Performance Measurement In Large Slovenian Companies: An Assessment Of Progress

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ABSTRACT

The prevailing literature and empirical studies on management of organizational performance stress the increasing importance of non-financial performance measures and propose companies to implement some kind of integrated performance measurement system. The purpose of our study is to investigate the characteristics of performance measurement and management in large Slovenian companies, focusing also on the progress made in the 5-year period. The analysis is based on two surveys conducted in the spring 2003 and summer of 2008. We investigate what do companies understand by "successful performance", what are the most and the least important performance measures for companies, and what performance measurement systems do companies use. By answering these questions we discuss the impact of our results on the future development and growth of firms. The research results show that large Slovenian companies consider "successful performance" mostly in terms of implementing the strategy, followed by pursuing the goals of the owners and achieving the goals of different stakeholders. Most large Slovenian companies perceive financial performance measures as more important than non-financial, although they claim they measure both perspectives of their business. Our research results also suggest that 68% of large Slovenian companies in our sample use balance scorecard or some other integrated performance measurement system. These findings are generally in line with the existing theory and empirical evidence from other countries. Our main conclusion is that the prevailing role of financial key performance indicators in large Slovenian companies is appropriate for monitoring the effects of the current financial crisis but if companies want to succeed in the long-run they have to base their decisions also on non-financial measures that enable monitoring of many important capabilities for achieving long-term strategic goals.

Keywords: Performance measurement, Performance management, Balanced Scorecard, large Slovenian companies

1. INTRODUCTION

Performance measurement systems are the focus of considerable attention in academic and practitioner communities as they contribute to the management of organisational performance. Although widely used in theoretical and empirical research, the notion of organisational performance remains largely unexplained mainly because. of the multidimensionality of the performance concept. For example, performance can be defined in financial terms (*e.g*. market value, profitability), but it is often used in other environments, such as operations (*e.g*. efficiency, effectiveness, number of outputs, throughput-time, product or service quality), marketing (*e.g*. customer satisfaction, number of customers retained over a certain period), and others. In this paper, the concept of an organisation's performance management is based on the premise that it is goals (and purposes) of the company that determine how performance should be considered and measured.

In general, performance measurement can be viewed as the process of quantifying the efficiency and effectiveness of purposeful action and decision-making (Waggoner *et al*., 1999). Performance measurement has to provide the data that will be collected, analyzed, reported and, ultimately, used to make sound business decisions. As such, performance measurement is a process of monitoring and reporting on how well someone or something is doing. Strategic performance measurement is defined as a measurement and reporting system that quantifies the degree to which managers achieve their strategic objectives (Verweire and Van den Berghe, 2004). However, today's managers have more trouble managing their business than finding optimal performance measures (and measurement frameworks). Therefore, more attention should be paid to performance management which is defined in this paper according to Verweire and Van den Berghe (2004, p. 7) as "*a process that helps an organisation to formulate, implement, and change its strategy in order to satisfy its stakeholders' needs*". In other words, performance management is "*a comprehensive management process framing the continuous improvement journey, by ensuring that everyone understands where the organisation is and where it needs to go to meet stakeholder needs*" (Statement on Management Accounting No. 4DD, 1998, p. 3). The ultimate goal of performance management is to achieve sustainable organisational performance.

Important aspects of performance management are setting performance goals, developing strategies, and translating them into concrete guidelines for action (*i.e*. making the strategies operational). Performance management delivers success only if it is integrated or strategically aligned. That means that all performance management processes and activities have to be linked to company's strategy, focusing on those critical activities that, if done well, will lead to competitive advantage and long-term growth. Appropriate performance measurement systems (PMS) are important facilitators in this journey. PMS assist managers in tracking the implementation of strategy by comparing actual results against strategic goals and objectives. A performance measurement system typically comprises systematic methods of setting business goals together with periodic feedback reports that indicate progress against those goals (Simons, 1995).

The purpose of our paper is to evaluate the progress that large Slovenian companies have made in the 5-year period (from 2003 to 2008) regarding the developments in performance measurement and management. Our comparative surveys were conducted in 2003 and 2008 with a sample of 41 and 93 large Slovenian companies, respectively. We will investigate what do companies understand by "successful performance"?; what are the most and the least important performance measures for companies?; and what performance measurement systems do companies use? The paper is organised as follows. Performance management issues and research propositions are discussed in section 2. In section 3, we present results of the empirical research. In section 4 we discuss the results and in section 5 we provide our final conclusions

2. LITERATURE REVIEW AND RESEARCH PROPOSITIONS

Traditionally, managers have relied on financial measures for decision-making and performance evaluation purposes (Anthony and Govindarajan, 2001; *cf.* Berry *et al*., 2005). Since the end of the 1980s, on the other hand, academics, consulting companies and practitioners have all emphasised the need to give more weight to non-financial measures in performance measurement systems. For example, Kaplan (1983) was among the first to induce the challenge related to the measurement of manufacturing performance by insisting on the need for senior management to abandon short-term financial measures based on manufacturing assumptions of standardization in favour of developing indicators that foster long-term competitiveness and profitability. Traditional financial measures are criticised because of the following reasons (Johnson and Kaplan, 1987; Schmenner, 1988; Kaplan and Norton, 1992): (1) They present a one-sided view of organisational activities, making effective co-ordination difficult. (2) They lack strategic focus and fail to provide data on quality, responsiveness, and flexibility. (3) They encourage managers to minimize the variances from standard rather than seek to improve continually. (4) They fail to provide information on what customers want and how competitors are performing. (5) They are historically focused[1].

[1] Sales turnover, for example, simply reports what happened last week, last month or last year, whereas most managers want predictive measures that indicate what will happen next week, next month, or next year.

Emphasis has to shift from controlling operations to continuous improvement by providing timely and relevant information to workers and managers. However, before any company can determine what it needs to improve, it has to establish where and why its current performance falls short. Hence, the need for performance measures. Although financial measures are unlikely to capture fully the many dimensions of organisational performance, implementing an evaluation system with too many measures can lead to measurement disintegration. Managers may follow a variety of measures simultaneously, but fail to monitor the main drivers of success. Most companies have information systems which generate at least some redundant performance reports. Comments such as "*we measure everything that walks and moves, but nothing that matters*" (Neely, 1999, p. 206) are common. Yet another problem with the performance measures used in many companies is that they are rarely integrated with one another or aligned to the business processes (Lynch and Cross, 1991). Performance measures are also often poorly defined. It is not unusual to observe two people heatedly arguing over some dimension of performance and later find that the root cause of their disagreement was the imprecise definition of a measure.

Different performance measurement frameworks (also called models or systems) began to reconcile the use of financial and non-financial measures. Examples include the balanced scorecard (Kaplan and Norton 1992, 1993, 1996, 1999a, 1999b, 2001, 2008a, 2008b), Performance Pyramid (McNair *et al*., 1990; Lynch and Cross, 1991; Nilsson and Olve, 2001), stakeholder model (Atkinson *et al*., 1997), Tableaux de Bord (Epstein and Manzoni, 1998), and performance management framework (Otley, 1999). These models all use financial and non-financial measures for strategy formulation and implementation. As follows, we discuss the Balanced Scorecard in more detail because it has received the most attention in the relevant literature. The Balanced Scorecard (BSC) is a concept launched by Kaplan and Norton in an influential article in 1992, where the authors describe how a concise summary of key success factors can be used to aid management in aligning business operations with strategy. In later years, Kaplan and Norton increasingly stressed the use of their model as a tool of strategic control. It is a key for driving performance in companies and can be viewed as a cockpit with access to all relevant strategic information. Acting as a generic multi-dimensional instrument, the BSC aims to extend the scope of management information from financial measures to include other non-financial aspects linked to strategy. Furthermore, these systems measure the achievement of the components of the strategic plan and act as a strategic management system (Kaplan and Norton, 2001). BSC is a framework for performance measurement that incorporates four perspectives on performance (Kaplan and Norton, 1992, 2008a): financial perspective, customer perspective, process perspective, and learning and growth perspective. The four perspectives provide a balance between external and internal measures of performance for a company and help translate a company's strategic objectives into a coherent set of performance measures.

Several surveys indicate that the BSC concept is widely used in large companies in the United States and throughout Europe. For example, Silk (1998) estimates that 60 per cent of the Fortune 1000 companies in the United States have had experience with BSC. Marr (2001, p. 30) reports: "*The latest data suggest that over 50 per cent of the largest US firms had adopted a measurement framework, such as the Balanced Scorecard, by the end of 2000*". Another study estimates that more than 40 per cent of all Fortune 500 US companies use Balanced Scorecards (see: Williams, 2001). Larger companies are associated with more specialised functions and processes; therefore, co-ordination and communication problems increase with size. As a broader set of information and measurement issues arises in larger companies, more advanced and more sophisticated management accounting systems are required. Hoque and James (2000), for example, report that non-financial representations of performance are more prevalent in larger companies than in small and medium-sized companies. Their survey of 66 Australian companies revealed that the performance measurement practices of the largest companies most closely resemble the BSC and that BSC usage is positively associated with organisational size. Furthermore, Speckbacher *et al*. (2003) found a significant association of size and BSC usage. Namely, larger companies are more likely to use the BSC concept.

Tekavčič and Peljhan (2003) studied the use of BSC and other performance management systems in Slovenian companies and found that 43 per cent of Slovenian companies used such systems. Similarly to other countries, the use of such systems is more widespread in large companies: 63 per cent of large companies claimed to use such systems. The aim of this paper is to evaluate the progress made by large Slovenian companies since 2003. Arguments presented above lead to the following research propositions regarding these companies:

P1: Financial and non-financial performance measures are equally important in organisational performance management.

P2: Companies are using integrated performance measurement systems (PMS) in their organisational performance management.

Propositions 1 and 2 are tested using the following research questions:

- What do companies understand by "successful performance"?
- What are the most and the least important performance measures for companies?
- What performance measurement systems do companies use?

In the following section we present the results based on the research conducted in large Slovenian companies, describing characteristics of performance measurement and management in these companies.

3. RESULTS OF COMPARATIVE STUDIES IN LARGE SLOVENIAN COMPANIES

3.1. Research setting

Our setting is represented by a sample of companies operating in the Slovenian economy. Slovenia is a small economy with a population of about 2 million. It gained its sovereignty in June 1991, breaking away from the former Yugoslav federation. From 2004 Slovenia has been a member of the European Union and a member of the European Monetary Union since 2007. In 2008 Slovenia's GDP per capita (PPP) was at 90 per cent of the EU-27 average and 78 per cent of the EUR-15 average (Eurostat: GDP per capita in PPS, 2010). Major changes in business environment in the beginning of the 1990's and after EU accession strongly influenced the performance management processes in proactive and outward oriented companies, wile others are still lagging behind.

3.2. Research method

The main source of data is the survey "Cost management and contemporary management tools in Slovenian companies" conducted during the summer of 2008. The empirical research is based on an extensive questionnaire, fully structured and with pre-coded responses. After a careful consideration, it was decided to fill in the questionnaires by using personal interviews with top managers or middle managers. We chose personal interviews because we believe that they provide more complete and precise information than mail, telephone or e-mail questionnaires, taking account of the length of questionnaires. Personal interviews provide the opportunity for feedback in clarifying any questions a respondent has about the instructions or questions. Other advantages of personal interviews are moderate to fast speed of data collection, excellent respondent co-operation, low number of unanswered questions, and lowest possibility for respondent misunderstanding (Zikmund, 2000). We conducted personal interviews with specially trained interviewers.[2] Each interviewer questioned 2-3 companies. Slovenia is a relatively small country, so we could cover all geographical areas at a relatively low cost, which is usually not the case when using personal interviews (Zikmund, 2000).

When choosing companies to be included in the sample we had no intent to exclude any company. However, our sampling technique corresponds the judgmental or purposive sampling[3] as the population elements were selected based on the judgment of interviewers. Nevertheless, the sample is relatively big and offers a good representation of the whole population, as regards the geographical position of the companies and industry (branch) they belong to.

The study is based on the research sample of 93 large companies[4]. 2 per cent of companies operate in

[2] Interviewers were properly trained because the research was part of their postgraduate course work.

[3] For more on judgement or purposive sampling consult for example Churchill, 1999; Malhotra, 1999 or Zikmund, 2000.

[4] Companies are classified according to valid Slovenian legislation at the time of conducting the interviews. "Large company" is a company fulfilling two of the following criteria: average number of employees exceeds 250, annual revenues account for more than € 29.2 million, average assets at the end of business year exceed € 14.6 million.

primary sector, 42 per cent are manufacturing companies and 56 per cent service companies. The sample consists of 37 per cent limited liability companies, 60 per cent joint stock companies and 3 per cent other legal entities.

We mainly use descriptive statistics to analyze the survey data. The calculation of relative proportions is used to analyze data regarding the understanding of "successful performance" and the type of performance measurement system being used in large Slovenian companies. The data on types of performance measures being used is based on a five-point scale.

3.3. Research results

In the following sections we are presenting results regarding the understanding of "successful performance" by Slovenian companies, importance of a particular performance measure in the organisational performance management and the type of performance management system being used. Results are compared to the Tekavčič and Peljhan (2003) study.

3.3.1. Understanding of "successful performance"

We asked companies what they understand by "successful performance". Companies were offered various possibilities. When more were chosen, they had to be ranked from the most to the least important one. Companies ranked as the most important understanding of "successful performance" the following (two companies did not answer this question):

- Following the strategy (38 per cent; 32 per cent in 2003);
- Achieving goals of the owners (33 per cent; 37 per cent in 2003);
- Achieving goals of different stakeholders (32 per cent; 15 per cent in 2003);
- Increasing the market share (11 per cent; 5 per cent in 2003);
- Keeping the market share (3 per cent; 10 per cent in 2003);
- Other, *e.g.* keeping up with or beating the competitors (5 per cent in 2003 and 2008).

3.3.2. Importance of a particular performance measure in the performance management

We wanted to find out, what were the most and the least important performance measures for companies. We asked companies to select on a Likert five-point scale (1 = not important at all; 2 = little important; 3 = in between; 4 = important; 5 = very important) their attitude towards 70 financial and non-financial performance measures[5]. Companies could choose to answer that the particular measure cannot be applied to their company. Ten most important and ten least important performance measures are shown in Table 1 and Table 2.

Table 1: The most important performance measures in Slovenian large companies in 2003 and 2008

Performance measure	Mean (Rank) 2008	Mean (Rank) 2003
Revenues growth	4.22 (1)	4.25 (2)
Profit growth	4.18 (2)	4.08 (5)
Liquidity	4.15 (3)	4.33 (1)
Revenues to cost ratio	4.12 (4)	4.13 (4)
Solvency	4.00 (5)	4.03 (7)
Days sales outstanding	4.00 (5)	4.13 (3)
ROE	3.95 (7)	3.87 (10)
Profit margin	3.93 (8)	3.73[1]
Value added	3.87 (9)	3.54[1]
Days payable outstanding	3.86 (10)	4.08 (5)

1 = unimportant; 2 = of little importance; 3 = medium; 4 = important; 5 = very important

[1] The measure was not included among top 10 in 2003 survey.

[5] The choice of performance measures to be included was also informed by Rejc, 2002. The same set of measures was included also in the 2003 research.

When comparing 2003 and 2008 research results for large companies we observe the following changes:

- No new non-financial measures are included among the ten most important ones. Moreover, two non-financial measures (*i.e*., market share and supplier partnerships) that were among top 10 are not included among top 10 in 2008 survey. Large companies haven't included any innovation and learning perspective indicator among top 10 in neither survey.
- Financial indicators profit margin and value added have gained the most in their relative importance compared to the others. These indicators were not among top 10 in the 2003 survey. We believe this is an important shift in the performance management as value added is the indicator of future development and growth of the company.

Table 2: The least important performance measures in large Slovenian companies in 2003 and 2008

Performance measure	Mean (Rank) 2008	Mean (Rank) 2003
Products (services) removal ratio[1]	2.17 (1)	2.3 (2)
Number of products (or services) removed	2.33 (2)	2.34 (3)
Assets per employee	2.67 (3)	2.72 [2]
Average order value	2.79 (4)	2.70 [2]
Average time of repair	2.85 (6)	1.76 (1)
Weighted average cost of capital (WACC)	2.85 (6)	2.70 [2]
Time-to-market	2.94 (7)	2.76 [2]
Share in buyer's purchasing	2.95 (10)	2.90 [2]
Production cycle efficiency	2.95 (10)	2.65 (8)
Costs of faulty products / services	2.95 (10)	2.37 (4)

1 = unimportant; 2 = of little importance; 3 = medium; 4 = important; 5 = very important
[1] The percentage of products (or services) removed.
[2] The measure was not included among bottom 10 in 2003 survey.

Compared to the results of the Tekavčič and Peljhan (2003) study, we can observe the following changes:

- Most of the least important indicators are still non-financial measures. However, there are two new financial measures, weighted average cost of capital and assets per employee, among bottom 10 in 2008. There is also one indicator of innovation and learning perspective, time-to-market, which was not in the bottom 10 in 2003.
- Indicators of customer perspective prevail among the least important ones. The two least important indicators (product removal ratio and number of products removed) were among bottom 3 also in 2003. Moreover, there are two new customer perspective indicators in the bottom 10 that were not included among the 2003 bottom 10 (average order value and share in buyer's purchasing). On the other hand, indicators related to quality have gained importance: average time of repair (least important indicator in 2003) and costs of faulty products were both in the upper half of the bottom 10 in 2003, but they are in the lower half in 2008.

3.3.3. Type of performance management system being used

We wanted to find out, what performance measurement systems companies used. Results are as follows:

- 18 per cent of companies do not use any specific system of performance measurement;
- 68 per cent of companies use balanced scorecard (25 per cent) or some other form of integrated performance measurement system (43 per cent). We can expect these companies to use non-financial measures more extensively.

We also asked companies about the reasons for non-implementing BSC. Answers are presented in Table 3.

Table 3: Reasons for non-implementing BSC in 2003 and 2008

Reasons for non-implementing BSC - 2008	Reasons for non-implementing BSC - 2003
Lack of initiative (27%)	Lack of initiative (50%)
Not familiar with BSC (11%)	Not familiar with BSC (15%)
Lack of management support (9%)	Inappropriate information system (15%)

In both surveys, the two most frequent reasons were lack of initiative and familiarity with BSC, however less companies claimed these as reasons in 2008 than in 2003. Inadequate information systems were also among top three reasons in 2003, but they were replaced by lack of management support in 2008.

4. DISCUSSION

The **proposition 1** about the financial and non-financial performance measures being equally important in organisational performance management is not confirmed by our research results. Namely, Slovenian companies still perceive financial performance measures as far more important than non-financial[6]. The use of non-financial performance measures in companies also does not seem to be increasing, which could be a matter of concern. Ittner and Larcker (2001), for example, have revealed that short-term financial measures rank fifth behind four non-financial measures in terms of perceived importance. We find that the least represented non-financial perspective is "innovation and learning" perspective and that the least important non-financial perspective is "customer" perspective, which is quite discouraging as well. The reason for this is related to the fact that most Slovenian companies are technological followers and not innovators, when considering industry or global market level (Marc *et al.,* 2008). Existing literature suggests a careful selection of performance measures that capture different perspectives of organisational performance. Furthermore, these measures should be aligned with company's strategy and systematically linked. Taking into account that Slovenian companies still perceive financial measures as more important than non-financial, we believe that companies have to put more effort in implementing some sort of integrated performance measurement system (*e.g.*, the Balanced Scorecard) to measure performance systematically and provide the right information to decision-makers.

As follows we provide some additional arguments against confirming the proposition 1. First, we found out that Slovenian companies evaluate performance from financial and non-financial perspective, but in 2008 survey the financial perspective was perceived as relatively more important than in 2003. Second, the first five most important measures companies are monitoring appear to be financial. The second half of the ten most important measures includes two non-financial measures (days sales outstanding and days payable outstanding) although we miss measures representing "innovation and learning" perspective[7]. Third, when compared to 2003 research results we can see that in the five year period companies perceive more or less the same performance measures as the most important (*e.g.*, revenues and profit growth, liquidity, revenues to cost ratio). Also, in the five year period companies haven't included "innovation and learning" perspective measures among the most important ones.

However, the percentage of large companies following the strategy increased substantially from 2001 when Rejc (2001) found 9 per cent of large companies to consider following the strategy as the most important understanding of "successful performance", while our results show there are 38 per cent of such companies (in 2003: 32 per cent). Very important shift in large companies is also evident in achieving goals of different stakeholders: from 15 per cent in 2003 to 32 per cent in 2008. Nevertheless, Rejc (2001) has found that almost 50 per cent of large companies ranked achieving goals of different stakeholders as the most important understanding of "successful performance". Our results show improvement from 2003 to 2008 and thus imply a step forward in implementation of multidimensional performance measurement systems where it is emphasised that interests of all stakeholders must be taken into account for long-term successful performance. However, this finding does not imply the use of diverse performance measures that capture different perspectives of organisational performance as large companies primarily use financial performance measures and most of the least important indicators for large companies are related to the "customer" perspective. Similar results were obtained by the survey of Lucianetti

[6] This is also evident in the Vitezić and Knez-Riedl's (2005) results for Croatian companies.
[7] This perspective was also the most "ignored" one by companies analyzed in Speckbacher *et al.*'s (2003) study.

(2008) for Italian large companies. As shown in Table 1, the most important performance measures for large companies are all financial. Exceptions are days sales outstanding (customer perspective) and days payable outstanding (internal processes perspective) – but also these two indicators are very closely related to cash flow management and as such indirectly pertaining to the financial perspective. These arguments imply that large companies do not pay enough attention to non-financial performance measures that relate to different stakeholders; instead they concentrate too much on financial performance measures.

The **proposition 2** about companies using integrated PMS in organisational performance management is supported for large companies. As shown in section 3.3.3., we found that 18 per cent of companies do not use any specific system of performance measurement. 68 per cent of companies use BSC or some other form of integrated PMS. The use of integrated PMS has increased since 2003, which is in line with more companies considering "successful performance" in terms of following the strategy and achieving the goals of different stakeholders in 2008 than in 2003. As explained above, both notions of "successful performance" imply greater use of integrated PMS. Based on the identified reasons for not implementing BSC (Table 3), we can conjecture that during the period 2003 – 2008, large companies increased familiarity with BSC and similar integrated PMS and developed their information systems to the point of allowing more of them the introduction of integrated PMS.

In the period of financial crisis many managers react instinctively by cutting discretionary spending across the organisation. This is the case also in Slovenian companies. According to Kaplan and Norton (2008b) such an indiscriminate slash-and-burn response is a big mistake because it fails to distinguish between short-term operational and long-term strategic programs. Faced with short-term economic hardship, managers often defer or transfer funds from their strategic initiatives (measured with financial as well as non-financial KPIs) to achieve near-term financial targets. We would like to emphasize that unless the downturn threatens a company's existence, managers should focus on rooting out operational slack and inefficiency, not on modifying or sacrificing strategic initiatives, which build capabilities for long-term competitive advantage. Therefore, it is important for Slovenian companies to systematically improve the process of performance management to ensure that everyone understands where the organisation is and where it needs to go to meet stakeholder needs. This is possible only with the balanced use of financial as well as non-financial KPIs related to organisational strategy and communicated to all employees.

5. CONCLUSION

The role of short-term financial performance measurement has become inadequate for the new reality of companies characterised by, for example, accelerated changes in technology, needs for innovation and flexibility, shortened product life cycles, changing nature of work, and increasing competition. Several authors have stressed the crucial importance of non-financial indicators based on organisational strategy including key measures of success, and perceived as immune from the various shortcomings of financial measures. Therefore, the literature suggests that companies have to put much more emphasis on non-financial measures than they did in the past and that they should implement some kind of integrated performance measurement system.

The purpose of our paper was to investigate developments in performance measurement and management in large Slovenian companies when comparing and discussing results of two studies conducted in 2003 and 2008. The research results show that Slovenian companies still perceive financial performance measures as more important than non-financial. What is more, the use of non-financial performance measures is not increasing. As Slovenian companies still perceive financial measures more important than non-financial, we believe that companies have to put more effort in implementing and using integrated PMS to measure performance systematically and provide the right information to decision-makers. The proposition about companies using integrated PMS in organisational performance management was supported. Finally, our conclusion is that the prevailing role of financial KPIs in Slovenian companies is appropriate for monitoring the effects of the financial crisis but if companies want to succeed in the long-run they have to base their decisions also on non-financial measures (focusing on employees, quality, innovations, customers, suppliers, environment *etc*.) that enable monitoring of many important capabilities for achieving long-term strategic goals.

In future studies, we plan to investigate the impact of organisational performance, type of operations, and level of competition in the structure of key performance indicators companies are using to further improve the knowledge on organisational performance management.

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