



DIGITAL PLATFORMS IN ITALY

AN ANALYSIS OF ECONOMIC AND EMPLOYMENT TRENDS

Digital platforms such as Google, Facebook or Amazon, but also Foodora or Deliveroo are now an integral part of the daily lives of billions of people. Italy is no exception. This policy brief analyses the recent economic and employment dynamics of the main digital platforms operating in Italy.

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Digital platforms can be distinguished into capital and labor platforms (Guarascio and Sacchi 2017). The former (e.g. Airbnb) connect customers with sellers (or renters) who sell goods they own directly. The latter, on the other hand, immediately connect customers and service providers. Services that can be carried out in the physical (gig-work) or virtual world (on-demand work). To these platforms must of course be added the global players operating in sectors as advertising and retail: Google, Facebook and Amazon. Following Farrell and Greig (2016), the key features characterizing all types of digital platforms can be summarized as follows:

- provision of an online place (platform) where supply (service providers or entities offering goods) and demand come into direct contact, reducing search and transaction costs;
- ability to operate through the platform at any time and, in many cases, from anywhere;
- possibility to pay a pre-determined price for micro-transactions that can be considered as minimum components of more complex tasks;
- intermediation and management of payments for any type of transaction.

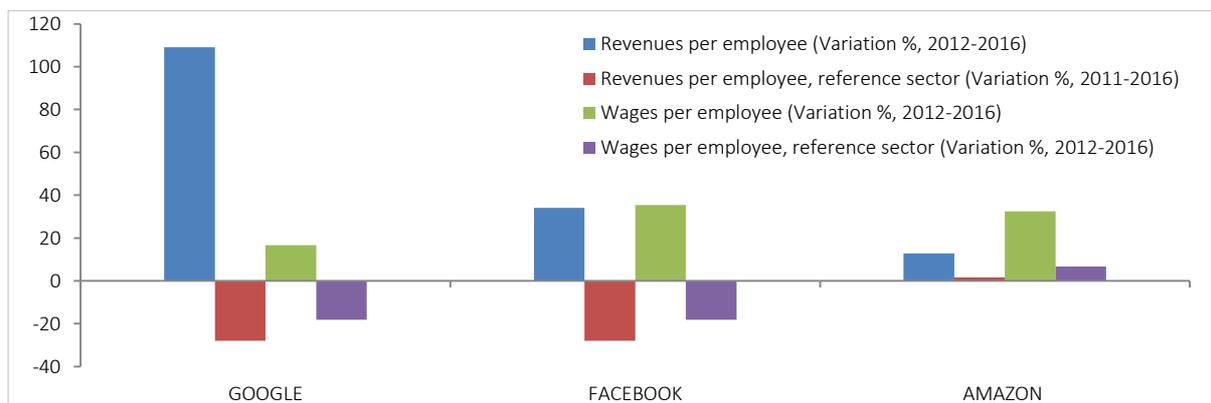
The advent of digital platforms is rapidly changing the organisation of sectors, markets, firms and labor relations. Control of large amounts of (economically relevant) information has made global platforms - think of Google, Facebook and Amazon - stock market champions and leaders in key

market segments such as ICT related services, advertising and retail. Similarly, the spread of platforms relying on “Apps” to organise the provision of services in the physical world has opened up new opportunities for competition in protected industries as private transport. On the other hand, the increasing economic and social relevance of platforms has stimulated a heated debate on the effectiveness of existing competition and privacy regulations and policies. Analogously, an intense debate is developing around the need to recognize and protect nature and quality of labor relations, particularly concerning platforms providing services as private transport or food delivery.

In recent years, Italy experienced a significant increase in the activity of digital platforms. The operations of global platforms has increased, as well as that of labor platforms mostly operating for food-delivery or intermediating supply and demand in sectors as tourism, real estate and retail. This policy brief provides a first set of empirical evidence on the major digital platforms operating in Italy. The analysis focuses on global platforms (Amazon, Google and Facebook); labor platforms providing food-delivery (Deliveroo, Just-Eat, Foodora) and pet care services (Petme); and platforms offering intermediation services for real estate, accommodation and classified ads (Subito.it, Casa.it and Booking).

The first set of evidence concerns the evolution of Amazon, Google and Facebook’s revenues and wages per employee compared to the dynamics observed in those sectors where these platforms operate (figure 1). The data show that for all platforms taken into consideration there has been a significant growth in both revenues and wages per employee, vis-à-vis a reduction (or at best a modest growth) in the related sectors (web portals for Google and Facebook, logistics and business services for Amazon). Looking at Google, revenues tend to significantly outpace wages in terms of growth, while this is not the case for Facebook and especially Amazon, where the relationship is reversed. Revenues per employee grow much more for Google than for Facebook and Amazon, while the latter outperform the former in terms of wages per employee.

Figure 1 – Revenues and wages per employee (Percentage change, 2012-2016). Google, Facebook & Amazon and reference sectors



Note: the sectoral variation refers to sectors “Web Portals”-Ateco 631200 (reference sector for Google and Facebook) and “Logistic services related to the distribution of goods” - Ateco 522922 and “Business Consultancy”-Ateco 702209 (reference sectors for Amazon). Amazon data are computed as the sum of Amazon Italia Logistica S.r.l. and Amazon Italia Servizi S.r.l..

Source: Inapp elaborations on Aida-BVD data

Focusing on employment (table 1), it emerges that Italian platforms are characterised by a relatively low employment intensity (compared to the massive revenue growth shown above, Google and Facebook have respectively 195 and 22 employees declared in Italy in 2016). This figure is partly related to the technological and organisational nature of digital platforms. Companies as Google and Facebook offer mostly intangible services that can be replicated without additional costs once they are put on the network. Therefore, these kind of platforms tends to employ a small number of workers comprised of almost exclusively technical and high level managerial profiles. The same applies to classified ad and real estate brokerage platforms such as Casa.it, Subito.it and Booking. Labor platforms (Deliveroo, Foodora and Just-Eat), on the other hand, tend to “outsource” a large part of their tasks, leaving them to individuals classified as “partners” or collaborators, not signing any labor contract with them. As a matter of fact, the total number of employees declared by labor platforms in 2016 was less than 200. Amazon, on the other hand, is the platform with the highest number of employees (1,169 employees declared in 2016) and this is probably connected to the logistic plants owned by this company. Overall, all digital platforms show a positive employment dynamics along the examined time span.

Table 1 – Employment dynamics of digital platforms operating in Italy. Years 2012-2016

	Google	Facebook	Amazon	Just Eat	Deliveroo	Foodora	Casa.it	Booking	Subito.it
2012	140	11	240	11	NAC*	NAC	104	156	30
2013	150	12	394	21	NAC	NAC	117	174	44
2014	178	15	596	36	NAC	NAC	129	201	64
2015	192	20	853	44	51	23	130	226	88
2016	195	22	1169	80	70	45	135	239	111

*NAC: not yet established. Data for PETME are not available for the years considered.

Source: Inapp elaboration on Aida-BVD data

A further analysis of digital-platform's employment characteristics is carried out by comparing the dynamics of employees (as reported in the financial statements); with that of contracts (both new contracts and terminations) from the Comunicazioni Obbligatorie (COB) reported to the Ministry of Labour and Social Policy. Comparing absolute values, table 2 shows that the dynamics of contracts tends to go along with that of employees, with the exception of Foodora (analyzed below) and Amazon Logistica, where the average number of new contracts in the period 2016-2017 is 7,133 compared to 1,058 employees reported in the financial statements. The Gross Worker Turnover (GWT), given by the ratio between the sum of new contracts and terminations over the employment stock in a given year (calculated exclusively with reference to paid employment contracts), provides a measure of the relative occupational volatility at the company level. While Amazon Logistica shows an extremely high GWT value, the other platforms included in the analysis (leaving aside the labor platforms analyzed below) are characterized by lower GWT values, between 34% (Facebook) and 60% (Google). Concerning the distribution of contracts by type, in platforms as Amazon IT Services, Facebook and Subito.it open-ended contracts seem to prevail; while Google, Booking and Casa.it tend to use a mix of contracts including fixed-term contracts and temporary agency work. The Amazon's logistics division, on the other side, is characterised by a massive presence of temporary agency work (almost 90%), providing an explanation for the high GWT.

Table 2 – Number of employees, Gross Worker Turnover and new contracts (absolute values and type of contract). Years 2016 and 2017

Platform	# Employees (2016)	Gross Worker Turnover	New contracts* (average 2016-2017)	New contracts * (average 2016-2017)					Total
				Open-ended	Fixed-term	Temp agency work	Collaborations	Other**	
Amazon IT Logistica	1058	1229%	7133	10,1%	0	89,7%	0	0,2%	100%
Amazon IT Services	111	47%	58	68,2%	2,6%	0	0	29,2%	100%
Google IT	195	60%	66	37,4%	3,8%	53%	0	5,8%	100%
Facebook IT	22	34%	6	77,8%	0	0	0	22,2%	100%
Booking	239	52%	67	6%	52%	37%	0	5%	100%
Casa.it	135	48%	25	40,6%	32,4%	7%	0	20%	100%
Subito.it	111	48%	36	66,2%	0	16%	5,3%	12,5%	100%
Deliveroo	70	54%	30	80%	18,5%	0	1,5%	0	100%
Foodora	45	156%	1814	0,6%	1,7%	0	97,2%	0,5%	100%
Just-Eat	80	84%	37	22,5%	56%	16%	0	5,4%	100%

Note: Gross Worker Turnover is the ratio between the sum of new contracts and terminations communicated between 2016 and 2017 over the stock of employees drawn from the AIDA 2016 balance sheet data. To carry out the calculation, new contracts for internships and collaborations has been subtracted from the numerator. The new contracts figure (third column) refers to the average of new contracts activated by each platform in 2016 and 2017. The new contracts reported in the column "other" refer to apprenticeship contracts (contractual type activated exclusively by the Subito.it platform).

Source: Inapp elaboration on Aida-BVD data and Comunicazioni Obbligatorie

The peculiar organizational set-up of labor platforms requires a dedicated discussion (table 3). On the one hand, all labor platforms are characterised by a low employment intensity (between 45 and 80 employees). However, looking at the number and type of new contracts significant differences emerge. Foodora relies on a small cluster of employees holding fixed-term contracts (less than 50 and relatively to which the GWT appears very high, indicating a low persistence of these contracts). At the same time, this platform hires food-delivery staff using “coordinated and continuous collaboration”(wage and salary independent contracts)¹. The extensive use of this type of contracts might explain the contrast between high volume of new contracts, on one side; and small number of employees, on the other. The organizational modes of Just-Eat and Deliveroo, instead, imply a platform-rider relationship based, respectively, on indirect contractualisation and forms of outright self-employment. In both cases, riders cannot be found among the new contracts declared by the platform. As in the case of Foodora, Just-Eat uses coordinated and continuous collaborations, but indirectly: riders are hired by a third company upon which Just-Eat relies. The "Deliveroo model" implies instead the use of “occasional collaboration” contracts or, in case a rider's income exceeds 5,000 euros per year, of self-employment relationships (VAT registered) ². Therefore, three significantly different organizational modes can be identified: Foodora uses the coordinated and continuous collaboration to directly hire those who work through its App; Deliveroo makes occasional contracts or relies on self-employment relationships; Just-Eat uses an auxiliary company that hires riders using coordinated and continuous collaboration (Cavallini, 2017).

The peculiarity of labor platforms is detectable also inspecting figure 2. The latter reports the relative weight of wages and service expenditures on total production costs. These indicators are particularly important since they highlight, on the one hand, the relative weight that wages have within platforms' cost structure. On the other, the importance of services expenditure, representing, at least partly, a proxy of production outsourcing relative intensity. This element is particularly important for labor platforms outsourcing most of the tasks carried out in the physical world. The data show a strong dichotomy between the platforms under investigation. While for Google, Amazon and Facebook the relative weight of wages tends to be considerably higher than that of service expenditures; the opposite holds for both labor platforms (Deliveroo,

¹ This type of contract implies a highly flexible labor relationship according to which workers are free to organize their own work with firms in charge of the organizational coordination.

² Art. 5.1 Deliveroo contract (March 2017).

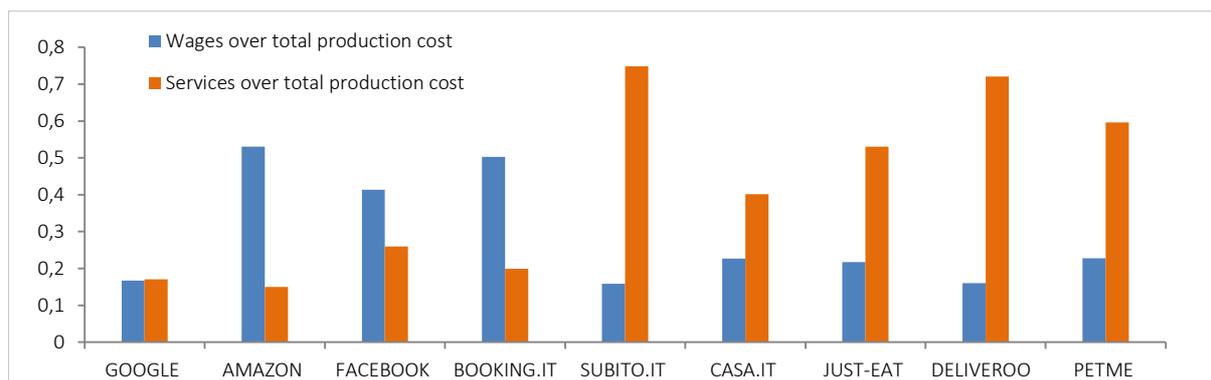
Just-Eat and Petme) as well as for those mediating purchase and rental of goods and properties (Subito.it and Casa.it). Data for Foodora are not available.

Table 3 – Organisational models of labor platforms – Deliveroo, Foodora e Just-Eat

Deliveroo model	Foodora model	Just-Eat model
<ul style="list-style-type: none"> • Small group of employees mainly on open-ended contracts • Riders hired with occasional collaboration contracts switching to self-employment if annual compensation exceeds 5,000 euros 	<ul style="list-style-type: none"> • Small group of employees mainly on fixed-term contracts • Riders hired with coordinated and continuous collaboration contracts 	<ul style="list-style-type: none"> • Small group of employees mainly on fixed-term contracts • Riders hired through auxiliary companies providing coordinated and continuous collaboration contracts

The last part of the analysis focuses on value added, profits, taxes and social security contributions per employee recorded between 2012 and 2014 (it was not possible to push the analysis beyond 2014 due to the lack of information on taxes and social security contributions for following years). High value added per employee can be observed (for both years) for Google and Facebook (208,943 and 304,971 euro per employee respectively in 2014), while values for Amazon and for platforms intermediating purchases and rentals are significantly lower (in the case of Amazon, this difference is almost entirely driven by the greater employment intensity of this platform). A similar situation (although reduced in absolute terms) can be observed when looking at profits per employee.

Figure 2 – Wages and service expenditure over total production cost. Main digital platforms operating in Italy. Year 2016

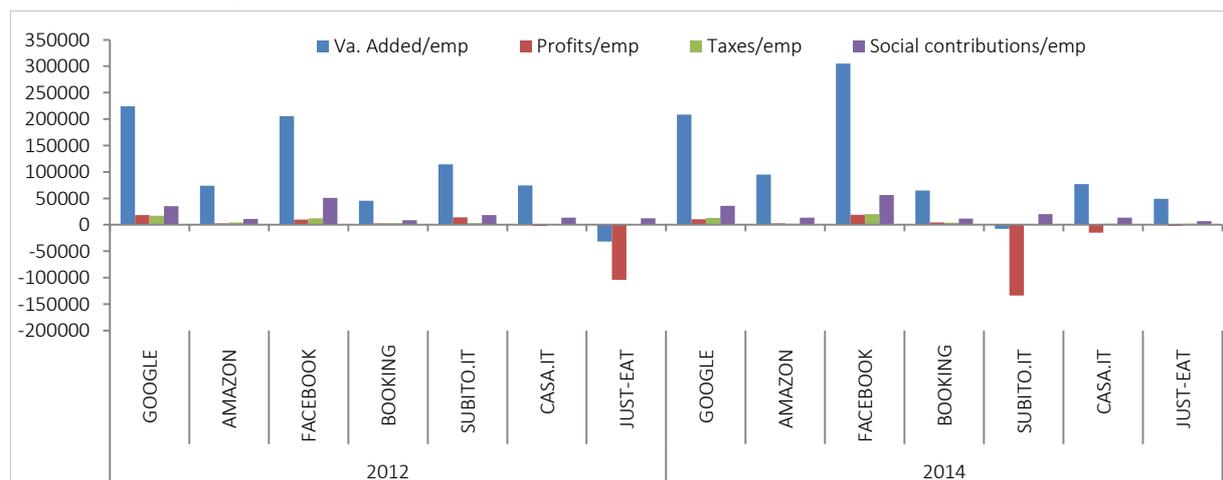


Source: Inapp elaborations on Aida-BVD data. Note: Foodora data are not available

A negative performance in terms of added value and profits can be observed for Just-Eat (the only labor platform that was possible to analyze in relation to this set of variables) in 2012 as well as for Subito.it, in 2014. Turning to taxes and social security contributions, these variables tend to show a trend similar to that recorded in the case of profits per employee (with the exclusion of

platforms recording negative profits). Google and Facebook report the highest values, while real estate platforms and Just-Eat report significantly lower values. Data on value added and profits per employee highlight again the significant economic dynamism of platforms such as Google, Facebook and, to a lesser extent, Amazon. The other digital platforms examined here, on the contrary, are characterized by a less intense performance, being also more unstable over time. This heterogeneity seems to indicate that platforms holding large market shares and managing vast and economically relevant information bases (Google, Facebook and Amazon) are superior even in terms of economic performance and its stability. Companies relying on information networks and Apps to provide low or medium-value services (such as meal delivery or real estate intermediation) display instead weaker performance and are exposed to greater variability in economic terms.

Figure 3 – Value added, profits, taxes and social security contributions per employee. Main digital platforms operating in Italy. Years 2012 and 2014



Source: Inapp elaboration on AIDA-BVD data

This first empirical exploration of the digital platforms operating in Italy provides a set of highly significant findings. First of all, the three big platforms active in the advertising (Google, Facebook) and retail (Amazon) sectors have been characterised by an rampant growth (observed in the period 2012-2016) in both revenues and wages per employee, added value and, to a lesser extent, profits. This growth trend is at odds with the median figures observed in the sectors where these platforms operate. Secondly, all platforms under examination have a significantly low employment intensity (especially when compared to the size and dynamics of revenues) with a nadir for Facebook: in 2016, against revenues of 426,355 euros per employee, this platform reported only 22 employees. The analysis of labor contracts has revealed strong differences among platforms. Amazon Logistica stands out for its Gross Worker Turnover, due to high flows

of new contracts and terminations, which are accompanied by a preponderance of temporary agency contracts. As far as labor platforms are concerned, three distinct “organisational modes” have been identified. While Foodora uses coordinated and continuous collaboration to hire riders, Deliveroo relies on occasional collaboration and self-employment relationships. The Just-Eat model, in turn, implies the involvement of a third party called upon exclusively to hire riders with coordinated and continuous collaborations. Finally, the analysis of cost structure unraveled important differences between platform types. Looking at Google, Amazon and Facebook, it turns out that wages have a significantly higher weight over total production costs than service expenditures. The opposite is true for platforms as Subito.it and Casa.it as well as for labor platforms (Deliveroo, Foodora, Just-Eat and Petme). In this case, the large share of service expenditures and the parallel low weight of wages point to organizational strategies strongly based on task’s outsourcing.

The investigation of digital platforms will be further developed by Inapp in a series of forthcoming publications relying on both quantitative and qualitative studies. A specific attention will be devoted to issues as employment quality and working conditions.

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