

BEAT PROJECT

WP4. Analysis of the innovation capabilities of blue SMEs and enhancement of their innovation skills

Final Report

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1. INNOVATION SELF-ASSESSMENT AND BENCHMARKING

Aim of the WP4 of the BEAT project was to help SMEs operating in blue sector and its related blue value chain to improve their ability to organize and manage their innovation processes by focusing on how the employees' creativity can be raised in a more effective way.

The importance of innovation for the competitiveness of any firm is today no longer at question. But an innovation-oriented attitude does not pour automatically in people. It requires the setting of a proper environment where employees feel free and safe to contribute with their ideas, in which they are committed to what they do (and strongly believe in it) and a proper managerial style is used to encourage everyone to put forward their (and others') ideas. Sometimes, firms make unintentional mistakes in managing the above dynamics and end up in creating situations in which individual creativity is stifled, and a sense of frustration and boredom arise in people.

Consistently with the project aim we provided support to Italian and Croatian firms by measuring and benchmarking their innovation capabilities, with particular reference to the internal climate for creativity and innovation and to the mindsets, attitudes and biases of people that may affect the innovation performance of a company. Results were then discussed with entrepreneurs and the top management team of the firms and recommendation to improve the overall situations (when needed) were provided. Finally, after a period from the discussion of the results, the firms' feedback was collected with the aim of understanding to which extent the companies were satisfied with the service and the recommendations received.

Hence, the overall organization of the activities has been the following:

- First, the survey and benchmarking tool has been developed within the Italian and Croatian research team;
- Second, firms have been involved in the activity. Emails, phone calls, personal meetings were organized with companies, association of companies, industrial cluster managers and other territorial stakeholders in order to spread the opportunity and to highlight the advantages related to participating in the activity
- Third, data about the innovation capabilities of Italian and Croatian SMEs were collected in the participating firms
- Fourth, data were analysed through proper statistical tools and benchmarking reports were produced
- Fifth, benchmarking reports were presented in companies (sometimes twice, when the top management, after seeing preliminary results, decided to enlarge the audience).

Results were discussed and recommendations were provided on how to improve their innovation-oriented routines. In the case of bigger firms, they were given also the possibility to compare different company's functions/offices in order to better detect where the main problems are lying.

- Finally, feedback from companies was collected.

A free to use version of the survey was created and put on-line in order to provide the possibility to any company to test the self-assessment tool.

At the end of the activity, two formative sessions were organized in Croatia (Rijeka) on 28.09.2018 and Italy (Grado) on 22.11.2018 with the aim of meeting further SMEs (and firms in general) operating in the blue sector and presenting them the results obtained through the BEAT project.

1.1. Self-assessment tool development

The survey data were collected in the period April 2018-February 2019 from the employees (white collars only) of 42 organizations, 24 of which on the Italian side and 18 on the Croatian side. A mix of data collection methods was used. The Italian team created individual online surveys for each company involved. In this case, every company involved was asked to send emails to its own employees asking for their participation in the study. A more paper-based method was used in Croatia and questionnaires were distributed in companies directly from the research team. The questionnaire was originally developed in English language and then translated into Italian and Croatian.

The survey was composed of a mix of descriptive and multi-item questions formulated on a Likert-type way. The on-line survey management tool Survey Monkey was used to collect answers in Italy. From the information available in the platform, we can determine in approximately 17 minutes the time to complete the survey. Table 1 shows the summary of the questions related to the various constructs used in the survey. As it can be seen from the table, each construct used to measure specific phenomenon related to creativity and innovation capabilities come from reliable scientific studies published in the top scientific journals in the management and in the psychology scientific fields.

Table 1 – Measures of Innovation Capabilities

CONSTRUCT AND REFERENCE	AUTHORS ITEMS
Defensive pessimism (Spencer & Norem, 1996)	1.I went into task expecting the worst, even though I knew I will probably do well 2.I carefully considered all possible outcomes before conducting the task 3.I am often worried during the task that I won't be able to carry through my intentions 4.I often try to figure out how likely it is that I will do very poorly in the task 5.I spent a lot of time planning when the task was coming up. 6.Considering what can go wrong in the task helps me to prepare
Creativity (George & Zhou, 2002)	1.I suggest new ways to achieve goals or objectives 2.I come up with new and practical ideas to improve performance. 3.I am a good source of creative ideas 4.I exhibit creativity on the job when given the opportunity to 5.I often have new and innovative ideas

	<p>6.I come up with creative solutions to problems</p> <p>7.I often have a fresh approach to problems</p> <p>8.I suggest new ways of performing work tasks</p>
<p>Creative bootlegging (Criscuolo, Salter, & Ter Wal, 2013)</p>	<p>1.I have the flexibility to work my way around my official work plan, digging into new potentially valuable business opportunities</p> <p>2.My work plan does not allow me the time to work on anything other than the projects I have been assigned to</p> <p>3.I enjoy tinkering around with ideas that are outside the main projects I work on.</p> <p>4.I am running several pet projects that allow me to learn about new areas</p> <p>5.I proactively take time to work on unofficial projects to seed future official projects</p>
<p>Creative thinking style (Nielsen, Pickett, & Simonton, 2008)</p>	<p>1.Planning is important for me; I have detailed sketches before I do anything</p> <p>2.I work creatively to produce something that achieves a purpose</p> <p>3.During creative work, I precisely state my goals before beginning, either as an image or an exact procedure</p> <p>4.My creative process is discontinuous; once I master one idea or topic, I move on to the next</p> <p>5.The creative idea appears suddenly, and my new ideas are very different from my old ideas</p> <p>6.Creative work is a systematic execution of a plan; I work easily and swiftly</p> <p>7.My creative work is finished when I complete my preconceived plan</p>
<p>innovation implementation (J. De Jong & Den Hartog, 2010) (J. P. De Jong & Den Hartog, 2007)</p>	<p>1.How often do you encourage key organization members to be enthusiastic about innovative ideas? (yours or others)</p> <p>2.How often do you attempt to convince people to support an innovative idea? (yours or others)</p> <p>3.How often do you systematically introduce innovative ideas (yours or others) into work practices?</p> <p>4.How often do you contribute to the implementation of new ideas? (yours or others)</p>
<p>Firm innovativeness</p>	<p>1.Our company frequently tries out new ideas.</p> <p>2.Our company seeks out new ways to do things</p> <p>3.Our company is creative in its methods of operation</p>

<p>(Calantone, Cavusgil, & Zhao, 2002)</p>	<p>4.Our company is often the first to market with new products and services 5.Innovation in our company is perceived as too risky and is resisted 6.Our new product introduction has increased over the last 5 years</p>
<p>Ambidextrous organizational culture (Wang & Rafiq, 2014)</p>	<p>1.In this business unit we respect everyone’s different viewpoints 2.In this business unit we value people from diverse backgrounds with diverse experiences and skills 3.In this business unit we encourage all employees to generate as many alternative solutions to problems as possible 4.All employees view themselves as partners in charting the direction of this business unit 5.The future direction of this business unit is clearly communicated to everyone 6.Everyone who works here is well aware of the long-term plans and direction of this business unit 7.There is a strong sense of where this business unit is going</p>
<p>Shortened mindful attention awareness (Brown & Ryan, 2003)</p>	<p>1.I find it difficult to stay focused on what’s happening in the present 2.I rush through activities without being really attentive to them 3.I do jobs or tasks automatically, without being aware of what I’m doing 4.I find myself preoccupied with the future or the past. 5.I find myself doing things without paying attention</p>
<p>Entrepreneurial passion (Huyghe, Knockaert, & Obschonka, 2016)</p>	<p>1.It is exciting to figure out new ways to solve unmet market needs that can be commercialized 2.Searching for new ideas for products/ services to offer is enjoyable to me 3.I am motivated to figure out how to make existing products/services better 4.Scanning the environment for new opportunities really excites me 5.Inventing new solutions to business problems is an important part of who I am 6.I frequently think about inventing new solutions to business problems.</p>

	<p>7. Identifying and developing new business opportunities is central to how I define myself.</p> <p>8. I would feel a loss if I were forced to give up searching for new solutions to business problems</p>
<p>Entrepreneurial self-efficacy (Zhao, Seibert, & Hills, 2005)</p>	<p>1. Identifying new business opportunities?</p> <p>2. Creating new products?</p> <p>3. Thinking creatively?</p> <p>4. Commercializing an idea or new development?</p>
<p>Exploitative leadership style (Schmid, Pircher Verdorfer, & Peus, 2017)</p>	<p>1. Sees employees as a means to reach his or her personal goals</p> <p>2. Values the achievement of his or her own goals over the needs of the employees</p> <p>3. Increases my workload without considering my needs in order to reach his or her goals.</p> <p>4. Does not consider my workload when new tasks need to be assigned</p> <p>5. Gives me boring routine tasks when he or she can benefit from it</p> <p>6. Uses my work for his or her personal gain</p> <p>7. Manipulates others to reach his or her goals</p>
<p>Identification with the leader (Kark, Shamir, & Chen, 2003)</p>	<p>1. When someone criticizes my leader/manager, it feels like a personal insult</p> <p>2. I am very interested in what others think about my leader/manager.</p> <p>3. When I talk about my leader/manager, I usually say 'we' rather than 'he' or 'she'.</p> <p>4. My leader's/manager's successes are my successes</p> <p>5. When someone praises my leader/manager it feels like a personal compliment</p>
<p>Work-life balance (White, Hill, McGovern, Mills, & Smeaton, 2003)</p>	<p>1. After work I have too little time to carry out my family responsibilities as I would like.</p> <p>2. My job allows me to give the time I would like to my partner/family.</p> <p>3. My partner/family gets a bit fed up with the pressure of my job</p>
<p>Employee lead- userness (Schweisfurth & Herstatt, 2016)</p>	<p>1. I am often confronted with problems that cannot be solved by products available on the market (are they ours or our competitors')</p>

2. I am dissatisfied with some pieces of commercially available products.
3. In my opinion, there are still unresolved problems with products offered in the market.
4. If I was a client, I think I could have needs that are not covered by the products currently offered on the market.
5. I often get irritated about the lack of sophistication in certain products on the market.

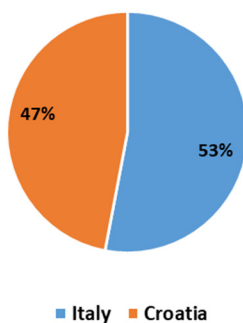
In total 38 SMEs participated in the survey of which 20 (53%) were from Italy and 18 (47%) from Croatia (figure 1). However, additional firms and organizations decided to join the activity. Hence, the overall situation is the following:

- 18 SMEs from Croatia
- 20 SMEs from Italy
- 3 big firms from Italy (sectors: cosmetics, sun awnings, energy production)
- 1 scientific park and incubator from Italy

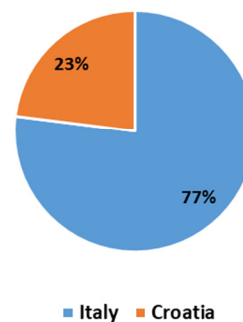
As said before, data was collected at the employee level. Less than 5% of questionnaires received were incomplete and were then withdrawn from the analysis. Of the received responses 427 (77%) were from Italy and 127 (23%) from Croatia (figure 1). Data collected was statistically elaborated (through tables and charts reporting average and median values) using SPSS® by IBM statistical software.

Figure 1: Firms and respondents by Country

Percentage of firms by country



Percentage of respondents by country



1.2 Results from data collection and benchmarking activities

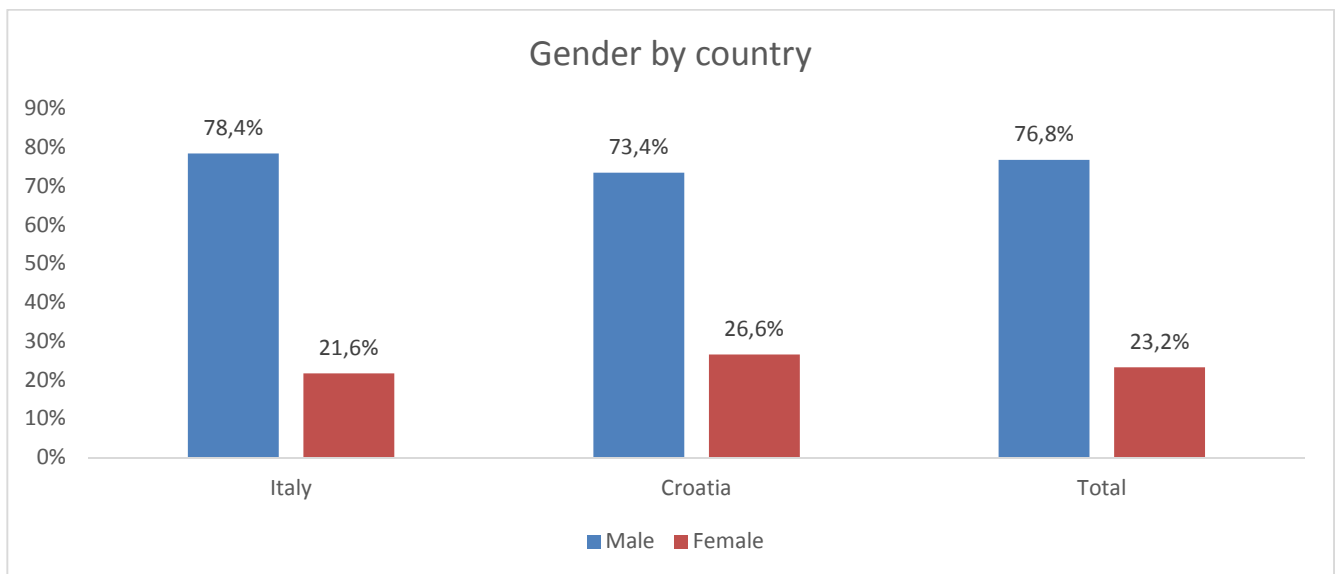
In total, 18 Croatian firms plus 24 Italian organizations (3 bigger firms and 1 technology park included) received at least a benchmarking report. Some organizations received 2 reports: in addition to the “external benchmarking report” used to compare the performance of the company with selected anonymous organizations that completed the project, they received also an “internal benchmarking report” that was used to compare the performances of

different offices / functions / teams working inside a single firm. Hence, overall, more than 42 benchmarking reports were produced.

In the following pages we will present some statistics related to all the responses received from firms, and compare trends, means and other statistical information related to Italian and Croatian firms.

1.2.1. Characteristics of the sample

A. Gender distribution

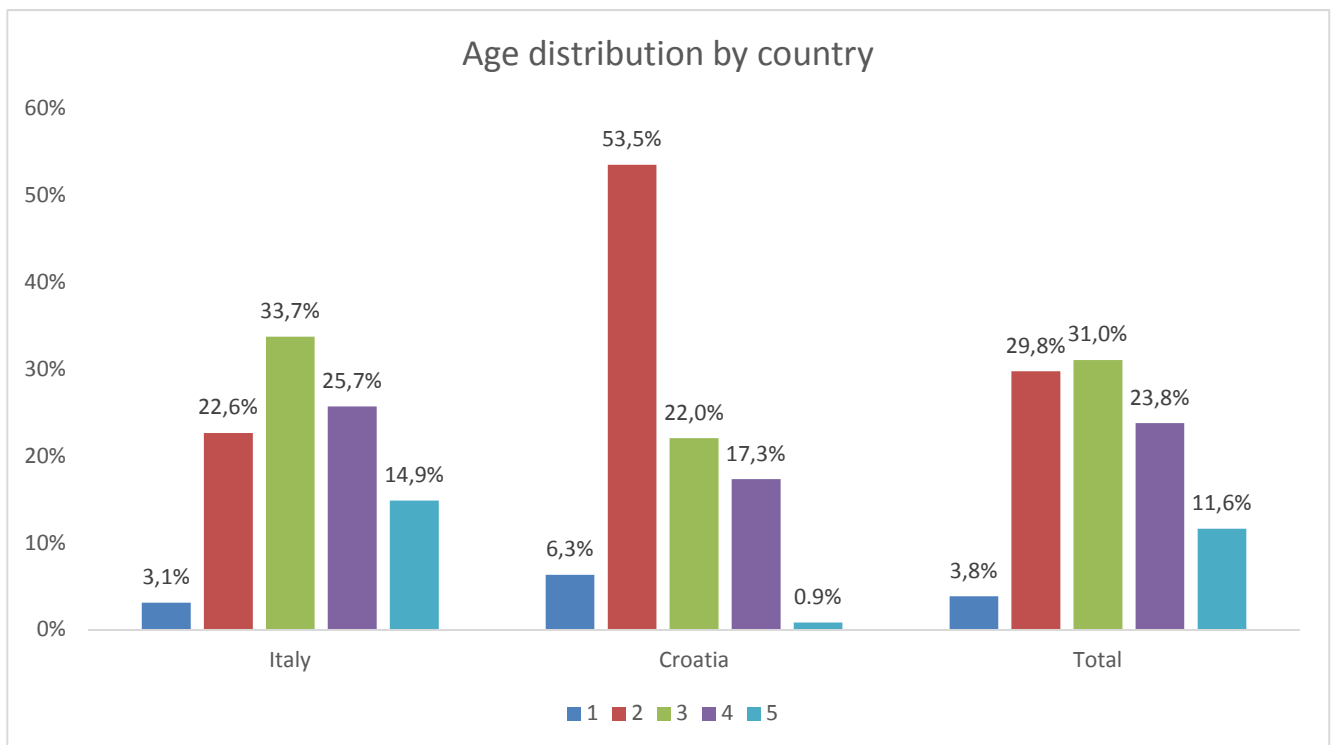


Gender		ITA	CRO	Total
Female	N	130	47	177
	%	21.60%	26.60%	23.20%
Male	N	290	80	370
	%	78.40%	73.40%	76.80%

As we can see from the data, the majority of the respondents in the overall dataset are male (76.8%) probably reflecting a major presence of males in the blue sector. When comparing the distribution of respondents by Countries, we observe a difference in the distribution with Italy (78.4%) ranking higher in terms of percentage of males, while **in Croatia (73.4%) women**

were more present among the white collars and management of the firms involved in the project.

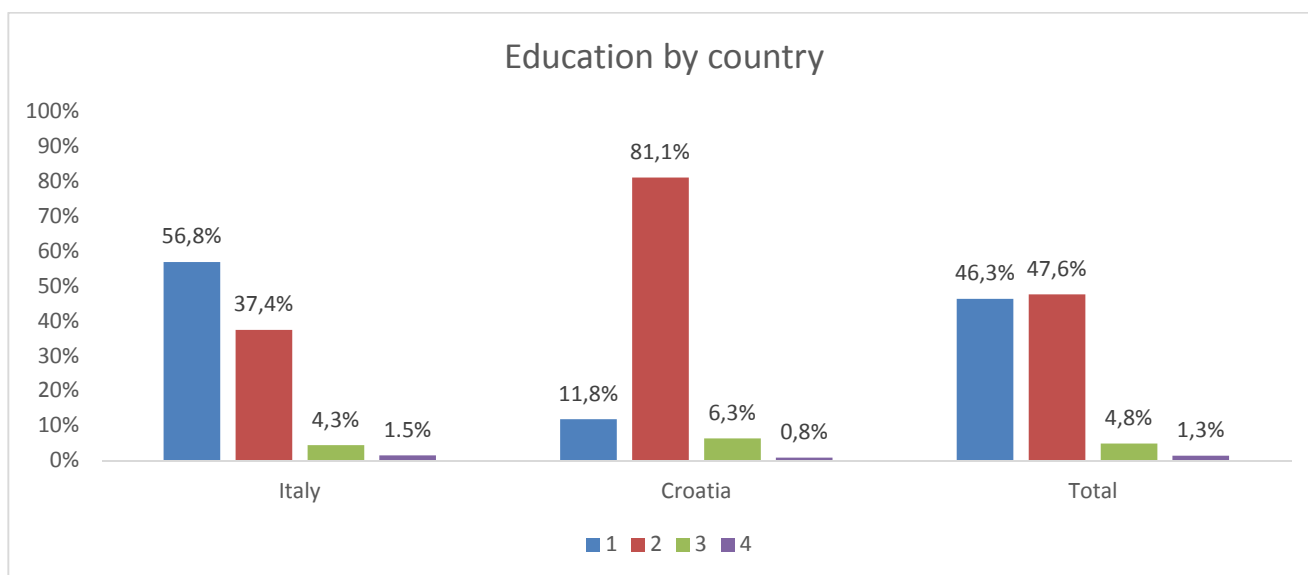
B. Age distribution



Age		ITA	CRO	Total
Less than 24	N	13	8	21
	%	3.10%	6.30%	3.80%
25-34	N	96	68	164
	%	22.60%	53.50%	29.80%
35-44	N	143	28	171
	%	33.70%	22.00%	31.00%
45-54	N	109	22	131
	%	25.70%	17.30%	23.80%
Over 54	N	63	1	64
	%	14.90%	0.90%	11.60%

When looking at the whole sample, we notice that the majority of respondents are aged between 35 to 44. However, data related to the 2 Countries are quite different and see a clear majority of younger workers among Croatian firms. Indeed, in Croatia more than half of respondents are aged 25-34. On the other hand, less than 1 percent of Croatian white collars (in practice, just 1 person) reported an age over 54 years. The opposite situation was found in Italy where the majority of respondents concentrates on the 35-44 age class, hence supporting the hypothesis that the managerial cadre and the support staff of Italian firms is generally older than the Croatian one.

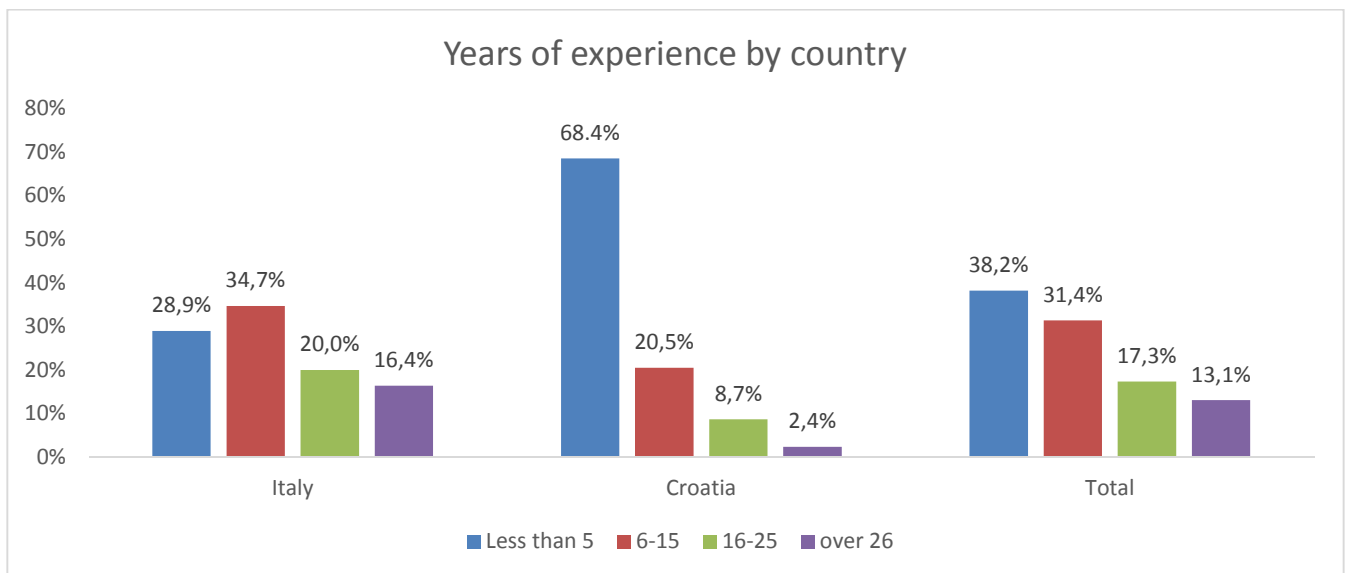
C. Level of education



Education		ITA	CRO	Total
Middle or high school diploma	N	237	15	252
	%	56.80%	11.80%	46.30%
Bachelor's or Master's degree	N	156	103	259
	%	37.40%	81.10%	47.60%
Master/MBA/EMBA	N	18	8	26
	%	4.30%	6.30%	4.80%
Doctorate degree	N	6	1	7
	%	1.50%	0.80%	1.30%

Considering the level of education, by looking at the sample in total we notice that the majority of respondents are in general highly qualified (Bachelor or master degree for 47.6%). However, at the Country level, huge differences emerge between Italy and Croatia. Indeed, while in Italy the majority of respondents (56.8%) declare to possess a high school diploma as the highest education title achieved, **in Croatian firms, the level of education is generally higher, with the 81.1% of respondents declaring to be in possess of a bachelor or master's degree.**

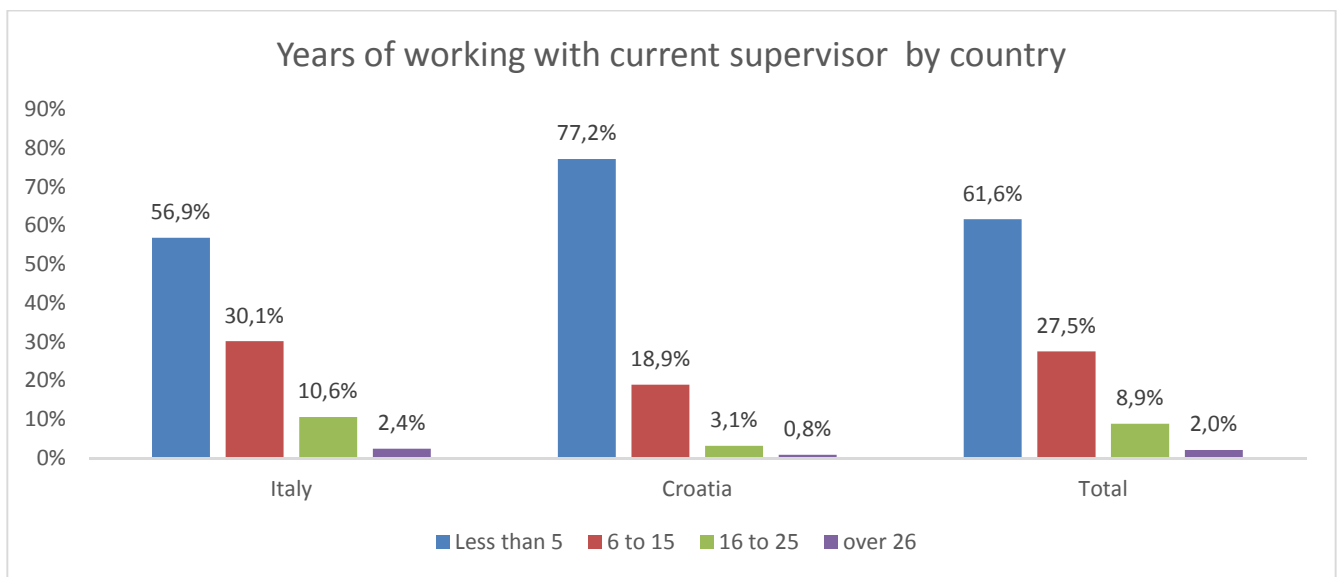
D. Working experience



Education		ITA	CRO	Total
Less than 5	N	120	87	207
	%	28.90%	68.40%	38.20%
6-15	N	144	26	170
	%	34.70%	20.50%	31.40%
16-25	N	83	11	94
	%	20.00%	8.70%	17.30%
Over 26	N	68	3	71
	%	16.40%	2.40%	13.10%

Even in relation to the average tenure, data between Italy and Croatia show consistent differences. Indeed, while the majority of employees in Croatia (68.4%) can count less than 5 years of accumulated working experience in total, while **in Italy the distribution is better balanced among the different classes of work experience.**

E. Working years with current supervisor



Education		ITA	CRO	Total
Less than 5	N	236	98	334
	%	56.90%	77.20%	61.60%
6-15	N	125	24	149
	%	30.10%	18.90%	27.50%
16-25	N	44	4	48
	%	10.60%	3.10%	8.90%
Over 26	N	10	1	11
	%	2.40%	0.80%	2.00%

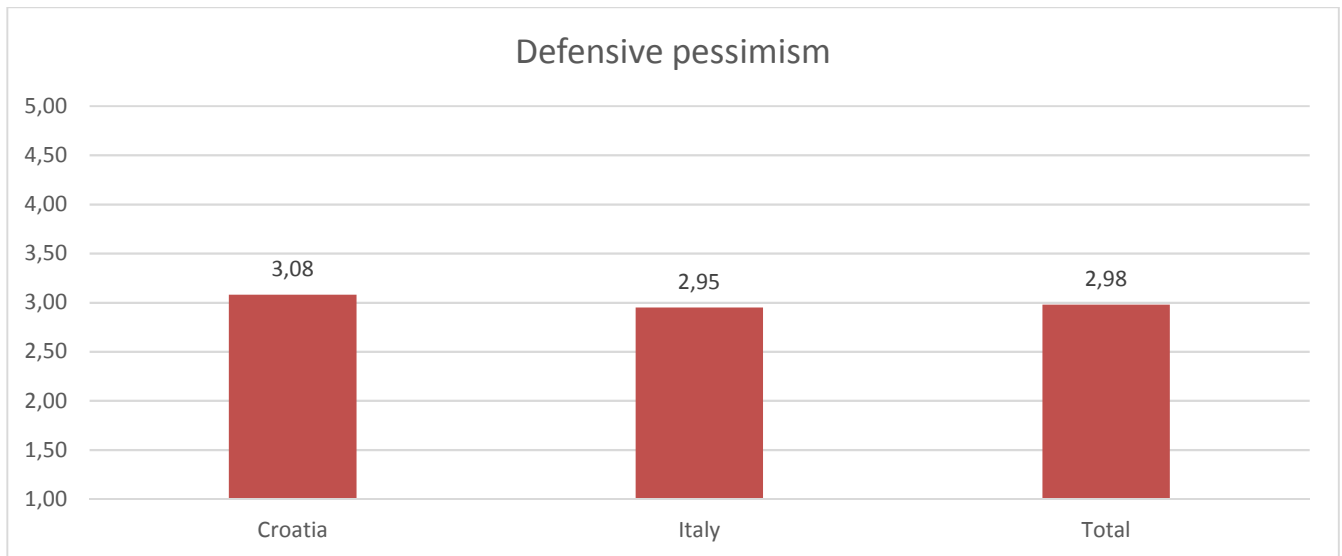
In general, the great majority of respondents from both the Countries declared to have been working under their current supervisor for less than 5 years (61.6%). While for Croatia this is

pretty consistent with the previous data related to the average working experience declared by the workers, this is more surprising in Italy where the working experience was generally longer. **A certain level of managerial turnover, as apparently emerging from Italian companies, is generally healthy for firms.**

1.2.2. Innovation capabilities: the results

A. Defensive pessimism

Defensive pessimism is a strategy which people use when preparing for performance situations. They may feel anxious and out of control and they set low expectations for their performance and extensively think through alternative plans. Defensive pessimists could harness their anxiety and reach more appraisals of their performance therefore is a determinant construct for evaluating employee’s mindset facing new situations in work place. Such peculiar mindset, that is not completely negative since could trigger people to “overperform”, is also linked to organizational dynamics. Indeed, a wrong leadership style, characterized by harsh criticism and continuous judgment, will naturally increase the barriers of defensive pessimism of people. As a consequence, people will contribute less with their ideas to innovation processes and a higher level of “silence” (another enemy of innovation) will characterize the company or the function/group



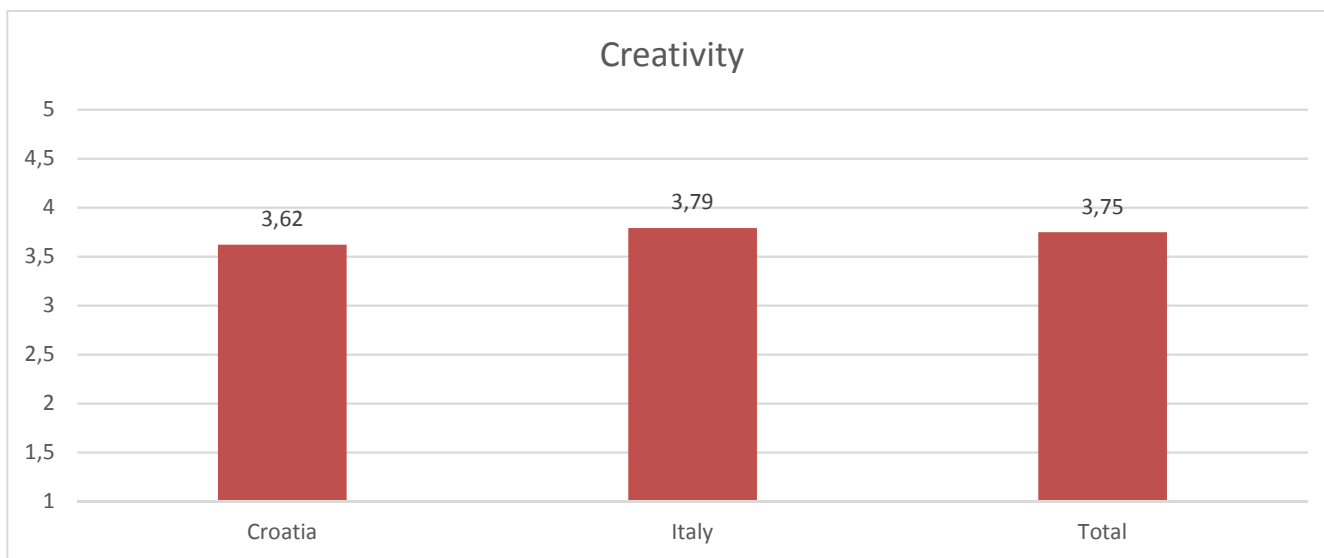
The chart shows that the Croatian average is slightly higher than the Italian average.

Country	N	Mean	Median	Std. Deviation	Minimum	Maximum	Percentiles		
							25	50	75
Croatia	127	3.08	3.16	0.534	1.50	4.20	2.83	3.16	3.33
Italy	427	2.95	3.00	0.628	1.00	4.80	2.50	3.00	3.33
Total	554	2.98	3.00	0.610	1.00	4.80	2.50	3.00	3.33

Results show quite comparable data among Italian and Croatian firms. The situation in both the cases is “normal”. However, a higher standard deviation characterizes Italian firms, meaning that, in average, data tend to vary more. As a partial confirmation of that, we see that the minimum and the maximum levels registered in Italy are, respectively, lower and higher than the Croatian ones.

B. Creativity

Creativity in the workplace consists in the production of novel and useful ideas or situations. Totally, there are five roots through which creativity may originate and proceed in an organization: 1) identifying a problem or an opportunity 2) gathering information and resources 3) generating ideas 4) evaluating, modifying and communicating ideas 5) implementing ideas. Employee’s creativity determines the innovative behavior of employees to large extent and, in turn, the innovative performance of a company. Creativity is a state-of-mind but it is also an important component of a company culture towards innovation. Indeed, creativity can be encouraged (or not) and valorized when present (or not). When encouraged and valorized, data collected in firms tend to move towards the highest levels of the scale (4 and 5).

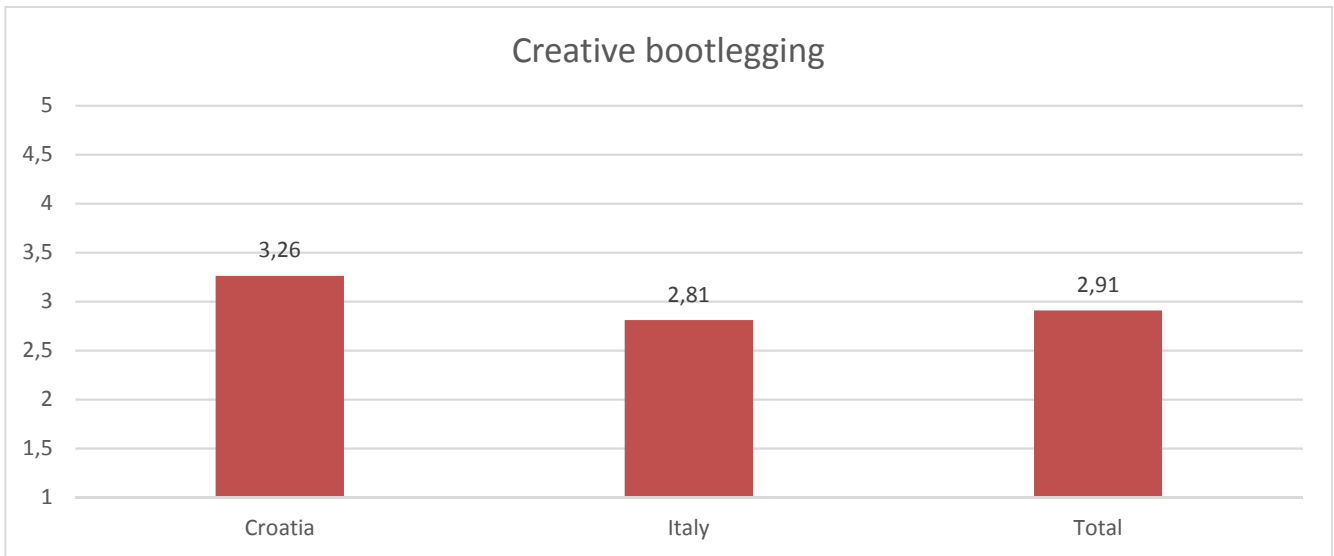


What comes out from the data, is that both Italian and Croatian employees self-assess their creativity contribution in a quite generous way. This is good, since it means that creativity is, in general, not just tolerated, but explicitly encouraged in the sector. Encouraging creativity and innovative behaviors is key when sectors are in front of deep technological changes, as the blue sector is.

Country	N	Mean	Median	Std. Deviation	Minimum	Maximum	Percentiles		
							25	50	75
Croatia	127	3.62	3.62	0.531	1.00	5.00	3.25	3.62	4.00
Italy	427	3.79	3.87	0.624	1.00	5.00	3.37	3.87	4.25
Total	554	3.75	3.75	0.608	1.00	5.00	3.37	3.75	4.12

C. Creative bootlegging

Bootlegging is a vehicle that enables individuals to obtain greater strategic autonomy in their innovation efforts. Through bootlegging activities, individuals secretly engage in bottom-up, non-programmed innovation efforts not officially authorized by management but which are for the benefit of the company. Proactive behavior is of crucial importance to measure since is associated with innovation in a way that proactive employees will more often come up with original ideas and will be more motivated to make sure those ideas are enacted.



The chart shows a significant difference between the levels associated to the two countries with Croatian firms ranking higher for creative bootlegging. To understand today's importance of such dimension of the innovation capabilities of a firm, consider that creative bootlegging (also called "informal" innovation) is institutionalized in some organizations, that provide their employees with free time (up to a certain percentage, that in 3M ltd is 15% and in Google is 20%) to work on side-projects.

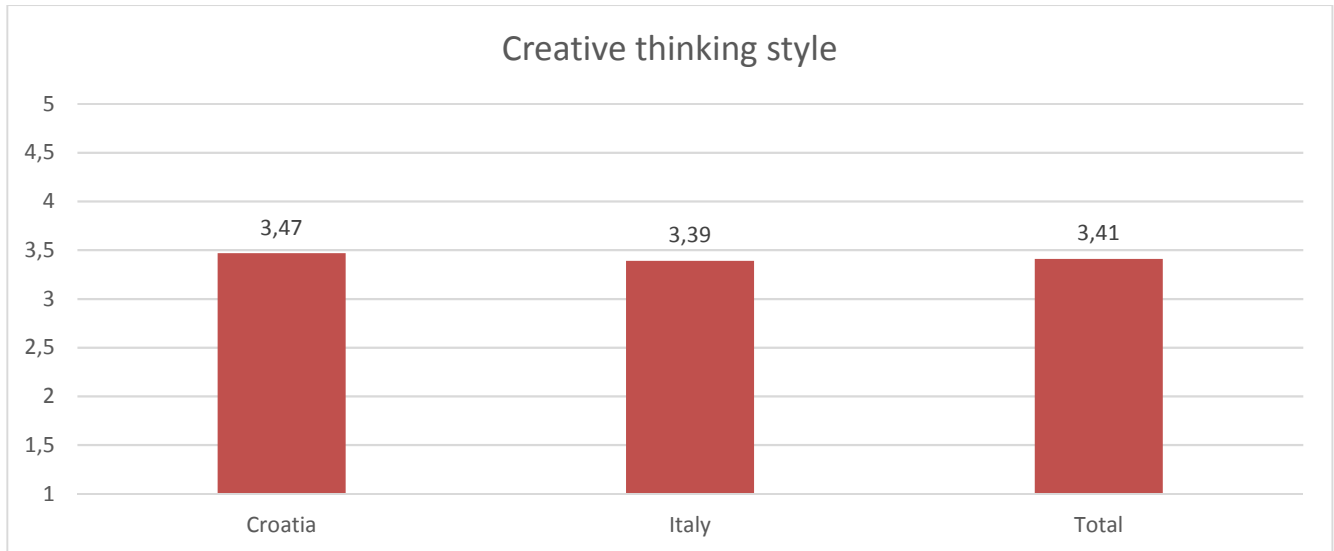
Country	N	Mean	Median	Std. Deviation	Minimum	Maximum	Percentiles		
							25	50	75
Croatia	127	3.26	3.40	0.576	1.80	4.40	3.00	3.40	3.60
Italy	427	2.81	2.80	0.831	1.00	4.80	2.20	2.80	3.40
Total	554	2.91	3.00	0.801	1.00	4.80	2.40	3.00	3.60

In Italy, the average scores indicate a good even if not outstanding level of creative bootlegging, thus meaning that employees have just partial freedom of organizing their time and "stealing" from the working time some moments for pushing forward their own intuitions.

D. Creative thinking style

Creativity is operationalized as one's performance on convergent and divergent thinking tasks. More specifically, creativity cognitive style reflects individuals' two habitual mental models in idea generation. Divergent thinking refers to positive attitude toward generating many diverse ideas for 1 problem and convergent thinking is a preference to clarify the nature and the facts

pertaining to a problem in order to narrow the various possibilities. The first orientation is more spontaneous, while the second is more related to planning.

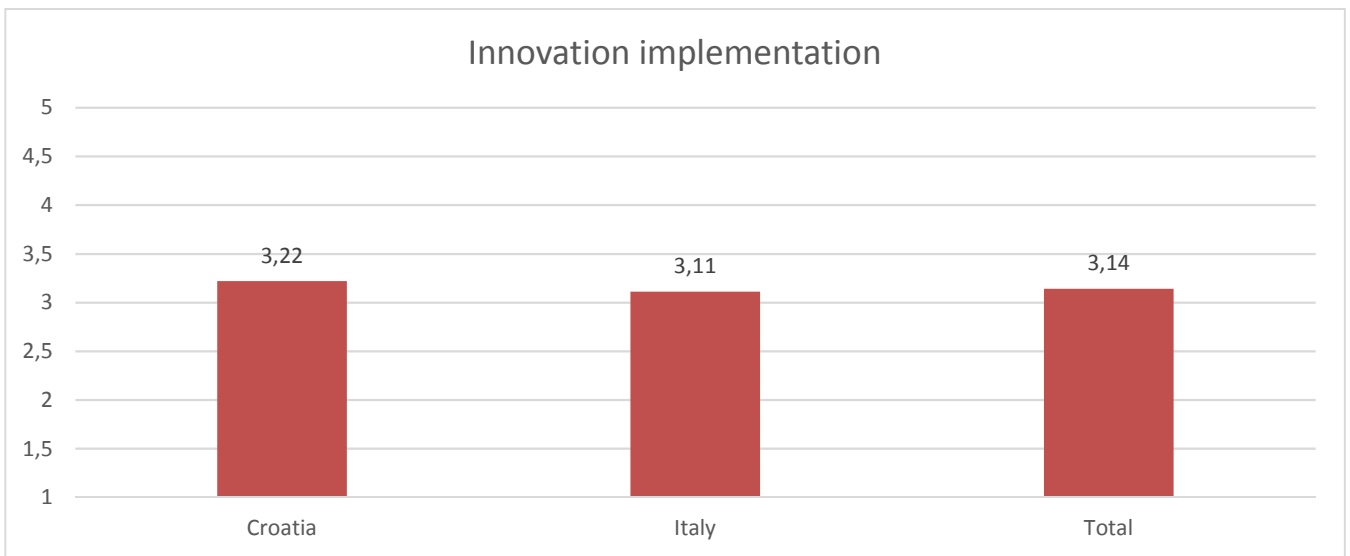


Country	N	Mean	Median	Std. Deviation	Minimum	Maximum	Percentiles		
							25	50	75
Croatia	127	3.47	3.42	0.473	2.30	4.70	3.14	3.42	3.71
Italy	427	3.39	3.42	0.482	1.00	4.90	3.14	3.42	3.71
Total	554	3.41	3.42	0.481	1.00	4.90	3.14	3.42	3.71

There are no significant differences on data related to the two countries. In both the areas, people showed a higher attitude towards innovation planning or convergent creative style.

E. Innovation implementation

Innovation implementation is the “other side” of creativity and refers to the implementation of innovations, such as the initiation and intentional introduction of new and useful ideas, processes, products or procedures in an organization. The construct measures the employees’ abilities to implement such innovation-oriented processes and, indirectly, the level of freedom employees have in carrying out innovation-oriented activities within their organization.

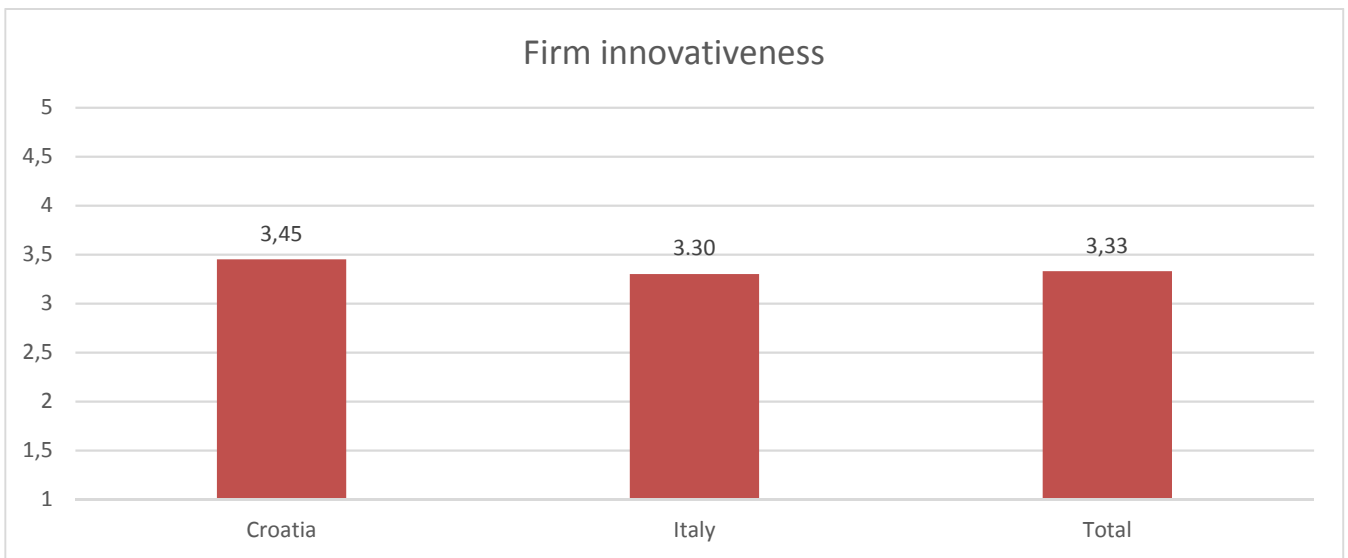


The data reveal one important thing: innovation implementation, in general, scores lower than creativity. Meaning that when it comes to provide tools, resources and time to people to put in action their ideas, all companies tend to be “less generous”. This is fully understandable and perfectly in line with managerial literature. The situation in the two Countries is almost identical and, in general terms, it can be defined “good enough”.

Country	N	Mean	Median	Std. Deviation	Minimum	Maximum	Percentiles		
							25	50	75
Croatia	127	3.22	3.25	0.847	1.00	5.00	2.75	3.25	4.00
Italy	427	3.11	3.25	0.848	1.00	5.00	2.50	3.25	3.75
Total	554	3.14	3.25	0.848	1.00	5.00	2.50	3.25	3.75

F. Firm innovativeness

In this question, we asked respondents to make an overall evaluation of the degree of innovativeness of the organization they work for. Normally, when people do such kind of evaluations, they tend to choose as terms of reference previous working experiences or working environment they know better for any reasons (because they’re clients or suppliers or business partners, etc.). That’s why the construct is also considered as a proxy of the “external” level of innovativeness of an organization.

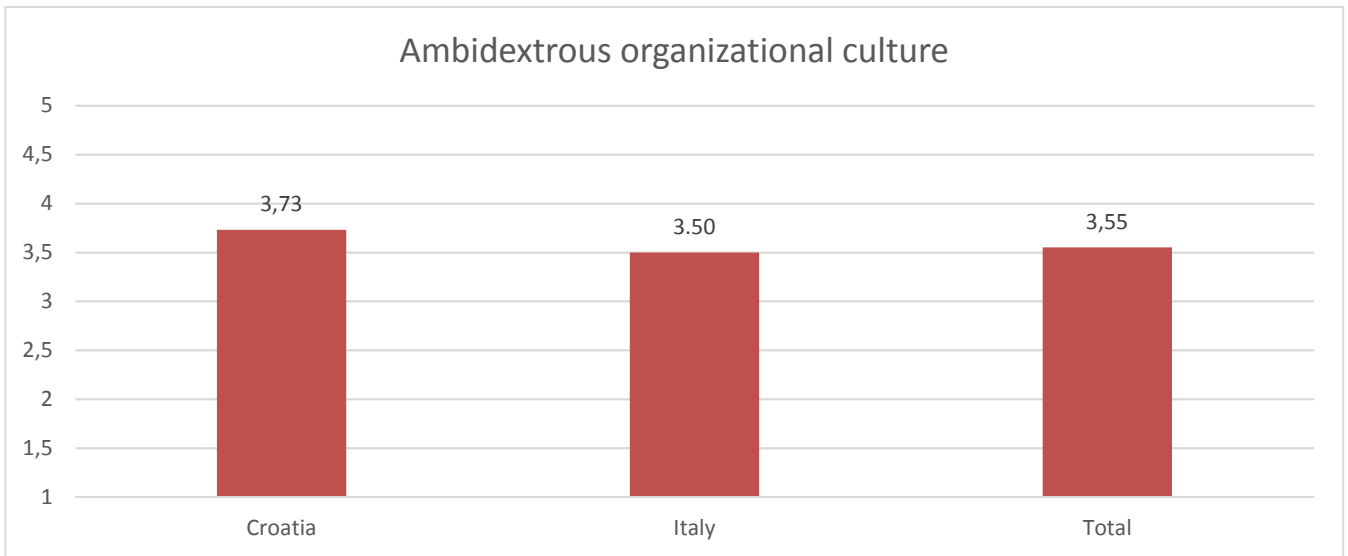


Results show that Croatian respondents in general consider their companies more innovative than Italian ones. And they tend to agree more on such evaluation than Italians, that are characterized by higher dispersion of their answers.

Country	N	Mean	Median	Std. Deviation	Minimum	Maximum	Percentiles		
							25	50	75
Croatia	127	3.45	3.50	0.642	1.80	4.80	3.16	3.50	4.00
Italy	427	3.30	3.33	0.831	1.00	5.00	2.66	3.33	3.83
Total	554	3.33	3.50	0.794	1.00	5.00	2.83	3.50	3.83

G. Ambidextrous organizational culture

Organizational culture refers to the underlying values, beliefs, and principles that serve as a foundation for an organization's management system. The center of organizational ambidexterity lies a key debate as to whether exploration and exploitation are competing or complementary facts of firm's decisions and actions. Ambidextrous organizational culture consists of 2 elements: 1) organizational diversity 2) shared vision. The first element (organizational diversity) is related to the mutual respect people have for each other in an organization. The second element (shared vision) is about the level of circulation of information related to the long-medium and short-term strategies and moves of the company and to what extent employees are aware and informed of such strategies. Of course, a high level of ambidextrous organizational culture is highly preferable.

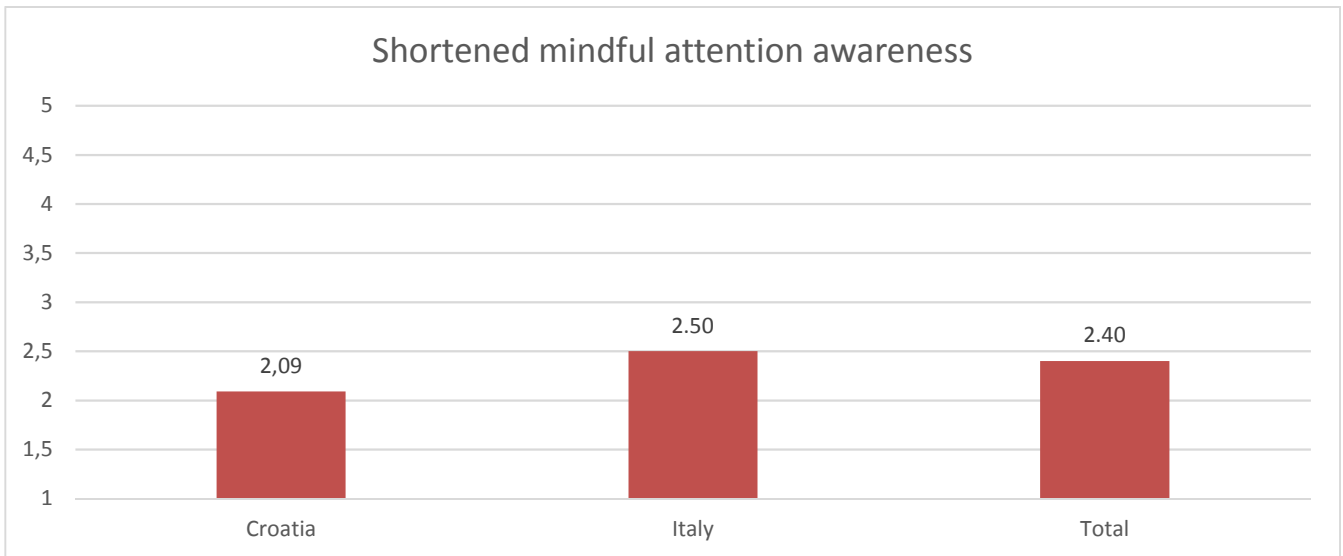


Even in relation to this construct, Croatian firms score significantly higher than Italian firms. Hence a better circulation of information (and mutual respect) characterize companies of the blue-tech sector from the Croatian side.

Country	N	Mean	Median	Std. Deviation	Minimum	Maximum	Percentiles		
							25	50	75
Croatia	127	3.73	4.00	0.826	1.30	5.00	3.42	4.00	4.28
Italy	427	3.50	3.71	0.891	1.00	5.00	3.00	3.71	4.14
Total	554	3.55	3.71	0.881	1.00	5.00	3.00	3.71	4.14

H. Shortened mindful attention awareness

Mindfulness is a hot topic in strategic management literature. It is an attribute of consciousness believed to promote well-being in organizations. Individual are different in the frequency of mindful states over. Regarding this, shortened mindful attention awareness refers to the absence of attention to and awareness of what is occurring in the present. Hence a lower level of shortened attention is preferable.

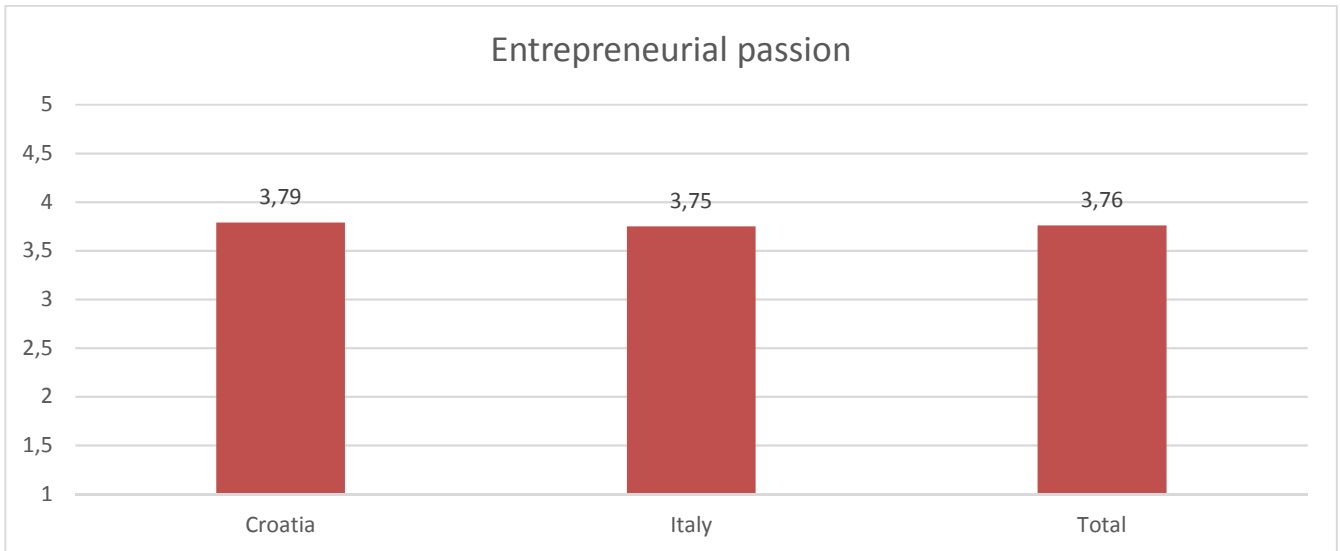


Croatian firms score lower and hence better than Italian firms. Croatian environments seem to be characterized by a better organization of the activities, with people having the time and the possibility to concentrate and to devote the needed attention to specific problems while working. On the other hand, Italian workers of the blue sector seem to be less able to focus on the assigned task.

Country	N	Mean	Median	Std. Deviation	Minimum	Maximum	Percentiles		
							25	50	75
Croatia	127	2.09	2.00	0.624	1.00	4.00	1.60	2.00	2.40
Italy	427	2.50	2.40	0.788	1.00	5.00	2.00	2.40	3.00
Total	554	2.40	2.40	0.772	1.00	5.00	1.80	2.40	3.00

I. Entrepreneurial passion

Entrepreneurial passion is defined “as consciously accessible, intense positive feelings toward entrepreneurial tasks and activities, associated with roles that are meaningful and salient to one’s self-identity”. The entrepreneurial passion is a key motivational driver of entrepreneurial behavior among employees. Nowadays, more and more companies incentivize their employees in acting more entrepreneurially, in taking more risks and provide them with more independence. Hence, the possess of entrepreneurial passion is a key antecedent of such kind of entrepreneurial behaviors adopted by workers.

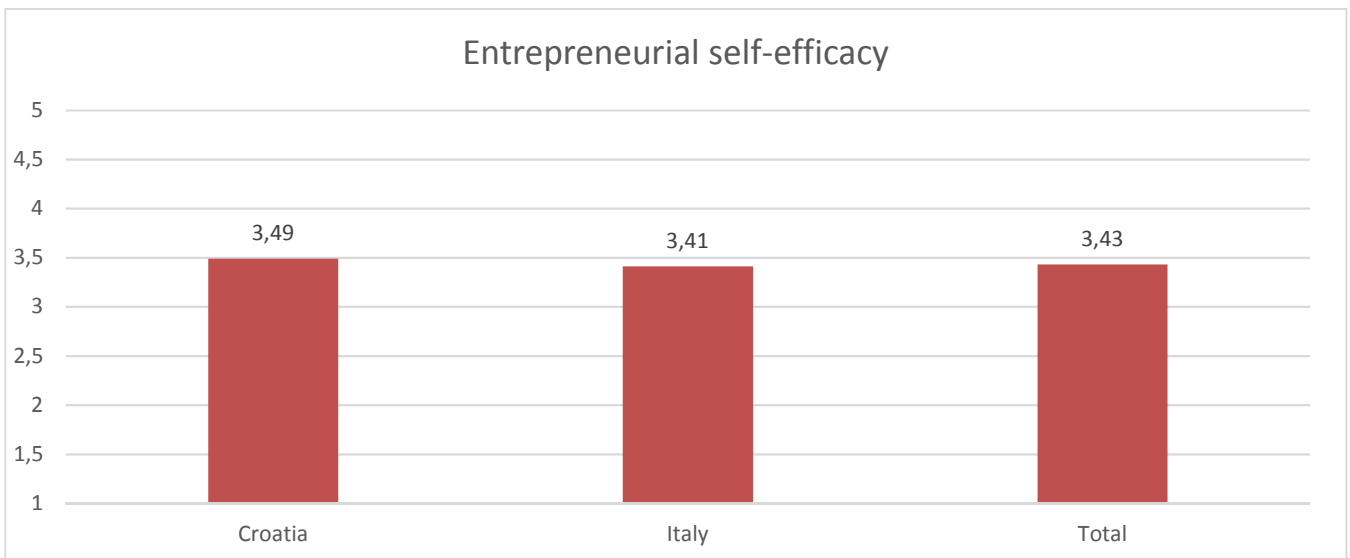


The analysis reveals that Italian and Croatian employees show very similar levels of entrepreneurial attitude. And this level is in average quite high, meaning that overall employees are quite used to act as they were entrepreneurs in the companies they work for. And that they do it with passion.

Country	N	Mean	Median	Std. Deviation	Minimum	Maximum	Percentiles		
							25	50	75
Croatia	127	3.79	3.87	0.570	2.40	5.00	3.50	3.87	4.12
Italy	427	3.75	3.75	0.703	1.00	5.00	3.25	3.75	4.25
Total	554	3.76	3.75	0.674	1.00	5.00	3.25	3.75	4.25

J. Entrepreneurial self-efficacy

Entrepreneurial self-efficacy represents the other side of entrepreneurial passion. And it refers to individuals' self-confidence in successfully performing entrepreneurial roles and tasks. As for "creativity" and "innovation implementation", also for entrepreneurial passion and self-efficacy we normally report significant differences, with self-efficacy scoring generally lower than passion. And the assumption finds confirmation in the data with the construct scoring 3.43 in average in the whole sample (with no significant differences between the 2 subsamples) against a former level of 3.76 for entrepreneurial passion



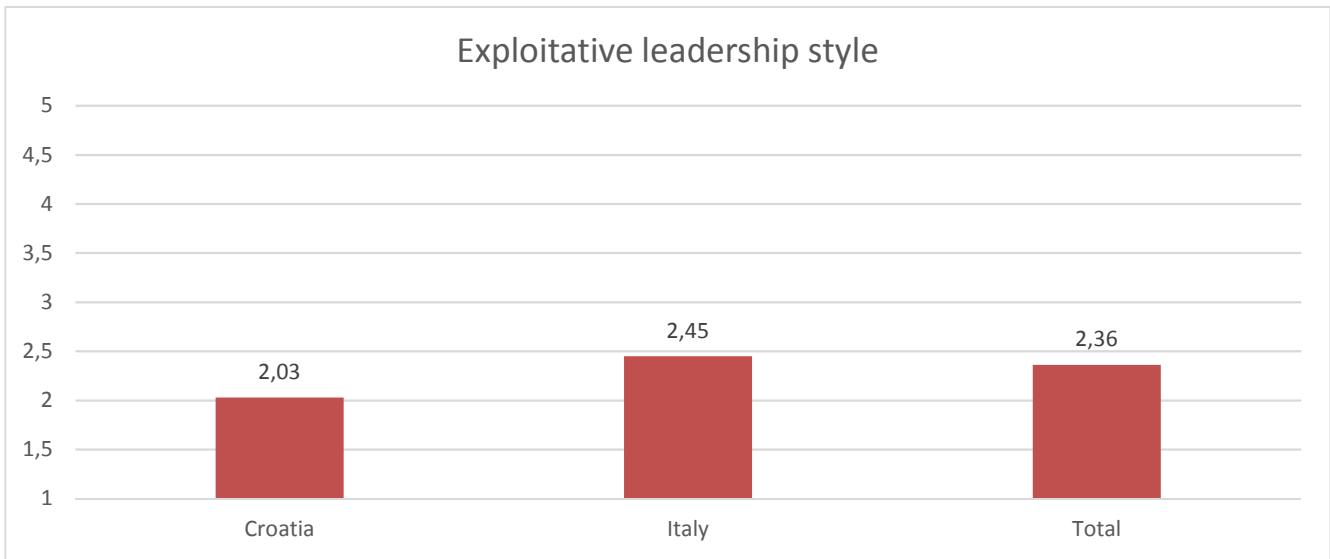
As said, no significant differences can be found between Croatian and Italian firms. The only difference relates to the minimum value recorded, that in the case of Italy correspond also to the minimum threshold of the scale (value 1 out of 5) while it is slightly higher for Croatia (1.5 out of 5).

Country	N	Mean	Median	Std. Deviation	Minimum	Maximum	Percentiles		
							25	50	75
Croatia	127	3.49	3.50	0.625	1.50	5.00	3.25	3.50	4.00
Italy	427	3.41	3.50	0.736	1.00	5.00	3.00	3.50	4.00
Total	554	3.43	3.50	0.712	1.00	5.00	3.00	3.50	4.00

K. Exploitative leadership style

An exploitative leader is a leader acting mainly for self-interest and treating subordinates as a means for achieving his/her ends. An exploitative leader: 1) act egoistically 2) exert pressure and manipulate subordinates 3) overburden subordinates and at the same time 4) under challenge them.

Further, the exploitative leader tends to attribute to him/herself all the merits for the goals achieved and to blame others for the failures. Leaders have a critical role in fostering innovation in organizations by increasing people's commitment towards innovation. It goes without saying that an exploitative leadership style is not a proper style of leadership for obtaining innovation-related results.

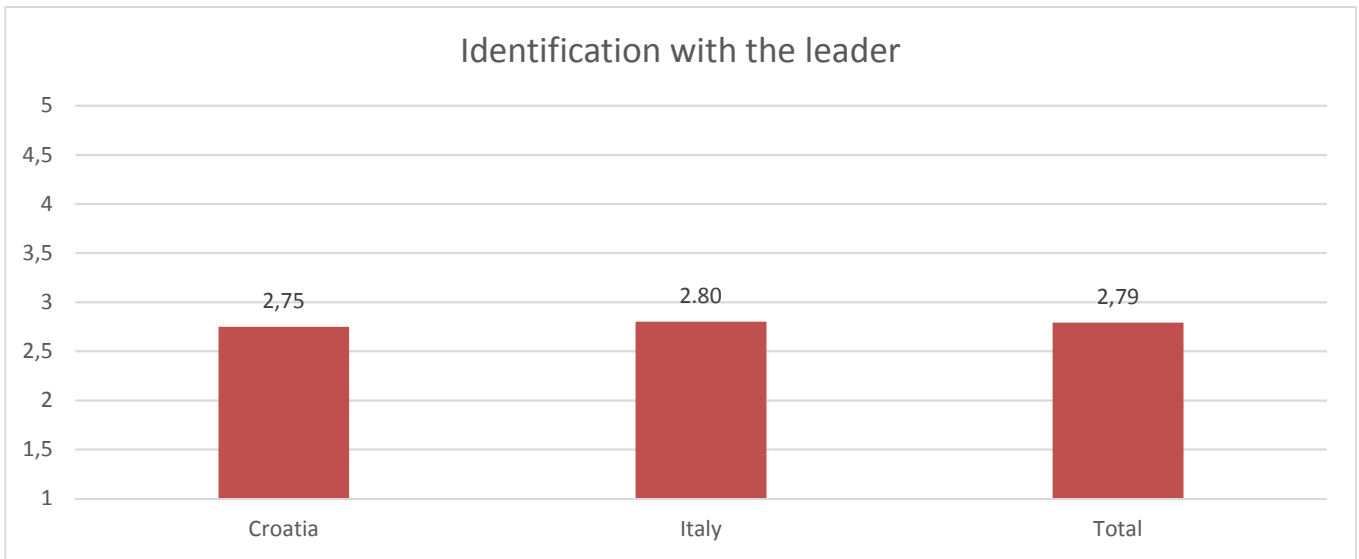


In this specific case, lower levels are preferred since they testify lower levels of exploitative leadership style. Croatian firms act as benchmark for the sample and rank much lower than Italian ones. Further, standard deviation is also lower, indicating that there's more uniformity of behaviours in Croatian firms.

Country	N	Mean	Median	Std. Deviation	Minimum	Maximum	Percentiles		
							25	50	75
Croatia	127	2.03	1.80	0.913	4.00	1.00	5.00	1.28	1.80
Italy	427	2.45	2.20	1.106	4.00	1.00	5.00	1.57	2.28
Total	554	2.36	2.14	1.079	4.00	1.00	5.00	1.53	2.14

L. Identification with the leader

Based on transformational and charismatic leadership theories these kinds of leadership may achieve its effects partly through the creation of followers' identification with the leader (personal identification) and with the work group (social identification) personal identification. with the leader represents concerns two modes of identification 1) evoking followers' self-concept in the recognition that they share similar values with the leader 2) giving rise to followers' desire to change their self-concept so that their values and beliefs become more similar to those of the leader. Moreover, social identification implies that an individual's belief about a group is self-referential or self-defining which is influenced by leadership.

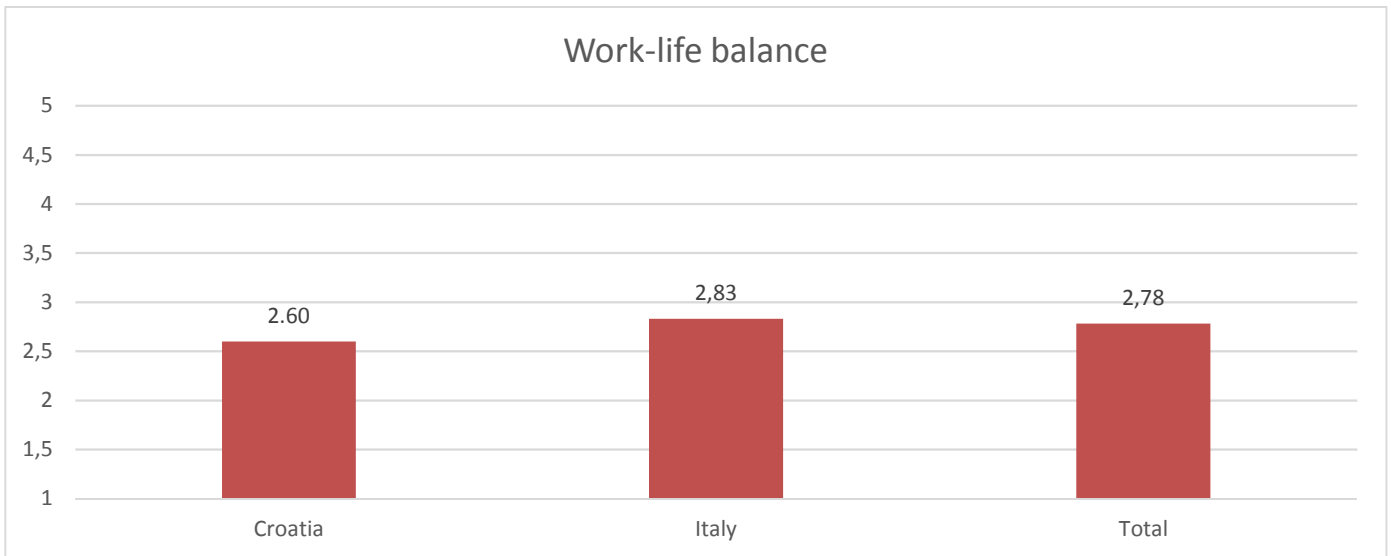


Italian employees show to identify more with their leaders, even if for Croatian firms the standard deviation is higher, meaning that there's less uniformity in the responses provided by the employees involved in the project.

Country	N	Mean	Median	Std. Deviation	Minimum	Maximum	Percentiles		
							25	50	75
Croatia	127	2.75	3.00	0.841	1.00	4.00	5.00	2.20	3.00
Italy	427	2.80	2.80	0.766	1.00	4.00	5.00	2.40	2.80
Total	554	2.79	2.80	0.783	1.00	4.00	5.00	2.20	2.80

M. Work-life balance

Work-life balance refers to how easy is for employees to keep together their working and their private life without the former overwhelming the latter. A good work-life balance favors creativity and innovation implementation. A higher balance may indicate the presence of specific attention put to the needs of employees. However, a too high balance may indicate a lack of care of employees towards the destiny of the organization they work for.

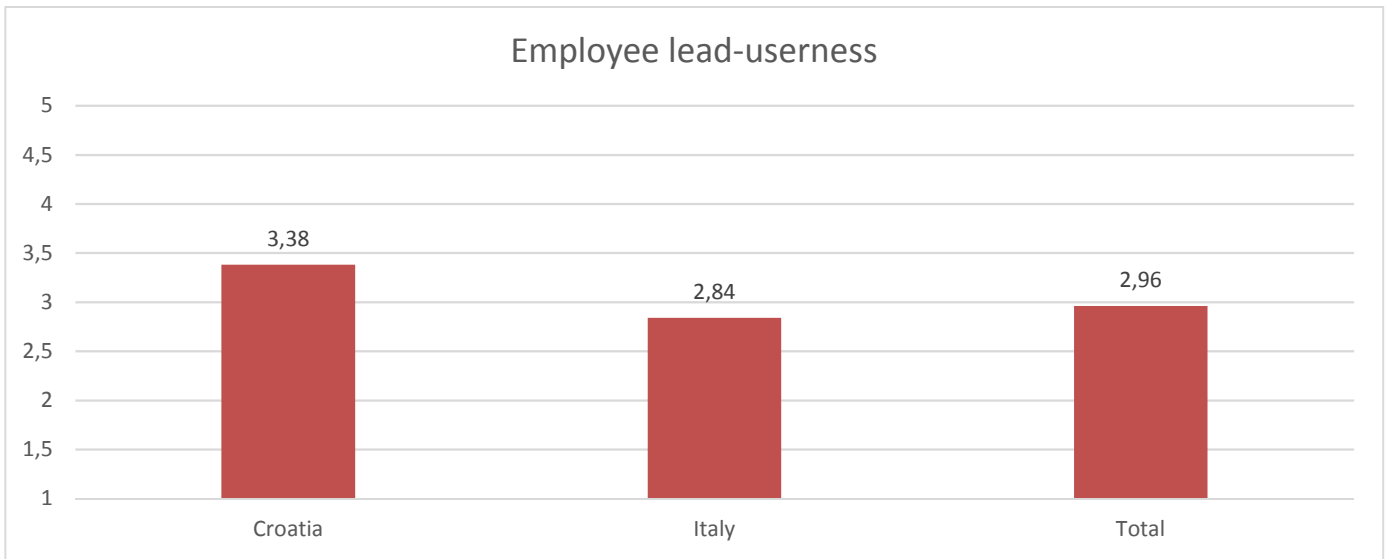


In general, the balance appears to be slightly better in Italian firms than it is in Croatian ones.

Country	N	Mean	Median	Std. Deviation	Minimum	Maximum	Percentiles		
							25	50	75
Croatia	127	2.60	2.66	0.819	1.00	3.70	4.70	2.00	2.66
Italy	427	2.83	3.00	0.869	1.00	4.00	5.00	2.33	3.00
Total	554	2.78	2.66	0.862	1.00	4.00	5.00	2.33	2.66

N. Employee lead-usersness

According to the theory of User Innovation, users are more and more contributing to the innovations developed by (and with) firms. Lead-users are a specific type of users. Their technical skills are above the average and their knowledge can be extremely useful to firms in order to develop better products. But lead-users can be everywhere and could be anything but easy for firms to get in touch with them. Whenever possible, firms hire such talented employees and retain them in order to leverage on their genuine passion and deep technological knowledge. Thus, employee lead-users, who are defined as "employees who are lead-users of their employing firm's products or services", represent an asset for a firm.



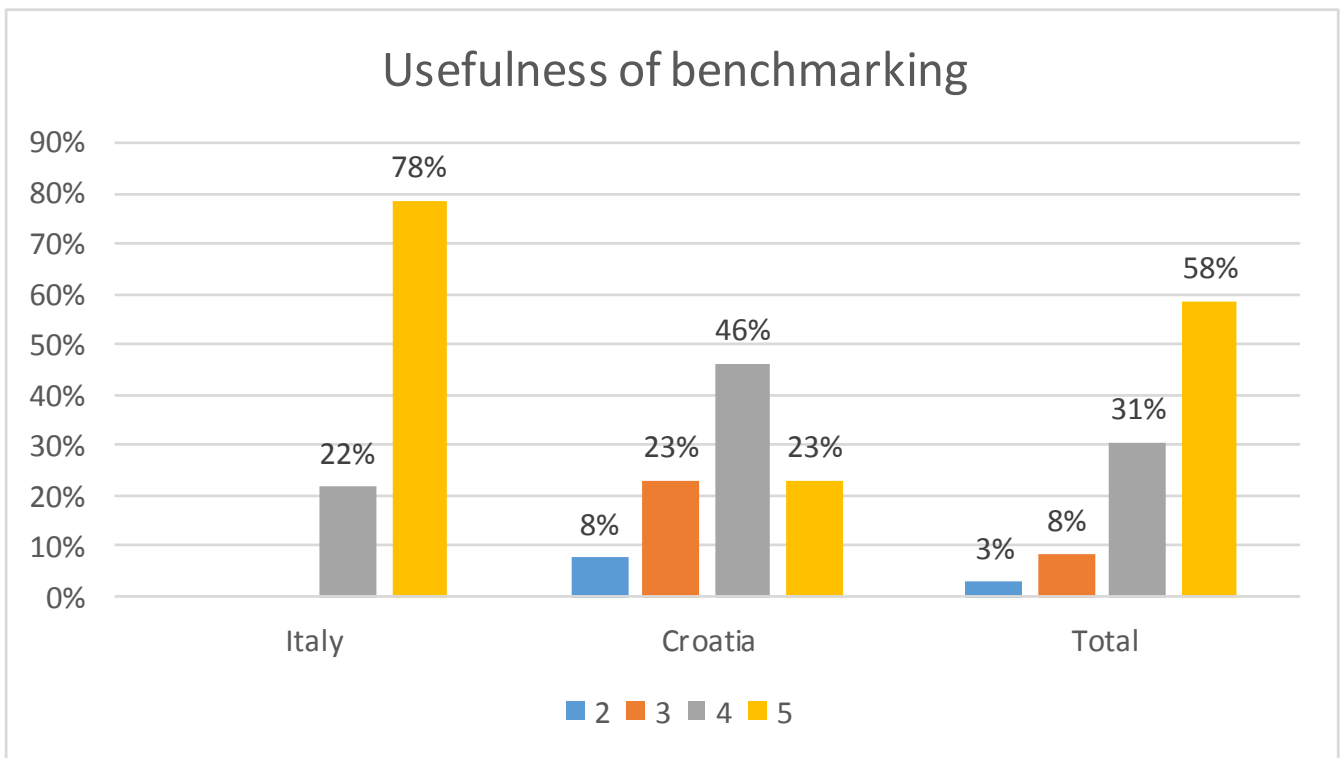
Coming to the survey, Croatian employees have a higher self-confidence in defining themselves as lead-users. The difference between Italian and Croatian firms is, indeed, quite significantly high and could be related to the lower average age of Croatian employees (indeed, younger workers are characterized by higher levels of self-confidence).

Country	N	Mean	Median	Std. Deviation	Minimum	Maximum	Percentiles		
							25	50	75
Croatia	127	3.38	3.40	0.624	1.80	3.20	5.00	3.00	3.40
Italy	426	2.84	3.00	0.625	1.00	3.40	4.40	2.40	3.00
Total	553	2.96	3.00	0.665	1.00	4.00	5.00	2.60	3.00

2. FEEDBACK COLLECTION AND REPORTING

After first data collection, firms were re-assessed through an on-line survey. Aim of this second survey had been to understand to what extent firms have benefited from the suggestions provided by the benchmarking, in which ways SMEs improved their organizational and managerial routines to better manage their innovation processes and to what extended.

For this two questions were asked. One asked that in a scale of 1-5 how useful the benchmarking had been to the company. Second asked for the general opinion regarding the benchmarking service that had been provided. The result of the first question is illustrated as following:



Score		ITA	CRO	Total
1- not at all useful	N	0	0	0
	%	0	0	0
2- not useful	N	0	1	1
	%	0	8%	3%
3- neutral	N	0	3	3
	%	0	23%	8%
4- useful	N	5	6	11
	%	22%	46%	31%
5- very much useful	N	18	3	21
	%	78%	23%	58%

In general, the majority of the participating firms from both countries had found the benchmarking analysis very useful (58%). However, while Italian firms had not shown any neutral or negative opinion regarding this activity, 3 firms from Croatia had shown a rather neutral opinion.

The benchmarking has helped to show avenues of improvement in the future. This is clearly shown both in the closed question and also in the open question.

Examples of comment received are:

The benchmarking service permits to emphasize the different areas that can be improved and boost an area considered less innovative by their nature;

Useful to better understand our capabilities in terms of innovation technology and general business and to plan future activities and/or strategies;

We hope the results will move us in a future change;

The measurement gave us the possibility to assess the situation of our climate and to intervene by improving those situations that emerged as critical from the analysis;

The benchmark was very useful to better understand the relative strengths and weaknesses of our company;

very professional service and feedback, useful for the company and well representative of the company climate;

The measurement gave us the possibility to assess the situation of our climate and to intervene by improving those situations that emerged as critical from the analysis.

As had been aimed the comparison of the situation with other companies had been a recognizable aspect of the benchmarking.

It was very useful to compare our performances with the ones of similar companies and to better understand internal dynamics that have a clear impact on creativity and innovation.

In particular, some firms had declared that indeed the benchmarking had helped to understand their employees better

Examples of comment received are:

The benchmarking was useful to understand what the employees think of the company and how they feel in the work place. It was nice to understand that their overview wasn't negative.

You have insight into some basic employee views and their expectations. It was very good that some general conclusion was provided.

After reading the results of research for our company, it was interesting for employees to compare our results with others.

It gave us the possibility to benchmark not only with other companies but also internally

The benchmarking had been so useful that various participating firms have asked for its repetition in the future.

Examples of comment received are:

The service could be usefully implemented as a method to measure the internal achievements of the firm's innovation strategy in the next years. If the survey will be carried out regularly (e.g. on an annual basis) and if we manage to enlarge the sample of respondents, we think

that the results can be very helpful to get a clear picture of the internal dynamics, feelings and awareness.

Surveys/research projects, like the BEAT project, are favourably considered by our company; in our opinion, the chance to get an analysis of our company, receiving feedback and further suggestions from relevant institutions and academic experts represents a worthwhile opportunity to better understand how well we have performed in terms of company's strengths and weaknesses and to figure out how we can improve. We believe that this kind of surveys should be repeated in the future with the aim to identify if some actions were implemented by the companies involved and to give further support.

3. OPENING TRAINING SESSIONS AND DIFFUSION

SMEs belonging to cross-border area benefited from 2 cross-country training sessions. During training, researchers and experts, project partners informed entrepreneurs, managers and workers on how to improve their innovation capabilities/performances.

The first training session was organized by University of Rijeka and took place during the Rijeka Nautic Show 2018 fair on September 28th, 2018. In this event Guido Bortoluzzi from University of Trieste had a speech with the title “*how to organize and manage the innovation processes in SMEs*”.



The second training session was jointly organized by university of Trieste and mareFVG and took place in the framework of the event SYAT –Ship&Yacht Advanced Technology on November 22nd, 2018 in Grado. In this event Guido Bortoluzzi from University of Trieste had a speech with the title: *how innovative is your firm?* In this session the participants were shown real applications of climate measurements performed, typical problems arising with improper innovation management and were challenged in measuring their innovation ability. Furthermore, an adhoc web-based tool was presented and participants had the opportunity to measure their climate and then receive the benchmark report.



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