics

Our study also **confirms** this, revealing that in the case of **pioneers**, HRM practitioners **are aware of and able to implement appropriate quantitative analysis methods and techniques** as well as **interpret the results** obtained from their analyses.

A recent cross-national study by **McCartney, Murphy and McCarthy (2020)** indicated that the **key competencies of HR analysts** include: (a) Consulting, (b) Technical knowledge, (c) Understanding and analysis of data, (d) Understanding of HRM and entrepreneurship, (e) Research skills, (f) Communication and storytelling.

HRM analytics competencies of HRM practitioners



1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree

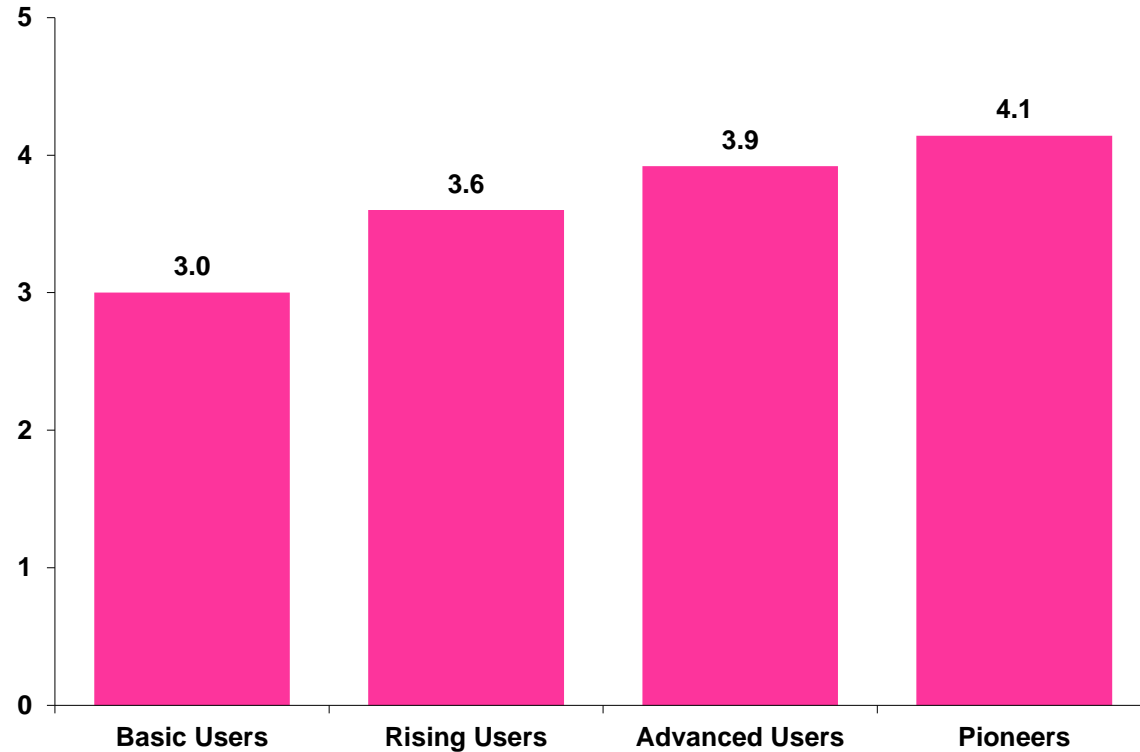
# Collaboration between HRM practitioners and IT officers

People analytics are often carried out in collaboration with various departments, especially the IT department. As a result, the quality of the collaboration between HRM practitioners and IT officers is important:

- for the current implementation of people analytics
- for their constant improvement
- for the exchange of relevant information

The **pioneers** and **advanced** users confirm that in their organisations HRM practitioners **work closely** with IT officers **in a systematic and efficient manner**.

Collaboration between HR officers and IT officers



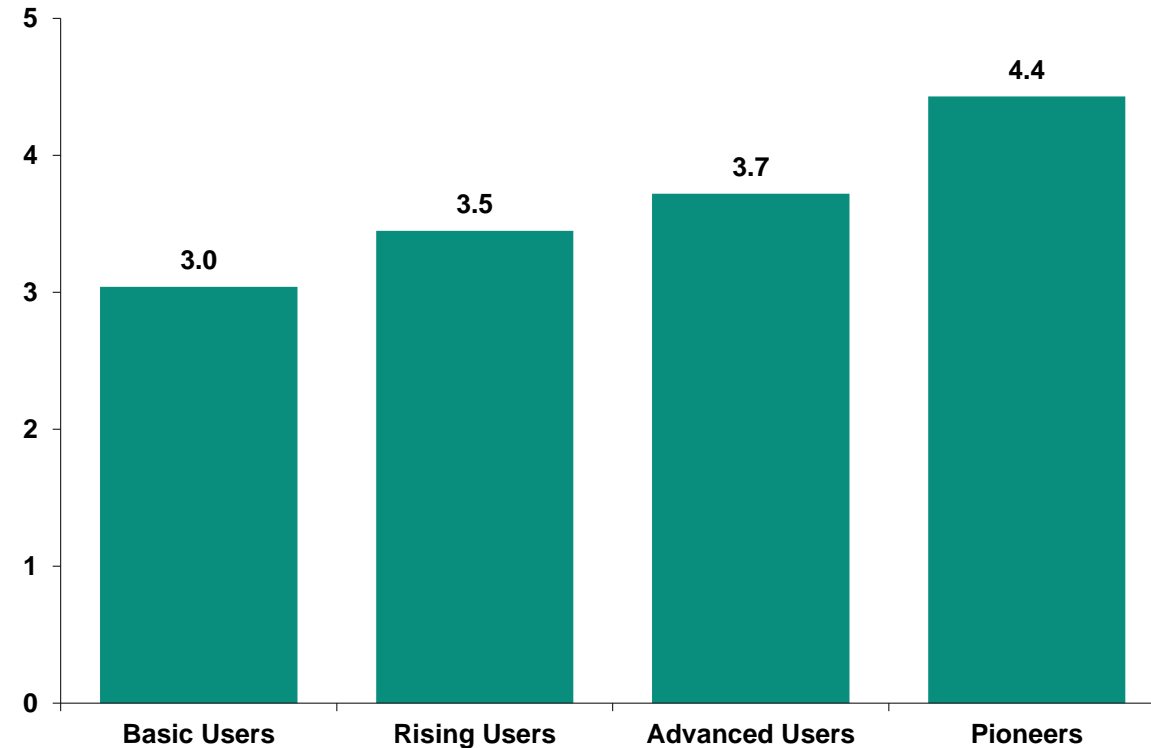
1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree

# Corporate infrastructure in terms of information technology

Data collection and investment in information technologies is critical for the proper implementation of HRM analytics.

There is a significant **difference** between **pioneers** and the **other** types of users.

Corporate IT infrastructure



1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree

# Culture of data-driven decision-making

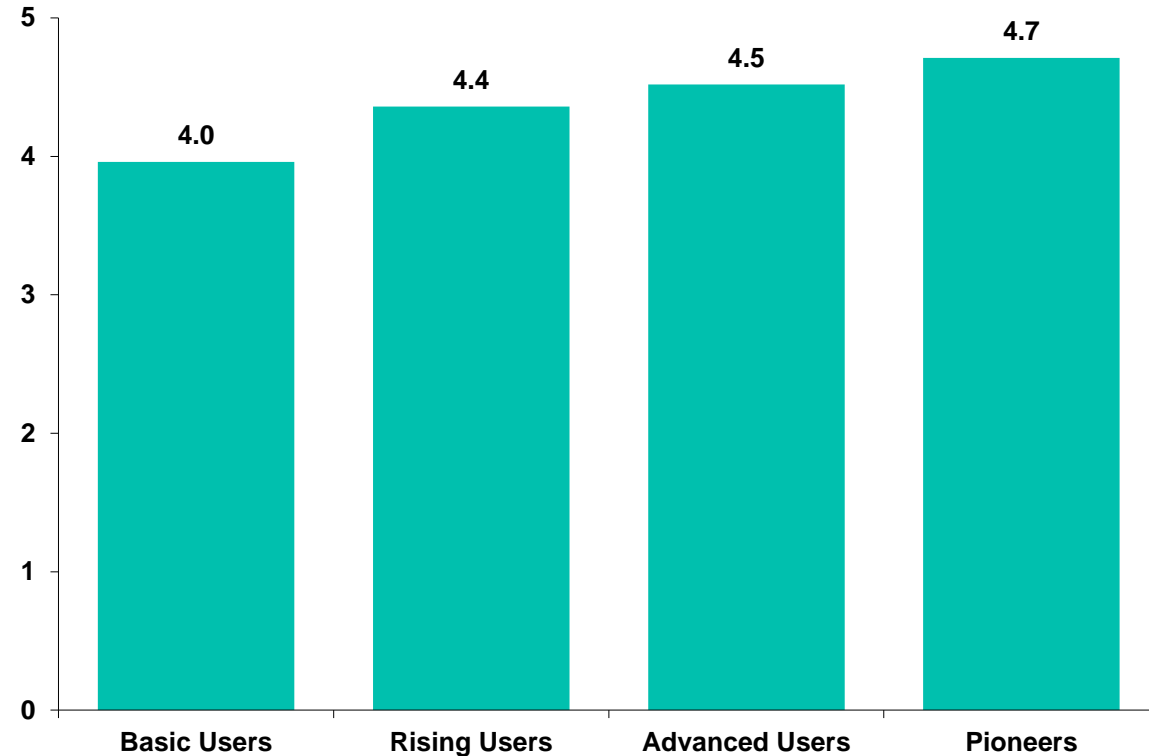
The supportive attitude of senior management alone is not enough. It should be coupled with a corporate culture that fosters data-driven decision-making.

The culture of pioneers is characterised mainly by:

- a. the willingness of practitioners to question their experience and deeply held assumptions
- b. data-driven decision-making at every management level
- c. the assessment and improvement of business rules

The results of the survey suggest that this culture is more pronounced at higher levels of maturity.

Corporate culture of data-driven decision-making



1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree

# Key findings

# What tools and information systems are used?

Our research findings suggest that many organisations operating in Greece seem to acknowledge the **value** of people **analytics** for decision-making purposes – particularly in the areas of pay and benefits, performance management, employee engagement – with the aim of improving their business performance.

Each organisation is at a **different stage** in terms of the **use of people analytics**.

**Basic users** seem to have the longest way to go, but they need not necessarily aim to become pioneers. Using people analytics will certainly benefit them, but the threshold must be set according to their needs.

**Rising** and **advanced** users, and much more so **pioneers**, invest more heavily in people analytics, and although further research is needed to that regard, they seem to have **better business outcomes** across all indicators (*organisational performance, financial performance, effectiveness of HRM executives*).

**Pioneers**, predominantly **large multinational organisations**, seem **determined** to use people

analytics. The score of 4,9/5,0 in terms of alignment between the HRM and business strategies points to their **strong belief** in the **value** of effective people management.

The **higher degree of maturity** should not be regarded as a simple event but as a **long-term process**. It requires strategy, an understanding of the importance of **talent** in achieving business goals, **resources**, fostering a data utilisation **mindset**, and developing the required competencies.

The results show that organisations wishing to adopt and evolve in the use of people analytics should take action in a number of areas, such as integrating data from **multiple internal** and **external sources**, engage in **more sophisticated analytics**, and **investing in information systems and tools**.

We hope that future research will reflect significant progress in the use of people analytics in Greece.

We would like to thank the practitioners who participated in the survey!



# Authors - References



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