IDENTIFICATION OF DETERMINANTS IMPLYING UNCERTAINTY OF BUSINESS DECISIONS OF ENTERPRISES IN TURBULENT ENVIRONMENT

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Abstract
The article aims at presenting determinants that imply the uncertainty of business decisions in enterprises in a turbulent environment. The efficiency of business decisions made in the dynamically changing environment is conditioned by decision-makers’ knowledge and experience. A properly organised information system is required for the sake of obtaining all necessary information on time. The system should be integrated with a network of measures and indicators which play a role of traffic lights for competent staff. In turn, the staff is stimulated by objectives and follows the development path determined by the strategy. The staff objectives should be SMART and predominantly coherent with the organisation strategy in each activity area and at each management level.

The article includes survey research results that present the opinions of 50 managers representing various management levels in small, medium-sized and large enterprises in Poland. The opinions are a pilot sample extracted as part of broader research on business decision conditions. The respondents assess the plans and efficiency of undertaken activities. 16% of the surveyed managers mentioned that no plans were made in their enterprises. The long-term planning is implemented only in every fourth case (26%). 66% of the investigated enterprises make annual plans. The most frequently mentioned reasons for making no plans include no interest of higher-level managerial staff and no needed tools. Every other manager is not satisfied by an information system in their enterprise. The most frequently given reasons for missing reliable data are different and incoherent data sources, human errors and incorrect information. The essential conditions of an efficiently working system are considered to be as follows: employees’ competences, cooperation between particular management levels, the system of objectives in line with the enterprise strategy and correlated with particular management levels and organisational cells. Elastic structures combined with a useful information system are required by the enterprise efficient functioning in the more and more turbulent reality. It is indicated by the managers’ opinions as presented in the article that Polish enterprises are yet unable to meet the challenges of the turbulent environment. Everyday problems of the enterprises are also factors that influence the uncertainty of business decisions. The research results show how many changes should be made to Polish enterprises to make them competitive in the “new reality”. The attention to the determinants, which imply the uncertainty of business decisions, will make it possible for the enterprises to get better prepared for the turbulent environment challenges.

Keywords:
Enterprises information system, business decisions, decision-making process, management efficiency, turbulent environment.

1 INTRODUCTION
The enterprise environment determines the rules of the game that influence the functioning conditions of the game participants. The environment forms the enterprise development possibilities as well as barriers and dangers. It is not easy to use the newly occurred chances and avoid the dangers because the game conditions are being constantly changed. The changes are a consequence of numerous events, trends and markets that form the activity context of enterprises [1].

The imminent features of human activities are a change, a progress and development. A new impulse occurred after the World War II. Since then the pace of development-related changes has been observed to be increasing. Before the World War II the development was proceeded in the arithmetic progression and changes took place throughout the period of a few generations. Since 1950s an essential change has begun to be visible. The progress and development has been transformed into a geometric progression. The development pace change was primarily noticed in production and manufacturing techniques. These changes caused sale not manufacturing to be art and this started influencing the necessity to modify a functioning model of enterprises. These changes also started making essential implications in the domain of information and got it oriented to “higher, further, better, faster, more”, etc. As a consequence, the development of data processing and transmission techniques cause the information as a product to be widely available and accessible anywhere in the world [2][3][4]. Information pieces started going around the world faster and faster till they reach the speed similar to the speed of light. This had massive implications to our world functioning. The implications are included in the statement that information rules the world. This made a consecutive revolution in the case of the enterprise activities. What was distant and had an unimportant influence on the enterprise functioning, has now become close and might get into interaction with the enterprise at any time. It is now a time when the distant environment with little influence on the enterprise disappeared and the period of the mere close environment was commenced. As a result of these changes the closest environment got rapidly condensed and considerably more complex and the number of interactions between elements is increasing exponentially. Enterprises are functioning in
the environment that begins to be chaotic. Apart from the presently existing schemes new phenomena occur more and more often occur in the environment. The phenomena characteristics is described by the butterfly effect [5][6]. The frequency, scale and unpredictability of changes are so large that were named as a turbulent environment. As to enterprises, the environment is a new normality and everyday life that influence their ability to create and maintain the value at the market. The enterprises undergo both local and global turbulences. The former one is the impact on a given enterprise and the latter one is the influence on the entire environment. The “new normality” is characterised by a high level of risk and uncertainty to be regarded in business decisions [4][5][6][7]. The article aims at identifying the determinants that implicate the uncertainty of business decisions in enterprises in the turbulent environment. As to the survey research results included in this article, they present the opinions of 50 managers that represent various management levels in small, medium-sized and large enterprises in Poland. The opinions are a pilot sample extracted within broader research related to the conditions of business decisions. 30% of the respondents represented a strategic management level, 30% – tactic and 40% – operational. Although the pilot sample is not a representative sample, it makes it possible to identify business decision determination factors. This is feasible due to the coherence of the investigated managers’ opinions. In addition, the obtained results were complied with the research results of 551 managers’ opinions on the preparedness of Polish enterprises to run business in the turbulent environment. This was performed in November 2016 by the ICAN Research as commissioned by the editorial of “Harvard Business Review Poland”. The compilation of both research results presents how Polish enterprises are prepared to the “new reality” challenges [8].

2 SUCCESS CONDITIONS IN THE TURBULENT ENVIRONMENT

The efficiency of business decisions made in the dynamically changing environment is conditioned by decision-makers’ knowledge and experience. A properly organised information system is required for the sake of obtaining all necessary information on time [3][4][9][10]. The system will guarantee an efficient information flow between particular management levels and enterprise areas. The system should be integrated with a network of measures and indicators which plays a role of traffic lights for competent staff. In turn, the staff is stimulated by objectives and follows the development path determined by the strategy. The staff objectives should be SMART (Specific, Measurable, Achievable, Relevant, Time-bound) and predominantly coherent with the organisation strategy in each activity area and at each management level. In view of the surveyed managers it is impossible to efficiently manage an enterprise without competent people and modern technologies [4][8][11]. The enterprise successes are not a result of unpreparedness and undeliberate choices. Accurate decisions are a result of a previously developed strategy and its corresponding short- and long-term plans. It is required by the prepared plan accuracy to perform constant evaluation actions which are indispensable to obtain necessary and reliable information. This especially happens if the activity in the turbulent environment is concerned. Enterprises are required by the “new normality” to collect and analyse much data, have efficient processes, to be able to predict trends and forecast the development trends of markets and their own industry. To meet these challenges it is necessary to develop a number of scenarios and to be characterised by the flexibility to adapt to a customer’s expectations and instant reactions and innovative solutions. The solutions are absolutely necessary to overtake the steps of competitors [3][5][7][9][10][11][12]. Ambitious and teams adaptive to changes are of significance towards the above challenges. The key to efficiently function in the turbulent reality is flexible structures. Nowadays, no enterprise might be competitive without competent staff and collaborators [4][6][11][12].

3 REAL ENTERPRISE ABILITY TO FUNCTION IN THE TURBULENT ENVIRONMENT

As shown by the research results, the consciousness of needs and the enterprise real preparation and functioning are separate. The current big problem is the knowledge about needs and shortages is not transferred into actions intended to meet or eliminate the shortages [4][8]. It is indicated by pilot study results that little attention is paid to planning in the case of numerous enterprises (Figure 1).

![Figure 1. Plans executed in enterprises based on the pilot study (the authors’ own elaboration).](image-url)

It is interesting that as many as 16% of the surveyed managers indicated no plans to be made in their enterprises. Only in one fourth of the cases (26%) one implements the strategic long-term planning in which one makes more than 5-year plans. 40% of the enterprises make long-term (2-year to 5-year) plans. 66% of the enterprises make annual plans, and 46% quarterly plans. Based on the above results one might formulate a thesis that the enterprises of the surveyed managers definitely spend much more time on average and short-term plans.
The pilot study results are in line with the ICAN Research study results in which more than 80% of the surveyed managers claim that the strategy is important but only 64% of them have it and merely 45% of the surveyed enterprises verify the strategy fulfillment (Figure 3) [8].

In the pilot study one identified the reasons for no formalised enterprise activity efficiency planning and/or assessment. The following most frequent reasons for the lack were mentioned: no interest of the higher-level managing staff (34%) and no necessary tools (32%) whereas the lack of tools might be related to no superiors’ interest in 50% of cases. In every fourth case the respondents mentioned a lack of necessary competences and data. Only every fifth manager is satisfied with the planning and activity efficiency assessment system in their enterprises. This confirms the common belief that there are still considerable reserves and a place for the planning process improvement in this area. The main indicated reasons for no performed activity planning and verification (Figure 3) are necessary conditions of an efficiently functioning information system in the enterprise (Figure 4).
In such organisations external tools are used, which thereby, the decision-makers focus on the internal level. The decision-makers do not combine the strategic management as the system functions at the operational level. It is quite obvious due to the availability of reliable data. One might conclude that decision-makers make and correct plans without the well-functioning information system. The respondents indicated that the lack of competence as a factor that conditions the enterprise activity [2][3][4][9][10]. The main reason for an inefficient information system is its limited functionality (38% of the surveyed managers mentioned that it was working efficiently at the operational level). This causes that the decision-makers do not receive necessary information on time. Another problem is the data reliability. Only every fifth person is satisfied of it and which was indicated as the most significant effective information system condition (70% of the surveyed managers). The most common reasons for no reliable data are: different or incoherent data sources (34%), human errors (32%), incoherent data, a large amount of data, no appropriate data collection and processing tools, human errors and the mere data quality, i.e. data are incorrect or false (Figure 6).

One might draw a conclusion that the lack is indirectly the reason why every other manager is unsatisfied with the informational system usefulness (Figure 5). The main reason for an inefficient information system is its limited functionality (38% of the surveyed managers mentioned that it was working efficiently at the operational level). This causes that the decision-makers do not receive necessary information on time. Another problem is the data reliability. Only every fifth person is satisfied of it and which was indicated as the most significant effective information system condition (70% of the surveyed managers). The most common reasons for no reliable data are: different or incoherent data sources (34%), human errors (32%), incoherent information (26%). Other essential conditions of the efficiently working information system are competent employees (60%), cooperation between particular management levels (50%) and the system of objectives in line with the enterprise strategy and related to particular management levels and organisational cells (42%). At this point there is a return to the starting point. The decision-makers do not combine the strategic management level with the operational one because they do not have either absolutely necessary competences or tools. Thereby, the decision-makers focus on the internal organisation limitations. In such organisations external barriers are not considered and are put on the back burner. As a consequence, one often does not use newly occurred changes and potential dangers come true. The above results confirm the ICAN Research studies in which one identified two major groups of respondents dependent on their competences [8]. The first group represents enterprises with efficient information systems that are able to collect and process data. The enterprises do not focus on organisational problems but on the external environment conditions. The second group of enterprises is opposite to the first one and therefore focuses mainly on internal limitations. It is not a surprise that the first group of enterprises is evaluated to be better prepared to function in the turbulent environment (55% of the surveyed managers belong to the first group of the ICAN Research studies) [8]. Poorly prepared game players are excluded from the market game in a long run due to the challenges made by the turbulent environment. The scale of unprepared organisations was identified in the research and this was most probably the reason why the organisations were not eliminated from the market.

4 DETERMINANTS IMPLYING THE UNCERTAINTY OF BUSINESS DECISIONS

The decision-making process is a process of making choices. To make the process be possible to exist, 2 variants need to occur or be identified. The choice will be out of the variants. Before the choice is made, there must be circumstances and actions leading to establishing the proceeding variants. The simplest situation is when the internal environment of one human being is sufficient to establish the variants. In such a situation the knowledge and experience are necessary to develop the variants. No knowledge is a basic factor that determines the uncertainty. The simplest but also the most common situation is when the decision is developed by a human being. This regards the most numerous group of entities at the market – one-person enterprises. They form a multimmelion mass. Due to the scale effect and billions of interactions produced by the one-person enterprises, they have a significant impact on the environment shape and behaviour. An unlimited number of human knowledge and experience combinations causes that there is an unpredictable number of creating possible decision variants. Therefore, it is so important that the knowledge and experience are as large as possible as it limits the uncertainty [4]. As presented by the pilot study, the respondents indicated the lack of competence as a factor that hampers the activity planning and control. The competences were indicated as a factor that conditions the information system efficiency. The surveyed managers noticed that the mere inability to use the possessed resources influences the enterprise plans and activities and thus the ability to make accurate business decisions. Therefore, the lack of competences might be considered to be a factor that causes the greatest uncertainty of business decisions, if the turbulent environment is particularly concerned.

In the Big Data period, current and reliable information plays an essential role. Both the necessary information lack and unreliability were indicated by the managers to be the next factors that hamper their decisiveness and the efficient organisation activity [2][3][4][9][10]. The respondents stated based on their experiences that the data reliability problem was a consequence of incoherent data sources, a large amount of data, no appropriate data collection and processing tools, human errors and the mere data quality, i.e. data are incorrect or false (Figure 6).
such events [4]. The mentioned determinants make it possible to limit the business decision uncertainty but not to eliminate it completely. Properly organised enterprises are concerned of the competences, tools, information flow and data reliability. Due to the above the organisation inside uncertainty is predominantly limited. Thereby, the enterprises are much better prepared to the challenges made by the turbulent environment [7].

5 CONCLUSIONS

Nowadays, the managers’ both largest challenge and problem is the turbulent environment. It gives both chances and poses dangers. Dynamic environment changes cause a great uncertainty of business decisions. Enterprises are required by the “new normality” to be highly flexible and to cope with Big Data. The ability to predict the environment needs and adapt to the market expectations in a fast way is crucial for significant players [2][3][4][5][7][9][10]. The research results as presented in the article show that Polish enterprises do not generally follow the environment needs. The neglect of strategic plans with the focus on operational plans and actions (Figure 1, 2) seems to be a escape to the closer and better known areas. At the operational level there are easily accessible data which might be troublelessly processed. It is possible to predict a sequence of events. One naturally feels more certain and gets more eagerly involved in tasks within one’s capabilities. The chaos guaranteed by the turbulent environment surpasses the unprepared organisations. In such an environment it is difficult to plan a strategy for the upcoming years, not to mention the longer period of time. Therefore, enterprises most often focus on a 1-year period of time. No help might be given by inefficient information systems that do not ensure the information flow in the entire organisation. The lack of competences, data collection and processing tools only hampers an unequal fight with the environment [2][4]. There are numerous enterprises in which managers need to cope with similar difficulties in the decision-making process. This makes it feasible to predict that the number of such enterprises is the reason why unprepared enterprises still exist [7]. This also makes it possible to presume that the process of adapting the unprepared enterprises to the turbulent environment challenges will take some more time.

In the research one presented the problems which are currently dealt by managers. These problems and the scope of enterprises with little declared preparation or even no preparation to function in the turbulent reality (58%) raises doubts whether the enterprises with declared preparation are really prepared. This especially regards the group of enterprises that declare preparation with respect to the competent staff, tools, processes and information flow [4][7][8]. No knowledge was mentioned by the managers as one of the major factors that hamper action planning and control. This factor might also be a factor which causes excessive self-confidence. The lack of knowledge might also result in no investment in IT solutions which could support decision-making processes. This thesis is suggested by opinions of 12% of the ICAN Research study respondents who claim that the application and development of IT technologies is not a survival method in the ever-changing business environment as well by the next 19% of the ICAN Research respondents who have no opinion on this issue [8]. Similar suggestions are made by the survey respondents in the pilot study on the reasons for no formalised enterprise activity planning and/or assessment (no necessary competences, tools,
interest of superiors and higher-level staff as – Figure 3). The performed reasoning enables formulation of 2 hypotheses:

1. No knowledge and the scale of enterprises currently unprepared to perform activities in the turbulent environment causes that the enterprises with declared preparation overestimate their possibilities;
2. No decision-makers' knowledge implies no investment in IT technologies.

The research results presented in this article do not provide a basis for checking the correctness of the formulated hypotheses. A verification of the hypotheses requires further research.

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7 REFERENCES