

*telematic, quality, services  
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## TELEMATIC AS TOOL OF SERVICES QUALITY ADAPTATION IN TERMS OF TRANSPORT - FORWARDING - LOGISTIC MARKET

Telematic is important tool of shaping adaptation services quality in TRANSPORT-SHIPPING-LOGISTIC. The purpose of the project is to show chosen matters connected with use of telematic solutions among Polish and German enterprises operating on car transport market. Results of the survey are demonstrating that companies which are making use of hitech telematic solutions are better adjust to the conditions of shipment-logistic market.

### TELEMATYKA JAKO NARZĘDZIE ADAPTACJI JAKOŚCI USŁUG W WARUNKACH RYNKU TRANSPORTU – SPEDYCJI - LOGISTYKI

Telematyka jest istotnym narzędziem kształtowania adaptacji jakości usług w transporcie – spedycji – logistyce. Celem prezentowanego referatu jest prezentacja wybranych zagadnień dotyczących zastosowania rozwiązań telematycznych wśród polskich i niemieckich firm realizujących usługi transportem samochodowym. Wyniki autorskich badań, wskazują, iż przedsiębiorstwa, które stosują nowoczesne rozwiązania telematyczne lepiej adaptują się do warunków rynku transportu – spedycji – logistyki.

#### 1. INTRODUCTION

Modern car transport enterprises which are working on international TRANSPORT-SHIPPING-LOGISTIC market are forced to adapt their services quality to need of their customers. Adaptation of services quality to need of customers requires use of adequate technologies and on the other hand it should take in to account economic attributes of the enterprise realizing services on transport-shipment-market. Telematic and its uses have now multifarious implementation in international cargo transport. But the very first purpose of telematic is to enable increasing services quality. The ranger of the transport telematic is defined by use of teleinformatics technologies in administration of transport systems. Possibility to gain information on-line about the run of service especially in international transport-shipping-logistic and its informatics data processing is exhibition brand new vistas. Possibility of mobility shaping of transport through the optimization their lading and

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uploading on the one side and planning of the cargo move on the other side is causing better their interaction. Possibilities of modern telematic and their influence on the services quality in transport-shipping-logistic market is only the one side. Other side is the level of used telematic systems. Implementation of modern telematic systems is progressing very slowly mainly because of high cost. Despite, in practice there are many different ways to decrease costs among participants of the international economic exchange. Expected benefits of telematic use are lower, despite in long term costs amortization of teleinformatic system are possible among transport companies is possible. Results from the market researches are telling us that despite of high cost which are connected with implementation of teleinformatic systems the number of user on the side of transport-shipment-logistic and customers is increasing

Telematical systems which are shaping services quality adaptation in modern conditions on the Transport-shipping-logistic market are affected with:

- Control of the moves on the way of the transport;
- Control of the stream of transport In chain;
- Taking carriage fee;
- Taking information about ability of transport realization.

Control of the moves on the way of the transport is actually navigating by road signs and traffic lights. At present there are researches about possibility to forward information about speed limits or automatic gab between car which is driving ahead. The most dynamic is developing of the systems succoring management of transport services and the driver worker. These systems are using relatively easy rule of working. Transmitter from car is sending signal, which is receive by the system satellite, satellite is defining position and forwarding information to the headquarter, there signal is decode and the transport is locate on the map. Information about position of the transport can be send to customer "on-line". For the customer are important such resolution which allows receiving important information like: deadline of delivery, cost, speed, safety, flexibility, or condition of the cargo. For the enterprise from the transport-shipping-logistic market information about position of the transport between place of lading and uploading are insufficient. Transport-shipping-logistic companies have bigger and bigger demand against teleinformatic systems. To increase their services quality to be bigger competitor on the market. Despite of using standard solutions in range of receiving data in teleinformatic systems there is tendency to making solution individual. Differences are consequential of various needs in range of services quality. One of the biggest growths is mostly global positioning system. This system is using radio data system, traffic message channel – RDS – TMC, mobile phones or internet. New and better and better possibilities give us individual way pointing by Personal Digital Assistant.

## 2. CHOSEN SCORE RESEARCH

Researches led since 1998 year by author among 200 selected Polish and German companies of transport market working in conditions of the transport-shipping-logistic market are focused on the matter of shaping quality services in this economic sector. The issue of researches where problems connected with telematic and it influence on the realize quality services. Range of the use of telematic in randomly chosen group of Polish and German car transport companies working in sector of transport-shipping-logistic is focused on following technologies: internet, cell phone network, GPS, RDS, and TMS. In research were used

questionnaire as base technical research. Measurements were made with help Likert scale. Main issue include in the research:

- Identification of telematic Technologies In sector of transport-shipping-logistic;
- Influence of the telematic Technologies on the quality service In sector of transport-shipping-logistic;
- The structure of influence telematic Technologies on attributes quality services in sector transport-shipping-logistic;
- Quality of the telematic Technologies development direction in sector of transport-shipping-logistic;

Most indication connected with telematic Technologies on sector of transport-shipping-logistic were on Internet -42%, next GSM -29% and GPS -21%, RDS – TMC - 8% - Fig.1.

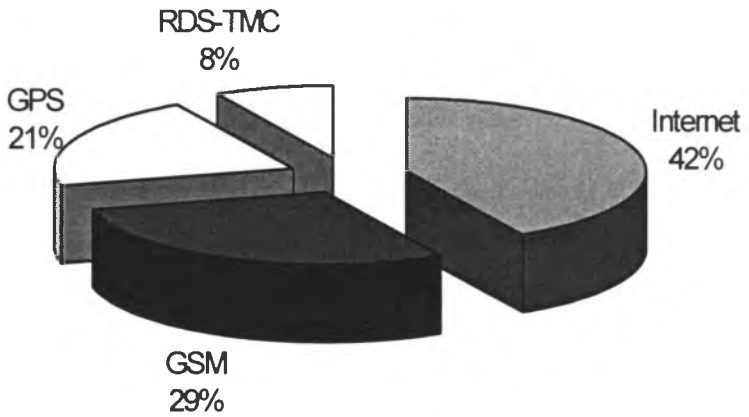


Fig.1. Structure of nailed telematic Technologies in German and Polish transport-shipping-logistic companies  
Source: personal elaboration

In respondent opinion biggest influence on services quality in sector of transport-shipping-logistic has: Internet – 78%, GSM -72%, GPS - 48%, but systems of radio connection have neutral influence TMC -24% - Fig.2. So appreciable share of Internet and GSM technology on transport-shipping-logistic market May also be noticed as goof integration of this two technologies, but this involve furthermore researches

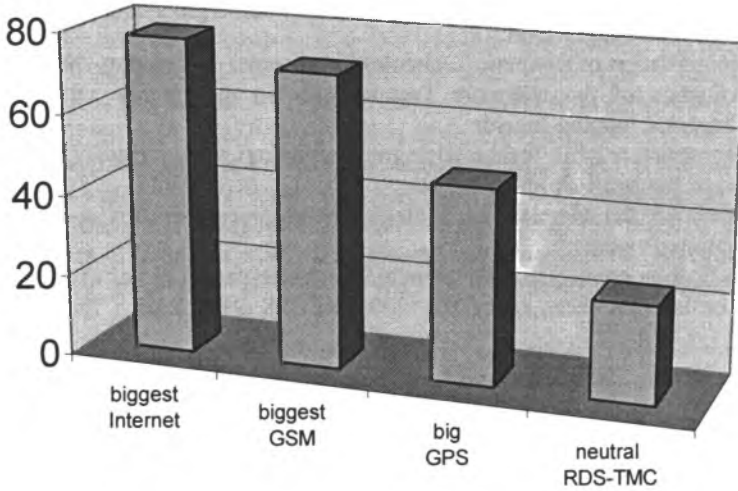


Fig.2. Influence of Chosen telematic Technologies among Polish and German transport-shipping-logistic companies on services quality  
Source: personal elaboration

Structure of telematic Technologies influence on attributes of quality services in sector of transport-shipping-logistic is one more item in led researches. The issue of the researches is chosen group of attributes like: complex, deadline delivery, cheapness, planning, flexibility, dependable, safety, speed, accessible indiscrimination. The Biggest influence telematic technologies on quality services in sector transport-shipping-logistic have:

- deadline delivery
- cheapness
- planning
- flexibility
- complex
- safety

Big influence In case of such attributes as:

- accessibility
- dependable
- Speed
- Indiscrimination – Fig.3.

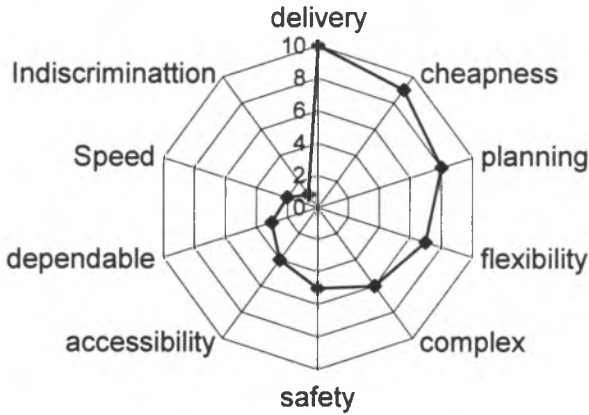


Fig.3. Dynamic of influence of telematic technologies on Chosen attributes of quality services in appraisal of German and Polish transport-shipping-logistic companies  
Source: personal elaboration

Last one from the showed piece of researches, are postulates of quality services relevant telematic technologies said by customers of transport-shipping-logistic sector.

During led researches there were isolate following postulates:

- Cost of implementation and exploitation;
- Integration of telematic systems;
- Flexibility of telematic systems;
- Data safety;
- Managing of the transformation cargo process;
- Making individual telematic technology solution;
- Making compatible telematic technologies solutions;

Most of the isolate postulates during researches have sense the biggest or big; there are no postulates in neutral or negative sense – Fig.4.

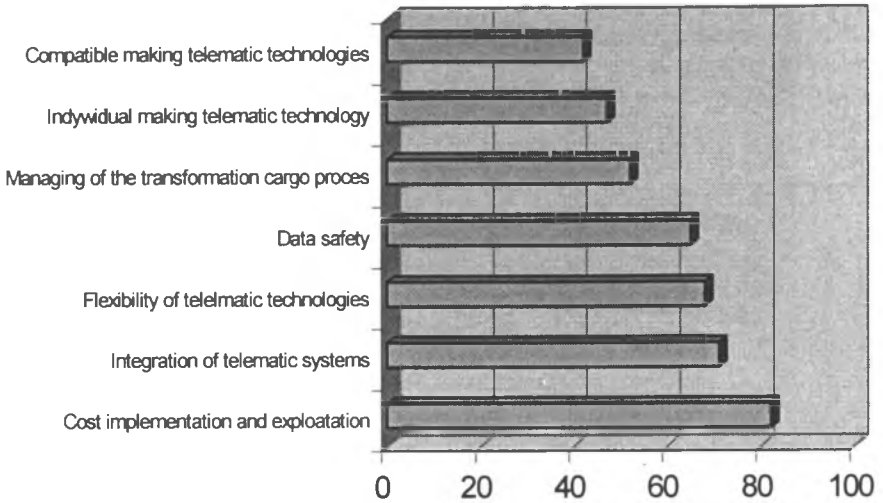


Fig.4. Postulates of quality services relevant telematic Technologies said by German and Polish customers of transport-shipping-logistic sector  
Source: personal elaboration

Influence of the telematic on the quality of realizing services in transport-shipping-logistic sector concern mainly integration and flexibility of systems which are in use in way which customers require. Creation of flexible system has to be connected with various desirability like voice, move, and data along with management. Nowadays technologies which can carry hard benchmark of flexibility, efficient and safety of sending and receiving data are ATM - Asynchronous Transfer Mode and networks with protocol MPLS - MultiProtocol Label Switching which are carrying data witch protocol IP - Internet Protocol.

### 3. SUMMARY

The use of telematic triggered in recent years to improve quality of realized services especially in transport-shipping-logistic sector. The biggest advancement in range of customers' quality services is possibility to on-line location of cargo, transports and possibility to planning deliveries. This allows updating data about transport. Train Management let us mainly to decrease costs of exploitation and analyze them. Communication with truck driver gives possibility to forward delivery order and to adjust to customers need in case of deadline, cost, and some changes in place of delivery etc. To reach highest level in services quality in market of transport-shipping-logistic is possibly mostly with help telematic. Smaller and smaller is level of weak services bid and realized for customer.

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