

**UDC 65.01:331:338: 658.3**  
**JEL: O1, M1, H3, J6, L5**

**SMART-LOGISTICS FOR PEOPLE MANAGEMENT  
OF INNOVATIVE SMALL AND MEDIUM  
ENTERPRISES' DEVELOPMENT: AGILE  
METHODOLOGY**

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**Introduction.** Innovative entrepreneurship is one of the applied spheres, in which the implementation of core competencies: knowledge and skills from other areas is complicated nowadays due to challenges and rapid changes. Management systems for small and medium-sized enterprises are not so classical now, but horizontal and, what most importantly – flexible, agile is. Thus, it is proposed to turn to modern models of people management to increase the effectiveness of companies and institutions for future economy development.

**Aim and tasks.** The article appeals to management innovation and the use of the “mobility gap” as one of the most discussed economic problems that are necessary for the urban areas and require an appropriate solution development. The proposal is to use smart logistics for an effective people management system for innovative small and medium enterprises to zoom the weight of the cluster unit. The assertion that the increasing impact of horizontal management in outsourcing services is the way for further development and modernization of tax policy for the local economy.

**Results.** In the nearest future, the character of the local economy will change as communities develops cities, improving the quality of life, ensuring safety and neighbourhood policy and stimulating creative development. And it will create opportunities for cutting-edge initiatives, entrepreneurship and local municipalities, as well as developing relationships and competencies based on innovation and creative interaction between stakeholders in the new digital reality, while remaining people-centred. It is proposed to introduce management innovations into the management system according to the developed model according to the agile method of modernization: “to do” – list; “in progress” and motivation; “to verify” – monitoring; “done” – analysis; and business scaling. And to customize services, it is necessary the high quality achieving, speed that meets the needs of the market, and the quick creating of unique innovations.

**Conclusions.** This methodology has been tested by the project – Erasmus 2020, despite the “lockdown” conditions, by the open data project “City Code” with the aim of creating conditions for sustainable urban development by combining: talents, technologies, tolerance, and should be used to people management of small and medium-sized innovative enterprises.

**Keywords:** smart-logistics, innovative development, small and medium enterprises, agile methodology.

**Received:** September, 2020

**Accepted:** November, 2020

DOI:10.31520/2616-7107/2020.4.4-2

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УДК 65.01:331:338: 658.3  
JEL: O1, M1, H3, J6, L5

## СМАРТ-ЛОГІСТИКА ДЛЯ УПРАВЛІННЯ ЛЮДЬМИ В РОЗВИТКУ ІННОВАЦІЙНИХ МАЛИХ І СЕРЕДНІХ ПІДПРИЄМСТВ: ГНУЧКА МЕТОДОЛОГІЯ

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**Прийнято:** Листопад, 2020

DOI:10.31520/2616-7107/2020.4.4-2

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**Вступ.** Інноваційне підприємництво є однією з прикладних сфер, де впровадження знань та навичок з інших сфер ускладнюється сьогодні через виклики та швидкі зміни. Системи управління малими та середніми підприємствами зараз є не настільки класичними, наскільки горизонтальними, гнучкими. Таким чином, пропозиція полягає в тому, щоб переключити увагу на сучасні моделі управління людьми для підвищення ефективності компаній та інституцій для розвитку економіки майбутнього.

**Мета і завдання.** Метою запропонованого дослідження є те, що в статті ми звертаємо увагу на управлінські інновації та використання «різниць в мобільності» як найбільш обговорювані економічні проблеми, які необхідні для розвитку міських просторів, що потребують вирішення.

**Результати.** Ми пропонуємо використання смарт-логістики для ефективної системи управління людьми для інноваційних малих і середніх підприємств для збільшення ваги цього кластеру. Стверджуємо, що зростаючий вплив горизонтального менеджменту в умовах аутсорсингових послуг є шляхом для подальшого розвитку, а також для модернізації податкової політики місцевих економік.

**Висновки.** Управлінські інновації запропоновано запровадити в систему управління за розробленою моделлю згідно оновленого підходу в гнучкому методі: список «зробити»; «в процесі» та мотивація; «перевірити» – моніторинг; «зроблено» – аналіз; масштабування бізнесу. І, для кастомізації послуг має бути досягнута висока якість, швидке реагування на потреби ринку, надшвидке створення унікальних інновацій. Запропонована методологія перевірена проектом Erasmus-2020, незважаючи на умови «локдауна», і може бути використана для управління людьми для інноваційних малих і середніх підприємств.

**Ключові слова:** смарт-логістика, інноваційний розвиток, малі і середні підприємства, гнучка методологія.

**Introduction.** In general, people management is a process of continuous development of competencies, potential disclosure, talent acquisition, and ability to retention for business support and development in changeable conditions, and for employees' demands despite the situation on the markets [1], thus, the main task is to manage people to work easier and impactful. It is important to pay attention to employees' motivation (in fundamentals, behaviour), job results (work), engagement (engage), development and self-development (grow), – these are the main components of effective people management. At the same time, not all employees are working at offices; last pandemics “lockdown” showed the remote or, even, distance online work more than brightly.

Moreover, there are new businesses that are rising up from that moment, – the innovative entrepreneurship as a very dynamic cluster needs new approaches in management to be productive and effective. But there are still no publications on the issue of usage of smart-logistics for people management in it. Meanwhile, the enterprises of the cluster know answers to the main economy questions: what, how, and for whom to produce. Thus, the problem needs to be solved.

**Analysis of last publications.** The problems of the economics of urban transportation are researched by K. A. Small, E. T. Verhoef [2], researches on change management are made by D. Kolozsvari, D. Shoup [3], on the management of innovations by D. Gorovyi [3], on leadership coaching in innovative projects by O. Svintsytska, Yu. Bogoyavlenska [5].

Namely, K. A. Small and Erik T. Verhoef paid attention to alternative, cost, price and parking policies, aspects of public consultations for public and private partnership development, investment management for facilities, transportation services ownership relationship transformation through the usage of wide datasets, which also could be used for time-table scheduling and forecasting, methods implementations and gave the good fundament to economics to transportation [2].

D. Kolozsvari and D. Shoup [3] also paid attention to parking payments incomes but in case of change management point of view on a

local level (and, further: percentage of total rent land in the city; thus, cities can work with the economic incentive). They search how changes influence on cities development and citizens' attitude to new city innovations and employment transformation [3].

The optimization of the volume and structure of their assets through a tendency of their value underestimation is one of the problems of Ukrainian enterprises at the present stage of economic development, proves D. Gorovyi [4]. The ‘must have’-trend is only increase the competitiveness of enterprises at both the local and global markets should not reduce innovations in the case of management.

O. Svintsytska and Yu. Bogoyavlenska paid attention to coaching leadership in innovative projects as the basic instrument for creative management and an important component of successful strategy implementation adaptation to market transformations [5]. It will activate organizations' activity for changes for competitiveness increasing through innovations, non-standard approaches in project management, teams involving to create technical, technological, organizational, product solutions.

At the same time, the problem of people management at innovative entrepreneurship, namely in smart-logistics for its development, is still not researched.

**Methods.** For the aim of the research, there were used a set of methods. Namely, a generalizing method can be implemented within the framework of our approach, the peculiarity of which is that it includes: a model for the implementation of technology for solving problems; a model of interaction of factors that reduce transport problems and normalize economy environmental impact; a set of performance indicators information logistics processes, as well as quality indicators for logistics systems and its influence for innovation entrepreneurship development. The analysis is used for understanding the information; and synthesis for making conclusions through research.

Specifically, the method of induction borders well on the development of modern management systems – to agile management; formation of recommendations and models for

determining the need for street parking and placement of parking lots, taking into account the state of the traffic flow on the corresponding sections of the road network. Based on factor analysis, there were obtained dependencies that allow, based on a set of such variables (parking capacity, actual parking load, average parking time, availability of bus routes in the parking lot) to carry out a comprehensive analysis of various situations.

The **aim** is to research people management of innovative small and medium enterprises with the usage of smart-logistics in the context of the implementation of management's innovations in outsourcing and remote services conditions through agile methodology for their development.

**Research results.** Roots of the issue were found out in the integrated urban development conception. The attention was paid on smart-logistics from the smart-transportation problem, and involving people for the cluster development. From an economic point of view, it is necessary to create support instruments for productivity increasing, and reinvestments into innovative enterprises through redirecting cash-flows from tax incomes to local communities and municipalities. The question is, why have ones right to claim this.

At the macroeconomics level is necessary to achieve the highest level of employment as it's possible, but in sense of effective and rational employment. On the microeconomics level it is significant to reach highest level of productivity encourage employees by professional management. And, professional management is about classical fundamentals; moreover, it is about management's innovation "to think out of the box", according to Dr. Val Hastings [12], and never "losing the bigger picture", which is filling by coaching.

For innovation companies it is more than important. All startups' teams work for more flexible methodologies to manage teams and collectives. Moreover, it is necessary to change managerial approaches in outsource work or "lockdown" conditions.

Now it is necessary to say that it is also on talent management, because it is as well as on corporate social responsibility development through cultural fabric, networking, self-management and self-development.

Comfort for the personnel and remote workers are also important.

Our task is also in the field of modifying smart logistics, transport and parking. For example, the time costs can be high because of the land price and local tax and payment system, even more, every day lot of vehicles need to be parked, thus this problem is zooming and becoming the most actual for emerging markets. As an example, attention should be paid on the square kilometres, which are uses for the just ground-based parking; as for the USA it is near 8.9 sq. km [1].

Thus, if one plans the work of companies according to Global goals for sustainable development, employees and remote workers should be able to align their work with those companies' goals. In this case, the effectiveness of those companies and evaluations of their results should be conducted with mentioned goals. That why most of professionals and scientists say smart-logistics and optimal logistics are synonyms.

Now let's concentrate on the local economic development and some management tasks. Competitiveness of the cities can give the economy growth. There should be branding, inclusion into top international and national projects, dataset openness, clarity and transparency for investors, whatever they foreign or local. In "lockdown" conditions it is much better to support local investors for local economic development. In this case, it is possible to talk about networking and further rising of the quality and accessibility of infrastructure. Thus, complexity remains highly qualified managers, despite they are remote employers or not, because digitalization makes possible to organize the process of doing job done well. Meanwhile, office and plant employees, and self-employed will need transportation.

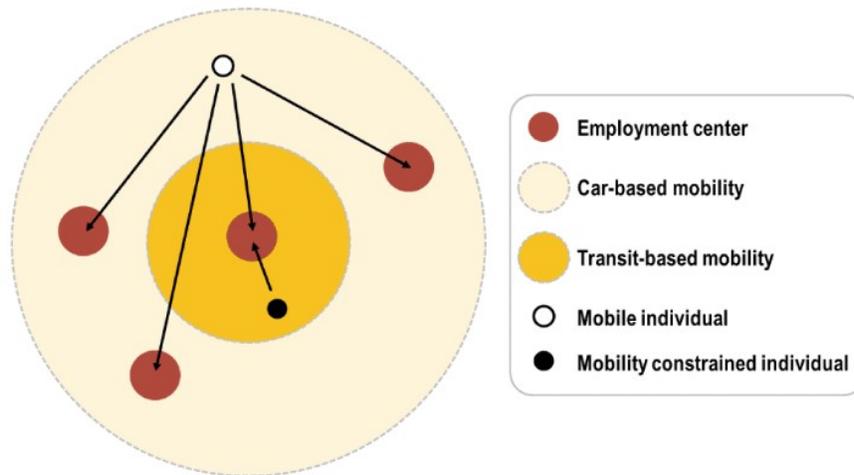
Not cars, just transportation. Not ground-based parking, just urban management.

Present urban areas are full of transport terminals, cars, traffic troubles [12]. And this is the portrait of the modern mobility system, whatever is it local or global one (examples Rome, Kyiv).

Like most smart-logistics tasks, traffic management requires a systematic way to find a balance between conflicting goals of road users.

The measures for the development of parking space with the tasks of managing transport demand, restricting access to congested downtowns, and developing the public transport system are the main points, about which it is necessary to remember To talk

companies' employees' productivity one should concentrate on a new parking lot cost, lower environmental impact, parking prices, local tax system (incomes and outcomes) and its effectiveness for further global goals reaching (figure 1).



**Fig. 1. Mobility Gaps in Urban Areas [6]**

Source: [6]

As can be seen, mobility gaps have an important *impact on employment opportunities*:

1. Places ‘without a car’ but ‘within reach of public transit’ could have a limited number of jobs. So, from the people management for smart-logistics entrepreneurship point of view in a common sense they are *good to develop a remote work or flexible employment*.

2. *Central urban areas* are good for the large labour market. In the same time, “deconcentration and suburbanization have resulted in higher employment growth in peripheral areas” [6]. For sure, people with cars plus transit-serviced centre’s citizens have more possibilities to choose and to get a better job with wider opportunities, which are so necessary for faster economic development. So, these are *good places for innovation enterprises creating, networking and development, also with stable personnel – teams*.

3. Huge plants are mostly not in city centres. And, innovation small and medium enterprises’ need networking. So, *central urban areas are comfortable for innovation small and medium enterprises’ development*.

Thus, one of the main factors of jobs available for the aim of an *effective system of people management for small and medium innovation enterprises is accessibility*.

In this case, should be reminded examples of ‘parking-case’ problem solving for big urban cities productive development with a positive outcome for local economies. They are:

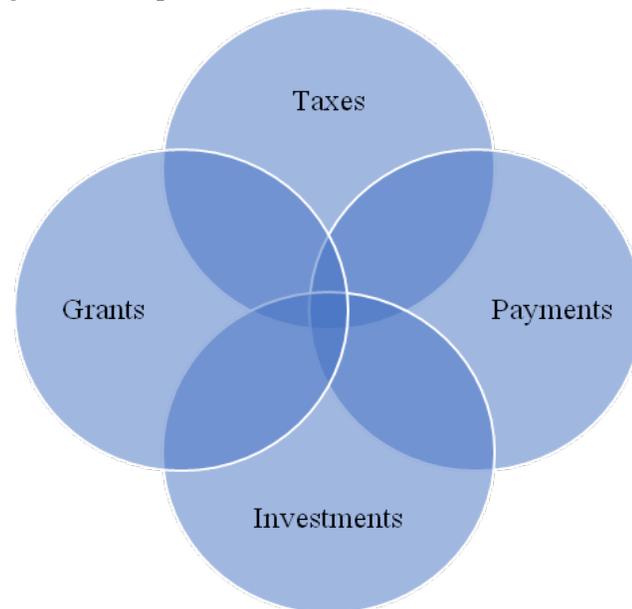
- “parking garages” – multi-storey car parks,
- “robotic valet” system – a startup smart-parking solution, which “removes the frustration of driving around hunting for space’ and the system will care of car safety and secure (namely, in Paris, in Charles de Gaulle Airport).

For small and medium enterprises, it is still hard to agree with local authorities the plan and regulate of companies’ parking (mostly, because of an absence of accurate real-time and historical data, a long-term procedure of agreement state design norms, like in Ukraine, complicated possibilities to change infrastructure according to the fast innovation small and medium enterprises’ needs).

Plus, as the research is on innovative enterprises development, there should be talked on *rapid changes in cities areas* – every startup knows that it's a live cycle in 2-3 years; *during and after this period connections and networking are quite dynamic*. Thus, it'll take more attention of managers to *implement*

*exactly management's innovations and to use smart-transport and smart-cities conception for increasing their effectiveness.*

For the local economy: what is the profit? The profit is incomes: taxes, payments, investments, grants (figure 2).



**Fig. 2. Profit for the local economy from implementing smart-logistics for innovative small and medium enterprises' development**

Source: \*created by authors.

More cases: to increase dynamics for micro-businesses Luca Persia, the Director of the Centre for Transport and Logistics, Sapienza University of Rome pay attention to motorcycles and most average for bicycles transportation in downtowns [13]. Thus, the rapid of the local economy increases more:

- market dynamics,
- 'price for parking' incomes,
- and cash flows for international organizations for reducing emissions to the atmosphere CO<sub>2</sub>,
- moreover, the city becomes more friendly for eco-activists and eco-startups creation and development.

Also, we should pay attention to smart-parking for smart-logistics [7].

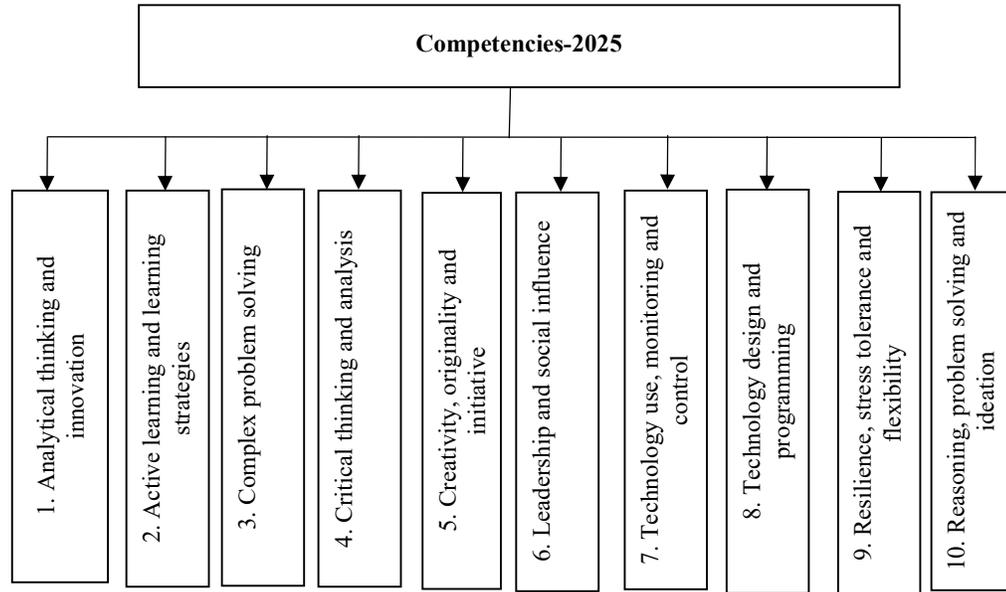
And now, how we can help our teams to work more productive according to people management methods in such a favourable environment?

*Zero-point* is to pay attention to competencies-2025 (Figure 3), which are defined by the World Economic Forum [8].

As there can be seen, all of them connected to the different type of skills: 1, 3-5, 10 connected to problem solving; 2 and 9 – to self-management; 6 – working with people; 7-8 – technology use and development.

*First* of all, there should be made a positive atmosphere inside of our enterprises to produce new knowledge and to develop skills-2050. It is necessary to increase the multidiscipline approach and to zoom the coaching of the team. As it was mentioned above, every startup deals with coaching for 'bigger picture' by 'thinking out of the box'. So, the task is "Create, create, create".

*Second*, horizontal management and comprehension are important. One of the modern classics of agile project management Michele Sliger [9] proposed to go forward and use even more modern methodology.



**Fig. 3. Competencies-2025 [8]**

Source: [8]

For the aim of people management of innovative small and medium enterprises' development according to modernize agile-method [10] the next model should be proposed:

- 1) "to do"- list, or product/products' backlog,
- 2) "in process"/influence-to-process and motivation,
- 3) "to verify"- monitoring,
- 4) "done"- analysis,
- 5) and, business scaling.

The third is to answer the question: what will be responsibilities for innovation enterprises? They'll depend on roles:

- the team is the most important – 'delivery of the product'-role, forms by seven to nine, or five to seven self-organizing people, who are all responsible for the delivery of the product, for estimation, task commitments making, daily status reporting to each other, thus the structure "appears without explicit intervention from the outside" – they are 'how'-owners,

- the manager becomes not just *project manager* but *scrum-master* – 'service'-role, responsible to keep processes done, to advocate, protect the team, facilitate its communications, mediate internal discussions, and negotiate external ones,

- the owner, or *product owner* – 'product guidance'-role, responsible for daily work with the team, to present though, voice, and vision of the customers and to make decisions on the product, also to present the vision to the team, defining and prioritizing backlog items – he is 'what'-owner. In such way should come off from classical positions of lower, middle, and top-managers to *agile management roles*.

Thus, people should communicate with each other. For sure these companies should have effective teams because said: "knowing the purpose for each team and every member within it is key to success ... helps to create a roadmap to success and a functional plan to win" [1]. To build more loyalty and commitment the important analytics tools are also need to be chosen.

The fourth is a collaboration. This is the most important part for people management development in flexible, and even more, pandemic "lockdown" conditions. Expert of agile management from practice claims they can do and earn twice more because the teams double their productivity. And, for the services customization there should be reached:

- high quality,
- speed responds to market needs,
- quickly created unique innovations.

For sure all should have a deal with creativity, creative processes, and use technology for managing creative people and zooming conditions for creative behaviour and intelligence [11]. So, the *fifth* is to confront decreasing elements of productivity, not to be caught to the productivity gap.

This methodology verified by Erasmus project-2020, despite “lockdown” conditions, and need to be used for people management for innovative small and medium enterprises.

**Conclusions.** The usage of agile methodology for people management of innovative small and medium enterprises’ development is the way to increase the effectiveness of companies and institutions for future economy development. And smart-logistics is helping us to go faster on the way of increasing productivity through management innovations.

It is researched that the ‘mobility gap’ has an important impact on employment opportunities: places ‘without a car’ could have limited number of jobs, so good to develop a remote work or flexible employment; central urban areas are good for the large labour market, so they are good places for innovation enterprises creating, networking and development, also with stable personnel – teams; and, central urban areas are comfortable for innovation small and medium enterprises’ development. Thus, the new approaches should use horizontal management in outsourcing services conditions as the way for further development, and for tax policy modernization for local economies. And, for the services customization there should be reached high quality, speed responds to market needs, quickly created unique innovations, despite “lockdown” conditions.

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